



# The Impact Of Management Information Systems On The Training Of Workers In The Directorate Of Education Salah Al-Din (Case Study)

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**Abstract:** The aim of this study is to find a possible relationship between the management information system and the training of workers in the General Directorate of Education in Salah al-Din. This work was established on the basis of taking random samples of workers who are considered critical elements. The researcher raised some questions that are directly related to the main statement. The comparative description system was adapted to obtain the results using a questionnaire form where all the data were collected from GEDS. Many theories were tested and 205 forms were distributed and five of them were defective and only 200 forms were analyzed. The study found that there is a relationship between the positive attitudes of the management information system and workers in training. The study recommends the need to provide a clear system for evaluating the performance index for workers. In addition, training should follow an open policy to help workers solve their problems. In particular. It is necessary to have direct communication with the direct manager to address the obstacles facing his performance.

**Keywords:** Administrative Information System The Salah Al-Din Education Directorate, Training Of Workers The Salah Al-Din Education Directorate

## Introduction

The modern era witnessed rapid development in information systems as the world turned to information systems, especially administrative in the era of globalization, acceleration, and transfer of information through the Internet and in light of technological development and entrepreneurship where information systems are looking for discrimination and efficiency as well as effectiveness through the ease of information and data and its transfer through the Internet, so information systems have become a significant role in serving citizens and cannot in our modern era abandon administrative information systems in organizations, especially small and large to succeed the role of human resources that achieve in accomplishing the tasks of training workers, which is one of the most important strategies for the success of the organization. The methodological framework of the research and the second research: The theoretical framework and the third research: The methodological framework of the research and the fourth research: Conclusions and recommendations.

## Research Problem

The success of organizations depends on the modern era as it witnessed a vast progress in information technology, especially the administrative ones that belong to organizations, so organizations must pay attention to training workers by various means and methods to advance their reality, so they must pay attention to administrative techniques and to make the proper decision-making process to guide the organization to safety to avoid mistakes that negatively affect its progress, where the main issue arises in the General Directorate of Education Salahuddin to attract people trained and experienced in using technologies in the administrative field where the researcher found being one of the members of the directorate as a worker in management information systems (MIS)

Do management information systems contribute to the training of employees?

1. What is the level of management information systems on the training of employees in the research organization?
2. What is the level of staff training in the research organization?
3. What is the role of MIS in enhancing the training of employees in the respondent organization?

## Importance of the research:

The importance of this study lies in the fact that it chose the community that will be applied in the General Directorate of Salah al-den Education because it has a vital role in raising the level of growth and development as well as the development of Salah al-den Education. The study also dealt with two variables, an independent variable and a dependent variable, which were the impact of management information systems on training. This may help educators to benefit from the results and understand what applies to them; it also needs to be applied in the research organization, thus increasing the interest in management information systems and raising its level by improving it and developing workers and training them to use technology and administrative techniques to face external challenges and complete transactions as quickly as possible.

## Research Objectives

The most important objectives that the current research seeks to achieve are:

1. Identifying the level of the impact of management information systems with its dimensions (human resources, information technology, and databases) on the training of employees in the respondent organization and identify the level of management information systems in the Salah al-Din Directorate of Education.
2. Identify the level of staff training in the Directorate of Education. Salah al-Din.

## Hypothetical research outline

Based on the research question and its objectives, the researcher developed a model that illustrates the most important variables that will be addressed in the current research, which, as shown in Figure (1), is represented by the independent variable (management information systems), whose dimensions are (human resources, information technology,

and databases), and the research model also includes the dependent variable (employee training), whose dimensions are (identifying training needs, designing training programs and the duration of training).



**Figure 1.** Hypothesis research scheme

### Research Hypotheses

In light of the variables identified by the researcher in the research model, which aims to examine their impact on each other, the following hypothesis was formulated:

1. The first central hypothesis: There is a significant correlation between management information systems and employee training.
2. Second central hypothesis: There is a significant effect between MIS and employee training

### Limitations of the research

1. Temporal Limits: The temporal boundaries of the study. The year 2022/2023.
2. Spatial limits: This research was limited to the Salah al-den Directorate of Education.
3. Human Limitations: This research was limited to employees of the Salah al-Din Directorate and Salah al-Din Education Directorate.
4. Intellectual Limitations: This research was limited to measuring the impact of management information systems on the training of workers in the Salah al-Din Directorate of Education. Drawing on the studies that existed in the research model.

