

# The Role of Electronic Management in Managing Banking Crises: An Exploratory Study for a Number of Iraqi Private Banks

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<p>Article history Submitted: 20 November, 2021 Revised: 29 November, 2021 Accepted: 2 December, 2021</p>	<p><b>Abstract</b> Electronic management is an important entry point for many financial dealings in banking institutions. Therefore, giving attention to this issue is an urgent necessity for all of these institutions and the results they achieve, the most important of which is banking crises management. This research focuses on clarifying the role of electronic management in managing banking crises. The aim of giving answers is to clarify the theoretical and practical philosophical and intellectual connotations of these variables (electronic management, banking crisis management). This research falls into two main sections: the first section includes the research methodology and the theoretical approaches to the research variables with their dimensions. As for the second section, it presents the practical framework for the research hypotheses, the conclusions and recommendations. The research sample is represented by a group of workers in two banks (Gulf Commercial Bank, International Development Bank) to test the correlation and influence relationships between the research variables (electronic management, banking crises management). The descriptive analytical approach is adopted, as well as selecting a sample of workers consisting of (118) individuals and adopting the questionnaire form as a measurement tool. The data are processed through the statistical program (SPSS) to prove the validity of the research hypotheses related to the correlation and influence between the two research variables (electronic management, banking crisis management) and the use of multiple regression coefficient and correlation coefficient as statistical methods. The most prominent conclusions reached by the research in the theoretical and field framework are the achievement of a positive moral correlation between the collective electronic management and the banking crisis management of the banks which are the research sample in terms of its variables according to the value of the correlation coefficient at the aggregate level. Based on the findings of the research, the research presents several recommendations, the most important of which is the necessity for banks to pay attention to the research sample in all dimensions of electronic management through conducting realistic studies and research that determine the ability of banks to implement electronic management and benefit from its results in implementation, whether at the current time or in the future.</p>
<p><b>Keywords:</b> <i>Electronic Management, Banking Crisis Management, Private banks</i></p>	

## 1. Introduction

The banking crisis is one of the forms of financial crises, which appears in the form of individuals crowding into banks to recover their deposits with these banks, as a result of the banking panic that controls these individuals after they realize the state of the financial situation of the banking system. Many solutions can be developed to face this fear and panic by adopting electronic management. The effects and the banking crisis may have serious effects on the local economy, as well as on real output and the level of use of the important effects on the real sector of the economy, because it means the emergence of a state of economic stagnation, which leads to a further decline in output and use, as well as a state of distrust that can prevail in the banking sector as a result of the crisis. Therefore, electronic management relies on modern technology, transforming traditional methods into electronic management, and working to change all activities, functions and tasks towards software and electronic means.

In light of these data, the intellectual and philosophical framework of this research deals with contemporary topics that have a great and distinguished role in the sustainability of financial performance in Iraqi banks in general and the two banks (Al- Khaleej Commercial Bank, International Development Bank) in particular in light of the faced challenges. It centers on explaining the extent of the role of electronic management in the management of banking crises. Due to the

need of our environment for such researches and studies, this research has come to take upon itself the testing of these variables in an important and vital sector, which is the banking sector. These partials are employed in a logical and practical context to be a model and a starting point for an exploratory research of the opinions of leaders and workers in the two banks (Al-Khaleej Commercial Bank, International Development Bank), the research sample, which is characterized by extensive experience for its cadres. (Al Khaleej Commercial Bank, International Development Bank) as the research sample, which are characterized by the extensive experience of its cadres.

Determining the existence of a problem in a bank and finding a solution to this problem is important to ensure the safety of the bank, and to achieve stability in the financial system as a whole. This is due to the fact that banks are the main component of the financial system, and the failure of any bank has significant negative effects on the economy in general, which in turn leads to financial instability. The successful management of the bank crisis limits the possibilities of bank failure and the occurrence of banking crises in general, as well as reducing the costs of the solution. Therefore, the development of a comprehensive and clear framework and guidelines for dealing with the problems of banks is of paramount importance.

The banking sector is one of the most important sectors in the economy, and like other sectors, it is affected by economic shocks (internal economic shocks and external economic shocks). The Iraqi banking sector enters into many crises that must be resolved and the best solutions searched for, as these crises can be managed through the adoption of electronic management. The research problem lies in the fact that the application of electronic management has led to many advantages in the banking sector, which in turn have led to growth and financial stability.

Therefore, through this research we attempt to address this problem by relying on electronic management that focuses on information systems and their security, and achieving user satisfaction, and what is reflected in enhancing skills and capabilities and achieving banking crisis management. The problem of this research lies in identifying the role of electronic management in managing banking crises for a group of bank employees in two banks (Al-Khaleej Commercial Bank, International Development Bank). Thus, asking and reviewing the following questions can contribute to clarifying the contents of the problem:

1. Is there a significant positive statistically significant correlation between electronic management and banking crises management in the banks under study?
2. Is there a positive and statistically significant effect of electronic management in managing banking crises in the banks under consideration?

