



GLOBAL JOURNAL OF HUMAN SOCIAL SCIENCE
Volume 11 Issue 8 Version 1.0 November 2011
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Information Systems and Their Role in the Performance of the Jordanian Tourism Companies

By Ahmad Hweishel AL farajat, Dr. Mohammad Nayef ALSarayreh, Mohammad
abdel hameed ali alhussein, Essam hashem mahmoud al-omari

AlBalqa Applied University, Jordan, Aqaba

Abstract - The study aimed to demonstrate the effectiveness of information systems used in Jordanian tourism companies and the quality of services provided by these systems, as well as to identify its role in improving the performance of these companies. Questionnaires have been distributed to users of the outputs of the information systems section 132 copies were restored valid for statistical analysis. The main findings of the study is that the information provided by users in Jordanian tourism businesses is efficient to medium degree, except that it does not help to increase the competitiveness of tourist companies, there is not enough continuous update for this information, and the services provided by the information systems section are of medium quality, moreover the training programs offered by the information systems section is not characterized by diversity and innovation, and limited to a category without others, and does not cover all users from all partitions. Information systems improve the performance of the Jordanian tourism companies although it is not flexible to meet changing needs, and does not reduce work cycle times nor reduce operations costs, and does not contribute to the involvement of employees in decision making. Most recommended by Jordanian tourism companies to continuously and sufficiently update the output of the information systems, diversification and renewal of training programs offered by the information systems section, and cover all users of all departments, and increase the flexibility of linking information systems and information systems to reduce work cycle times, and reduce processes operation costs.

Keywords : Information systems, tourism, companies.

GJHSS-A Classification : FOR Code : 150603, 150302, JEL Code : O32



Strictly as per the compliance and regulations of:



© 2011. Ahmad Hweishel AL farajat, Dr. Mohammad Nayef ALSarayreh, Mohammad abdel hameed ali alhussein, Essam hashem mahmoud al-omari. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License <http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Information Systems and Their Role in the Performance of the Jordanian Tourism Companies

Ahmad Hweishel AL farajat^α, Dr. Mohammad Nayef ALSarayreh^Ω, Mohammad Abdel Hameed Ali Al-Husseini^β, Essam Hashem Mahmoud Al-Omari^ψ

Abstract - The study aimed to demonstrate the effectiveness of information systems used in Jordanian tourism companies and the quality of services provided by these systems, as well as to identify its role in improving the performance of these companies. Questionnaires have been distributed to users of the outputs of the information systems section 132 copies were restored valid for statistical analysis.

The main findings of the study is that the information provided by users in Jordanian tourism businesses is efficient to medium degree, except that it does not help to increase the competitiveness of tourist companies, there is not enough continuous update for this information, and the services provided by the information systems section are of medium quality, moreover the training programs offered by the information systems section is not characterized by diversity and innovation, and limited to a category without others, and does not cover all users from all partitions. Information systems improve the performance of the Jordanian tourism companies although it is not flexible to meet changing needs, and does not reduce work cycle times nor reduce operations costs, and does not contribute to the involvement of employees in decision making.

Most recommended by Jordanian tourism companies to continuously and sufficiently update the output of the information systems, diversification and renewal of training programs offered by the information systems section, and cover all users of all departments, and increase the flexibility of linking information systems and information systems to reduce work cycle times, and reduce processes operation costs.

Keywords : Information systems, tourism, companies.

1. INTRODUCTION

Since ancient times and economic units of various sizes and types of have needed information for performing its work and making decisions, and because of the simplicity of the old organizations and their small sizes and the low

competition they faced, it used simple information and readily available at low cost. As the work of economic units are complicated and the functions are diversified they needed information with certain specifications that are very difficult to be provided in the old ways, so special administrative units were established concerned with production and delivery of information to all users called the department (section) of information systems. These administrative units differ from one organization to another in terms of performance efficiency, effectiveness, quality and its role in guiding and improving the performance of sections of the organization. And this could be due to differing physical, technological, human, and organizational abilities. (Walter, A, 2003)

Much interest has increased in information systems and the volume of investment in it to get output that is accurate and able to meet users' needs, through the development, activation and increase the efficiency of its three components, namely inputs and processing output. Inputs are raw data that are received for these systems to be processed to access the outputs represented by the information sent to the users.

