

The Effect of Management Information System on Organizational Performance: Applied Study on Jordanian Telecommunication Companies

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Abstract
This study investigate the concept of management information system and organizational performance, and examine the relationship between management information system and organizational performance in Jordan. The population of the study includes all telecommunication companies located in Amman city, a sample of (100) employees based on (10) branches of telecommunication companies was selected randomly for the purpose of this study. The study found that employees in Jordanian telecommunication companies have positive attitudes towards management information system (MIS). also result of the study reveals that employees in Jordanian telecommunication companies have positive attitudes towards databases because Managerial system in Jordanian telecommunication companies has databases. The study result reject Hypotheses that states: There is no statistical significant relationship between management information system and organizational performance in telecommunication companies in Jordan. The study recommended that development of Managerial information systems includes five basic phases: planning, analysis, design, implementation, and support
Keywords: Management, Information System, Performance

1. Introduction:

Management information system has changed the physical layout of offices to accommodate local networks and departmental integrated systems. It is also a formalized procedure to provide management at all levels and in all functions with appropriate information from all relevant source to enable them make timely and effective decisions for planning, directing, evaluating, and controlling the activities for which they are responsible. A major task also facing management in almost every field of Endeavour is to plan carefully so that the quantity and quality of information obtained will be adequate to meet its needs (Munirat et al, 2014).

The role of management information system (MIS)is to manage the data, organizing, retrieving of the information which help the organization to provide services faster, and market more accurate and easier, which affect also the level of performance (AL-Gharaibeh & Malkawi, 2013).

The revolution in information technology has significantly changed the nature of business and created competitive advantages for those who appreciate its effects. The advent of IT has affected the form and substance of information, accounting not excepted. The emergence of e-commerce has made possible voluminous and cross-border transactions being carried out. This development therefore behooves a firm to change its accounting systems in order to ensure that outputs from the accounting systems could be prepared in a more timely manner. Therefore, the need for on-line and real-time processing systems will naturally arise (Noor et al, 2003).

2.The Problem of the Study:

This study attempts to answer the following question:
- What is the effect of management information system on organizational performance in Jordan?

3.The Importance of The Study:

The important of this study stems from its objectives and expected results. It may help decision makers in business sector to improve company performance by develop management information system to increase organizational performance in Jordan. The study important also because the urgent need for more systematic and empirical efforts to investigate the role of management information system among organizational performance.

4.The Objectives of the Study:

The objectives of the study are:
- To investigate the concept of management information system and organizational performance.
- To examine the relationship between management information system and organizational performance in Jordan.

5.The Hypotheses of the Study:

- Ho: There is no statistical significant relationship between management information system and organizational

performance in telecommunication companies in Jordan.

6.Literature Review:

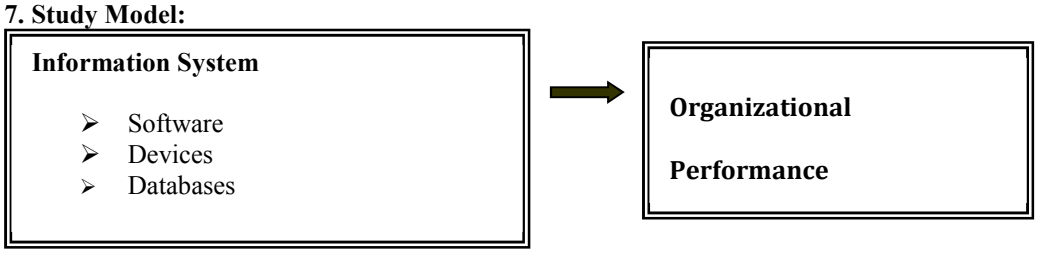
Munirat et al (2014) investigate various challenges and prospect of MIS in Nigeria. The study was conducted in Federal Capital Territory, Abuja, North-Central Nigeria with the use of questionnaire and interview to collect data. The study reported that use of ISs was encouraged by the technological breakthroughs; the advancements in telecommunications such as the internet, the globalization that created a global unlimited marketplace, the strong growing for information economy, and the rise of competitive digital firms. All of these factors transformed the ISs from data processing systems to decision support systems and became the foundation of the new business environment.

AL-Gharaibeh & Malkawi (2013) identify the impact of management information systems (MIS) on the performance of governmental organizations, Jordanian Ministry of Planning – case study, a sample consisted of 77 employees in the ministry, the study found that there is no impact of hardware and software equipment on the performance of governmental organizations, there is a significant impact of networks, individuals and procedures, and management information system as a whole on the performance of governmental organizations. At the end researchers recommended the ministry updating MIS continuously, engaging employees in building systems, and train then on the system.

