Using Information Systems in Jordanian Industrial Companies and its Effect on Employees

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Abstract

This study aimed to examine what employees think about information system in relation with programs and programming, accounting, and human resource, by using an inferential descriptive statistical analysis. Programs, accounting, and human resource are all part of any company, and because information system is a very important avenue in companies, this article utilized primary data by distributing a questionnaire to the employees working in Jordanian industrial companies that focused on the effect of the programs and programming, accounting and human resources on employees' knowledge, including demographic factors. Results showed a positive significant relationship between knowledge of using information system and its implementation on the programs and programming, accounting and human resources in industrial companies, and results also showed that females were more realizable of the credibility gap than males, so as employees with more than 30 years' experience.

Keywords: Information system, programs and programming, accounting information system, human resources

1. Introduction

Globalization and the advances in information technologies have changed the recording of accounting information, processing, and reporting (Nieschwietz, Pany, and Zhang, 2002). Database and information technology controls have been identified as essential skills (Callaghan, Peacock, and Savage, 2001). While a deficiency in database skills among accounts is a cause for concern (Stoner, 2009).

Strategic effort is needed to reduce the widening gap between skills provided by accounting education and those needed in the real implementation when evolving information technology based business environment (Chandra, Cheh, and Kim, 2006). Successful information technology can deliver resources in support of the new roles and functions of workers as a result of redesigned and tightened business processes (Rockart, Ear, and Ross, 1996; Herath and Herath, 2014).

2. Study Problem

Using the accounting information system is a strategic decision a company should make in relation to performance, and the large rate of competition also pushes the company to using such type of system. In relation to industrial companies accounting information system needs to be implied in order to stay competitive, and gain profit at the same time due to the global usage and its easiness in facilitating the companies' transactions. The research problem asked the following:

Is there relationship between Jordanian industrial companies' performance and its use of accounting information system, and whether there is a difference between employees knowledge on the importance of using accounting information system in such companies.

3. Objective of the Study

The study aims to notify the relationship between Jordanian industrial companies' performance and its use of accounting information system, and the difference between employees knowledge on the importance of using accounting information system in the Jordanian industrial companies.

4. Theoretical Framework and Previous Studies

Company with a high level of IT integration across different channels of operation may be able to transmit, combine, and process external data from customers and suppliers/vendors (Barua, Konana,Whinston, and Yin, 2004; Chen, Martin, and Merchant, 2014). Itmay also be effortless in such a company to share data among various internal systems and to retrieve information from various databases for decision support (Grobauer, Walloschek, and Stocker, 2011). Further, external and internal systems can automatically reflect order changes in downstream processes or systems and help monitor order status at various stages in the process of a manufacturing plant (Sikora and Shaw, 1998).

The research on the organizational financial performance impact of information technology has been referred to as information technology business value research (Kohliand Grover, 2008; Melville, Kraemer, and Gurbaxani, 2004). Prior studies in this area suggest that organizations should realize greater financial performance benefits when such resources are increasingly integrated (Simoens and Scott, 2005). However, the information technology literature reveals mixed empirical results with respect to organizational financial performance achieved from information technology integration (Chapman and Kihn, 2009; Hunton, Lippincott, and Reck, 2003). A parallel development in the literature has been to increasingly attend to contemporary management accounting developments, including "new" management accounting information such as activity-based costing (Banker, Bardhan, and Chen, 2008). Accounting systems require formalized categories for collecting and reporting information, and create a common language with which members of the organization can communicate (Wouters and Verdaasdonk, 2002).

5. Study Hypotheses

5.1. First Main Hypothesis

There is no significant difference between employees' knowledge on the importance of using accounting information system in industrial corporations and the demographic factors (gender, age, education, experience).

5.2. Second Main Hypothesis

There is no significant relationship between Jordanian industrial companies' performance based on employees' knowledge and its use of accounting information system.

Divided into three sub-hypothesis:

5.2.1. First Sub-Hypothesis

There is no significant relationship between Jordanian industrial companies in relation to programs and programming performance and its use of accounting information system.

5.2.2. Second Sub-Hypothesis

There is no significant relationship between Jordanian industrial companies in relation to accounting performance and its use of accounting information system.

5.2.3 Third Sub-Hypothesis

There is no significant relationship between Jordanian industrial companies in relation to human resource performance and its use of accounting information system.

6. Research Methodology

6.1. Measuring Instrument

The research was carried out by primary data, collected by using a structured questionnaire, carried from Al-Odah and Al-Bishtawi (2009) that was implied on the banking sector, and the data was analyzed by using SPSS software. The first part of the questionnaire contained the demographic factors which were gender, age, education, working experience. While the second part, measured the relationship between the effects of using accounting information system in industrial Jordanian companies on its performance.