### Testing the research instrument:

The generalization of the results of the current research is done in light of the following conditions:

1. Reliability and validity. The research instrument.
2. The accuracy and objectivity of the research sample's responses to the questionnaire items specifically designed for the current research.

### Methodology

This research will rely on the descriptive analytical method to answer the research questions and test the validity of its hypotheses. It will study the causal relationships between the impact of management information systems on the training of workers in the Salah Al-Din Education Directorate and Salah al-den Education Directorate.

### The research population and its sample.

The research population consists of employees of the Salah al-den Directorate of Education. In the Republic of Iraq, the number of employees in the Salah al-den Directorate

of Education was (300) male and female, which is a homogeneous population. The researcher selected a simple random sample from the research population using a simple sampling method based on Omaskaran. The sample was determined from the population.

### **Sources of data collection.**

To achieve the objectives of the research, the researcher. The researcher used two primary sources to collect the data:

1. Secondary sources:

These will be collected from books and periodicals relevant to the subject matter of the various articles and those available online. The subject matter of the various articles and those available on the World Wide Web. (Internet).

2. Primary Sources:

The questionnaire will be used to obtain the primary data for the research as the researcher will design and construct the questionnaire to enable him to accurately measure the research variables by relying on previous studies related to the research topic and literature. The researcher will design the questionnaire and construct its items to enable him to measure the research variables accurately.

### **Statistical methods used**

A variety of statistical methods will be utilized. The statistical methods include the Statistical Package for Social Sciences. (SPSS). The statistical methods that will be used to analyze the research data are as follows: They are:

1. frequencies and percentages. To describe the characteristics of the individuals of the respondents.
2. Arithmetic means. and standard deviations. To recognize. The degree of agreement of the respondents with the research variables. And its various dimensions.
3. Correlation coefficient. Simple and multiple regression analysis to see if there is an effect. The independent variable. Independent. And its different dimensions in the variable. Dependent.
4. Cronbach's alpha coefficient to check the stability of the research instrument.

### **Data Analysis Method**

The data obtained through the questionnaire was processed through the statistical program (Spss) as well as the following statistical methods:

1. Frequencies and percentages. And averages. Arithmetic means and standard deviations.
2. Correlation coefficient. (Spearman).
3. Stability coefficient. of the scale. (Alpha Cronbach).

### **Result and Discussion**

The results of Table (1) show that the highest percentage is (without a position) as their percentage amounted to (56.4%). (56.4%), followed by. (Divisional Director) with (29.7%). (29.7%) of the total. The lowest percentage of the sample was (other position). (6.2%). The result proved. The administrative positions were distributed according to the organizational structure of the General Directorate of Education. Also, according to the

description of that position, it is customary to specialize the working members of the Directorate.

**Table 1.** shows the distribution of management positions

| <b>Position.</b>              | <b>Repetitions</b> | <b>The percentages.</b> |
|-------------------------------|--------------------|-------------------------|
| M. Division                   | 58                 | 29.7                    |
| Director of the<br>department | 15                 | 7.7                     |
| No. Position                  | 110                | 56.4                    |
| Other position.               | 12                 | 6.2                     |
| Total.                        | 195                | 100.0                   |

Source: Preparation. Researcher. Using the output of the SPSS program.

### **Terminological definitions of the research:**

#### **Management Information Systems (MIS).**

Concept: -

Technology is changing the world around us. Rapidly. Leading to new ways. New ways of working. As well as how is done. The way business is conducted affects every aspect of the business. (Abdulmati, 2021), as they are considered combined and linked components that work together to collect, store, and process information to support decision-making (Laudon & Laudon, 2013,p13), Farawneh defined the system as a set of interrelated, harmonious, and environmentally interactive elements to achieve achieved and shared goals, (Ghoneim Ismail, 2017, p. 12).

The system is a set of elements and units that cannot be isolated according to their position in the group (Wassan Kazim, 2022, p. 47)

#### **Strategic advantages of MIS:- (Absher Ahmed, 2021, p. 5)**

1. Achieving operational excellence: Operational excellence is the implementation of business strategy more consistently and reliably than competitors, which is usually demonstrated by results. These results are high profits, more efficient use of resources, and growth.
2. Producing new products.
3. Creating new business models and services: A Business Model is when a company produces, distributes, and sells a product to distribute profits.
4. Winning the satisfaction of customers and suppliers: Companies seek to gain workers' satisfaction by providing services and products that bring happiness to their hearts and help the computerized science system achieve its goals.
5. Improving the decision-making process: Making a decision without sufficient information leads to loss or misplacement of resources, and information systems can provide managers with up-to-date information.
6. Competitive Advantage: When a company achieves more than one competitive advantage, it is superior to its competitors who do not use information systems.

