

Information Management Systems and its Impact on the Performance of Financial Markets (Applied Study on the Iraqi Stock Exchange)

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Received August 18, 2021; Accepted December 02, 2021

ISSN: 1735-188X

DOI: 10.14704/WEB/V19I1/WEB19062

Abstract

The study aims were to determine the predicted effects of management information via its systems on the Iraqi financial market, where the synthetic method was used, The study sample included (90) people who worked in Iraq's financial market. The findings revealed that management information, as transmitted through its systems, has an actual impact on the performance of the Iraqi financial market. The study recommended the need for optimal use of technology, which helps in simplifying the procedures used in addition to accelerating them.

Keywords

Management Information through its Systems, Achievement, Simplifying Procedures, Financial Markets, Performance, Iraq Stock Exchange.

Introduction

What the world is witnessing today is great scientific developments in many fields, especially the rapid and amazing changes in modern information systems and their uses, which is called (the information age), in which information and communication technology plays a major and vital role. He overshadowed the development of various aspects of life, turning the whole world into a small village, all of whose members are affected by the development taking place there, which also gave rise to new conditions and mechanisms of action from what they were. over the past decade (Al-Taher, 2015).

These rapid changes and the great challenges on the stock market in Iraq in particular necessitated responding to them with a clear vision that enables them to anticipate the future to discover and seize opportunities and know threats and risks and work to avoid them. This means that modern information systems play a key role in improving the performance of financial management units and will help them In the investment of these technical developments of modern information systems to benefit from their strategy to obtain a competitive advantage, and it will inevitably be one of the basic resources for these devices and their strategic weapon in It was humiliated through the process of dealing with the current situation, which forced it to change dramatically and work to compete with full force, whether internally or externally (Hashem, 2018). In addition to transferring investment from abroad through various types of facilities. (Al-Taher, 2015). Investing in conditions of certainty and methods of evaluating the investment, determining the value of the investment, analyzing the investment in securities, issuing payment tools, dealing with money market tools, the capital market, and others (El-Waer & Telilani, 2017).

In the light of the efficient market, the competition is intense between investors, as many of them are looking for shares that are priced below their real value, and in fact, price volatility has nothing to do with the efficiency of the market, as investors face more information from day to day, which means that part of this volatility In prices, it is due to the flowing information, and then the compilation and analysis of that information entails making use of it in making the decision to invest in the company's shares (Al-Wahid, 2018).

The information system is defined as a number of procedures in addition to the rules that regulate the flow of good and applicable information to the beneficiaries of the use of this information in order to reach the expected decision-making, and the information system is one of the most important sources in the markets that give us a true picture of economic information (Kaur & Aggrawal, 2013).

1. Problem Statement

The study problem becomes clear by clarifying the important roles played or played by the administrative information and its systems, through the brilliance that is characterized by it in achieving what is required of it, in addition to the security and preservation of information in an optimal manner, as well as mitigating the complexities and demonstrating the great ease of procedures.

2. Study Significance

The study's significance emphasizes the relevance of revealing information to assist investors in understanding all economic actions and operations that corporations have undertaken. In terms of the information to be shared, it must be clear, objective, and timely. and often works to link accounting disclosure. Here, the accounting disclosure is meant as “one of the main accounting principles that obligate units to present appropriate information on all economic activities, or in a form that enables users of information to take various economic decisions, such as performance evaluation and evaluation of liquidity and profitability of the company or its ability to cause expansion and growth in activity.”

3. Study Hypotheses

1. There is relationship between information management systems and the performance of financial markets (profitability, market share) in the Iraqi Stock Exchange.

Sub-hypotheses can be derived as follows:

H1: There is significant correlation between the speed of completion of work and performance in the financial markets in Iraq.

H2: There is no statistical correlation between simplification in transactions and procedures and performance in the Iraqi financial markets.

H3: There is no statistical correlation between the system's provision of security and its ability to do so and performance in the Iraqi financial markets.

4. The Questions of Study

The following questions are the focus of this study:

1. How effective is the speedy completion of transactions in the Iraqi financial market?
2. How effective is the simplification of the usual and routine practical procedures in the financial markets in Iraq?
3. They are the extent to which the financial markets in Iraq provide effective protection over information security?

5. Data Collection

This study uses a number of sources, as follows:

1. Primary Sources: This data was collected through a questionnaire distributed among the specialists in the financial market in Iraq. to confirm the validity of study's hypotheses.

