

# The Effect of Banking Risks on Banking Financial Performance: Banking Modern Technologies as Mediating Variable

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**Abstract---** The present study is to focus attention on the foundations of strengthening the internal control systems on electronic payment methods and the development of special programs to manage the operational risks that provide the security and safety of the bank, which leads to the development of the national economy and further improve its ability towards achieving its objectives and ensuring its continuity. The paper also contributes to shedding light on the strengths of the performance of banking management. The effect of the research paper on the practical level through the contribution of its results in helping banks to apply new control systems to improve the efficiency and effectiveness of banking supervision, which supports the capabilities of banking management to meet the challenges and changes in the environment E-banking, in addition to the benefits that it brings to its customers by controlling and maintaining their account balances. In the present paper, we aim to achieve the legal nature of electronic banking operations, to know about upcoming events and potential risks and measure and assess the risks that can arise when faced with the use of electronic banking services and managing them to keep these risks at a certain level that the bank can bear, to sticking to the nature of the banking supervision systems on electronic payment methods and their suitability for technical developments to identify the challenges related to the electronic banking environment, and finally, to develop a concept for monitoring electronic banking operations in the framework of developing the performance of banking supervision units.

**Keywords---** Bank Risk, Bank Performance, E-Banking, Modern Technology, Bank Services, Bank Environment.

## I. Introduction

Modern technological transformations in the field of hardware, software and communications have led to the imposition of new forms of transactions related to the economy and information [1]. The most prominent of these forms is electronic commerce, which is the implementation of all related to the purchase and sale of goods and services and information through the internet and other commercial networks, and through the exchange of data electronically, as well as the time and spatial limits that restrict the movement of business transactions [2]. E-banking is one of the major technological developments in the field of live communications [3]. New payment methods have been developed that are suitable for the nature and requirements of e-commerce [4]. The customer can benefit from banking services such as paying bills of goods and services by telephone and electronic [5]. Electronic banking has provided a number of advantages to customers and has led to new opportunities for banks to achieve competitive advantage, long-term profitability, new marketing opportunities and widespread distribution to improve the quality of banking service [6]. However, despite the many advantages offered by electronic banking, it is also fraught with many risks, as there is a close correlation between electronic processes and information that may lead to tampering with customer balances, or transactions (electronic transfer and payment) innovative through customer accounts. In order to meet these challenges, banks have only to work hard to accept these risks, which requires a great deal of responsibility to face them through the adoption of comprehensive risk management to identify these risks, reduce them through the means of control and develop appropriate practical policies to address them, which was adopted by the 1988 European recommendation of the Bank's risk-taking responsibility [7]. The objective reasons for selecting the subject lie in the developments in the global banking system, especially in the field of electronic transactions and the risks resulting from them, through which the Iraqi bank seeks to keep pace with these developments as Iraq turned towards the market economy, which requires the need to keep up with banks to international banks [8]. In the present paper, we aim to achieve the legal nature of electronic banking operations, to know about upcoming events and potential risks and measure and assess the risks that can arise when faced with the use of electronic banking services and managing them to keep these risks at a certain level that the bank can bear, to sticking to the nature of the banking supervision systems on electronic payment methods and their suitability for technical developments to identify the challenges related to the electronic banking environment, and finally, to

develop a concept for monitoring electronic banking operations in the framework of developing the performance of banking supervision units.

## **II. Legal Framework for Electronic Banking**

The concept of e-commerce has become widespread in all countries of the world and in all different sectors. Therefore, the concept of e-commerce has become a term through the computer networks used in the sales and purchase of goods and Internet services for that purpose [9]. To ensure the continued benefits of the technical boom in international trade, many governments and some international organizations have submitted studies and proposals for a global e-commerce framework, including e-banking, such as debt purchase, financing, advisory services, investment banking and others [10]. This framework includes the structure of banking work as well as addressing the functions of the supervisory authorities and to the processes that take place both inside the country and abroad or outside of it

## **III. The nature and Importance of Electronic Banking Operations**

In light of the traditional reliance on human resources in the provision of services, the increasing cost of labor and the relative difficulty in supervising service providers [11]. In order to raise quality standards, many service systems, including banks, have tended to partially replace the machine instead of the human component. The most important results of recent developments in the fields of communications, systems and electronic networks, that the trade in general and banking and financial operations in particular depends on the electronic pillar, we find that the strength of e-banking is the Internet and EDI system [12].