**Characteristics of management information systems:- (Kazim & Wassan, 2022, p. 47)**

1. The ability to deal with a large amount of data: Decision support systems can search for information in multiple databases.
2. Decision support systems provide great flexibility, as reports can be designed according to the situation to provide the best possible benefit.
3. The possibility of obtaining data from different sources; some data may be found on personal computers, large devices, or networks.

**Dimensions of the Management Information System**

In order for companies to perform their role efficiently and effectively, several factors contribute to the application of management information systems (Laudon, Laudon, 2017, 47) .

1. Material resources include all devices, physical components, and materials used in data processing.
2. Software resources: These systems operate the devices, data, and information and determine the operations the devices will perform.
3. Databases: These are computer programs that organize and manage company data so that it can be accessed and used efficiently.
4. Procedures are a set of steps and directions that must be followed by individuals who use the information.

**Employee training: -**

The concept of training

In the modern era, the frequency of training has begun to appear recently due to the development of skills and abilities of workers in organizations. The importance of training is divided into two training concepts (Farhan Hamad, 2017, p. 12)

1. The importance of training for the individual: - The importance of training for the individual is evident through what this process contributes to the development of the individual and provides him with information and knowledge to perform his work.
2. The importance of training for the organization: Training's importance to the organization is represented by its contribution to increasing the productivity of goods and services.

**The importance of training**

Organizations no longer have the option to train or refrain from training workers under the pretext of a lack of training or its simplicity, as the importance of training has emerged to achieve outstanding performance and develop human resources (Haider Essam, 2020, p. 8). The training process has become the decisive element in the efficiency and effectiveness of various organizations, with different activities, sizes, objectives, and work within different organizations.(Al-Asnawi Galal, Al-Sayed Ibrahim, 2020, 116).

## Factors Affecting Human Resource Training

Organizations seek to establish various training programs and courses for their employees to develop their training skills, and some factors affect training programs as follows: -( Mondy & Noe, 2005, p. 205)

1. The level and support of senior management for training programs.
2. The level and type of technological development used in training programs.
3. The degree of complexity and level of organizational structures.
4. The type of training methods used for human resources.

## Types of training

There are two types of training at the organizational level.( Mohamed Belkacem, 2017, 6)

1. Training within the organization: - This training is done on an individual basis or within a group of employees for whom training courses are held according to management planning and under its control, and it is disadvantaged by its confinement to the perimeter and within the limits of workers' experiences.
2. Training outside the organization: - One of its advantages is the opportunity for trainees to meet individuals from different workplaces where they exchange their experiences, and the training process becomes a place where expertise and skills are concentrated.

## E-training

It is a proposed nontraditional training system based on the Internet that organizes educational modules, including objectives, teaching methods, and activities to develop training skills (Heba Allah Hassan, 2017, 8).

## Third Section

Applied Framework. The research. (Testing the correlation and influence between the research variables). This section includes the field framework. The research is related to the two variables. This section includes the field framework:

I: Descriptive analysis of the independent variable, which relates the mean, standard deviation, and relative importance of the responses of the research sample, as shown in Table. (2).

**Table 2.** The results of the respondents' opinions about the paragraphs on management information systems

| NO | Paragraphs  | arithmetic mean | Deviation standard deviation | Relative importance | Evaluation level |
|----|---|-----------------|------------------------------|---------------------|------------------|
| 13 | We communicate quickly and directly with the system administrator | 3.28            | 1.179                        | 0.656               | average          |

| NO | Paragraphs  | arithme<br>tic<br>mean | Deviation<br>standard<br>deviation | Relative<br>importanc<br>e | Evaluati<br>on level |
|----|---|------------------------|------------------------------------|----------------------------|----------------------|
| 14 | The directorate provides computers that are suitable for the nature of the work                 | 3.17                   | 1.201                              | 0.634                      | average              |
| 15 | The system administrator responds to my inquiries on time                                       | 3.44                   | 1.074                              | 0.688                      | average              |
| 16 | The system has enough suitable storage space for the information used.                          | 3.46                   | 1.056                              | 0.692                      | average              |
| 17 | Computers suitable for the nature of the system are available.                                  | 4.22                   | 0.930                              | 0.844                      | High                 |
| 18 | Senior management is keen to keep abreast of technological developments in information systems. | 3.53                   | 1.090                              | 0.706                      | average              |
|    | Computational Center for Management Information Systems   | 3.52                   |                                    |                            | average              |

