



The Extent of Electronic Accounting Information Systems' Ability to Provide Quantitative Indicators of Financial Performance in both Public and Private Universities in Jordan

Abdullah M. AL-ZOUBI

Alalbayt University, The Faculty of Economic and Administrative Science, Accounting Department P.O.Box (772) Jubayha Amman, The Hashemite Kingdom of Jordan, E-mail: <u>rf_zoubi@yahoo.com</u>

Abstract The goal of this study was to show the extent to which electronic accounting information systems in the public and private universities in Jordan can provide quantitative indicators of financial performance. Represented by seven indicators, these quantitative indicators are: the amounts and rates related to scientific research and conferences, the development of "software and hardware", and the purchase of books, references and periodicals, Earnings per share (EPS), return on assets (ROA), the annual average cost of the student, and comparison between the cost of a teaching member and its' revenue. To achieve the objective of the study, two tools were used presented by questionnaire and a personal interview, (26) questionnaires were distributed on the CFOs in (26) public and private universities in Jordan, and (20) questionnaire were recovered in a (76.9%) response rate, interviews were also performed with (8) directors to confirm the data collected from the questionnaire. The findings and recommendations that the study came out with are traced at the end.

Key words Accounting Information System, Financial Performance, Public University, Private University, Jordan

DOI: 10.6007/IJARAFMS/v7-i3/3178

URL: http://dx.doi.org/10.6007/IJARAFMS/v7-i3/3178

1. Introduction

Universities nowadays are aspiring to obtain a quality certificate that has become a global standard for judging (evaluating) the extent of their progress and development and their response to the requirements of the current era. To achieve this, it was necessary for universities to constantly evaluate their practical performance, which required creating standards for determining whether these universities are achieving their goals for development and prosperity or not. The standards are defined as the information displayed as numbers and statistics (quantitative measures), or information presented with descriptions and explanations (quality standards) (Al-Hajj et al., 2009). This information is specific and semantically meaningful, which is called indicators in both its quantity and quality features depending on the nature of information. Some varieties of these indicators "guantitative indicators of financial performance," which is obtained mostly from accounting information systems, are outlined as the formation of the processes and procedures that get the financial statements of the institution's operations, record it in the appropriate record, process its details to be converted into information through classifying, summarizing, merging, and reporting the summary to the internal and external user, particularly electronic systems (Turner and Weickgenannt, 2009). As a result of the aforementioned, a question arises as whether electronic accounting information systems in universities provide information which is considered to be quantitative indicators of financial performance? Thus, the importance of these indicators remains an important issue to be investigated, which this study is to examine.

1.1. The study's problem

Generally, the extent of the success of any university or organization depends on the performance provided during successive time intervals for the lifetime of the university. To determine the performance, organizations tend to adopt standards, or what has become known as indicators of performance both qualitative: descriptions and explanations, and quantitative: numbers and statistics (Al-Hajj *et al.*, 2009).

They are often provided by information systems, specifically accounting information systems, especially electronic ones, which are concerned with numbers and financial statistics that are quantitative indicators. This is why these systems had been of interest to researcher in terms of determining the extent to which these systems provide quantitative indicators to demonstrate the success of the organization and evolution. It is limited to the problem of the study in a statement: *The extent of the electronic accounting information systems in the public and private universities in Jordan for quantitative indicators of financial performance.*

1.2. The importance of the study

This study's importance stems from two main factors, stated as follows:

1. The importance of performance indicators in general in limiting data and information related to the performance of universities, Where university management can identify strengths to be strengthened and weaknesses to be addressed, It also enables the university to judge the success of the performance of the universities and the evolution of performance over any period of its life through the stages of their work.

2. the importance of electronic accounting information systems of being a source which provides facilities and universities with reports containing financial and non-financial for decision making, and that if the design of these systems are able to store data types "financial and non-financial" to simplify the integration of financial and non-financial reports (Kassem, 2012).

1.3. The study's objectives

Objectives of the study are limited to specific goals. It aims to show the extent of the provision of electronic accounting information systems in public and private universities in Jordan for quantitative indicators of financial performance.