2. Secondary sources: A number of researches and studies directly related to the subject of the study were used, whether from books, university theses, or published research.

Previous Studies

Study (Baoucha, Bucha, 2018) the study attempts to find out the important role of management information systems and total quality in continuous improvement within the economic institution, and to know through the difference in the sample responding to the study tool. Which shows the relationship of management information through its systems and the quantitative quality and based on the individual factors. While the study came out with the result that there is a significant relationship between administrative information through its systems and the overall quality at the level of institutions in the economic field in the Constantine region, and the presence of a statistically significant difference in the study's opinion of the management information system on members and their relationship to total quality within the economic institution due to the difference in ages, and the availability of information systems Administrative in a meaningful way in the economic institutions of the state of Constantine.

Where the study (Hassan, 2018) this study attempts to show the potential and expected impact of management information through its systems on administrative decision-making on the National Electricity Authority in the state of Gezira. For a certain number where was one of the most important results: the presence of differences between the components of the management information system in the authority, and the presence of a positive impact of the management information system on decision-making.

The study (Al Wahidi 2018) aims to find out what modern management information systems are, the reasons for using and retrieving documents in the institutional development department, and branch support and management processes. directions. To the Jordanian Ministry of Public Works and Housing. The study reached a number where are one of the most important results: the existence of an effect of management information systems on reducing organizational barriers, and the absence of a statistically significant difference between the average responses of the sample members on the role of management. Information. Increasing the effectiveness of control systems in solving administrative problems, reducing organizational barriers and improving the implementation of administrative tasks, in the performance of the employee, in the degree of completion of transactions with the required speed and accuracy, and in the variable achievement of effectiveness in communication and information. Transfer to the

Jordanian Ministry of Public Works and Housing (according to age, degree, academic experience, position and number of years of experience). The study recommended the use of management information systems instead of following a manual method in recording data and transactions, and focusing on the use of advanced management information systems in all institutions in Jordan, and seminars related to management information systems and work on conducting dialogue, and providing the necessary tools to implement modern management information systems.

A study (Al-Wair and Telilani, 2017) The study aimed to measure the degree of effectiveness of management information systems in crisis management, and the study was carried out at the Omar Bin Omar Foundation in Jalama, and a questionnaire was created for Was. This goal. On five dimensions: information confidentiality, information quality, user corruption, response to changes, and system improvement at the administrative level, and this was associated with crisis management practices, which included four dimensions: crisis analysis, problem identification, and crisis management. The study sample consisted of 65 people who were randomly selected to manage crises in the company.

Regarding the study (Al-Taher, 2015), The study aimed to measure the degree of effectiveness of management information systems in crisis management. The results of the study showed that there is an impact of systems on performance in these activities through management information, and there is a relationship between administrative information through its systems and the various administrative activities of the unit. The implementation of the dam and the management information system for implementation, which indicates that the institution is characterized by efficiency and high quality, and the study suggested the necessity of applying management information systems in institutions, as it helps to significantly develop administrative performance, and thus work on employee participation. In the concerned service and encourage the dam management to use the information management system.

Theoretical Framework of the Study

Systems and Information

a. Systems

It is a term that is used in many fields, and the most used fields are the administrative and economic fields, and many have defined it, as it is defined as a structure prepared to receive inputs and then process them to reach and produce useful results (Akel, 2020).

While it is defined as a group of components that connect them with interactive relationships to form an integrated whole (Hadi et al., 2015) and its definitions also include that it is a group consisting of the elements of machines, machines and the human element, where they are linked by specific relationships and certain laws, so that each component of the system has its specific role in order to achieve the desired goals (Nzomo, 2013).

b. Information

It is the result of the processes of scheduling, arranging, organizing and transferring data to a specific group, in appropriate ways so that the understanding of the beneficiary becomes clearer, noting that the relationship between data and information is a relationship through which data is collected and operated, and then information is obtained for use in making decisions through which the implementation of Measures (Pauwels et al., 2016).

It is also defined as a process through which data is processed, analyzed and synthesized to extract a summary of what the data contains, and apply arithmetic operations, equations, and statistical, mathematical and logical methods (Shim & Shin, 2016). It is also defined as data that is prepared to form a useful form and has value for current use in the decisions taken (Fuster et al., 2019).