## **IV. Characteristics of Electronic Banking Operations**

For years, banking institutions have been expanding their services by electronic means. Electronic banking operations are increasingly dependent on electronic means of withdrawing funds, checking accounts, transferring funds and others [13]. The advantages of electronic banking operations are highlighted by the advantages of these operations and competition for electronic banking, and through close cooperation between banks and employees in the electronic technology sector [14]. E-banking operations have the most important advantages:

1. Contributing to the increasing competition in the provision of electronic banking services, especially in view of the increasing volume and quality of these services.
2. Contribute to the success of the rapid development in the technology of communication, computers and information programs
3. These transactions are characterized by flexibility, ease and speed, which allows the expansion of the dealing within the banking and financial institutions or through them, which provides protection and integration between information and electronic banking services
4. The ease of communication between the home and abroad through the network of advanced technological communications, allowing the overcoming of geographical and temporal obstacles in the completion of banking transactions, commercial and financial in general
5. Take advantage of the information stored on the World Wide Web, leading to the expansion of investments both at home and abroad.
6. E-commerce is a remote service, without a direct personal presence between the parties to the banking relationship. They are cross-border services that do not know geographical restrictions
7. Reducing the cost of banking services compared to other means, which will help in the recovery of electronic commerce and increase the chances of establishing international trade relations without the need to open new markets, promote banking services, attract customers, facilitate their business and meet their needs.

## **V. The Practical and Economic Importance of Electronic Banking Transactions**

1. This will lead to the cost of establishing new branches of the Bank in remote areas because the cost of setting up a bank's website via the internet is not comparable to the cost of building a new branch for it, including buildings, equipment and labor [15]. Trainer, documents and maintenance. The practice of the bank through its website, the marketing of banking services and some banking transactions help him to have a competitive advantage and strengthen its relationship with its customers, who leads to increased link with him and upgrade to the level of commercial transactions.

2. The entry of international banks to the Internet and its competitive capabilities necessitates the need to enter the traditional banks of this service to meet the new challenges resulting from the offer of foreign banks to their services and the customer accordingly by comparing the services of all banks to choose what suits them
3. Electronic banking operations facilitate interbank transactions and make them continuous over time
4. The use of the Internet in banks constitutes a media outlet for enhancing transparency through the introduction of this bank and the promotion of its services and information, as well as its development and financial indicators, to be made available to researchers, scholars and other interested parties.

With the development of the banking industry, banking has become risky, diversified activities, increased reliance on financial services technology, deregulation and many other factors. The work of banks is becoming more complex and unprecedented than the current economy. For rates of change in economic life and a rise in inter-unit correlation rates as well as overlap between economic sectors, then the banks face a fate of sudden challenges sometimes, which arise whenever renewed needs of economic agents and changed their habits, and the greater the inter-linkages between different sectors at the local and international levels, and know the banking sector that it more than other integration and friction and this makes him more vulnerable than others. It should be noted that e-banks are characterized by a ranking of risks different from traditional banks in terms of importance, so that operating risks account for the lion's share of the total risk of the institution, for the following reasons [16]:

1. Increasing dependence on technologies in the provision of banking services, and thus increasing automation, i.e. replacing the machine instead of human resources in service systems, such as the use of electronic networks to perform traditional or innovative banking services to a class of customers is one of the outlets to exposure to operational losses.
2. The failure of systems feeding and maintenance programs, especially internal control or inadequate expenditure and resources
3. The weakness of the security policy associated with e-banking, where risks arise from errors of licensees (such as bank employee abuses or misuse by customers for not taking action) and / or arising from unauthorized penetration.
4. Increased use of risk mitigation techniques according to security prevention policies, such as: encryption, user verification, firewall, e-signature, employee training, warranties, and use of pledge agreements may mitigate certain risks but expand sub-systems and clearing, significant other.

