

# **Management Information System For Effective And Efficient Decision Making: Case Study Five- And Four-Stars Hotel In Jordan**

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## **Abstract**

This study aims to verify the significant relation between Management Information System (MIS) and effective Decision-Making process. Furthermore, it examines that how the improving of MIS's features: information technology (IT), security and reliability, ability to control and upgrade can impact the decision-making process. It may help decision makers in business sector to improve company performance by developing MIS to benefit the effective and efficient Decision-Making process. Involving MIS can optimize the process of Decision Making from different aspects. Consequently, MIS becomes one of the most important components of the decision making process. Furthermore, the decision-making process will be more secure, accurate and easy by reducing needed time and empirical efforts. Moreover, MIS is enhanced the reliability and validity of decision-making outputs. Specialists of MIS and decision makers can work together to develop and implement such combination between MIS and decision-making system. In order to achieve this study purpose and investigate the significant role of MIS in decision making process a sample has been taken, and questionnaires were distributed to collect both quantitative and qualitative data. In order to obtain the required statistical results, the collected data was analyzed by using SPSS. Finally, the obtained results were completely matched the proposed hypotheses.

**Keywords:** Management Information System (MIS), MIS's features, Decision Making process, five- and four-stars hotels, Jordan, SPSS.

## 1. INTRODUCTION

Generally, Management Information System (MIS) is involved three main interacted components: management, information, and system. In order to understand the comprehensive definition of MIS, we need to partially define each one of these components. Firstly, management means the process through which managers plan, organize, initiate and control operations within their business. Essentially, a management can only exist when there are subjects workers to be managed.

Secondly, information can be defined as analyzed data, which has been extracted from raw and not understandable data. This meaningless data will be somehow processed by various specialists, in order to obtain useful information. Finally, system which is composed of a set of elements that joined together to achieve a common objective. Sometimes, business system can consist of cooperated subsystems which all function towards ensuring efficiency of the general system. Actually, the applied system varies from one organization to another depending on many factors: the nature of organizational operations, size of the businesses, and organizational priorities. (Ranisavljević et al., 2012).

Based on the aforementioned definitions, management information system is considered as a combination between these three components. However, MIS can be defined as a process of collecting, processing, storing, and transmitting relevant information to support the management operations in any organization. One of the most important management operations is the decision making process. The importance of MIS in decision making can be realized from its aims and objective. The aim of MIS is to develop a viable system to maximize the effective use of modern approach, to manage practices. It is also aimed at assisting managers and operating personnel to produce timely and accurate information not only to decide present and future operations but also to point potential problems that need to be rectified. Consequentially, a good management of information systems leads to good decision making in business just in the same way poor management leads to poor decision making. It is based on this foundational concept that this paper is going to circumspectly analyze the roles of MIS in decision making. (Heidarkhani et al., 2013)

Decision making is a process of making a choice from a number of alternatives to achieve a desired result. This definition has three key elements. First, decision making involves making a choice from a number of options. Second, decision making is a process that involves more than simply a final choice from among alternatives. Finally, the "desired result" mentioned in the definition involves a purpose or target resulting from the mental activity that the decision maker engages in to reach a final decision.

Since that MIS is aimed to convert a data from internal and external sources into information and to communicate that information in an appropriate form to managers at all levels in all functions to enable them to make timely and effective decisions for planning and controlling the activities for which they are responsible, so we consider this definition express the essence of MIS usage to assist managers in decision making process. Thus, the success of decision making, which is the heart of administrative process, is highly dependent partly on available information, and partly on the functions that are the components of MIS. (Berisha-Shaqiri ,2014)

MIS and its organizational subsystems contribute to the decision making process in many ways. Making decisions is an important part of working in the business environment. Companies often make decisions regarding operational improvements or selecting new business opportunities for maximizing the company's profit. Companies develop a decision making process based on individuals responsible for making decisions and the scope of the company's business operations. A useful tool for making business decisions is a management information system. Historically, MIS was a manual process used to gather information and funnel it to individuals responsible for making decisions.