This research is important on two levels:

1. Application level: Diagnosing the extent of willingness of the banks under study (Al- Khaleej Commercial Bank, International Development Bank) to adopt and use electronic management and implement it accurately and efficiently in order to reach the desired goals. In addition, providing the correct scientific foundations that enable the banks under research to adopt electronic management and direct it towards the management of banking crises.
2. Theoretical level: The importance of the current research stems from the importance of the topic studied. The current research is a fundamental and important step to identify the importance of electronic management in two banks (Al-Khaleej Commercial Bank, International Development Bank) and how to benefit from this for the purpose of managing banking crises in the banks under study. Both electronic management and banking crisis management are effective and important topics that achieve the goals of banks, and all the functions performed by managers in banks from planning, directing, organizing, controlling to making decisions are based primarily on the availability of those knowledge and capabilities. The current research adds to what has been added in previous researches including recommendations for these banks and similar banks for the purpose of benefiting from them.

This research aims mainly at clarifying the role of electronic management in managing banking crises in the banks under study. There are sub-aims that can be stated through:

1. Defining the concept of electronic management, its importance and dimensions for the employees of the banks under study.
2. Defining the concept, importance and aims of banking crisis management, as well as the most important dimensions on which it is based.
3. Presenting a practical vision of the nature of the relationship and influence of electronic management in the management of banking crises in the banks under consideration (Al-Khaleej Commercial Bank, International Development Bank).
4. Enhancing the perceptions of the research sample banks (Al-Khaleej Commercial Bank, International Development Bank) towards the general content of the assumptions from which the research has been launched and presenting this relationship with a hypothetical model aiming at field application to reach the results of hypotheses testing.

5. Assisting the banks under research (Al-Khaleej Commercial Bank, International Development Bank) by applying the practical framework for the current research variables (electronic management, banking crisis management) to know the level of their orientation in order to apply these tools and then analyze the field reality to reach results related to the development of the same orientation.
6. Testing the applicability of the default search scheme in terms of the dimensions and domains of the search variables.

## **2. Literature Review and Hypotheses**

### *2.1 Concept of Electronic Management*

The concept of electronic management has emerged with the revolution of modern communication technology, which is a new pattern that differs from the traditional management concept, in which work depends on different forms and methods of tools, such as: computers and various computer programs (Meijer, 2017: 261). The concept of electronic management crystallizes around the use of information and its exchange among employees in an electronic way, as well as providing services and communicating with external parties in an electronic form, which stimulates the continuity of knowledge on an ongoing basis, and this in turn achieves the integration of the vision so that decisions are taken in the light of it. In the advancement of many sectors, public and private institutions, it saves effort, time, and achieves services faster according to the integration of the elements that make it up (Sprehe, 2010: 14).

The idea of electronic management goes far beyond the concept of mechanization of work departments within the organization, to the concept of integration of data and information between different and multiple departments and the use of that data and information in directing the organization's work policy and procedures towards achieving its goals and providing the necessary internal flexibility or response to the successive changes (Zellein, 2018: 42).

Electronic management is the comprehensive management that employs all the available energies of human and material resources, technologies and modern software in order to achieve the goals set. It provides its services to its customers more effectively, with less efforts and cost in a way that enhances its spirit of competition compared to similar institutions. It makes the competition more likely for its advantage and achieves its customer satisfaction which provides it with the reasons for the rapid development and growth that the world is witnessing around us (Gregory, 2015: 82).

Electronic management includes all components of management from planning, follow-up, implementation, evaluation and motivation, but it is characterized by its ability to continuously create knowledge and use it for the purpose of achieving goals. It depends on the development of the information structure within the organization in a way that achieves the integration of vision, and thus business performance (Newell & Galliers, 2010: 15).

There is a set of organizational processes that link the beneficiary and sources of information through electronic means to achieve the organization's goals of planning, production, follow-up, operation and development (Shadrack Katuu, 2020: 34). Al-Salmi and Al-Sulaiti (2008: 47) indicate that electronic management is a process of automating all activities and tasks of the administrative organization by relying on all necessary information technologies in order to achieve the goals of the new administration in reducing the use of paper, simplifying procedures, eliminating the quick and accurate routine of tasks, and transactions to be all ready to link with the government.

Electronic management is a new and advanced concept of modern management in our time, and a goal that public institutions seek in their various activities to reach transparency, accuracy in dealing, raising the efficiency of providing services, reducing bureaucracy in its common sense, expanding work opportunities, and optimizing the use of available resources. Electronic interaction is a goal that the public dealing with government departments aspires to in order to provide them with distinguished services and save them from delaying their transactions and the routine of waiting.

#### *2.1.1 The importance of electronic management*

The tremendous development in the current era, the era of technical wealth, has led to comprehensive and clear changes in the traditional functions of management that have turned into electronic functions, for the purpose of optimal use of time, effort, money and energies (Waldron, 2014: 32). Johnston & Bowen (2015: 133) state that electronic management has contributed to the development and change in the traditional administrative process, and modern management has become dependent on information systems in planning, designing organizational structures, managing teamwork, and achieving coordination and control from a distance.