## VI. Types of Bank Risks

The issue of risk is an essential part of an organization's concerns. It does not represent all events that may prevent the organization from partially or completely achieving its objectives or maximizing its performance by undermining the sustainable benefits of each activity accompanied by exhaustion of uncertainty. Prospects of success reduced opportunities and increased threats from those activities in three dimensions of profitability, persistence and growth [17]. Or lead to an increase in the potential for damage to material resources or moral values as a result of unexpected factors in long or short terms to complete the target banking activity. The risks that arise from the work of electronic banks are considered the main risk that exists in the system of the bank is the relationship between the client and the bank that works with him [18]. This relationship, although normal in appearance, is the biggest threat to the bank. This relationship is only data exchanged between the client and the bank without any field to verify the authenticity or the character of that client who may provide the correct data to the bank and may provide false data for the purpose of what he wants from the introduction of such data to the bank is sure of that the bank will not be able to discover. The biggest risk is money transfers abroad, which is the biggest damage to the national economy. Therefore, we find that the bank, although it has a lot of features, but the risks are great, both at the level of maintaining the funds of that type of banks or the level of the national economy as a whole. These risks should not limit the spread of such banks. Rather, those responsible should consider these risks and develop the necessary technology to prevent them from either minimizing their occurrence or trying to prevent them altogether [19].

### *Type (I): Risks of traditional banking operations*

These include credit risk, exchange rate risk, interest rate risk, pricing risk, liquidity risk, operating risk, legal risk, commitment risk, and strategic risk [20].

### *Type (II): Risks of electronic banking operations*

Strategic risks include operational risk, reputational risk, legal risk, and e-banking risk on traditional banking operations [21].

## **6.1. First: The risks of traditional banking operations**

**6.1.1. Credit risk:** The increasing trend towards globalization in recent years has led to increased financial crises and their spread, and some States have been affected by the crises of other States through infection. Most economic studies have shown that bank crises have been a common denominator in most financial crises, both in developing and developed countries. The risk of credit as well as mismanagement was one of the main causes of bank failure and crisis. Credit expansion is one of the main activities of banks, which are linked to a number of risks, such as the inability or unwillingness of the customer or counterparty to meet commitments with respect to borrowing, trade, protection against losses, repayment and other financial transactions, credit concentration risks, The quality of assets and the consequent lack of adequate provisions to avoid exposure of depositors' funds to unaccounted losses. Credit risk includes items within the budget such as loans, bonds and off-balance sheet items such as letters of guarantee and / or documentary credits.

**6.1.2. Foreign Exchange Risk:** Banks face the risk of losing part of their assets as a result of exchange rate movements, despite the inherent transparency and typical identification of these types of risks [22]. For example, banks' adoption of open positions to their customers at a time of volatile exchange rates will contribute In increasing risk and market operations to which the bank is exposed, this center includes open-ended operations.

**6.1.3. Interest Rate Risk:** These risks arise from interest rate fluctuations in the market leading to significant losses to the Bank in the event of inconsistent interest rates on both liabilities and assets. These risks are compounded in the absence of an information system at the bank that can determine the cost of liabilities and rates of return on assets, or help to determine the amount of the gap between the assets and liabilities of each currency in terms of re-pricing and the sensitivity of interest rate variables [23].

**6.1.4. Price Risk:** Changes in asset prices, in particular the financial portfolio, have external and internal factors that influence pricing risks. External factors are the local economic conditions and the prevailing business climate. The internal factors are economic unity itself, including the financing structure, activity, operating efficiency and other internal conditions [24].

**6.1.5. Liquidity Risk:** Liquidity risk arises from the Bank's inability to meet its third party obligations or to finance the increase in assets. This leads to a negative impact on the profitability of the Bank, especially when it is unable to immediately acquire the assets at an acceptable cost [25].

1. Poor liquidity planning of the Bank, leading to inconsistencies between assets and liabilities in terms of maturity.
2. Poor asset allocation on uses that is difficult to convert into liquid assets.
3. The sudden shift of some contingent liabilities into actual commitments.