The type of the sector plays a role in the design information systems and what is related to it of communication network operators and data analysis methods and the number of copies of documents and itinerary and control procedures, etc. (Boockholdt J. L, 1999)

Information systems in tourism sector is differentiated from other sectors by its services which is directed abroad and being diverse and highly competitive, so it requires internal and external information on all activities, functions and internal and external economic, political, cultural, historical and future trend. Jordanian tourism companies as an important part in this sector consider prospects and seek excellence and the competition of the surrounding States companies taking advantage of what this country enjoy of touristic potential. This study examines the extent of the interest of these companies in the information systems in terms of effectiveness and quality of services and their impact on performance. (Taima, M, 2002)

Author ^α : Applied Science Department, AlBalqa Applied University, Jordan, Aqaba, E-mail : Ahmed_alfarajat@hotmail.com

Author ^Ω : Department of Educational and Social Sciences, AlBalqa Applied University, Jordan, Karak, Mobile : +962777198864
E-mail : mohammad_n_k_s@yahoo.com

Author ^β : Department of administration and financial sciences, AlBalqa Applied University, Jordan, Aqaba, E-mail : Enbeh_2004@yahoo.com

Author ^ψ : Department of administration and financial sciences, AlBalqa Applied University, Jordan, Aqaba, E-mail : Seima123@hotmail.com

II. PREVIOUS STUDIES

Study Vlahos et al (2004) the study aimed to identify the extent of the use of information technology by German managers of and their understanding of information systems based on computers, and to identify how much are they satisfied with the supporting systems of the decision-making process. The study found that managers are heavily facing in working with modern information technology with 10 hours work with them in a week. It turns out that there is a relationship between information technology and the actual value of computerized information systems. Also it turns out that there is a positive impact of computerized information systems to various areas relating to decision.

Walter study (2003) the study aimed to identify the impact of strategic information in administrative decision-making processes in small factories in America. The study found that managers at senior management levels interested in internal and external information at the same degree when making non routine decisions. They does not [refer a special method to access information on a specific problem. It was shown that flexibility and easiness access to internal information are of the most important reasons for the success of support decisions especially strategic ones. Study of Al-Essa (2000) This study aimed to identify the role of information systems for decision-making in the Ministry of education in Jordan, and to identify the coverage of information systems and the weaknesses in these systems in order to develop these systems and increase their effectiveness. The study concluded that there is a positive relationship between the role of information systems and managerial decision-making at the Ministry of education, and between the variable of quality of devices used in information systems and decision-making, and the variable of the software used in information systems and decision-making. It was also shown that there is a relationship between the personnel working with the information system and decision-making, moreover there exist a relationship between data and decision making. The information base in terms of comprehensiveness, update, timing, speed and confidentiality are efficient in terms of providing the information necessary for decision.

Study of Ramadan (1999) this study aimed to measure the impact of environmental and organizational factors and decision-making methods on accounting information system used in Jordanian industrial corporations. It was shown that there is a relationship between environmental factors and accounting information systems. And there is no relationship between organizational factors and accounting information systems. And it was found that the greater complexity of tasks have increased the need for decentralization, and in these circumstances, the accounting information system will become more

complex and more sensitive and lead to integration in the information provided.

It was found that there is a relationship between decision-making models and accounting information systems, as companies take into account the long term when the decision is taken to address unknown future circumstances at the present time.

Study Al-Serhan (1995) this study aimed to determine the relevance and impact of technology on the degree of centralization, formality and complexity, as well as to find out how much are Jordanian companies interested in the impact of technology on various organizational elements, particularly the human element. Study found that there is a relationship between technology and the degree of centralization. And there is a relationship between technology and formality degree, between technology and complexity as a whole, and between technology and geographical variation.