Management Information Systems

The concept of management information systems:

There are several definitions of management information systems, including the following:

They are sub-systems within a total system of the organization, specialized in identifying, analyzing, operating and sending information to centers specialized in decision-making, and that information is consistent with the needs of managers in terms of its use and reference in a timely manner (Monaco, 2019).

It is also a capital investment project that requires the use of integrated and diverse packages of systems analysis and design techniques and project management planning and scheduling methods.

They are computerized systematic systems that have the ability to take data from several sources, the aim of which is to provide information to users, and they are systems through which data is adapted, formulated and processed and then presented to managers when needed (Sen & Borle 2015), and it is an interconnected set of integrated parts that work To accomplish the problems of data operation in order to achieve the information needed by the administration in order to use it for the purposes of planning, control and administrative operations (Biener et al., 2015).

Components of a Management Information System (MIS)

The components of management information systems consist of three elements, namely:

Inputs, operational processes, outputs. Below we will discuss these components:

i. The Input

The inputs to management information systems consist of the following: (Ren & Dewan, 2015).

- Data processing systems: These are the systems that provide data that describe the areas of activity and internal operations of the organization.
- Research and studies systems: These are the systems concerned with the study of the external environment, as they collect external data to carry out their analysis and benefit from them.
- Intelligence systems: These are the systems that focus on one of the elements of the external competitive environment, where the analysis of information that describes the moves and strategies of the competing organizations.

ii. Operations

Where, through operational processes, the process of processing data that has been obtained from internal and external sources, and then preparing, reviewing, storing and preparing reports (AL-hashimy, 2017).

iii. Outputs

The outputs consist of mathematical and quantitative models in order to simulate the actual reality, and from periodic reports, whether they are on a daily or monthly basis, and special reports that are prepared for a specific situation in which managers need

information that is not present in the periodic reports, as these reports are available within the organization's database to be Take it out when needed (Bodie et all, 2018).

Characteristics of Management Information Systems

Among the most important characteristics of management information systems are the following: (AL-Hashimy, 2018).

- After processing and producing data through business processes in the organization, information is provided, and management information systems submit a report showing the procedures and methods that were followed to process the generated data.
- Information systems design work sites instead of the process of dividing employees away from the person who takes over the work tasks, and the design takes into account the levels of work performed by the person, noting that it is highly dependent on the administrative structure of the institution.
- Designing information to meet the needs of decision makers within the organization at all levels, lower, middle and higher.
- Designing information to suit all different areas such as finance, personnel affairs, and many other areas.
- Management information systems are characterized by being interconnected and integrated with databases, and this integration must be free of redundancy in data storage and processing, so that there is a single point for data entry, and information files are also updated to match the data with computers.

Statistical Analysis

Adjustment Scale

To analyze the data and validate the hypothesis, a five-point Likert scale was used to answer the questions presented in this study, according to the following description: score (1) indicates disagreement completely, score (2) indicates disagreement is, score (3) means neutral, score (4) agree, score (5) strongly agrees and explains the mean in each item of the study instrument and in each study sample estimation area; The following indices shown in Table No. (1) were used.

Table 1 Statistical standard

| Degree | 1 | 2 | 3 | 4 | 5 |
|---------------------------|-----------------------------------|------------------------|---------|-------|--------------|
| Level of agreement | indicates disagreement completely | indicates disagreement | neutral | agree | strongly agr |

1. The Study Sample

A questionnaire was distributed randomly (100) to the employees of the Iraqi Stock Exchange. After reviewing the questionnaires to ensure the validity of the analyzes, they returned (90) of them because they found that (10) It was found that they are not capable of conducting the analysis process on them, due to the credibility of the respondents, and accordingly, this study included a sample of (90) employees working in the Iraqi financial markets, and accordingly, the respondents were distributed, as shown in Table 2.

