

The Ability of Accounting Information Systems to support Profitability and Growth (Industrial Sector-Jordan Companies)

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Abstract

All organizations Seeking to achieve its strategic objectives in an effective and efficient in order to reach the main objective of any organization is profitability and growth and thus maximize the market value and increase the wealth of the owners and the various ways that can lead to improved performance and increase their profits under the age characterized by competition and technological development and knowledge to become data and information in the event they are used efficiently and effectively one of the most important assets of the company where the decision-making process using data and accurate information has become one of the most activities of the company importance and in order to reach sound decisions, whether operational or investment or financing short-or long-term than that would achieve the above mentioned objectives of the company .This study came to discuss the issue of financial growth and profitability in industrial companies contributes in the Hashemite Kingdom of Jordan using two indicators: return on equity, return on assets, as measures of the performance of companies on a regular basis. The two ratios were calculated each one according to mathematical equations that follow standards (FASB).The study found that the results were contrary to many previous studies in this framework, and therefore, the results of this study cannot be generalized, and therefore cannot say that the accounting information systems do not affect the performance of the companies, as the companies in Jordan continues to suffer from a lot of problems in the application of accounting systems.

Key words: AIS Accounting Information System, ROA Return on Assets, ROE Return on Equity, FASB, Profitability, Growth, Industrial Sector.

1- Introduction

All organizations Seeking to achieve its strategic objectives in an effective and efficient in order to reach the main objective of any organization is profitability and growth and thus maximize the market value and increase the wealth of the owners and the various ways that can lead to improved performance and increase their profits under the age characterized by competition and technological development and knowledge to become data and information in the event they are used efficiently and effectively one of the most important assets of the company where the decision-making process using data and accurate information has become one of the most activities of the company importance and in order to reach sound decisions, whether operational or investment or financing short-or long-term than that would achieve the above mentioned objectives of the company .

The interest in these systems has a clear impact on the financial performance of the companies in addition to the increased interest in the participation of accountants in the stages of development of information systems accounting for those participating from the impact of a positive and clear on the success of the performance of these systems, they provide a broad basis for managers to make decisions and develop strategies and evaluation, and that modern organizations cannot continue in their work and life without and presence information systems, accounting, and in particular computerized them, which was his role to increase the importance of these systems so that American organizations say it cannot continue in the life of the Organization of modern more than ten days without the presence of computerized information systems.⁽¹⁾

However, organizations need to pay the financial costs and the efforts of a large investment to establish a computerized information systems, they need to hardware, software and trained personnel, which led to companies wishing to obtain these systems sacrifice many of their resources in order to effect the use of accounting information systems computerized financial performance to get them at the same time which has the companies have plenty of investment opportunities for the exploitation of these resources and get returns appropriate investments other than investment in these systems, and one of the main objectives of this study to compare the sacrifices of finance for these systems to what can be achieved prospective returns for these companies.

(1) Davis. G.B. and Olson. M.H., (1993) Management Information Systems: Conceptual Foundations, Structure and Development, 2nd Edition, New York, McGraw Hill.

2- The Study Objective

The aim of this study was to try to detect the impact of the use of accounting information systems on the performance of companies in financial terms, so by testing the impact of these systems on some performance measures of financial common and traded such as return on equity (ROE) and return on assets (ROA) as one of the key financial metrics for the performance of companies, which reflect these standards for Company's ability to generate earnings ratio of its assets and the proportion of the total property where and thus the expression of the ability of the company to exploit its assets well and make a profit as an indicator of the performance of the company's primary objective with which to maximize the wealth of shareholders.⁽¹⁾

3- The Study Importance

The accounting information systems enter in all areas of the company and influence effectively in management decisions through information provided by the managers to provide the basic material for them in the decision-making process short and long term, where resort companies at the moment to use of information systems as provided by these systems the accuracy of the data the speed of the output, not to mention what it takes industrial development of the use of these systems, this study finds importance of trying to research the extent of the impact of these systems on the performance of the company's financial proportionally at least partially with the costs, and whether progress of these assets with the special nature of the new benefits in economic.