MIS is an organization wide effort to provide decision making process information. The system is a formal commitment by executive to make the computer available to all managers. The main idea behind MIS is to keep a continuous supply of information flowing to the management. Afterwards, by data and information gathered from MIS, decisions are made.

MIS is useful in the area of decision making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in control. It is also relevant in nonprogrammer decisions as it provides support by supplying information for the search, the analysis, the evaluation and the choice and implementation process of decision making. The need for MIS in decision making as it provides information that is needed for better decision making on the issues affecting the organization regarding human and material resources. (Lapiedra Alcamí and Devece Carañana, 2012).

The role of information in decision making cannot be overemphasized. Effective decision making demands accurate, timely and relevant information. MIS provides accurate and timely information necessary to facilitate the decision making process and enable the organizations planning, control, and operational functions to be carried out effectively. MIS also plays the crucial role of providing a wide range of streamlined options from which decision makers are able to make their preferred choices and this ensures that whatever choices are made by decision makers, the outcome, more often than not, becomes positive. This, as a matter of fact, is the reason why many decision makers tend to prefer using MIS tools when making tough business choices. MIS as renowned concept, having

good decision choices guarantees viable decisions in our businesses. (Ranisavljević et al., 2012)

**Research question:**

The problem of the study is to investigate extent to what the usage of MIS can influence the quality of decision making process procedures and output. Therefore this study attempts to answer the following questions:

- What is the impact of management information system on the development of effective and efficient decision making?
- What is the impact of information technology of management information system on effective and efficient decision making?
- What is the impact of security and reliability of management information system on effective and efficient decision making?
- What is the impact of ability to upgrade management information system on effective and efficient decision making?
- What is the impact of ability to control management information system on effective and efficient decision making?

**Importance of this study:**

The importance of this study comes from the enhancing the relationship between MIS and decision making, by illustrating the role of applying MIS in decision making process to make it more efficient and effective. Additionally, it helps decision makers to take the appropriate critical decisions in the suitable time. In order to achieve that a particular sample has been chosen which is composed of 100 participants, who are working in accountant departments within different managerial levels, in (10) hotels five and four stars in Jordan. Furthermore, questionnaires have been distributed to collect data.

**The goal of this study**

As mentioned before, adopting MIS can serve the goals of organizations and improve its performance. Therefore, MIS can achieve many objectives: providing an overview of the information requirements of organizations, analyzing the role of management and its dependency on information, discussing the role of information in the decision making process, and identifying the need for information in the day to day operations of the organization.

Decision making is considered as one of the management's responsibilities. This process aims to identify problems and opportunities and then resolve them. Particularly, a decision is a choice from available alternatives, which is made in response to a situation that has occurred often enough to enable decision rules to be developed and applied in the

future. Therefore, a decision is made in response to a situation that is unique, is poorly defined and largely unstructured, and has important consequences for the organization.

A decision is a choice between alternatives and decision making is the process of choosing one alternative over the others. Making good decisions should be a process. It is a process of identifying problems and resolving them, or of identifying opportunities and taking advantage of them. The process is made up of two components: Judgment a process of evaluating alternatives, Choice a process of selecting a specific alternative to implement Judgment can occur without being followed by choice.

Decision making is an essential part of any business. This is because a majority of operations in an organization turn around decisions made by the management. In order to make decisions more effectively, it is very important to have a good management information system since decisions are based on information available. The effectiveness of business information is depending on the timing and content of the business information presented and management actions. The need for management information system is felt when the managers have to make proper business decisions, the manager will have to rely on his judgment but he must have information on the basis which he arrives at business decisions. If an organization have a significant management information system, it is easy for an organization to take decision on the basis of available information. Good MIS ensures good decision making just in the same way bad MIS drive the making of bad decisions. MIS plays a crucial role in decision making through its systematic tools, timely information and adequate managerial policies and regulations. The quality of managerial decision-making depends upon the qualitative information and the managers should therefore develop an environment that encourages the growth and quality information.