Muhammad & Asfandyar (2012) demonstrate the impact of MIS training on the performance of the AG office Peshawar (kpk) employees, specially this paper accentuates on the core know-how of SAP(system application product), and the employees performance are measured with the help of SAP. The data have collected through primary and secondary data, conclusion has been drawn from questionnaire which have been tabulated and presented through diagrams. The result indicated that SAP program enhance the operation more quickly than operated manually before, only entry is require and verification by authorized users are acquire to process all record ,The recommendations and conclusions form the last part of this paper.

Naranjo (2009) analyzes the role of top management team in the relationship between management information systems and strategic performance. The study using data collected from 92 top management teams, it analyses how different team compositions interact with a sophisticated management information system, and how this interaction affects strategic performances, which are focused on cost reduction and flexibility. The study found the effect of management information system on strategic performance (focused on flexibility) is moderated by top management team diversity

7. Study Model:



8. Methodology:

The population of the study includes all telecommunication companies located in Amman city, a sample of (100) employees based on (10) branches of telecommunication companies was selected randomly for the purpose of this study.

9. Management information systems

A Management Information System (MIS) is a subset of the overall internal control of a business covering the application of people, documents, technologies, and procedures by management accountants to solve business problems such as costing a product, service or a business-wide strategy. Management Information Systems are distinct from regular information systems in that they are used to analyze other information systems applied in operational activities in the organization (Munirat et al, 2014).

Information technology and information system are two closely terms, but they are different. Information technology (IT) refer to the products, methods, inventions, and standards that are used for the purpose of producing information, IT pertains to the hardware, software, and data components, Whereas information system (IS) is an assembly of hardware, software, data, procedures, and people that produces information (AL-Gharaibeh & Malkawi, 2013).

Performance is a systematic process for improving organizational performance by developing the performance of individuals and teams. It is a means of getting better results by understanding and managing performance within an agreed framework of planned goals, standard and competency requirements. Performance

is much more than appraising individuals. It contributes to the achievement of culture change and it is integrated with other key HR activities, especially human capital management, talent management, learning and development and reward management. More specifically performance management is concerned with (AL-Gharaibeh & Malkawi, 2013):

- aligning individual objectives to organizational objectives and encouraging individuals to uphold corporate core values;
- enabling expectations to be defined and agreed in terms of role responsibilities and accountabilities (expected to do), skills (expected to have) and behaviours (expected to be);
- providing opportunities for individuals to identify their own goals and develop their skills and competencies;
- Motivating people by providing them with recognition and the opportunity to use and develop their skills and abilities.

Management Information System provides information in form of reports and displays to managers and many business professionals. For example sales managers may use their networked computer and web browser to get instantaneous display about the sales results of their daily sales analysis report to evaluate sales made by each sales personnel. Management Information System also takes into account integrative nature of information flow as well as the structuring of the organization around decision centers. Standards of performance are part of any good plans; hence, determination of standards like other aspects of the planning process depends on the availability of relevant management information system. Management information system aids the functioning and monitoring of an organization (Munirat et al, 2014).

10.Data Analysis

The Questionnaire items are written in the form of statement using a 5-point Likert-type scale (ranging from (1) strongly disagree to (5) strongly agree). The questionnaire was distributed to (100) employees. The questionnaire was sent directly by hand to employees based on (10) branches of telecommunication companies. 96 responses were received.

Table (3-1): Personal and Job-related Characteristics of Sample.

	Categories	Frequencies	Percent %
Gender	Male	72	74.2 %
	Female	25	25.8 %
	Total	97	100 %
Management level	Manager	15	15%
	Head Section	21	22%
	Supervisor	-	-
	Other	71	73%
	Total	97	100 %
Age	20- less than 25 years	1	1.0 %
	25 – less than 30 years	16	16.5 %
	30 – less than 35 years	21	21.6 %
	35 – less than 40 years	15	15.5 %
	40 – less than 45 years	31	32.0 %
	45 years and more	13	13.4 %
	Total	97	100 %
Educational Level	Ph.D	7	7.2 %
	Master	10	10.3 %
	Bachelor	40	41.2 %
	Diploma	35	36.1 %
	Secondary	5	5.2 %
	Total	97	100 %
Experience	Less than 5 years	5	5.2 5
	5- less than 10 years	36	37.1 %
	10-less than 15 years	12	12.4 %
	15 – less than 20 years	18	18.6 %
	20 year and more	26	26.8 %
	Total	97	100 %

Table (3-1) shows the distribution of respondents according to their personal characteristics. This table shows that 74.2 percent of the employees are males, and 25.8 females. Table (3-1) shows management level, only 15 percent of employees are mangers, and 22 percent are head section while 73 percent belong to management level. According to age categories of the respondents, only 39.1 percent of employees belong to the first three categories, and 60.9 percent belongs to categories (35-less40), (40-less45), and (45 and more), with 15.5 percent, 32 percent, and 13.4 percent to these categories respectively, while (1) percent of respondents belongs to the category (20-less 25). By referring to educational level, Table (3-1) shows that 41.2 percent and 36.1 percent of employees belongs to third and fourth categories (Bachelor), and (diploma), 58.7 percent of them have bachelor degree or more. Table (3-1) shows that 5.25 percent of employees have experience less than five years, this emphasizes on the required experience for employees jobs which concentrated in the second category (5-less10 years) represented by 37.1 percent. The experience category also illustrates that 12.4 percent, and 18.6 percent, belongs to third and fourth (10-less15), and (15-less20) respectively.