III. THE PROBLEM OF THE STUDY

The problem of the study is represented in the unclearness of the extent of the effectiveness of information systems used in Jordanian tourism companies and the quality of services provided by these systems for users and the role of these systems in improving the performance of these companies. Therefore, the study will be launched from the following questions:

1. What is the extent of the effectiveness of information provided by the information systems section to the users in the Jordanian tourism companies?
2. What is the extent of the quality of services provided by the information systems section of the Jordanian tourism companies?
3. What is the extent of the contribution of information systems to improve the performance of the Jordanian tourism companies?

IV. THE IMPORTANCE OF THE STUDY

The importance of this study stems from being sought to uncover the reality of information systems used in a sector in a sector which provides an added value to the economic structure of Jordan, the tourism sector, represented in this study by the Jordanian touristic companies forming Jordan interface from the perspective of the tourist and the world. As the information system has a vital role in various functions of the economic unit parts, it is important to identify its situation in these companies in terms of positivity to promote it and negativity to eliminate or reduce it, especially with the scarcity of studies in terms of subject and sector.

V. STUDY OBJECTIVES

The study aims to identify the extent of the effectiveness of information provided by the information

systems in the Jordanian tourism companies. Identify the level of quality provided by these systems. As well as, to identify the role of these systems in improving company performance.

VI. METHODOLOGY OF THE STUDY

The study adopted the analytical and descriptive approach, where preliminary data were collected from the study society and statistically analyzed to access the results of the study areas.

VII. THE POPULATION AND THE SAMPLE OF THE STUDY

The population of the study consists of the Jordanian tourism companies, 19 were randomly chosen as a sample of this study.

VIII. THE STUDY HYPOTHESES

Based on the questions raised, the study tests the following hypotheses:

The first hypothesis states that "the information provided by the information systems section for users of the Jordanian tourism businesses is effective"

The second hypothesis states that "the services provided by the information systems section of the Jordanian tourism companies are characterized by quality"

The third hypothesis states that "information systems contribute to the improvement of the performance of the Jordanian tourism businesses."

IX. STUDY TOOL

The questionnaire is the initial data collecting tool that is designed to measure the situation existed in the study population. 168 copies has been distributed to all employees identified using information systems. 132 copies have been restored. And the method of the questionnaire is based on closed questions, with answers available (strongly agree, agree, neutral, disagree, disagree strongly). And the previous answers have been weighting by degrees (5, 4, 3, 2, 1) respectively.

X. USED STATISTICAL METHODS

Several statistical measures were calculated and arithmetic, t test, and test Cronbach's alpha, and

standard deviation. For answers of the questions, the criteria to accept question (item) is that the arithmetic mean is greater than 3 and that the item to be significant the t- value must be greater than the value of the tabulated value or that the observed significance level is less than 0.05.

XI. DEGREES OF IMPORTANCE

The arithmetic averages of the items which are statistically significant were given the following degrees:

Greater than 3.00 – less than 3.5: weak

From 3.50 – less than 4.00: moderate

From 4.00 – less than 4.5: high degree

Equals to or greater than 4.5 degrees: too high

XII. DESCRIPTION OF PERSONAL FACTORS AND FUNCTIONAL RESPONDENTS

Table No. (1) Shows a description of personal and functional factors of the sample individuals working in touristic companies, as follows :

- Specialization: 31.28% of tourism, 19.70% hotel management, 15.15% of the sample their specialty was management information systems, and 10.61% of the sample their specialty was accounting, 9.85 5 of the sample their specialty was business administration, 3.03% of the sample their specialty was finance. And 9.85% are from other disciplines.
- Academic qualification: 50.0% of the sample study has a bachelor degree, and 28.03% of the sample has diploma, 14.39% of the sample has general secondary certificate, and 6.06% has masters, and 1.52% have PhDs.
- Years of experience: it is shown that 39.39% of the sample their experience range from 6 to 10 years and 33.33% of the sample whose expertise ranges from between (1-5) years, 15.91% ranging experience between 11 to 15. 11.36% of those over and experience of 15 years.
- Job level: the table shows that 53.02 of the staff are employees and 29.48% of the sample is section chiefs, 12.88% who held the post of Deputy Director, and 4.55% of managers.