Management information systems give managers fast component to information. It includes interaction with other decision support systems, information examination, cross referencing of external information and possible data removal techniques. These systems provide information and strategic technique with practical decisions. Finally, Management Information systems play the crucial role of providing a wide range of alternatives from which decision-makers are able to make their preferred decision. This is important for companies in the modern-day generation where any minor fall in decision making can lead to very infinite losses. Thereby, this study is particularly aimed to pinpoint the following objectives:

- To determine the impact of management information system on the development of effective and efficient decision making?
- To determine the impact of information technology of management information system on effective and efficient decision making?
- To determine the impact of security and reliability of management information system on effective and efficient decision making?

- To determine the impact of ability to upgrade management information system on effective and efficient decision making?
- To determine the impact of ability to control management information system on effective and efficient decision making?

## **2. OVERVIEW RELATED TO PUBLICATIONS**

In general, MIS can provide business transaction information and it can help managers understand many business operations and performance issues. For example, a computerized system can help managers understand the status of operations, monitor business results, review customer preference data and investigate competitor actions. In all of these situations, MIS should have a number of characteristics. Information must be both timely and current. These characteristics mean the information is up-to-date and available when managers want it. Also, information must be accurate, relevant and complete. Then managers need this information to be presented in a format that assists them in making decisions. That means the quality of decision making process depends on the quality of the collected information by MIS. (Lucey and Lucey, 2004).

Several studies have found and reported diverse findings regarding MIS usage in decision making. We should emphasize that although decision making is one of the areas that MIS have sought most of all to affect, there have been only a few existing studies that have dealt and examine the role of MIS in management decision making process. They noted that MIS supports decision making in organizations and vary among managerial levels. MIS usage to support managers in decision making falls into one of two general categories of systems that help users to analyze a situation and leave the decision up to him/ her and systems that actually make some sort of recommendation concerning what action to take. (Berisha-Namani, 2010).

According to Berisha-Namani (2010), it is interesting to note that most authors would agree that MIS is playing an increasingly important role in organizations of all types, regardless of their size. It is often stated that MIS is a tool to help the improving of management by using available information for decision making process. In addition to more traditional systems which assist in the day to day business operations, MIS is increasingly providing a competitive advantage for the organization.

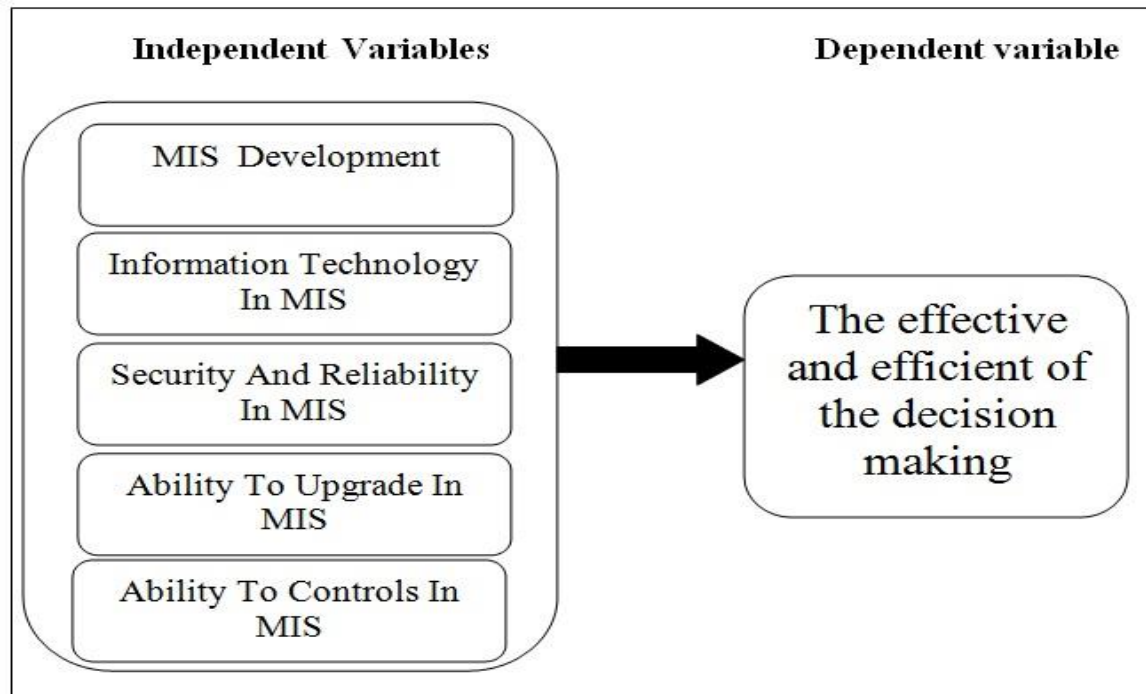
Especially larger enterprises are those ones, where another level of information may also be needed, not for the operation itself, but for a summary of facts. This purpose is served by MIS, which can really play an important role, as there is a natural demand from the top management to receive up-to-date or at least very timely, relevant information on the operation of the enterprise. This service was done on paper in the form of different reports for a very long time, and it is still being in use. The problem is that usually the top management requires a complex set of indicators, data or reports, which content are mostly