11.Descriptive Statistics of the Data:

Five points Likert scale has been coded to enter the data into SPSS software in order to achieve the study objective. The levels of the scale were given the following rating: (1) strongly disagree, (2) disagree, (3) neutral, not sure, (4) agree and (5) strongly agree. To get 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). While the standard mean of all statements is (3), and the response below is considered negative.

Table (3-2)
Management Information System

	Mean	Std. Dev.
1. I use Managerial programme in my work	4.6563	.85628
2. We use internet in Managerial works	3.4479	.98269
3. Our company depend on Managerial information system	4.2604	1.16298
4. Our customer buying the company product by using website	3.8646	.88994
Total	4.0573	.91729
5. Managerial Information System is more security	3.9375	.83114
6. Managerial Information System devices than traditional system	3.2292	.92314
7. Using Managerial information system devices in company more safe for account information	4.2917	1.31323
8. Managerial mistakes is less under Managerial information system devices	3.2917	1.04546
Total	3.6875	.96450
9. Company can adjusting Managerial information system any time on databases	3.4479	1.23859
10. Company can develop Managerial information system databases	4.5833	.74927
11. Managerial information system is completely for Managerial operations	4.2188	.54682
12. Upgrade Managerial information system don't need to change the current system	3.5833	.98051
Total	3.9583	.81246

Table (3-2) reveals that there are positive attitudes towards all of statements related to software because their means and total mean are greater than the standard mean. That's mean employees in Jordanian telecommunication companies used software. The mean value of software equal (4.05). Table (3-2) reveals that there are positive attitudes towards all of statements related to devices because their means and total mean are greater than the standard mean. The mean value of devices equal (3.68). That's mean Managerial system in Jordanian telecommunication companies have devices. Table (3-2) reveals that there are positive attitudes towards all of statements related to databases because their means and total mean are greater than the standard mean. That is mean Managerial system in Jordanian telecommunication companies have databases. The mean value of databases equal (3.95).

Table (3-3)
Organizational performance

	Mean	Std. Dev.
13. Employees can use Managerial information system easy to increase organizational performance	3.6875	.79885
14. Employees can control the features of Managerial information system easy in order to increase organizational performance	4.6667	.47388
15. Mistakes is under control in Managerial information system can increase organizational performance by feedback	4.7500	.75394
16. Managerial information system suitable for our company	4.4688	1.06577
Total	4.3932	.66367

Table (3-3) shows the descriptive statistics related to organizational performance. This table reveals that there are positive attitudes towards all of statements related to organizational performance because their means and total mean are greater than the standard mean. The mean value of organizational performance equal (4.39).That is mean Managerial system in Jordanian telecommunication companies have organizational performance.

12.Hypotheses Testing:
In order to testing the hypotheses of study, the study use ANOVA analysis to have F test value.

- Ho: There is no statistical significant relationship between management information system and organizational performance in telecommunication companies in Jordan.

Table (3-4)

ANOVA

MIS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	64.218	13	4.940	644.590	.000
Within Groups	.628	82	.008		
Total	64.847	95			

F-test was used to test Hypotheses (1) as shown in table (3-4), it was found that (calculated F = 644.590) is greater than (tabulated F =1.75), and the significant of "F" value is (.000). The F-value of ($\alpha \leq 0.05$) in the sample's rating in table (3-8) provide evidence to reject Hypotheses (1), that states: "There is no statistical significant relationship between management information system and organizational performance in telecommunication companies in Jordan".

12.Conclusion
The result of the study reveals that employees in Jordanian telecommunication companies have positive attitudes towards software, and they use Managerial programme in works, and use internet in Managerial works, the employees agree that companies depend on Managerial information system and customer buying the company product by using website. The result of the study reveals that employees in Jordanian telecommunication companies have positive attitudes towards devices, therefore the Managerial system in Jordanian telecommunication companies have devices. The result of the study reveals that employees in Jordanian telecommunication companies have positive attitudes towards databases because Managerial system in Jordanian telecommunication companies has databases. The result of the study reveals that employees in Jordanian telecommunication companies have positive attitudes towards organizational performance because Managerial system in Jordanian telecommunication companies effect organizational performance. The study result reject Hypotheses that states: "There is no statistical significant relationship between management information system and organizational performance in telecommunication companies in Jordan". A good Managerial information system is carefully planned and designed, installed, managed and improved in order to meet changing demands. The development of Managerial information systems includes five basic phases: planning, analysis, design, implementation, and support. Companies should mach between Managerial information system and organizational performance.

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