Table 1 : the frequencies and percentages of the personal levels of the respondents

Factor		Frequency	percentage
Specialization	Tourism	42	31.82
	Hotel Management	26	19.70
	Business administration	13	9.85
	Management information systems	20	15.15
	Accounting	14	10.61

	Finance	4	3.03
	Other	13	9.85
Academic qualification	General secondary certificate	19	14.39
	Diploma	37	28.03
	bachelor degree	66	50.00
	Master degree	8	6.06
	PhD holder	2	1.52
Years of experience	1-5	44	33.33
	6-10	52	39.39
	11-15	21	15.91
	More than 15	15	11.36
Job level	Manager	6	4.55
	Deputy Director	17	12.88
	Section chief	39	29.55
	Employee	70	53.02

XIII. STABILITY OF THE MEASURE

The stability of the measure was tested using Cronbach's alpha coefficient, it is shown from Table (2) that:

1. Alpha value related to items of information effectiveness dimension equals to 0.78.

2. Alpha value related to items of services quality dimension equals to 0.89.
3. Alpha value related to items of performance improvement dimension equals to 0.82.
4. Alpha value related to all items equals to 0.94.

All these values are greater than 0.70 which means that the measure is stable.

Table 2 : Cronbach's alpha values and item saturation for study dimensions

Item / dimension	Saturation	Cronbach's alpha	Item / dimension	Saturation	Cronbach's alpha
information effectiveness		0.78	18	0.57	
1	0.68		19	0.74	
2	0.52		performance improvement		0.82
3	0.72		20	0.51	
4	0.47		21	0.40	
5	0.44		22	0.66	
6	0.80		23	0.34	
7	0.58		24	0.61	
8	0.61		25	0.69	
9	0.52		26	0.88	
10	0.73		27	0.73	
11	0.57		28	0.72	
services quality		0.89	29	0.42	
12	0.72		30	0.75	
13	0.63		31	0.46	
14	0.37		32	0.81	
15	0.67		33	0.59	
16	0.86		total		0.94
17	0.81				

XIV. ITEMS CORRELATION WITH STUDY DIMENSIONS

In order to test the correlation of the items with the dimension it is related to, the saturation of all items were found as shown in table (2), where it was found that all the saturations of the items to each dimension is big enough and is greater than 0.30 which is the criteria of acceptance, i.e., each item is related with the dimension it belongs to.

XV. HYPOTHESES ANALYSIS AND TESTING

a) *First Hypothesis*

The first hypothesis states that "the information provided by the information systems section for users of the Jordanian tourism businesses is effective"

It has been shown from table (3):

1. All items have arithmetic averages greater than 3.00 for each item and the observed significance level for each item is less than 0.05, except items 2 and 7, which that they are statistically significant, so all these items are statistical. Item (6) which measures the how much the information provided by information system section is characterized by organization, came in the first rank with an arithmetic average of 4.14 with a high degree. Also item (1) which measure how much the information provided by information system section is characterized by interpretability came in the second rank with an arithmetic average of 4.12 with a high degree. There are 4 items got medium degrees decently ordered according to the arithmetic mean: 5, 4, 10 and 3, and that measure reliability of the information, coherence, and comparability of understanding and relevance of the topics with the users need. 3 items got low degrees and they are decently ordered according to the arithmetic mean: 9, 11, and 8, which measure the how much the information helps in determining the dimensions of the problem and the availability of information easily and in a timely manner.
2. Item 2 has got an arithmetic average of 2.85 that is less than 3.00 which indicates that the information does not help to increase the competitiveness of tourism companies. As well as item 7 got an arithmetic average of 2.89 and that is less than 3.00, i.e., the information is not constantly and sufficiently updated.
3. All items which represent the effectiveness of information has got an arithmetic average of 3.57 and the observed level of significance 0.00 that is less than 0.05 which that it is statistically significant. Then the first hypothesis is accepted, so the information provided to users of information systems in Jordanian Tourism companies is effective with a medium degree.