in the hands of several responsible units within the organization. So the term MIS is commonly used to refer to the group of several information management methods tied to the automation or support of human decision making, integrating different data sources. There is no common agreement on a more specific definition, since the content of management information systems is not really an object for standardization. A good MIS should rather refer to the actual needs of the specific users who are intended to use it. It may contain statistics, accounting information, payroll information, customer data and so on. There are only two assumptions: MIS is to support decision making with their digested and integrated content, and they are not the systems where operators of different areas implement their actual activities. (Kárpáti, 2008).

The usage of MIS can optimize the decision making process from many aspects, but there are some issues that are related with the combination between them. Tripathi (2011) has proposed the study on MIS is a tool for making better decisions in the organizations. The selected organization is a large scale in terms of size, area and manpower requirement. After preliminary study it was felt to develop a MIS model for various functionalities specifically maintaining attendance by computerized methods and generating reports for top level management and middle level management.

### **3. THE HYPOTHESES OF THE STUDY:**

After considering the aforementioned researches, this paper has MIS and MIS's features: information technology (IT), security and reliability, ability to control and upgrade (as an independent variable) and how it can affect on decision making process (as an dependent variable) within the organizations. Based on these variables classification, we developed the framework of the study as shown in figure (1) below and the suggested hypotheses.



**Figure (1) the theoretical framework of the study**

- **H01:** There is no statistical significant impact for management information system development on effective and efficient Decision Making.
- **H02:** There is no statistical significant impact for information technology on management information system on effective and efficient decision making.
- **H03:** There is no statistical significant impact for security and reliability of management information system on effective and efficient decision making.
- **H04:** There is no statistical significant impact for ability to upgrade management information system on effective and efficient decision making.
- **H05:** There is no statistical significant impact for ability to control the management information system on effective and efficient decision making.

#### **4. IMPLEMENTATION OF THE PROPOSED APPROACH**

The hotels were chosen in Jordan as research area, to enhance how the involving of MIS can develop the process of decision making among these hotels. Furthermore, this study encourages improving the characteristics of applied MIS in these hotels such as security, reliability, control, and upgrade of MIS. Since that it will optimize the running decision making process in more efficient and effective way for the taken society.



Ten hotels were chosen in Jordan as a society of this study, to enhance how the involving of MIS can develop the process of decision making among these hotels. Furthermore, this study encourages improving the characteristics of applied MIS in these hotels such as security, reliability, control, and upgrade of MIS. Since that will optimize the running decision making process in more efficient and effective way for the taken society.

#### **4.1 Methodology of the study**

The main goal of this section is to discuss the methodology that was applied when undertaking this research. The researcher uses a deductive approach which is more likely to work with quantitative data in order to answer the questions about relationships among measured variables with the purpose of explaining, predicting and controlling phenomena. The design was quantitative because the data has a numerical form. That is, by adopting a deductive approach with a quantitative research method, the researcher was willing to measure and analyze the impact of MIS on effective and efficient decision making.