2. Literature review

A number of studies related to performance indicators have been reviewed, and from them two types of studies have been deduced, namely: - Type I: Studies that have been exposed to the touched impact of investment in technology, and the impact of accounting information systems on performance, type II: Studies that have been exposed to the quantitative indicators of financial performance.

The study aimed to test the impact of investment in information technology on the financial performance of companies. And that according to the traditional accounting performance measures (return on assets "ROA", return on equity "ROE", and return on sales "ROS"). The community of the study was represented by public shareholding companies listed on the Palestine Stock Exchange, with a sum of 22 companies. The study concluded that investment in information technology does have an impact on accounting performance metrics or measures (ROA, ROE, ROS). The study then recommends the need to focus on investing in information technology in Palestinian companies because of its impact on the performance of the company on the long term (Abdul Karim and Alawneh, 2009).

This study aimed to examine the impact of the ownership structure in the level of investment in information technology, and to test the influence of information technology in improving the performance of the banks listed in Amman's Stock Exchange. To achieve these goals the relationships have been estimated using ordinary least squares and logistic regression to data composed of fifteen banks for the period between 2003- 2008. The study concluded that there is an impact of the ownership structure of investment in software and hardware. The study also found a positive impact of the investment's level in information technology on earning per share (EPS) and on return on assets (ROA). The study finally recommends promoting investment in information technology and attracting what is modern in it due to its important role in improving the performance of banks (Hamdan *et al.*, 2012).

This research is aimed, based on empirical evidence, at measuring the relationship between the use of the Accounting Information Systems (AIS) by the Small and Medium Sized Enterprises (SMEs) in Spain, and firms' improved performance indicators and productivity. This empirical study is based on a survey carried out among small and medium-sized firms (632 Enterprises, 96% medium-sized, 4% Small-size) to ascertain the extent to which development and implementation of accounting information systems had

taken place, and subsequently an analysis was made as to how much this introduction may impact on improvement in outcome indicators and productivity. As interesting results we have found that there is a positive relationship among the SMEs that use AIS for fiscal and bank management and better performance measures for example Return on Assets (ROA). This research provides value added in accounting literature given the scarcity of works dealing with the relationship between the application and use of AIS and performance and productivity indicators in SMEs in Spain (Grande *et al.*, 2011).

This article is aimed to clarify key financial concepts and describe the most common measures of financial performance so that researchers and managers alike may understand what is being measured by various financial ratios, The study used a descriptive approach in the presentation of the most common financial ratios and the relationship between them, It concluded to a number of financial Performance Indicators: cash flow, Retune on Equity (ROE), and Retune on Assets (ROA), are generally considered in the finance literature to yield reliable information, Profit margin (total or operating) is often considered misleading (Wheeler and Burkhardt, 2013).

This study is aimed at identifying the financial and non-financial performance indicator of framers; organization. The study was conducted on the rice farmers' organizations in the Muda Agricultural Development Authority (MADA) which is located in the northern state of Kedah, This research employed the qualitative convergent interview approach on the Farmers Organization in MADA. From the study, It concluded from the analysis of the convergent interview data of the (27) respondents, (9) indicators have been identified as performance measurement for Farmers Organization. These 9 indicators are: profitability, cash flow position, customer satisfaction, product/service quality, budget planning versus actual, employee management, debt collection, return on investment and culture of work, and the researcher had divided Indicators to Core indicators are Profitability, Cash Flow Position , Product/Service Quality and Supplement indicators are Budget Planning vs. Actual, Return On Investment, Debt Collection, Customer Satisfaction, Employee Management, Culture of Work (Harif *et al.*, 2012).

This study is talked about importance of Key Performance Indicators (KPIs) would employ those KPIs to measuring the innovation performance, The sample was 86 small and medium sized-organizations in Thailand, based mainly in Bangkok and suburban areas. These companies have adopted and implemented technical and/or administrative innovations in the past three years. Of these, 34% were in the manufacturing industry, 46% were in the non-manufacturing industries, It concluded to The performance metrics which are commonly used in business fall into two categories: (a) finance based, such as return on investment and profit margin, and (b) non-finance-based, such as customer retention, and these organizations realized the importance of those KPIs and used those KPIs for capturing innovation progress (Sawang, 2011).