Table 3 : arithmetic average, standard deviation, t-value and observed significance level related to the dimension of the effectiveness of the information

Item No.	Item	Arithmetic average	sd	t-value	Observed α	Degree
1	The information provided to you from the information systems section is characterized by interpretable nature	4.12	0.90	14.32	0.00	High
2	The information helps in increasing competitiveness	2.85	1.59	-1.09	0.28	--
3	The information provided to you from the information systems section is characterized by coherence	3.61	1.13	6.24	0.00	Medium
4	You can rely on the information provided you by the information systems section	3.80	1.06	8.71	0.00	Medium
5	The information provided to you from the information systems section is relevant to the topics you need	3.88	0.97	10.46	0.00	Medium
6	The information provided to you from the information systems section is well organized	4.14	1.08	12.14	0.00	High
7	The information is not constantly and sufficiently updated	2.89	1.35	- 0.90	0.37	----
8	The information you need is available and easily accessible	3.30	1.23	2.83	0.01	Weak
9	Information is delivered in a timely manner	3.48	1.38	3.96	0.00	Weak
10	The information presented to you from the information systems section is understandable	3.78	0.94	9.58	0.00	Medium
11	The information helps to determine the dimensions of the problem facing users	3.42	1.09	4.46	0.00	Weak
	Total	3.57	0.59	11.14	0.00	Medium

b) Second Hypothesis

The second hypothesis states that "the services provided by the information systems section of the Jordanian tourism companies are characterized by quality"

It has been shown from table (4):

1. With the exception of item 18, 19, all other items got arithmetic average greater than 3.00 for each, and the observed significance levels were less than 0.05 which means statistically significant, meaning that all these things are statistically existed. Item 14 which measure how much the services provided by the information systems section is trustworthy, came in the first rank with an arithmetic average of 4.65 in a very high degree. There are 4 items got medium degrees decently ordered according to the arithmetic average: 13, 12 and 16 receptively measuring the response of the information systems section to requested services in a timely manner, understanding of the needs of users and whether the staff is characterized by courtesy. Item 15 which

measure whether the officials of the information systems section respect the users of the information, ranked in the last among the statistically accepted items and with an arithmetic average of 3.46 in a weak degree.

2. Items 18, 19, obtained arithmetic averages 2.43 and 2.78 respectively that is less than 3.00, and this shows that the training programs offered by the information systems section is characterized by diversity and renewal, and limited to a category without others, and does not cover all users from all sections.
3. All paragraphs which represent the quality of services has got an arithmetic average of 3.64, the observed level of significance is 0.00 less than 0.05. That is statistically significant. Therefore the second hypothesis is rejected and so the services provided by the information systems section of the Jordanian tourism companies are of medium quality.

Table 4 : arithmetic average, standard deviation, t-value and observed significance level related to the dimension of services quality

Item No.	Item	Arithmetic average	sd	t-value	Observed α	Degree
12	The response of the information systems section for requesting services are timely	3.86	1.03	9.61	0.00	Medium
13	The information systems section Understand f the users' needs	3.98	1.18	9.55	0.00	Medium
14	services provided by the information systems section is trustworthy	4.65	0.59	32.03	0.00	Very High
15	The officials of the information systems section respect the users of the information	3.46	1.09	4.88	0.00	Weak
16	Information systems section staff characterized by courtesy	3.67	1.11	6.99	0.00	Medium
17	Information systems section offers beneficial training programs	4.32	1.12	13.51	0.00	High
18	The training programs provided by the information systems section is characterized by diversity and renewal	2.43	1.51	-4.31	0.00	-----
19	The training programs provided by the information systems section is not limited to the category without the other, but it covers all users from all sections	2.78	1.49	-1.70	0.09	-----
	Total	3.64	0.76	9.78	0.00	Medium

c) Third Hypothesis

The third hypothesis states that "information systems contribute to the improvement of the performance of the Jordanian tourism businesses."