The research population exclusively includes all hotels are located in Amman city, a sample of (100) accountant based on (10) hotels five and four star were selected randomly to serve the purpose of this study. In order to achieve the objectives of this study. The researcher distributed (100) questionnaires, however (97) questionnaires were returned and were valid for analysis.

This research depends on two main sources of data:

- 1. Primary data:** collected by distributing questionnaires which are designed to capture research variables and then this data has been analyzed using the SPSS software.
- 2. Secondary data:** by reviewing relevant books, previous studies and periodicals, as well as websites and databases related to the subject of the research.

#### **4.2 Conducting Exploratory Study**

The questionnaire is divided into two sections. The first section covers demographic information (gender, age, educational level, and experience). The second section contains questions which describe dependant and independent variables.

The five-point Likert scale was applied in order to explore the respondents' views regarding different issues, which has a range from (1) 'strongly disagree' to (5) 'strongly agree'. The reason for adopting this scale is to give some degrees of choice flexibility to reflect the intensity of respondents' views.

#### **4.3 Constructing the Conceptual Framework of the Study**

Validity: The survey instrument was evaluated for validity. The items used in the questionnaire have been assessed and tested by a panel of experts, thus their remarks and directions had been taken into consideration.

#### 4.4 Obtained Results and their discussion

##### Reliability

Reliability scores are expressed numerically as a coefficient. A coefficient score will be 1.00 if a test is perfectly reliable. A high coefficient of at least .70 is required to indicate an acceptable degree of reliability. The reliability of the scales was established by utilizing Cronbach's alpha (Table 4.1). Considering the present research as a whole, Cronbach's alpha varied from (0.64 - 0.89), which is considered as accepted range for this type of research.

**Table (4-1) Cronbach's Alpha for Study Variables**

Variables	Cronbach's alpha
MIS Development	.77
Information technology in MIS	.85
Security and Reliability	.84
Ability to upgrade	.64
Ability to controls	.89
Effective and Efficient Decision Making	.71

**Table (4-2) Personal and Job-related Characteristics of Sample.**

items	Categories	Frequencies	Percent %
Gender	Male	72	74.2 %
	Female	25	25.8 %
	Total	97	100 %
	Manager	5	5%

<b>Management level</b>	Head Section	21	22%
	Supervisor	-	-
	Others	71	73%
	<b>Total</b>	<b>97</b>	<b>100 %</b>
<b>Age</b>	less than 25 years	1	1.0 %
	25 to 30 years	16	16.5 %
	31 to 35 years	21	21.6 %
	36 to 40 years	15	15.5 %
	41 to 45 years	31	32.0 %
	More than 45 years	13	13.4 %
	<b>Total</b>	<b>97</b>	<b>100 %</b>
<b>Educational Level</b>	PhD	7	7.2 %
	Master	10	10.3 %
	Bachelor	40	41.2 %
	Diploma	35	36.1 %
	Secondary	5	5.2 %
	<b>Total</b>	<b>97</b>	<b>100 %</b>
<b>Experience</b>	Less than 5 years	5	5.2 %
	5 to 10 years	36	37.1 %
	11 to 15 years	12	12.4 %
	16 to 20 years	18	18.6 %
	More than 20 years	26	26.8 %
	<b>Total</b>	<b>97</b>	<b>100 %</b>

Table (4-2) shows the distribution of respondents according to their personal characteristics. This table shows that 74.2 percent of the Management is males, and 25.8 females. Table (4-2) shows management level, only 5 percent of Management is mangers, and 22 percent is head section while as 73 percent belongs to management level.

According to age categories of the respondents, only 39.1 percent of Management belongs to the first three categories, and 15.5 percent belongs to categories (36 to 40 years), (41 to 45 years), and (More than 45 years), with 32 percent, 13.4 percent.

By referring to educational level, Table (4-2) shows that 41.2 percent and 36.1 percent of Management belong to third and fourth categories (Bachelor), and (diploma), 58.7 percent of them have bachelor degree or more. Table (4-2) shows that 5.25 percent of Management has experience less than five years, this emphasizes on the required experience for Management jobs which concentrated in the second category (5 to 10 years) represented by 37.1 percent. The experience category also illustrates that 12.4 percent, and 18.6 percent, belong to third and fourth (11 to 15 years), and (16 to 20 years) respectively.