Electronic management is an integrated electronic system that is important in transforming normal administrative work from manual management to computer-based management, by relying on powerful information systems that help in making administrative decisions at the lowest costs and in the fastest time (Chen *et. al.*, 2016: 25). Electronic management can include both external and internal communications for any organization, and the aim is to introduce full transparency and accountability, which leads to improving electronic management within any organization. In Germany, for example, this initiative specifically targets governmental organizations, since public accountability is the most important basis in promoting transparency within these organizations and institutions. Similar processes are also being developed in many US companies to aid compliance (Newell *et. al.*, 2010: 242).

The importance of electronic management in banking institutions lies in: (Shadrack Katuu, 2020: Ghaneim, 2004)

- ❖ Completing customer transactions at one time without delay or waiting for long times.
- ❖ Increasing the efficiency of the administration's work and reducing the cost of administrative procedures.
- ❖ Replacing the paper archiving system with an electronic archiving system, which reduces paper consumption and facilitates reference to documents.
- ❖ Cancellation of direct and personal relationships in the completion of customer-related transactions.
- ❖ Quick and easy decision-making in order to provide direct and accurate information and reduce decision-making obstacles.
- ❖ Cancellation of the spatial factor, where the sending of commands, communication, and instructions are via the electronic network.
- ❖ Confidentiality of documents and information and reducing the risk of their loss.
- ❖ Emphasis on the principle of total quality, the completion of the appropriate and correct work at the right time.
- ❖ Increasing the interdependence between senior management and workers, due to the expansion of the database of senior management.

### 2.1.2 *Electronic Management Patterns*

Electronic management takes many different patterns and forms that are consistent with the nature of the work of the organization in order to achieve its goals. Among those patterns are the following: (Al-Salmi and Al-Sulaiti, 2008: 57)

- ❖ E-commerce: E-commerce is the exchange of information and services over the Internet to achieve rapid economic development. Payment can be achieved through bank cards. E-commerce is the first application of electronic management (Gregory, 2015: 82).
- ❖ E-Government: E-government is one of the types of electronic management and is intended to manage public affairs through electronic means to achieve economic, social and political goals, and to get rid of routine and central work, with high transparency. This can be represented in the completion of government services between different agencies, such as: between government and the public, the relationship between government and individuals, the relationship between government and organizations, and the relationship between government and the employee.
- ❖ Electronic publishing: Through electronic publishing, it is possible to follow breaking news, economic and social publications, view the latest publications, benefit from various search engines, and achieve rapid access to information from its original sources (Meijer, 2017: 265).
- ❖ E-Learning: In e-learning, study lectures, written exams, and discussion of scientific theses can be conducted through the organization's local network or over the Internet, and free lessons published on the Internet can be used.
- ❖ E-Health: E-Health provides consultations, information and services to beneficiaries through electronic means (Helle Zinner, 2018: 44).

### 2.1.3 *The Foundations of Electronic Management*

Gregory (2015: 83) indicates that the application of electronic management requires several elements, which are as follows:

- ❖ Devices and equipment: Devices and equipment are among the most important basic elements of electronic management and their presence is extremely important for all types of service, commercial and banking institutions (Shadrac Katuu, 2020: 38). It has become necessary to pay attention to the use of these devices and equipment that help and work to achieve the goals and ensure that these institutions continue to perform distinguished work, especially with the increase in competition, the increase in customer and citizen awareness of the importance of quality in production and speed in delivery, as well as the awareness of institutions of the lack of available financial resources. All these call for a change of prevailing concepts in corporate business management (Gregory, 2015: 83).
- ❖ All Types of Software: It means the mental aspect of computer systems and networks such as: e-mail programs, databases, accounting programs, network management systems, translators of programming languages, and programming audit tools (Idris, 2009: 144). The main philosophy and essence of e-management is its view of management as a source of services, and companies as customers who want to benefit from these services. For this, e-management has many goals that it seeks to achieve in the context of its dealings with the customer and

this is conducted through various software (Johnston & Bowen, 2015: 135). ).The mere existence of an integrated strategy for the transition to the “electronic management” style does not mean that the way towards implementing and applying this strategy is smooth, easy and sound, because many problems and obstacles face the implementation of the plan. Therefore, those responsible for the development and implementation of the “electronic management” project should have a comprehensive thought surrounding all the elements and variables that can occur and impede the work plan and the implementation of the electronic management strategy, through all software (Newell & Galliers, 2010: 242).

- ❖ **Communications:** The tremendous and rapid development in communications and information technology has contributed to the emergence of many financial services and innovative business models such as mobile banking and branchless banking services, as well as improving the access of individuals and small and micro enterprises to finance. This has promoted financial inclusion, as many of the restrictions that hinder access to banking services have been reduced thanks to these innovative services (Idris, 2009: 141).financial inclusion as it has shrunk. There are still many opportunities available that can contribute to improving the access of banking services to a larger number of individuals and institutions by expanding the offer of financial products and services, providing innovative technological solutions and attracting more remittances, in addition to achieving growth in the demand for these services and financial products by adopting National Strategies for Financial Education (Gregory, 2015: 81). This requires studying the wishes and needs of the beneficiaries of the system, supporting the technical capabilities of those providing electronic management services, and studying the detailed procedures for performing electronic management services.
- ❖ **Human resources:** The modern and effective management of human resources is an essential element of the success of banking institutions. There is no doubt that the achievement of these banking institutions’ objectives depends on the availability of qualified human capital, technically and administratively, on the existence of advanced administrative structures and systems, and on the possibility of ensuring the continuation of capacity building for employees of these banking institutions and linking their career path with their training path, in a way that enhances their understanding of the mechanisms of banking work (Chiavenato, 2018: 25). However, consolidating and strengthening this relationship between the aforementioned elements can only be achieved through attention to development, training and capacity building of workers professionally, technically and administratively, and activating the role of public relations in building a good mental image of banking institutions, especially through modern social media. This helps spread banking knowledge and contributes in promoting the concept of financial inclusion, which in turn leads to improving opportunities for growth and financial stability (Guerra & Rodrigues, 2017: 19).