Performance Indicators:

The indicator is defined as: a factor or a quantitative or a qualitative variable that provides a simple and reliable means to measure achievement, or to reveal the changes associated with the development intervention, or to help assess the performance of a development intervener. On the other hand, performance is defined to be: a scale of what has been accomplished from the work of an organization or a team or a person. When collecting the two previous words the term becomes: performance over time to infer the extent to which this indicator of performance meets the levels of performance agreed upon. These measures are the checkpoints that monitor the progress towards achieving the standards (Al-Hajj *et al.,* 2009). They also called key performance indicator (KPI) which is: a type of performance measurement. An organization may use KPIs to evaluate its success, or to evaluate the success of a particular activity in which it is engaged. Sometimes success is defined in terms of making progress toward strategic goals. (http://en.wikipedia.org/wiki/Performance indicator).

We can classify Performance indicators to sub-categories:

1. *Quantitative indicators:* that can be presented with a number. (<u>http://en.wikipedia.org/wiki/</u><u>Performance_indicator</u>). Also defined to be: the scale of what has been accomplished in the form of data and information is displayed as numbers and statistics as a way to investigate the phenomena standards. (Al-Hajj *et al.*, 2009).

2. *Qualitative indicators:* that can't be presented as a number. (<u>http://en.wikipedia.org/wiki/</u><u>Performance_indicator</u>). Also defined as: the scale of what has been accomplished in the form of data and

information presented with descriptions and explanations, which is the way to investigate the experience of the users through observation and interviews. (Al-Hajj *et al.*, 2009).

3. Leading indicators: that can predict the outcome of a process.

4. *Lagging indicators:* that present the success or failure post hoc.

5. *Input indicators:* that measure the amount of resources consumed during the generation of the outcome.

6. Process indicators: that represents the efficiency or the productivity of the process.

- 7. Output indicators: that reflects the outcomes or results of the process activities.
- 8. Practical indicators: that interface with existing company processes.
- **9.** *Directional indicators:* specifying whether or not an organization is getting better.
- **10.** *Actionable indicators:* are sufficiently in an organization's control to effect change.

11. *Financial indicators:* used in performance measurement and when looking at an operating index (<u>http://en.wikipedia.org/wiki/Performance_indicator</u>).

An overview on some of the quantitative performance indicators of financial performance used in the study

Earnings Per Share

Defined as: the ordinary share's portion of the profits available to ordinary shareholders. It is calculated by dividing the earnings available to ordinary shareholders by the weighted average number of ordinary shares. Where the earnings per share is considered to be one of the commonly used standards(scales) to analyze the profitability of the company and to assess its performance, and is also used, the earnings per share, to compare it with the performance of the company itself through successive time periods. In addition to that, it is used also to compare it, the earnings per share, with similar companies that operate in the same field (Nassar and Humidat, 2009).

Return On Assets

This indicator is called the resource force and is calculated by dividing "net operation profit before tax, interest and other income and expenses" to "total assets". this ratio achieves the following objectives:

1. is one of the best ratios that are used to measure the profitability of operations.

2. help in decisions making concerning borrowing.

3. is one of the best operational efficiency indicators, and is one of the best tools of matching between the performance of different institutions, and that's because it does not reflect the impact of financial leverage (Akl, 2009).

Scientific Research

Is defined as: a process of investigation, and a regulated(organized), precise, and objective tracking to disclose information, facts, and new relationships, as well as developing, modifying, and analyzing the information that are grounded on the conviction that the scientific method ought to be a tool, an organization, and an analysis distinguishable (feature) of the researcher. It aims to:

1. Describe: observing the phenomenon as it is in real world.

2. Interpret: disclosing the relationships between cause and effect, in order to determine the different variables.

3. Predict: prior estimation and guess according to logical principles and formulas, and deliberate process.

4. Contribute in decision-making: data's analysis and transforming it into information.

5. Discover new facts: enriching knowledge through processing a multiplicity of the scientific issues (Sammak, 2011).

The researcher thinks that, one of the most important performance indicators for universities is what is spent on scientific research, because one the most important basic tasks of universities is to develop of the educational process and to supplement students with what is new (up to date material). All of this can only be achieved through hard and tireless work which is represented in scientific research, and the latter in turn requires financial support to be performed.