### **Descriptive Statistics of the Data**

To obtain the general results of the study, the mean and the standard deviation of different responses to the statements were calculated using Statistical Package for Social Sciences (SPSS). The mean of all statements is approximately (4), and the response below is considered positive.

**Table (4-3) Descriptive Statistic for Information technology**

<b>Items</b>	<b>Mean</b>	<b>STD Dev</b>
1. I use management programme in my work	4.6563	.85628
2. We use internet in management works	3.4479	.98269
3. Our company depends on management information systems	4.2604	1.16298
4. Our customer buying the company product by using website	3.8646	.88994
<b>Total</b>	<b>4.0573</b>	<b>.91729</b>

Table (4-3) shows the descriptive statistics of the variables used in the statistical analyses for all respondents. The distribution of respondents according to their answers on

the statements related to information technology. This table reveals that there are positive attitudes towards all of statements related to information technology because their means and total mean are greater than the standard mean. That means Management of Decision making is used information technology. The mean value of information technology equals (4.05).

Table (4-4) shows the descriptive statistics related to security and reliability. This table reveals that there are positive attitudes towards all of statements related to security and reliability because their means and the total mean are greater than the standard mean. The mean value of security and reliability equals (3.68). That means management system of Decision making has security and reliability.

**Table (4-4) Descriptive Statistic for Security and Reliability**

Items	mean	Std dev
5. Management Information System is more security	3.9375	.83114
6. Management Information System is more reliable than traditional system	3.2292	.92314
7. Using management information system in company more safe for account information	4.2917	1.31323
8. Management mistakes is less under management information system	3.2917	1.04546
Total	3.6875	.96450

**Table (4-5) Descriptive Statistic for Ability to upgrade**

Items	mean	Std dev
9. Company can adjusting management information system any time	3.4479	1.23859
10. Company can develop management information system	4.5833	.74927
11. Management information system is completely for management operations	4.2188	.54682
12. Upgrade management information system don't need to change the current system	3.5833	.98051
Total	3.9583	.81246

Table (4-5) shows the descriptive statistics related to ability to upgrade. This table reveals that there are positive attitudes towards all of statements related to ability to upgrade, because their mean and the total mean are greater than the standard mean. That means management system in Decision making has ability to upgrade. The mean value of ability to upgrade equals (3.95).

**Table (4-6) Descriptive Statistic for Ability to control**

Items	mean	Std dev
13. Accountant can use management information system easy	3.6875	.79885
14. Accountant can control the features of management information system easy	4.6667	.47388
15. Mistakes is under control in management information system	4.7500	.75394
16. Management information system suitable for our company	4.4688	1.06577
Total	4.3932	.66367

Table (4-6) shows the descriptive statistics related to ability to control. This table reveals that there are positive attitudes towards all of statements related for ability to control. The mean value of ability to control equals (4.39). That means management system of Decision making has ability to controls.

Table (4-7) shows the descriptive statistics related to Effective and Efficient Decision Making. This table reveals that there are positive attitudes towards all of statements related to Effective and Efficient Decision Making, because their mean and the total mean are greater than the standard mean. That means management system of Decision making depends in Effective and Efficient Decision Making. The mean value of Effective and Efficient Decision Making equals (3.93).

**Table (4-7) Descriptive Statistic for Effective and Efficient Decision Making**

Items	mean	Std dev
17. For Effective and Efficient Decision Making, increase market share for company	3.6146	.85063
18. For Effective and Efficient Decision Making helpful to the accountant in E-business.	4.3542	1.08559

19. Management information system is important for Effective and Efficient Decision Making	4.2500	1.22259
20. Applications of For Effective and Efficient Decision Making has increased over the years in our company	2.7396	1.08816
21. For Effective and Efficient Decision Making can provide an alternative options for accountant	4.7292	.57086
Total	3.9375	.89033