**6.1.6. Operational Risk** The lack of internal control and the weakness of the board of directors' control of the banking system are among the most important types of operational risks, which can lead to financial losses due to error, fraud, disruption of timely execution of decisions, inappropriate banking practices, The error and faults in information technology systems lead to the unavailability of information in a timely and accurate manner. A committee considers that operational risk is an expression of different meanings in the banking industry. Therefore, banks and internal purposes must rely on their own definition of operational risk, and types of operational risk related to certain events can be identified and involve a potential for significant loss [26].

**6.1.7. Legal Risk** Banks are exposed to legal risks that may result in the loss of part of their assets or the increase of their obligations to third parties due to the lack of proper legal opinion or the lack of legal documents or entering into new types of transactions with no law regulating these transactions, New legislation is enacted that affects the access of the credit-holder to his or her right to maturity [27].

**6.1.8. Compliance Risk** It is intended to expose the Bank to penalties, whether in the form of financial sanctions or the denial of a particular activity for offenses [28].

**6.19. Strategic Risk** They arise as a result of the absence of an appropriate strategy for the bank to determine the path to be followed to achieve its objectives in the short and long term in light of the general environmental conditions and circumstances of competitors and based on the analysis of self-strength [29].

**6.20. Risks of electronic banking operations** The growth in e-banking activities has created new challenges for banks and regulators in light of the lack of management and bank staff to adequately track the rapid development of communications technology, as well as increased fraud and fraud on open networks such as the Internet, in which the client's identity and legality were ascertained. Therefore, the Basel Committee on Banking Supervision pointed

to the importance of banks setting policies and procedures that allow the management of e-banking risks by evaluating them [30]. The most important risks that may arise from electronic banking operations:

**6.21. Strategic Risk** Electronic banking operations rely on the Internet to provide information to their customers and also to implement the processes they demand. Rapid technological developments and increased competition between banks themselves and non-banking institutions may pose serious risks to banks if the planning and implementation of a strategy Electronic banking operations [31]. Therefore, the bank's management needs careful consideration of the contribution of the Internet strategy in maintaining the competitiveness and profitability of the institution, while ensuring that there is no undesirable increase in the risk structure, and the regulatory authorities. Expect banks to assess the benefits and caveats associated with their strategic choices.

**6.21. Operational risk** As all e-banking activities rely on technology, operational risk is the most important risk facing all banks. The operational risks have multiple sources. First, there is the fact that many banks rely on third parties to manage the appropriate technological infrastructure to support operations of electronic banks, so that their systems are linked to the systems of this third party. Thus, banks can be subject to errors, in terms of operating operations, if the electronic banking systems are not fully integrated. Banks should ensure that these data are properly monitored and controlled, and the regulatory authorities should assess the Bank's continued ability to do so. Another source of operational risk is protection. Open electronic distribution channels offer banks the issues of maintaining confidentiality and integrity of information, ensuring customer identity and accountability for bank accounts, and controlling the access of legitimate customers to their accounts, especially as fraud, fraud, legitimate World Wide Web and Native Client Accounts. Hence, banks should develop appropriate protection systems and manage their internal systems in accordance with the international standards and rules at the levels of ensuring the identity of customers and the legitimacy of electronic signature, encryption and the like. At the international level, international authorities should encourage the development of a comprehensive approach to risk management linked to internal and external protection exposures. The third source of operational risk relates to the issue of information integrity, which is an important component of system protection. Hence, banks should improve the interoperability capacity within and across the bank in order to effectively manage relationships with customers, other banks and external service providers. In addition, other sources of operational risk include the inability of banks to control the availability of the Internet itself in order to provide e-banking services and products.

**6.22. Reputation risk** Reputation risk arises if a negative public opinion is available to the Bank, which may extend to banks, as a result of the Bank's inability to manage its systems efficiently or to penetrate them effectively. The reputational risk relates to the non-financial developments that may be faced by the Bank's offering of its services and products through electronic banking channels, hence, the importance of having a reliable network to support its activities in the field of e-banking [32].