Source: Prepared by the researcher. Using the output of the program. SPSS N=195

The researcher observes. from the results. From the table. (2) There is no agreement between the responses of the individuals of the research sample at the level of its subparagraphs. Related to information systems. Management. This confirms the consistency of getting more paragraphs with a standard deviation. With a high dispersion. Greater than one number. Is true. Moreover, the research sample's responses toward those subparagraphs are different. Such as paragraphs (13,14,15,16,18) indicating a lack of agreement towards their responses at the level of its subparagraphs. Paragraph numbered (17) received the highest mean value (4.22), while (14), which reads: "The directorate provides computers that are suitable for the nature of the work of the system," received the lowest mean value (4.22). The value (3.17) indicated that the management information systems in the General Directorate of Education worked to capitalize on these ideas and innovations by providing feedback to the employees of the Directorate through the activation of a meeting evaluation system. A system to evaluate the meeting. Continuous meeting with them. as meeting with them. They cannot address the issues, so they grow in the work due to the expected weakness in the ability of these management information systems to open the field in front of them. Difference. Workers. To solve those problems that they are directed to. More broadly. These resources were received. Relative importance. Where. Ratio. (0.704). At the level of evaluation. Medium.



### Descriptive research

For the variable. Intentional. Which has a mean. Mean. Standard deviation. And the relative importance of the responses of the sample members. The results are shown in Table. (3).

**Table 3.** shows the results of the respondents' opinions on the paragraphs of staff training

| NO  | Paragraphs  | arithme<br>tic<br>mean | Deviation<br>standard<br>deviation | Relative<br>importanc<br>e | Evaluati<br>on level |
|---|---|------------------------|------------------------------------|----------------------------|----------------------|
| 31  | The directorate determines — the expected objectives of the training programs.    | 3.98                   | 1.146                              | 0.796                      | High                 |
| 32  | Training programs achieve the goals set for them.                                 | 3.36                   | 1.129                              | 0.672                      | average              |
| 33  | Training contributes to changing workers' job behaviors.                          | 4.08                   | 1.230                              | 0.816                      | High                 |
| 34  | Training opportunities are available to all employees in all departments.         | 4.28                   | 1.069                              | 0.856                      | High                 |
| 35  | Training programs in the organization are through modern and sophisticated means. | 4.20                   | 1.119                              | 0.84                       | average              |
| 36  | The directorate evaluates the results of training programs.                       | 3.88                   | 1.413                              | 0.776                      | High.                |
| Arithmetic mean of trust in employee training |   | 3.96                   |                                    |                            | High.                |

Source: Prepared by The researcher. Using the output of the program. SPSS  
N=195

The results are shown in Table. (3). There is no agreement. Between the responses of the research sample at a particular level. With its subparagraphs. Which. Concerning trust in the management of the Directorate. This shows. This. Radical agreement. All. Paragraphs. On a standard deviation. Shows. Dispersion. High. Greater than. One. Integer. Indicating the presence of divergence. And homogeneity. of the answers. Of the members of the research sample. Towards its subparagraphs of trust in the management of the Directorate. This indicated a lack of. Consensus. on the direction of the responses. At the level of those paragraphs. Paragraph no. (34). which states. (There are training opportunities available for all departments). No. It has a mean arithmetic mean of. (4.28). Where. (32). Where. "Training programs achieve the objectives for which they are designed." had the lowest mean. Arithmetic mean. (3.36) The results indicated. On. The directorate encouraged the

establishment of understandings with all levels of management. Administrative levels. In all areas. But these understandings need transparency to deal with workers, but management is not cooperative in dealing with workers towards its administrative matters, which related to the directorate and employees in general. The relationship between the management and the employees is important. (0.792). At a level of high evaluation.

### Testing the hypothesis. Correlation:

There is a significant correlation between MIS and staff training in the General Directorate of Education of Salah al-Din.