The scale of measuring was Likert type (five-point scale), and answers were ranged between highly agree, agree, somewhat agree, disagree, and highly disagree. The reliability test was applied to examine the internal consistency of the research instrument. The Cronbachs' alpha coefficient was (89%) which confirms the reliability of the questionnaire.

6.2. Research Population and Sample

Accountants in different industrial Jordanian companies were the target population of the study, chosen randomly, 104 questionnaires we redistributed to accountants working in the industrial companies, and 99questionnaires were valid for analysis, with a rate of return of 95%.

6.3. Methods of Data Analysis

The descriptive and analytical statistical techniques were applied in the analysis by using mean, standard deviation, percentage and frequency. T-test was also applied to test the study hypotheses.

7. Results of the Study

7.1. Descriptive Statistic Results and Hypotheses Testing

Table 1 shows the distribution of the sample according to their gender, age, education, working experience. The table illustrates that 86% of the respondents were males, while the highest percentage of the respondents age was between 35- 44, with a 60%, 70% of the respondents held a bachelors' degree in accounting, and 60% had a working experience of 10-19 years, and most of the selling markets were compound markets with the rate of 68.4%. In general, the previous results suggest that respondents are able to absorb the questionnaire and provide reliable information.

In order to test the first main hypothesis One Way Anova was used including Post Hoc tests (Sheffe, and Dunett's C) to test the degree of homogeneity presented in table 2. Results showed a positive significant relationship for the gender variable for F was (5.20) at a significant level of (0.022), and results showed that the females were more realizable of the effect of the accounting information system than the males; for the mean was (4.228) for the females, and (3.945) for the males. Working experience also showed that a positive significant relationship, for (F) was (4.41) at a significant level of (0.04) and that employees with more than 30 years' experience were more realizable than the others. But for age and education results showed that there was no significant relationship between those remaining variables and the accounting information system, so the first main hypothesis was accepted except for the gender and working experience variable.

Table (1): Descriptive Statistics (Demographic Characteristics)

Independent variable	Type of independent variable	Frequency	Percentage%
Gender	Male	85	86
	Female	14	14
Age	Less than 25	-	-
	25-34	15	15.25
	35-44	59	59.5
	45 and above	25	25.25
Education level	Diploma	18	18.2
	Bachelors	69	69.6
	Masters	12	12.2
Working experience	Less than 10 years	19	19.2
	10-19	59	59.6
	20-29	20	20.2
	30 and above	1	1

Table (2): One way Anova of the Descriptive Statistics (First Main Hypothesis)

Independent variable	Type of independent variable	Mean	Df	F	Sig
Gender	Male	3.81	1	5.3	0.02[*]
	Female	4.12			
Age	Less than 25	3.92	4	1.2	0.43
	25-34	3.78			
	35-44	4.6			
	45 and above	4.5			
Education level	Diploma	4.12	3	0.8	0.35
	Bachelors	3.92			
	Masters	4.12			
Working experience	Less than 10 years	4.12	2	1.6	0.04[*]
	10-19	3.92			
	20-29	3.63			
	30 and above	4.41			

[*] Significant at a level of 0.05.

Table 3 used both the mean and standard deviation to show the degree of effect of the use of accounting information system on the Jordanian industrial bank performance, which was relatively high in total in accordance to the descriptive statistics.

While table 4 illustrates that the value of calculated (t) for the second main hypothesis (H$_1$) had a significance level of (0.01) by using the one sample t-test, calculated t was 2.762 while the critical was 2.0930, so the second hypothesis was rejected, which stated that "There is no significant relationship between Jordanian industrial companies performance and its use of accounting information system." And all the sub-hypothesis were also rejected with a positive significant relationship between the knowledge of using information system and the programs and programming, accounting, and human resources, with a significant level of 0.012, 0.00, and 0.01 respectively.

Table (3) Descriptive Statistics (mean and Standard Deviation)

Type of variable	mean	Standard deviation
Knowledge of Information system in general	4.35	0.9709
Programs and programming	4.12	1.0565
Accounting	4.23	1.1337
Human resources	4.00	1.11334

Table (4): Significance Level (Second-Sub Hypotheses)

Significance of hypothesis			
Independent variable Significance	Programs and programming	accounting	Human resources
Knowledge of Information system	0.012	0.00	0.01

[*] Significant at a level of 0.05.

8. Conclusions and Recommendations

The objective of this study was to determine the relationship between the knowledge of using information system in industrial companies in Jordan depending on programs and programming, accounting, and human resources as variables of measurement.

Results indicated that there was a relationship between the knowledge of using information system in industrial companies in Jordan in relation to the independent variables. Since such companies work in a competitive market they should look for anything new that may help the company stay in such a market, and that they should pay more attention on technology improvement and how companies can take advantage of such changes, in order to ease its work in relation to programs, accounting, and human resources.

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