## *2.2 The concept of banking crisis management*

Determining the existence of a problem with the bank and finding a solution is regarded important to ensure the safety of the bank, and to achieve stability in the financial system as a whole, because banks are the main component of the financial system, and the failure of any bank has significant negative effects on the economy in general, which leads to disruption and financial instability (Laeven & Valencia, 2010: 128). The successful management of the bank crisis limits the possibilities of bank failure and the occurrence of banking crises in general, as well as reducing the costs of the solution. Therefore, the development of a clear and comprehensive framework and guidelines for dealing with bank problems is an important and vital matter, and accordingly most of the supervisory authorities have begun to pay great attention to the issue of crisis management, with the aim of analyzing the framework and process of determining the problem that the bank may face, in addition to the timing and method of intervention. Therefore, dealing with banking crises should begin with the supervision and monitoring of banks individually, as well as by creating a framework to deal with various systemic risks at the macro level. These are most often difficult to identify, measure and manage through the supervision of banks individually, which requires different methodologies and skills. Therefore, it is necessary to adopt precautionary control in order to monitor, identify and reduce risks to the financial system as a whole (Mishkin, 2014: 280).

Although the development of an appropriate framework for crisis management is necessary and important, effective implementation is more important and it is necessary to conduct a crisis simulation on a regular basis for the purpose of increasing preparedness for crisis management. In this regard, the presence of a crisis management team with specific powers and roles and that among its members are people with experience in this area is important for bank assessment (Latter, 2017: 41).

Financial and banking crises are defined as those fluctuations that partially or completely affect all financial variables, issue volume, bond and stock prices, as well as the exchange rate and bank deposits (Ghernaout, 2014: 7). Banking crises are defined as the situation in which banks become in a state of financial insolvency , so that it requires the intervention of the bank to pump additional funds to these banks or restructure the banking system. In this case, the obligations in the banks exceed the corresponding assets to the extent that the income of the banking system is insufficient to cover his expenditures (Calomiris & Mason, 2013: 38).

Banking crises are a large and sudden rise in deposit withdrawals from commercial banks, and stems from the continuous decline in the quality of banking assets. When deposits are unsecured, this leads to a decrease in the quality of the loan

portfolio, and an increase in bad loans, from which it can lead to a banking crisis. Perhaps the flight of deposits from banks in Korea and Indonesia as a result of the problems represented by the deterioration of the quality of banking assets, and the deterioration of confidence in the banking system is an important reason in determining the banking crisis in those countries (Gamberger & Smuc, 2013: 21).

Banking crisis management can be defined as the bank's ability to address banking crises and problems through a framework to deal with various systemic risks through effective and efficient supervision of banks, which requires different methodologies and skills.

### *2.2.1 The importance of banking crisis management*

Banking crises occur when a potential or actual rush to withdraw deposits from a bank, or the failure of banks to stop the ability of their internal transfer obligations to intervene to prevent this by providing large-scale financial support to banks. These crises tend to last longer than a currency crisis, and have severe effects on economic activity (Grauwe, 2018: 114). There is a link between banking crises and banking stumbling, given that bank stumbling is the beginning of the crisis. If the problem of bad bank loans is not controlled, it is impossible to reach the banking crisis, as happened in many of the mentioned experiences (Calomiris, 2019: 153).

Therefore, reducing or limiting financial crises and banking failure is very important, and this is achieved through the management of banking crises as the way to growth and continuity. Work should be conducted to adopt indicators that predict the occurrence of banking crises in order to increase the ability of banks to efficiently use their resources and face the crises when carrying out their work, in addition to facilitating and expediting the appropriate measures before the problems exacerbate (Laeven & Valencia, 2012: 26). The aforementioned experiences show that one of the main causes of banking crises is due to the accumulation of bad debts, which in turn is due in part to the banks' failure to adhere to prudent regulatory rules and even to some improper practices, in addition to the weakness of the control and supervision system. These reasons can be reduced through appropriate management (Boissay & Smets, 2013: 14).

Adopting a policy of cautious banking supervision and monitoring of central banks, because the higher the central bank supervision level, the fewer abuses, and thus a kind of banking stability (Ping & Ang, 2011: 41). The management of banking crises is generally that state in which the bank is able to meet the demands of individuals, and to face all banking crises (Al-Hawani, 2009: 126).