The results are shown in the numbered table. (4). testing the research hypothesis which indicates that there is a significant correlation between MIS and staff training in the Directorate. The value of the correlation coefficient. The correlation coefficient. (0.319) at a significant level (0.05, 0.01). It is a positive value. It shows a weak relationship. This is confirmed by the research in its theoretical aspect, which means that all the practices of management information systems in the directorate work to train workers in the research organization, as this result reflected a clear congruence with its theoretical logic, and showed the possibility of establishing communication between management information systems and worker training where integration to reach the desired goals of the directorate, so we accept the first hypothesis with the aim of proving that there is a significant relationship between management information systems and worker training: There is a significant correlation between MIS and staff training in Salahuddin Education Directorate.

**Table 4.** shows the results of the correlation between human resource management and personnel management in terms of their dimensions

| variant<br>explanatory.<br>Variable.<br>Respondent. | Employee training. | Total indicator |
|---|--------------------|-----------------|
| Management Information                              | 0.536              | 0.462           |
| Systems   | 0.166              | 0.286           |
|   | 0.075              | 0.268           |
| Total indicator                                     | 0.319              | 0.422           |

Source: Prepared by the researcher. Using the output of the program. SPSS N=195

### Testing the impact hypotheses

Main hypothesis. Second: There is a significant effect at a significant level ( $\alpha \leq 0.05$ ) of management information systems and training. Workers in the General Directorate of Education

The results are shown in Table. (5). Its value. Significance. (0.00) statistical significance level for management information systems. Significance. Significant effect. Less than or equal to. (0.05). It also indicated a significant effect of MIS in enhancing staff training in Salah al-Din Education. The value of the coefficient. ( $\beta$ eta). The coefficient value ( $\beta$ eta). (0.248) as indicated by the percentage of. (24.8%) of the variance. that occurred. The value

of the regression coefficient supports the value of the regression coefficient. The value of the regression coefficient (B) of (0.207) is supported by the value of the regression coefficient (B) of (0.207), which indicates that the increase in staff training in the amount of one unit as the MIS variable increased. (0.207). One unit. is a significant increase, according to its value. (The calculated T value of (3.365) at the degree of freedom (3,191), which includes the level of significance (0.05), is more significant than its tabular value. It amounted to. (1.960) at the. Significance. (0.05). This result confirms the second hypothesis. The second hypothesis is in the form of a proof. Whereas. It led to. There is a significant effect. Significant at the significance level. ( $\alpha \leq 0.05$ ) for management information systems and staff training in Salah Al-Din General Directorate of Education.

**Table 5.** Regression coefficients for the effect of green MIS on staff training.

| The regression coefficients. |                                |       |             |       |       |
|------------------------------|--------------------------------|-------|-------------|-------|-------|
| Dependent variable.          | Independent variable.          | B     | Eta $\beta$ | T     | Sig*  |
| Worker training.             | Constant value                 | 2.083 | -           | 7.335 | 0.000 |
|                              | Management Information Systems | 0.207 | 0.248       | 3.365 | 0.001 |

Source: Prepared by the researcher. Based on. Output. SPSS N=205

## Conclusion

1. It appears from the statistical analysis and indicators of the sample's answers that the organization is interested in aspects related to management information systems that are keen to communicate easily with the top management by making its policy focused on developing the ability of its interest in working to achieve its strategic goals.
2. The General Directorate is working to match the experience and qualifications of information system workers with the tasks assigned to them and prepare them to participate in activities that advance the Directorate's reality.
3. It is. The Directorate has apparent interests in the response of the information system officials to inquiries on time and as quickly as possible, as well as the ease of information transfer, which makes it easier for employees to fulfill their duties.
4. The statistical indicators show the work of the senior management in the directorate, which is keen to keep abreast of technical developments in information systems, make radical changes, and keep pace with developments.
5. It is evident from the above results that the directorate focuses on the development of training capabilities, abilities, and skills with the latest training methods and the use of information technology to keep pace with modern developments.

## Recommendations

1. The researcher recommends that the Directorate's administration make interest in management information systems one of the most important priorities and encourage its employees to optimize the use of computers and the information network.

2. The researcher recommends the directorate administration to provide opportunities for employees to develop their training capabilities, open training courses periodically, and provide support and support for them to advance the status of the directorate.
3. The researcher recommends that the Directorate's management pay attention to training and open job opportunities to participate in internal and external seminars and conferences and attract the most qualified employees to represent the officials of departments and divisions and to educate workers on the best use of computer applications.
4. The researcher recommends that senior management pay attention to changing employees' behavior toward reviewers and work ethics and optimizing the use of the training programs followed and applying them on the ground.
5. The researcher also recommends the necessity to encourage and train employees to use the best technological tools to quickly respond to emergency changes and address the lags that occur and address them by the best means.

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