**6.23. Risks of money laundering through electronic processes** The European Commission on Money Laundering defined this process and defined its elements, as defined in its 1990 manual, "The process of transferring funds obtained from criminal activities in order to conceal or deny the illegal and prohibited source of such funds or to assist any person who committed an offense to avoid legal liability for retention With the proceeds of that offense. Depending on the characteristics of these processes, it became possible to know the local time of the country of the bank and the value of the process carried out and to remove it when moving the subscriber to the account, it is difficult to determine the real identity of the account holder, because it is almost impossible to identify the true identity of the executor and the beneficiary and their actual location, a person may manage a number of accounts at the same time without necessarily bringing to the attention of the institution or institutions that hold these accounts, since such transactions do not necessarily require the customer to attend the bank, unless the bank has stipulated this in accordance with your customer know-how principle [33]. This would reduce the risk of not knowing customers. If countries are able to dictate terms of trade within their borders, the trend today is that they cannot prevent their citizens from opening bank accounts over the Internet at foreign institutions offering banking services, as well as bank card issues that raise questions about money laundering according to various regulations. But also require a review of the methods of combating money laundering, its measures and procedures, as well as banking safety and financial safety in general, amid enormous technological and electronic developments that, in one form, would provide a rapid and effective tool for money washing operations.

**6.24. Risk assessment** The assessment includes the following [35]:

1. Identify the risks that the Bank may be exposed to and how they affect it.
2. Set limits on what the Bank can incur as a result of dealing with these risks.

**6.25. Control of exposure to risks** It includes:

1. Implement insurance policies and procedures.
2. Additional insurance procedures for issuing electronic payment methods.

**6.26. Risk tracking** Conduct periodic system tests

Internal and external audit procedures

**6.27. E-banking risk control**

Banking supervision by focusing on risk.

Develop policies and implement actions.

Intensity of information and channels of flow.

Disputes between related parties.

The role and responsibilities of the Board of Directors towards the supervisory authority.

The role of the executive body and its responsibilities towards the control authority.

Direct the work of internal and external auditors.

**6.28. Indicators of risk** There are various statistics and / or metrics, often of a financial nature, which can give an accurate idea of the bank's exposure to risk. These indicators are reviewed periodically (each month or each quarter) to warn the bank of changes in the carrying of losses, such as: number of operations not completed, turnover rate, frequency and / or magnitude of errors and omissions.

## **VII. Quantification**

Some banking institutions follow this approach to assess their exposure to risk through the use of tools such as:

Time series on losses can provide useful information for assessing exposure and developing policy to accept / control / mitigate this risk.

The framework that allows for monitoring and evaluating the characteristics of loss cases frequency. Some institutions also mingle their internal data on losses with external data to devise causative factors.

## **VIII. Plans of Assistance**

In order to fully address the issue of risk, to develop plans intended to re-exploit the assets of the bank and resume its activities in the event of disruption or damage, the cost of stopping the time and hence the profit of the bank, and sometimes stop the ability of the bank to seize opportunities on the ability to restore archives (electronic and physical) The service is immediately unemployed, and beyond this evoke vigilance by periodically adapting programs designed for continuation, appeal and avoidance. Fall into disruptions in activity, according to reasonable scenarios.

## **IX. Conclusion**

Risks arise when there is a possibility of more than a final result. Although all businesses are active in a field of uncertainties, the financial sector, particularly the banking sector, remains the most vulnerable economic sector, especially the future risks. This is due to the nature of its specialization, giving rise to the challenges of increasing rates of change in economic life and higher inter-unit correlation rates as well as overlapping economic sectors. Therefore, the banks face their fate, which is threatened by sudden and sometimes sudden challenges that will move the general path of the institution's risk to its disadvantage. It arises whenever the needs of the economic agents are renewed and changes occur in the economic environment, and the more interconnected the different sectors of the local and international levels, now a world has reached the level of economic interdependence to an unprecedented level. The banking sector is known to be more integrated and confused, and this also makes it more vulnerable to crises and vulnerability to unrest that may occur in non-market markets. Hence, the issue of risk management and review has become increasingly important among banks. The Basel Committee has also listed it as an important pillar for determining banking solvency. In line with global trends, traditional banks in general and electronic banks in particular have recently begun to adopt risk management and review policies the aim of this course is to control the degree of risk to which the Bank's business is exposed.

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