### *2.2.2 Causes of banking crises*

The causes of banking crises can be divided into internal and external causes as follows:

#### A. Internal causes: (Nadia, 2013: 2)

- ❖ Smuggling of capital abroad: The phenomenon of capital smuggling is the process of smuggling, i.e. exiting of capital in contravention of regulations and laws.
- ❖ Borrowing for development: Some institutions resort to the process of borrowing in order to develop their economy. Faced with the inability of the institutions' savings to meet the funds needed by the development process for its development and continuity, these institutions resort to borrowing and taking loans .
- ❖ Deficit in public budgets: One of the main internal factors that have exacerbated the external debt crisis is the persistent deficit in the public budget as a result of structural imbalances.
- ❖ Misuse of loans: Exaggeration in resorting to external borrowing is characteristic of the seventies of the last century, in the hope of payment from ambitious projects and then borrowing for them.

#### B. External causes: (Al-Ramlawy, 2011:39)

- ❖ Effects of stagflation: This is due to the integration of most developing countries into the global economy, and their dependence on it commercially, alimentally, monetary and technologically, as well as political and military dependence.
- ❖ Low prices of raw materials: The decline in the prices of raw materials specified to world markets (such as petroleum and other raw materials), has led to a deterioration in the terms of trade for countries exporting these materials.
- ❖ High interest rates: such as the sharp rise in interest rates in the international financial markets that played a decisive role in the exacerbation of the debt crisis.

### *2.2.3 Dimensions of banking crisis management*

- ❖ Financial discipline: The lack of financial discipline is one of the most important reasons that lead to institutions rushing towards banking crises when the same information is not available to all, and at that time there is a lack

of trust between those parties (Mishkin, 2014: 282). This results in asymmetric information and data. It expresses a situation in which one of the parties dealing in financial matters has more information and data than the others, as a result of which the other party is not able to properly and clearly assess the risk ratio. This results in improper decisions and an increase in moral risk. At the same time, the phenomenon of the so-called “free beneficiary” arises, as those who have information and data cannot prevent others from benefiting from them (Al-Najjar, 2009: 61).

- ❖ **Incentives:** Any system designed to reduce banking crises does not work successfully and efficiently unless those in charge have the important incentive to discourage acceptance of increasing crises, and to take corrective action at an early stage. There should be a common sense among both banks, managers and borrowers, as well as the authority’s supervisory belief that there is something they may lose if they all fail to act in a manner consistent with their obligations (Gheraout, 2014: 9). Global experiences indicate that senior management in banks and their lack of skill and experience are among the main causes of banking crises, and that the process of adjusting and restructuring banks and internationalizing administrative positions do not succeed in avoiding crises or limiting their effects (Latter, 2017: 41).
- ❖ **Commitment:** If the rate of increase in the bank’s obligations is high and rapid compared to the size of the bank relative to the economy and reserves balances, if the composition of the bank’s assets structure differs from the structure of its liabilities in terms of maturity dates and liquidity, if the bank’s capital or doubtful debts balances are insufficient to meet the fluctuations of its assets, and if the economy is subject to major shocks of mistrust, this can be seen as a recipe for the increasing fragility of the banking system (Laeven & Valencia, 2012: 28).
- ❖ **Financial stability:** It refers to the situation in which the banking sector is able to hedge against external and internal crises, to grow, and to continue, in the event of crises, to perform its function of directing financial resources to investment opportunities efficiently, as well as continuing to perform payments effectively and efficiently (Calomiris, 2019: 155). The concept of financial stability is not limited to how to deal with banking crises at the time of their occurrence, but it mainly works on rehabilitating the banking sector to absorb these crises, reduce the possibilities of their occurrence in the future, and reduce the chances of their repercussions being transmitted to the main components of the banking sector, and then to the rest of the economic sectors in the state. This requires a great deal of governance and transparency in banking institutions and financial markets (Abu Fara, 2009: 21).

### *2.3 Conceptual Framework*

As a result of technical and scientific progress and the spread of the Internet, many influences have emerged on the nature and form of the work of administrative systems and banking. Traditional forms of public service have retreated to a new pattern based on the technological and informational dimension, to reformulate banking services, and make them based on the distinguished capabilities of the Internet and networks business. Thus, there is a shift towards electronic management as a concept that expresses speed, real-time interaction, and penetration of boundaries (Helle Zinner, 2018: 44).

Meijer (2017: 263) indicates that the shift towards electronic management has produced a number of changes to the concept of banking service, ultimately establishing the improvement of banking services, including solving banking crises. The electronic management model provides many opportunities for success, clarity and accuracy, in providing services and the completion of financial transactions. Thus, it represents a conceptual transformation revolution, and a qualitative shift in the banking service model.

In addition, the shift towards electronic management has become a global trend that encourages the adoption of electronic services systems, among which is the electronic banking service. There are a number of initiatives presented by institutions and organizations that have culminated with great success when applying electronic management in banking work. Perhaps these successes and also the obstacles are in dire need for accurate research and studies to be carried out, enabling to know the requirements, foundations and milestones of achievements, and to continue the research in order to reveal some of the challenges and obstacles preventing the realization of the shift towards electronic banking service, as a basis for rationalizing the banking service in solving banking crises (Chen et al, 2016: 25).