Table 2 Demographic data for the study instrument (n = 90)

| Variables | Level | Repetition | Repetition |
|---------------------|---------------------|------------|------------|
| Age | Less than 30 | 40 | 43 |
| | 30-40 | 25 | 28 |
| | 41-50 | 15 | 17 |
| | 51 years and above | 10 | 12 |
| | Total | 90 | 100 |
| Gender | Male | 65 | 72 |
| | Female | 25 | 28 |
| | Total | 90 | 100 |
| Educational level | BA | 35 | 39 |
| | High Diploma | 25 | 28 |
| | Master | 20 | 21 |
| | PhD | 10 | 12 |
| | Total | 90 | 100 |
| Years of experience | Less than 5 years | 56 | 62 |
| | 6-10 | 12 | 14 |
| | 11-15 | 18 | 20 |
| | 16 years and above | 4 | 4 |
| | Total | 90 | 100 |

From the observations from Table 2, we note:

- The results in the above table showed that (43%). For age (<30), the lowest (12%) was for age (51 and older).
- The results in the above table also showed that the percentage of males was (72%) and females (28%).
- The highest percentage (39%) of the study sample was distributed according to the educational level variable for the (bachelor's) level, while the lowest percentage (12%) was for the (doctoral) level.
- The distribution of the study sample according to years of experience (62%) had the highest percentage of experience (less than ten years), while the lowest percentage (4%) had experience (16 years or more).

2. Reliability

To ensure the credibility of the study tool, the researcher used the exploratory experiment consisting of 10 employees from outside the markets to ensure that the information contained within the study tool can be answered with ease, and that there is a clear understanding of the information contained therein, and then calculate the correlation coefficients for the data using Pearson, Accordingly, the researcher was able to do the necessary analysis of the data, and the results were as shown in Table 3.

Table 3 Correlation Analyses

| Fields | Dimension | Cronbach's alpha | Pearson correlation coefficient |
|------------------------------|---------------------------------|------------------|---------------------------------|
| | Provides security by the system | 0.84 | 0.86* |
| | achievement speed | 0.82 | 0.85* |
| | Simplify work procedures | 0.81 | 0.84* |
| financial market performance | | 0.84 | 0.84* |
| As a whole tool | | 0.83 | 0.85* |

* Statistically significant at the level of significance (0.05).

3. Statistical Analysis

Through the analysis necessary for this study, we show below the expected impact of management information through systems on performance in the financial markets inside Iraq.

First

Arithmetic averages through the results obtained from the answers of the study sample to the study tool in the fields of this study, in addition to the standard deviations of these responses to the study tool, as these results appear through what is shown in Table 4.

Table 4 Standard deviations

| Rank | Number | Dimension | Arithmetic means | Standard deviation | Level of evaluation |
|----------------------|--------|---------------------------------|------------------|--------------------|---------------------|
| 1 | 2 | achievement speed | 4.08 | 0.62 | High |
| 2 | 1 | Provides security by the system | 3.95 | 0.62 | High |
| 3 | 3 | Simplify work procedures | 3.90 | 0.58 | High |
| The areas as a whole | | | 3.97 | 0.47 | High |

We see that the arithmetic averages through Table 4 related to the dimensions of competence in the field of information systems varied from (3.90 to 4.08) with a high evaluation level for all dimensions, and ranked first after the field of "speed". With an average of (4.08), which is just below the "capacity of the system to provide information security" with an average of (3.95), and the third and last is the "Simplification of Business Processes" domain. With an average of (3.90), the arithmetic mean of the entire sector was (3.97) and with a high rating level, this effectively indicates interest in financial market information systems.

Table 5 Standard deviations for markets

| Rank | Number | Dimension | Arithmetic means | Standard deviation | Level of evaluation |
|------|--------|----------------------------------|------------------|--------------------|---------------------|
| 1 | 1 | performance of financial markets | 3.75 | 0.53 | High |

The above table shows us that the averages for the markets were at a high level and to a degree (3.75).

Results and Recommendations

1. Results

The aim of the study was to verify the extent of the ability of (MIS) to influence the performance followed by the financial markets inside Iraq, and after conducting the necessary analysis, the results showed the following:

1. There was a statistically significant relationship between the actual performance of administrative systems and the actual performance in the financial markets inside Iraq.
2. There is an ability by the system to maintain the security and confidentiality of information and the inability to penetrate it, which affects the actual performance of the markets.
3. The results proved that there is an actual speed in completing transactions and thus the positive impact on the market.
4. As the results showed, there is an actual simplification of the procedures, which positively affects the market.

2. Recommendations

Based on the results obtained, this study recommends the following:

1. The need to carry out continuous and permanent improvement of security procedures, which ensures the integrity and permanence of data.
2. The necessity of introducing the technological factor to the market, which ensures the continuation of providing services in a simplified, fast and accurate manner at the same time.
3. Carrying out more studies related to the subject of the study, taking into account the expansion of variables as well as the use of financial data from the market.

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