### Hypotheses Testing:

After confirming that the assumptions of regression models were met, this section deals with hypotheses testing. The hypotheses were tested using multiple regression analysis and (t-test), to verify if there is an impact of independent variables (MIS development, information technology, security and reliability in MIS, ability to upgrade in MIS, and ability to controls in MIS) on (Effective and Efficient of the Decision Making) as the dependent variable, according to the Decision rule: "accept" the null hypothesis (H<sub>0</sub>) if calculated value (t-calculated) is less than tabulated value (t-tabulated) and "reject" (H<sub>0</sub>) if calculated value is greater than tabulated value. Also, "0.05" level of significance was used to analyze the collected data. According to the Decision rule: "accept" null hypothesis (H<sub>0</sub>) if the significance level ( $\alpha$ ) of the question is greater than 0.05 significance level, and "reject" (H<sub>0</sub>) if the significance ( $\alpha$ ) level equals or is less than 0.05 (Berenson and Levine, 1999). As a result for this decision rule, the researcher has tested statistically the proposed hypothesis and found the following results:

- Fitness of the Model: the linear regression analysis of the original model reveals that the R-square of the model is 0.352. This means that the model explains 35.2% of the variance in the dependent variable as shown in Table (4.8) below. The model is statistically significant, as the p-value for the model is 0.000 which is less than the limit for statistical significance limit in same Table, which is 0.10 for weak significance and 0.05 for significance. This level is good; meaning that the fitness of the model in explaining the adoption process is high.

**Table (4.8) Fitness of the Model for Regression Analysis Model Summary <sup>b</sup>**

Mode	R	R Square	Adjusted	S.D Error of the Estimate	Durbin-	F	Sig.
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		R Square			Watson		
1	.593 <sup>a</sup>	.352	.322	.35148	2.037	11.877	.000

- a. Predictors: (Constant), MIS development, information technology, security and reliability in MIS, ability to upgrade in MIS and ability to control in MIS
- b. Dependent Variable: The Effective and Efficient of the Decision Making.
- \* Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).
- **H01:** There is no statistical significant impact for management information system development on effective and efficient Decision Making.
- **H02:** There is no statistical significant impact for information technology on management information system on the effective and efficient decision making.
- **H03:** There is no statistical significant impact for security and reliability of management information system on effective and efficient decision making.
- **H04:** There is no statistical significant impact for ability to upgrade management information system on effective and efficient decision making.
- **H05:** There is no statistical significant impact for ability to control the management information system on effective and efficient decision making.



**Table (4.9) T-Value and Significance Level ( $\alpha$ ) Coefficients**

Model	Unstandardized		Standardized	T	Sig
	Coefficients		Coefficients		
	B	S.D Error	Beta		
(Constant)	1.854	.308		6.011	.000
MIS development	.041	.039	.072	1.049	.001
information technology	.224	.060	.272	3.709	.000
security and reliability	.300	.060	.392	5.039	.000
ability to upgrade	.010	.069	.011	.143	.000
ability to controls	-.016	.040	-.035	-.411	.000

a. **Dependent Variable:** Effective and Efficient of Decision Making

Statistically significant at the level of significance ( $\alpha \leq 0.05$ )

From the results showed in Table (4.9), MIS development has a significant direct effect on the Effective and Efficient of the Decision Making ( $t = 1.049$ ;  $sig = .001$ ). Information technology has a significant direct impact on the Effective and Efficient of the Decision Making ( $t = 3.709$ ;  $sig = .000$ ). Furthermore, security and reliability have

a significant direct impact on the Effective and Efficient of the Decision Making ( $t = 5.039$ ;  $sig = 0.000$ ). Ability to upgrade has significant direct impact on the Effective and Efficient of the Decision Making ( $t = .143$ ;  $sig = .000$ ). The ability to control has a significant direct effect on the Effective and Efficient of the Decision Making ( $t = -.411$ ;  $sig = .000$ ).

## 5. CONCLUSION OF THE STUDY

In light of the study objectives and empirical results, the researcher has reached the following as overall conclusions:

1. MIS development, information technology, security and reliability of MIS, ability to upgrade of MIS and ability to control of MIS have a positive effect on the Effective and Efficient of the Decision Making.