The methodological treatment of the research problem in the light of its theoretical framework and field contents requires the design of a hypothetical scheme, which refers to the logical relationship between the research variables (electronic management, banking crisis management) as an expression of the proposed solutions to answer the research questions raised in the research problem, as well as clarifying the sub-dimensions of those variables, and its effects on the two banks (Al-Khaleej Commercial Bank, International Development Bank) which are the research sample, taking into account the possibility of measuring these variables. In building this figure, independent and dependent variables are adopted, as electronic management is an independent variable, and banking crises management is a dependent variable. The default research model can be shown through Figure (1):

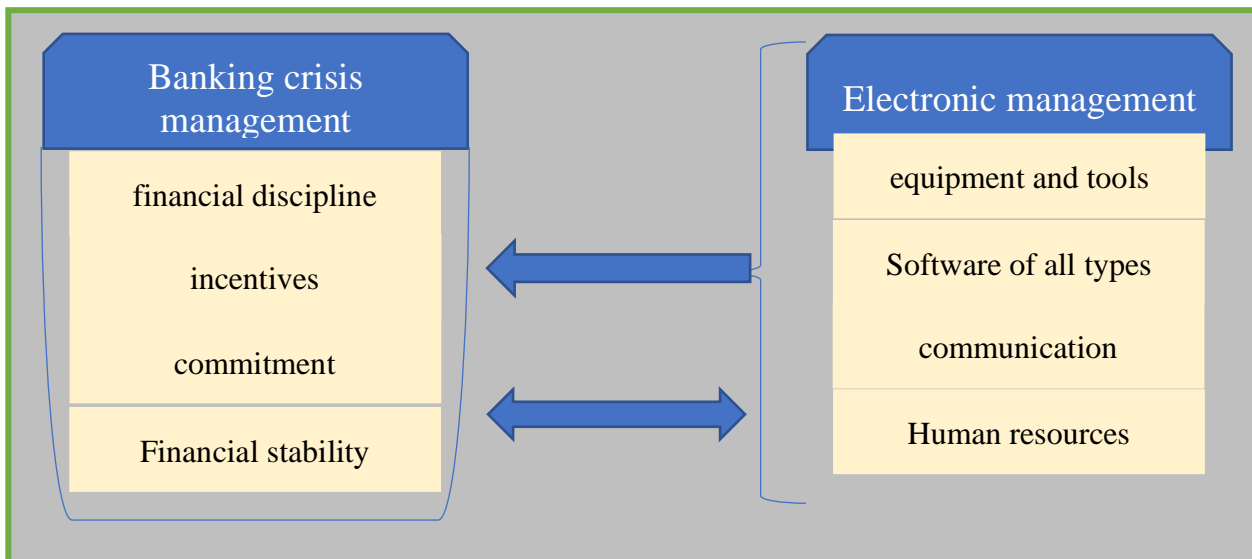


Figure 1: Conceptual Model

In line with the importance and aims of the research, a set of main hypotheses are developed and presented as follows:

1. The first hypothesis: There is a significant correlation between electronic management and banking crises management in the banks under study.
2. The second hypothesis: There is a significant effect of electronic management in the management of banking crises in the banks under study.

### 3. Research Methodology

The research method and tool include the following items. The researcher has mainly relied in this research on the exploratory study approach, which specializes in exploring the answers of individual researchers among the officials in the banks under research in order to comprehensively identify and understand all aspects of the problem, analyze it, and show its dimensions, variables and relationships without being satisfied with knowledge or virtual description. In this research, the role of electronic management in managing banking crises is studied.

Study tool (data collection methods): The study tool is the method used in collecting primary and secondary data and information, for the purpose of obtaining secondary data related to the theoretical aspect of the research. Reliance is made on the available contributions and participations of specialized researchers related to the research variables (electronic management, banking crisis management) found in the Arab and foreign scientific references. As for collecting these practical data, which is important for the purpose of testing the research hypotheses, the research has mainly relied on the "questionnaire form", to collect the primary data related to the research variables in preparation for their statistical analysis to test the research hypotheses.

Measuring the apparent validity: The apparent validity test is conducted by presenting the questionnaire to a group of (10) arbitrators. Their opinions are in a positive direction regarding the questionnaire's items and their validity, in addition to fixing some necessary and important amendments and observations and reformulating some of the items, which has helped to evaluate the validity by making appropriate corrections.

Questionnaire Reliability Test: Consistent with the requirements of accessing a more effective and efficient questionnaire, this tool has been subjected and developed to a reliability test, which is to ensure obtaining approximately the same results if the questionnaire is re-applied more than once to the same group of individuals under the same identical conditions. This means the extent of consistency in the respondent's answer if the same questionnaire is applied several times under the same conditions. The researcher has tested the reliability of the questionnaire by using Cronbach's alpha test to calculate Cronbach's alpha coefficient at the level of the total sample of the research which amounted to (0.84). At the level of research variables, i.e., electronic management, it reached (0.82), and the banking crisis management with (0.80). It has been found that the value of Cronbach's alpha coefficient is high and positive.