4- The Study Problem:

The Financial Accounting Standards Board (FASB) definition of the company's assets as the economic benefits possible in the future has a certain company to get them or control as a result of events or transactions precedent and therefore assumed to be made of these systems of economic benefits for the company that you use, as companies acquire these systems in order to reach higher efficiency at work more accuracy and a decrease in the time spent, given the size of the industrial sector in Jordan and the role of the President in the Jordanian economy. So the problem of this study stems from the question: **Do these systems, as one of the company's assets, offer economic benefits to the industrial public shareholding companies in Jordan to affect the profitability and growth in these companies??**

5- The Study hypotheses

The study hypotheses Derive from the target and the problem of the study where it works these hypotheses to test the main objective of the study is the extent of the impact of accounting information systems on corporate profitability & growth, and thus answer the question posed by the problem of the study and therefore dependent on the comparison of results of operations of the sample before and after the adoption of the accounting information system, the following assumptions:

5-1- There are no significant differences between the averages Return on Equity (ROE) before the application of accounting information system and after the application it in the companies of industrial sector in Jordan.

5-2- There are no significant differences between the averages Return on Assets (ROA) before the application of accounting information system and after the application it in the companies of industrial sector in Jordan.

6- The Literature Review :

6-1- Study (Lawrence, 1994) titled Search Researching information systems costs The Costs of Information System and aimed to the statement of the main costs incurred by companies In order to obtain information systems and the benefits of these systems, has concluded that it does not The main difference between the benefits obtained by the company's information systems regardless of the source These systems, although the costs vary from sources, where it is stated that the information systems Accounting without a doubt working to increase the company's ability to make decisions and competitive private Due to them advanced in the output accuracy and speed in providing inputs departments making process Decisions, which in turn is reflected on the company's ability to reduce costs and increase their profits and thus Improve the financial performance of the company.

6-2- Study (Joel and Ali, 1998) entitled valuation model information systems strategy as competitive in the banks, and was aimed at the design model for assessing information systems strategy as competitive in the banks, the researchers found that information systems play a strategically important role in the banks as they achieve a competitive advantage as a result to increase the value of services provided to customers, which benefits the banks.

Palepu, Krishna G. -Healy, Paul M. and Bernard, Victorl, (2004) Business Analysis and Valuation: Using Financial Statements, United States of America, Third Edition, South-Western

6-3- The study of Khattab (2002) entitled "Analysis of the factors affecting the efficiency and effectiveness of accounting information systems in the Jordanian commercial banks." The study aimed to test factors affecting the efficiency and effectiveness of accounting information systems in the Jordanian commercial banks. The study focused on the impact statement LBP Wireless Performance models decisions on the efficiency and effectiveness of accounting information systems used in the Jordanian commercial banks. It also focused on the study made by the impact of computer hardware and software on the efficiency and effectiveness of accounting information systems used in the Jordanian commercial banks, has been adopted to study in primary data collection to identify refereed distributed over the entire study population (9) banks, have been distributed (54) to identify the these banks have been recovered (50) questionnaire. study has reached to the highest impact of environmental factors on the efficiency and effectiveness of accounting information systems used in the Jordanian commercial banks was with regard to regulations and standards generally accepted accounting and audit rules used in the bank, and the study also showed that the factors information users behavioral impact on the efficiency and effectiveness of those systems.

6-4- The Study of Alqtnani (2002) entitled "The impact of the use of accounting information on management performance in the public shareholding industrial companies in Jordan." The purpose of the statement and analysis of the role of the accounting system in the production of accounting information quality appropriate to meet the needs of management in industrial companies public shareholding in Jordan, and the extent of the organic relationship between the quality of accounting information and the impact of their use on the administrative performance in the areas of planning, control and decision-making as the researcher to choose A random sample consisted of (45) which is equivalent to approximately (61%) of the study and the results of the study showed the following: the existence of a positive relationship and statistically significant correlation between the elements of the accounting system and the level of quality of the information produced by the accounting. And the existence of the effect and the relationship statistically significant moral to use accounting information on performance Wireless Performance Rey in industrial companies public shareholding in Jordan in the fields of planning, control and decision-making in the light of the results of the study researcher recommended: the need to the attention of the various departments in public shareholding companies in Jordan expansion in the use of accounting information for use its optimum in various administrative areas (planning, control, and make decisions to accomplish the tasks and functions and achieve the goals efficiently and effectively.

7- Methodology of the study:

7-1- The Study Population

The study population for the purposes of fulfilling the purpose of this study consisted of all industrial companies listed on the Amman Financial Market (DFM), which adopted a computerized accounting information systems during the period from 2006 until 2010 and according with the following conditions:

7-1-1- The company must be one of the companies that use accounting information systems as effectively in its activities.

7-1-2- The available of the data that will measure the variables study during the period that will deal for this the study.

7-1-3- The company must be the one of companies that registered in the lists of subsidiaries for the industrial sector in the Hashemite Kingdom of Jordan.