It has been shown from table (5):

1. With the exception of item 24, 28, 29 and 32 all other items got arithmetic average greater than 3.00 for each, and the observed significance levels were less than 0.05 which means statistically significant, meaning that all these things are statistically existed.

Item 23 which measure the extent of the help of Information systems to increase individual productivity came in the first rank with an arithmetic average of 4.44 in a very high degree. Items 20 and 30 which measure the extent of the information systems improvement of the performance of work and its facilitation in solving the problems faced by the users came in the second and the third ranks respectively with high degree. 4 items: 21, 25, 26 and 27 obtained medium degrees ordered decently according to arithmetic averages measuring the extent to which information systems contribute to improve decisions taken, quality of users' work output, improve customer service and increase awareness of work-related information. Item 22 which measure the extent to which Information systems gives confidence to accomplish work, it has ranked the last among the statistically

acceptable items with an arithmetic average of 3.33, in a weak degree.

2. Items 24, 28, 29 and 32, got arithmetic average less than 3.00, meaning that information systems are not flexible to meet changing needs, neither reduces cycle times nor information systems reduce costs of performing processes, and do not contribute to the involvement of employees in decisions.
3. All paragraphs which represent the improvement of performance has got an arithmetic average of 3.37, the observed level of significance is 0.00 less than 0.05. That is statistically significant. Therefore the third hypothesis is accepted and so information systems contribute to improving the performance of the Jordanian tourism companies in a weak degree.

Table 5 : arithmetic average, standard deviation, t-value and observed significance level related to the dimension of performance improvement

Item No.	Item	Arithmetic average	sd	t-value	Observed α	Degree
20	Information systems Improves the performance of work	4.17	0.96	14.04	0.00	High
21	Information systems improves decisions taken	3.73	0.99	8.45	0.00	Medium
22	Information systems gives confidence to accomplish work	3.33	1.14	3.28	0.00	Weak
23	Information systems helps to increase individual productivity	4.44	0.79	20.84	0.00	High
24	Information systems contribute to the involvement of employees in decisions	2.46	0.98	-6.33	0.00	----
25	Information systems increases awareness of work-related information	3.67	1.18	6.48	0.00	Medium
26	Information systems improves the quality of users ' work output	3.61	1.05	6.65	0.00	Medium
27	Information systems helps to improve customer service	3.57	1.05	6.22	0.00	Medium
28	Information systems reduces costs of performing operations	2.36	1.07	-6.91	0.00	---
29	Information systems reduces cycle times	2.64	1.35	-3.10	0.00	----
30	Information systems facilitate the solution of problems faced by users	4.07	1.07	11.45	0.00	High
31	It is easy for users to use information systems	3.64	1.21	6.06	0.00	Medium
32	Information systems is characterized by flexibility to meet changing needs	2.14	0.98	-10.14	0.00	----
	Total	3.37	0.45	9.51	0.00	Weak

XVI. RESULTS AND RECOMMENDATIONS

a) Results

The study found the following results:

1. The information provided to users in Jordanian tourism businesses is effective in a medium degree, where the information provided from the information systems section is characterized by a high degree of organization and interpretability, and characterized by a medium degree of reliability and coherence and comprehensibility and relevance of topics to users' need, as well as the information helps in a weak degree to identify the dimensions of the problem, in the same degree they are readily available in a timely manner. But this information does not help increase the competitiveness of the Jordanian tourism companies, and there is no continuous and sufficient update for this information.
2. The services provided by the information systems section at the Jordanian tourism companies are of medium quality. The services provided by the information systems section is trustworthy in very high degree. Information systems section responds to services' requests in a timely manner, equally understands the needs of users, and is characterized by its kindness in a medium degree. And in a weak degree information systems section staff is respectful of the users of the information. On the other hand, the training programs offered by the information systems section is not characterized by diversity and innovation, and limited to a category without others, and does not cover all users from all partitions.
3. Information systems that improve the performance of the Jordanian tourism companies. Where it highly helps to increase individual productivity, and improve work performance, and convenience in solving problems faced by users. And these systems improve in a medium degree the extent to which information systems contribute to improve decisions taken, quality of users' work output, customer service and awareness of work-related information. Whereas information systems give confidence to complete the work in a weak degree. But these systems lack some things where they don't have the flexibility to meet changing needs, and do not reduce cycle times; neither reduce operations costs nor contribute to the involvement of employees in various decisions.

b) Recommendations

The study recommends the followings:

1. Jordanian tourism companies should try to benefit from the available information in increasing their competitiveness.

2. Jordanian tourism companies should continuously and sufficiently update the outputs of the of the information systems.
3. Jordanian tourism companies should concentrate on the diversification and renewal renewed of the training programs offered by the information systems section, and cover all users of all sections, and not be limited to a category without the other.
4. It is necessary for Jordanian tourism companies to make their information systems flexible to meet changing needs.
5. Jordanian tourism companies should try to link and redirect information systems towards reducing cycle times, and reduce the cost of completing the operations.
6. Jordanian interest in tourism companies making information systems capable of engaging employees in various resolutions.
7. From the standpoint of continuous improvement, Jordanian tourism companies should promote pros identified in this study so as to increase the effectiveness of the information provided to different users, and raising the quality of services provided by the information systems section, the development and linking and routing information systems to improve performance in a greater form than it is.
8. Conduct studies to learn how to overcome the shortcomings and weaknesses identified in this study.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Alkashi, Z, (2003). The effectiveness of accounting information systems in achieving security and the emphatic and reliability in electronic commerce, M.S. thesis, University of Oman Arabic graduate, Oman.
2. Issam, A,(2002). The impact of information technology standard used in Jordanian commercial banks on the efficiency of its financial performance, M. Phil. thesis, Gezira University, Sudan.
3. Stephen, N., j, (Semkin), 1989. Accounting information systems for decision-making. Concepts and applications, translation and revision Kamaludin Saeed and Ahmad Hamid Hajjaj, Dar Mars, Saudi Arabia.
4. Al-Serhan, A, (1995). The relationship between technology and organizational structure-a field study in Jordanian industrial corporations, M. Phil. thesis, University of Jordan, Oman.
5. Ramadan, H, (1999). Factors affecting accounting information systems in Jordanian industrial corporations, public shareholding, M. Phil. thesis, Jordan University, Oman.
6. Al-Essa, M, (2000). The role of information systems in managerial decision-making at the Ministry of

- education, M. s. thesis, Arab Academy for banking and financial Sciences, Oman.
7. Dahmash, N, (1995). Accounting as an information system for decision makers, Checker, issue magazine (27), Jordanian legal Auditors Association, Jordan.
 8. Taima, M, (2002). Accounting information systems in assessing investment projects, I 1, Aitarak publishing, Cairo.
 9. Saudi, A, (2006). The impact of computerized management information systems on the performance of employees in enterprise security: an empirical study, Journal of Administrative Sciences studies, 33(1): 74-78.
 10. Boockholdt J. L, (1999). Accounting Information System, Transactions Processing and Controls, Irwin McGraw-Hill.
 11. Slight, S, (2000). Information Technology, Dorling Kindersley Ltd. London.
 12. Pyker, R., N, Raivinder, (1998). User Satisfaction Determinants: The Role of Hardware and Procedural Components, Journal of Computer Information Systems, 38 (2): 44 – 48.
 13. Walter, A, (2003). Strategic Information & Strategic Decision Making : the FIS/CEO Interface in Smaller Manufacturing Companies , information & Management .