Al - Khaleej Commercial Bank: It is an Iraqi bank established as a private joint stock company under the certificate of incorporation No. (7002) dated (20/10/1999), issued by the Companies Registration Department in accordance with Companies Law No. (21) of 1997 with a capital of (600,000,000) Dinar paid in full. It started its actual activity on (1/4/2000), and the main branch opened its doors to the public on this date after obtaining a license to practice banking from the Central Bank of Iraq No. (P.A/9/3/115), dated on (7/2/2000), in accordance with the provisions of the repealed Law of the Central Bank of Iraq No. (64) for the year 1976 to allow the bank to practice comprehensive banking business. Its founding contract was amended to increase its capital several times until its capital amounted(250) billion dinars on



(8/9/2013), equivalent to (212) million US dollars. The bank plans to reach (350) billion dinars in the year (2015). It has 23 branches in Baghdad, Diwaniyah, Babil, Basra, Karbala, Najaf, Erbil, Tikrit, and Wasit .

The International Development Bank: The International Development Bank was established in (2011) with a capital of (100,000,000,000) Iraqi dinars. According to the requirements of the Central Bank of Iraq, the bank increased the capital in stages during the years (2013-2015), to become with a paid-up capital of (250,000,000,000) Iraqi dinars, equivalent to (210,000,000) US dollars. It rapidly became one of the leading and distinguished banks at the local and regional levels, providing advanced banking services to all its customers in the individual and institutional sectors. The number of shareholders increased to include more than (100) holders of common shares listed in the Iraq Stock Exchange Market by the year (2018).

#### 4. Findings

##### 4.1 Description of the research sample

The research sample includes a group of employees in the banks under study. A total of (128) questionnaires are distributed with (64) for each bank, and (118) questionnaire retrieved valid for measurement These are the questionnaires to become the one approved in the analysis and are used as a main tool for collecting data and information. Table (1) shows a summary of electronic management, where the rate of general agreement for electronic management is (78.5%), i.e., the respondents whose opinions on the banks under study have emphasized the use of electronic management by the banks in terms of its dimensions. The respondents whose opinions are in the negative direction represented the rate (6.8%). The rate of respondents who have no opinion or whose answer is neutral is (14.7%). The preliminary analysis of the respondents' answers confirms their opinions on the ownership of the banks under study of electronic management. All the tools came with a statistical mean 3.97, standard deviation (0.84) and coefficient of variation (0.216). The importance of describing electronic management can be arranged as follows:

- A- Software has contributed to the positivity of it as a variable. It came with an agreement rate of (81.2%) in the first rank, and an arithmetic mean of (3.98).
- B- Communications came in second rank, with an agreement of (79.3%), and an arithmetic mean of (3.96).
- C- Human resources ranked third, with a degree of agreement (77.8%), and an arithmetic mean of 3.99.
- D- Finally, devices and equipment came last with a degree of agreement (75.4%), and an arithmetic mean of (3.97).

Table (1): Summary of Electronic Management

Variation coefficient	Standard deviation	Arithmetic mean	I do not agree, I do not agree completely	Neutral	Totally agree, agree	Electronic management
0.22	0.85	3.97	5.7	18.8	75.4	Equipment and tools
0.22	0.87	3.98	7.4	11.3	81.2	Software
0.20	0.81	3.96	6.8	13.7	79.3	Communications
0.21	0.87	3.99	7.1	15.3	77.8	Human resources
0.216	0.84	3.97	6.8	14.7	78.5	General Average

Table (2) shows a summary of the dimensions of banking crises management. The rate of general agreement for the dimensions of banking crises management is (78.3%), i.e., the respondents whose opinions have been taken on the banks under study emphasized the banks' use of the dimensions of banking crises management. The interviewed individuals whose answers are in the negative direction reached (6.8%), and the rate of the respondents who do not have an opinion or their answer is neutral (14.7%). The preliminary analysis of the respondents' answers confirms their opinions on the possession of the banks under consideration for the dimensions of banking crisis management. All dimensions came with an arithmetic mean of (3.92), a standard deviation (0.86), and a coefficient of variation (0.213). The importance of describing the dimensions of banking crisis management represented by its dimensions and diagnosis can be arranged in terms of the degree of agreement.

- A- It contributed to the positivity of this variable of financial stability, as it came in an agreement rate of (82.2%), i.e. it came in first rank.
- B- Incentives came in second rank, with an agreement of 79.2%.
- C- Commitment came in the third rank, with an agreement of 78.4%.
- D- Financial stability in the last rank, with an agreement of (76.6%).

Table (2): Summary of Banking Crisis Management

Variation coefficient	Standard deviation	Arithmetic mean	I do not agree, I do not agree completely	Neutral	Totally agree, agree	Banking crisis management
0.23	0.86	3.73	8.3	15.1	76.6	Financial discipline
0.21	0.83	4.01	6.5	14.4	79.2	Incentives
0.22	0.88	3.94	6.5	15.1	78.4	Commitment
0.19	0.82	4.03	5.8	12.3	82.2	Financial stability
0.213	0.86	3.92	6.8	14.7	78.3	General average

4.2 Testing the research hypotheses

1. Testing the first hypothesis: it states (there is a positive moral correlation between electronic management and banking crises management in terms of their dimensions at the macro level). Table (3) shows the results of testing the correlations related to this hypothesis.