7-2- The Study Variables:

Include the variables of the study two measures two financial performance is return on equity (ROE) and return on assets (ROA) in addition to the date of application of the information system of accounting in the companies under study, where interested this study using two metrics key performance overall for companies without paying attention to standards of performance related to operational aspects of the performance of industrial companies, where are accounting information systems computerized asset investment strategy, which should cover most aspects of the work of companies so that they can achieve the desired benefits them, and therefore it is better to work on the study of their impact overall performance through metrics more inclusive and the ability to the overall financial performance measurement.

7-2-1- (ROE) Return on Equity:

this measure expresses of the relationship between net profit after interest, taxes and the size of investment by the owners, so it measures the return on average per dinar investor by the shareholders, and is the return on equity (ROE) index overall performance of the company because it gives an indication of how to use the managers of the funds owners in order to generate profit: ⁽¹⁾

$$ROE = \frac{EAIT}{TSE} \dots\dots\dots (1)$$

When,

- ROE: Return on Equity
- EBIT: Earnings After Interest & Tax
- TSE: Total shareholders' equity

7-2-2- (ROA) Return on Assets:

⁽¹⁾ This is a measure of the most financial parameters commonly, where expresses the relationship between profits and the amount of money available to management regardless of the method, which funded under assets, one of the indicators that measure management's ability to make a profit from each dinars from the available funds (assets) (Palepu, 2004), it measures the average earnings per dinars of assets, including accounting information system as one of the company's assets: ⁽²⁾

$$ROA = \frac{EAIT}{TA} \dots\dots\dots (2)$$

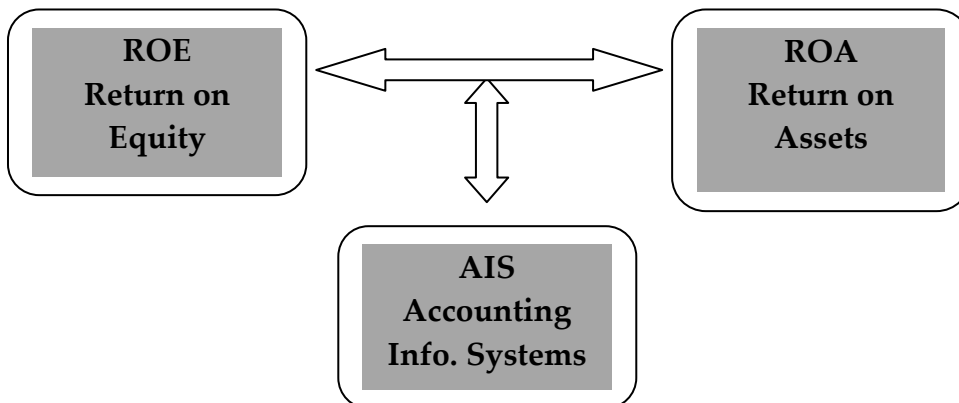
When,

- ROA: Return on Assets
- EBIT: Earnings After Interest & Tax
- TA: Total Assets

(1) Palepu, Krishna G. Healy, Paul M. and Bernard, Victorl, (2004) Business Analysis and Valuation: Using Financial Statements, United States of America, Third Edition, South-Western.

(2) Previous reference

7-2-3- Formal model for the study:



7-3- Test Method:

included the study population on all industrial companies contribute Jordan, but that the companies that applied under conditions of the study sample as aforesaid has reached (20) industrial companies only, and that the result of the inability of researchers to get the date of application of the accounting system in many companies, and some companies are still not using accounting information systems in their work or they are not used and influential part in its activities, with dates ranging companies use computerized accounting information systems between the year (2006) and the year (2010).

For the purposes of achieving the objectives of this study has been relying on test method averages the two variables former (i.e. financial metrics for performance), and comparison among themselves before running the information system of accounting in the company after it runs, where he was taking the values of variables previous two years before the operation of the system and two years after the operation of the system, that year operation of the system is considered year Zero(year 2008) in this study in the sense it is the base year, and then compared to the averages of the previous variables (ROA & ROE) before the year zero and the extent of the changes in these variables after year zero (in the system). **See table (1).**

Table (1): Descriptive statistics for the variables of the study averages before and after the application of the information system

The averages before and after the application of the information system				
	lower value	Higher value	Average	Standard deviation
ROA before application IT	-4.43	29.54	5.44	9.11
ROA after application IT	-5.22	14.66	3.32	7.65
ROE before application IT	-22.80	55.32	7.29	17.40
ROE after application IT	-8.30	25.89	5.01	11.23

The adoption of this study to test (T.Test) requires that the data be replaced analysis broken down naturally (Normal Distribution), but, according to the theory of central tendency, the data closer to the normal distribution whenever approached Views this data from (30) observations, due to the low number of views data from this study of 30 observations must conduct a test of this data to make sure distributed naturally, and thus has been a test (Kolmogorov-Smirnov Test), which show the results in Table (2), which shows the results of this test to be the averages of three variables previous close from the normal distribution and thus can be a test (T.Test) and then re-test the normal distribution again where he found that the average values of this variable has returned and approached the normal distribution and thus the possibility of testing (T.Test) .