2. Hotels which have strong security and reliability MIS based influences Decision Making in more Efficient and Effective way.
3. The ability of control in MIS has the lowest affect on the Decision Making.
4. The researcher noticed that, the top management awareness is not adequate for MIS applications, since it has a significant role with providing required information, which leads to increase Effectiveness and efficiency of the Decision Making.

## **6. RECOMMENDATIONS OF THE STUDY**

In light of the study results and conclusions, the researcher recommends that:

1. Hotels must maintain the actual level of orientation towards technology and clarify the purposes of its adoption as a helping tool without the replacement of existence managers. It should also keep a consistent rate of growth and development for the information technology infrastructure, because of its interesting importance as an investment for Hotels, and its positive impact on the Effectiveness and efficiency of the Decision Making in the context of Hotels.
2. Hotels should focus on the ability of control in MIS through using various applications of information technology within the context hotel sector.
3. Hotels must pay more attention to the organizational aspects represented in top management support towards using MIS applications , and would have to clarify the strategic purposes and goals of using such systems through comprehensive and continuous trainings and workshops for the employees who are using this system.

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## APPENDIX A

### Dear Responder:

The purpose of this research is to collect information concerning your opinions about impact of management information system in the development of effective and efficient decision making.

The usefulness of this questionnaire depends entirely on your honesty, candor, and care with which you respond to each of the questions. All information you provide will be anonymous and confidential. Finally, I would like to offer my sincere thanks to your participation and contribution to this study.

Your answers will be treated in strict secrecy and the information will be used for academic research purposes only.

\_\_\_\_ Researcher

Dr. Omar Hjazeen

<b>Gender:</b>			
Female	<input type="checkbox"/>	male	<input type="checkbox"/>
<b>Management level:</b>			
Manager	<input type="checkbox"/>	Head section	<input type="checkbox"/>
		Supervisor	<input type="checkbox"/>
Others	<input type="checkbox"/>		
<b>Age category :</b>			
Less than 25 years	<input type="checkbox"/>	25 to 30 years	<input type="checkbox"/>
35 year			31 to <input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>
36 to 40 years		41 to 45 years	
than 45			More <input type="checkbox"/>
<b>Education:</b>			
PhD	<input type="checkbox"/>	Master	<input type="checkbox"/>
		Bachelor	<input type="checkbox"/>
Diploma	<input type="checkbox"/>	Secondary	<input type="checkbox"/>

<b>Experience :</b>					
Less than 5	<input type="checkbox"/>	5 to 10 years	<input type="checkbox"/>	11 to 15 years	<input type="checkbox"/>
16 to 20 years	<input type="checkbox"/>	more than 20 years	<input type="checkbox"/>		

**Questionnaire phrases:**

Dimension					
Descriptive Statistic for Information technology	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1. I use management programme in my work					
2. We use internet in management works					
3. Our company depend on management information system					
4. Our customer buying the company product by using website					
5. Descriptive Statistic for Security and Reliability	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
6. Management Information System is more security					
7. Management Information System is more reliable than traditional system					

8. Using management information system in company more safe for account information					
9. Management mistakes is less under management information system					
<b>Descriptive Statistic for Ability to upgrade</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
10. Company can adjusting management information system any time					
11. Company can develop management information system					
12. Management information system is completely for management operations					
13. Upgrade management information system don't need to change the current system					
<b>Descriptive Statistic for Ability to controls</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
14. Accountant can use management information system easy					
15. Accountant can control the features of management information system easy					
16. Mistakes is under control in management information system					
17. Management information system suitable for our company					
<b>Descriptive Statistic for Effective and Efficient Decision Making</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>

18. For Effective and Efficient Decision Making, increase market share for company					
19. For Effective and Efficient Decision Making helpful to the accountant in E-business.					
20. Management information system is important for Effective and Efficient Decision Making					
21. Applications of For Effective and Efficient Decision Making has increased over the years in our company					
22. For Effective and Efficient Decision Making can provide an alternative options for accountant					