Table (3): Results of the correlation test for the banks under study

<b>Electronic management</b>	<b>Explanatory variable</b>
	<b>Responsive variable</b>
*0.69	<b>Financial crises management</b>

N=118

0.05 ≤ P\*

Table (3) indicates the existence of a significant and positive correlation between the combined electronic management and banking crises management. The value of the total index of the correlation coefficient is (0.69), at the level of significance (0.05), which is evidence of the existence of the relationship between the two variables. As this result indicates that the more the banks under study increase their interest in electronic management as a whole, they contribute to strengthening the management of banking crises by raising the quality of information and data and enhancing information security through which the satisfaction of the beneficiary can be achieved. Based on the results of the statistical analysis of the correlation between the research variables, the first main hypothesis is validated at the level of banks.

2. Testing the second hypothesis: it states (there is a moral effect of electronic management in enhancing the management of banking crises, in terms of their dimensions at the macro level). Table (5) shows this effect as follows:

Table (4): The effect of electronic management on the management of banking crises in the banks under study

F	Electronic management			Explanatory variable
	R <sup>2</sup>	β <sub>1</sub>	β <sub>0</sub>	
99.02	0.51	0.736 (12.137)*	0.721	Variable responsive
				Financial crises management

N=118

DF=1. 116

P ≤ 0.05\*

It is clear from the regression analysis in table (4) that there is a positive moral effect of combined electronic management as explanatory variables in the management of combined banking crises as a responsive variable. The calculated (F) value has reached (99.02), which is greater than its tabular value at two degrees of freedom (1.116) at a significant level (0.05) with the coefficient of determination (R<sup>2</sup>) (0.51). This means that (51%) of the explained differences in the management of banking crises as a whole are due to the impact of the dimensions of combined electronic management. From the follow-up to the coefficient (β<sub>1</sub>), it turns out that the increase of paying attention to the dimensions of electronic management in one unit leads to a change of (0.672) in the management of banking crises. As for the coefficient (β<sub>0</sub>), it means that the banks under study achieve banking crisis management, regardless of the effectiveness of electronic management. From the follow-up to the calculated (t) test which reached (\*12.137), we find that it is a significant value and greater than its tabular value at a significant level (0.05) and two degrees of freedom (1,116). Thus, the second main hypothesis is validated which states that: (there is a significant effect of combined electronic management in combined bank crises management in the banks under study).

## **5. Recommendations**

Based on these conclusions, the researcher states a set of recommendations, putting them in the hands of researchers, stakeholders and specialists in that bank, hoping to find sufficient and appropriate attention, to achieve the desired goal of this research. The recommendations include:

1. The need for management in the banks under study to realize the importance of electronic management in banking institutions, and its direct impact on managing banking crises. The absence of this interest leads to the loss of valuable opportunities for banking institutions to achieve their goals of growth, expansion, survival and excellence.
2. The necessity of focusing on the modern and contemporary methods used in public administration in the banks under study in order to reduce the complexity and routine in manual financial transactions.
3. The necessity of directing the attention of leaders of banks to the study of the methods that continually improve the management of banking crises by describing it as a work philosophy for the leaders in the management of banks and the necessity of focusing directly on the beneficiary.
4. The necessity of deeply and accurately developing and adopting the elements of electronic management in the banks under study, as they represent modern elements that seek to achieve outstanding performance and banking crises management, and which reflects the development at all levels, including the protection of banks' operations from traditional practices.
5. Working to spread the concept of electronic management in banking institutions to all relevant parties and the public through the optimal employment of its elements.
6. Qualifying and habilitating the human resources in the banks under study and training them to face banking crises through training courses and periodicals.

## **6. Conclusions and Recommendations**

Initially, the research has attempted to build its data on the theoretical framing and the practical aspect on which the pioneers' proposals in administrative thought and the field of public administration are based. The philosophical and intellectual concepts involved are employed in a scientific context to be an intellectual model, and a starting point for subsequent studies. Therefore, the research has reached in its intellectual data to a set of conclusions as follows:

1. The study has shown that the arrangement of the electronic management elements is according to its importance from the point of view of the research sample members (software, communications, human resources, devices and equipment).
2. The study has shown that arranging the dimensions of financial crisis management is according to its importance from the point of view of the research sample members (financial stability, incentives, commitment, financial discipline).
3. The existence of a positive moral correlation is achieved between the combined electronic management and the banking crises management of the bank under study in terms of its variables according to the value of the correlation coefficient at the total level.
4. The presence of a positive moral effect of the combined electronic management elements in banking crisis management, which indicates that the increased interest of the bank management under study for the combined electronic management elements contributes to the management of banking crises.
5. Electronic management has contributed to bringing about a change in the traditional administrative process, and modern management has become dependent on information systems in planning, designing organizational structures, managing collective work teams, and achieving coordination and control from a distance. This has increased the ability of financial institutions to control the crises that occur.
6. Electronic management includes both internal and external communications for the purpose of introducing full transparency and accountability, which leads to improving and developing the capabilities of banking institutions in the face of banking crises. These constitute the most important fundamentals in enhancing transparency within these institutions. Similar processes are being developed in many American banking institutions.

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