Table (2) Test values (Kolmogorov-Smirnov) averages of variables

S.N	Variable	(K-S) test
1	ROA before application IT	0.73
2	ROA after application IT	0.35
3	ROE before application IT	0.54
4	ROE after application IT	0.33

7-4- the Test Hypotheses

Test hypotheses Can be accepted or rejected in the light of previous results, for the premise of the first, which says there are no statistically significant differences between the average return on equity (ROE) before applying the information system of accounting - and after application, the previous results support the acceptance of this hypothesis where the level of significance when testing this hypothesis (0.339) and the calculated value of t (0.811), and this means there is no statistically significant differences between the average return on equity before applying the accounting system and the average return on equity after the application of the accounting system.

For the test results (T.Test), the table (4) shows it, where the values appear test (T.Test) the levels at which they were moral test has reached the level of significance test average return on assets (ROA) before and after the application of the information system(.414), and since it is higher than (0.05), it refers also to the absence of statistically significant differences, as was the level of moral (0.339) when testing averages of return on equity (ROE) and thus the existence of differences between the averages of this variable not be statistically significant.

Table (4) Result of T-Test:

Variable	Value T.Test	Sig.
ROA before --- ROA after	0.620	0.414
ROE before --- ROE after	0.811	0.339

7-4-1- The 1st Test Hypothesis

The first hypothesis, which says there are no statistically significant differences between the average return on equity (ROE) before applying the information system of accounting - and after application, the previous results support the acceptance of this hypothesis where the level of significance when testing this hypothesis (0.339) and the value of t calculated(0.811), and this means there is no statistically significant differences between the average return on equity before applying the accounting system and the average return on equity after the application of the accounting system.

7-4-1- The 2nd Test Hypothesis

The second hypothesis and the argument that there is no statistically significant differences between the average return on assets (ROA) before applying the information system of accounting and after the application of the information system of accounting in the companies, the level of moral and adult (0.414), which was has calculated the value of t, which was (0.620) refers to the acceptance of the second hypothesis, namely that there

are no statistically significant differences between the average return on assets (ROA) before applying the accounting information system and average (ROA) after application of the system.

8- Result & Recommendations

8-1- Results:

After analyzing the study data and test hypotheses study found a total of findings and recommendations:

1. Did not affect the recruitment of accounting information systems on ROE, as indicated by the results of statistical analysis to the absence of statistically significant differences between the average (ROE) before the application of the system and after application.

2. Legislators' ability to generate profits through their available assets were not affected when used for accounting information systems, where there was no statistically significant differences between the average return on assets (ROA) before the application of the system and after application.

The results indicate the previous addition to not affected the financial performance of industrial companies Jordanian using accounting information systems computerized, this result is the opposite fully to the expectations of researchers, plus it's the opposite of what came in many previous studies (above), where the majority of studies confirm that the information systems accounting impact on the performance of companies where noted that the computerized information systems positive effect is statistically significant on the financial performance of the companies. Thus, the results of this study cannot be generalized, and therefore cannot say that the accounting information systems do not affect the performance of the companies, as the companies in Jordan continues to suffer from a lot of problems in the application of accounting systems than double the technical capabilities of users of the systems in the Jordanian companies as well to the unwillingness of managers at senior levels in companies introducing computerized information systems to their companies and then not by them focus on the optimal use of these systems in order to achieve the expected benefits from them.

8-2- Recommendations:

- Work on the training of users of accounting information systems in Jordanian businesses and increase their efficiency can exploit these systems, including that will benefit the companies and interest in addition to the need for increased attention to the mechanism of the development and implementation of these systems.

- Increased emphasis by managers on the use of computerized accounting information systems effectively in all the company's activities so as to ensure the desired benefits of accounting information systems, which has many of the companies for which to sacrifice many of their resources in order to obtain these systems.

- Further research on the impact of the use of accounting information systems on the financial performance of companies in Jordan, using financial metrics and other non-financial

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