3. Methodology of research

The sources of data collection

The study is based on two main sources of data, namely:

The first source: ready data: were obtained from published papers in scientific journals, scientific websites like Preqest and others, and also scientific books related to accounting information systems, as well as evidence of standards of quality and quantitative indicators issued by the Board of Quality Assurance and Accreditation of Universities Arab Universities Union Arabic.

The second source: preliminary data were obtained using two tools :

1. *Questionnaire:* consists of two parts; Part I: characteristics of the sample. Whereas the second part consists of some important quantitative indicators of financial performance in public and private universities that reveal the extent of the success of the university and the evolution of its performance .

2. *Personal interview:* interviewing a number of CFOs at public and private universities to confirm the responses received in the questionnaires and arable for analysis.

The Study's population and Sample

The study's population is consisted of 26 public and private universities accredited to the Ministry of Higher Education and Scientific Research of Jordan, (Ministry of Higher Education and Scientific Research .2017). The CFOs in the universities aforementioned has been targeted to fill in the questionnaires, because they are most knowledgeable with the accounting information systems, and all universities have been considered as a sample for the study. One questionnaire has been handed to each University (26 questionnaire), and (20) of them has been recovered and regarded as valid for analysis with a (76.9%) of responsiveness, afterwards personal interviews has been conducted with (8) randomly selected CFOs in public and private universities, so as to confirm the validity of the data contained in the questionnaires.

The measurement tool's reliability (stability) and Validity

To Confirm the validity of the two tools of measurement (questionnaire and personal interview) in the study and that they measure what they are supposed to be measuring, which are the quantitative indicators of financial performance, these tools have been presented to a group of faculty members, then the required modifications has been executed. The stability of the measurement tool (questionnaire) has also been tested using the Cronbach's Alpha's Coefficient. The latter showed that the result that the degree of consistency in the respondents' responses was (76.10%).





The study's Hypotheses

The study is based on a main premise, that is:

The electronic accounting information systems in public and private universities in Jordan do not provide quantitative indicators of financial performance.

Due to the multiplicity of quantitative indicators of financial performance, the major premise will be divided into a number of sub-hypotheses, each of which is linked to a quantitative indicator separately, namely:

1. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator for scientific research and conferences.

2. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator of the development of "software and hardware".

3. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator for the purchase of books, references and periodicals.

4. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator of the earnings per share (EPS).

5. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator of the return on assets (ROA).

6. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator of the average annual cost of a student.

7. The electronic accounting information systems in public and private universities in Jordan do not provide the quantitative indicator to compare between the cost of a faculty member and his return he earns.

4. The study's results:

The results of the study are divided into four principal parts: *First Part: The Characteristics of the Sample*

Statement	Frequencies	Percentages	Accumulated percentages
University's Classification			
Public University	8	40%	%40
Private University	12	60%	100%
Total	20	%100	
The University's Year of Establishment			
Before 1980	2	10%	10%
From 1980 to before 1990	5	25%	35%
From 1990 to before 2000	9	45%	80%
From 2000 to before 2010	4	20%	100%
After 2010	0	0	
Total	20	%100	
User Accounting Systems			
Electronic system	20	100%	100%
Total	20	%100	
Number of University Students			
Less than 10 thousand	13	65%	65%
10 thousand to less than 20 thousand	1	5%	70%
20 thousand to less than 30 thousand	2	10%	80%
More than 30 thousand	4	20%	100%
Total	20	%100	
The Year of Establishing the Office of Accre			
From 1990 to before 1999	1	5%	5%
From 1999 to before 2007	7	35%	40%
After 2007	12	60%	100%
Total	20	%100	

Table 1. Frequencies and percentages of the characteristics of the sample

The characteristics of the sample were divided into five characteristics (as shown in the table 1 above): classification University, and the establishment of the university year, and the nature of the system used, and the number of university students, and the year of the establishment of the Office of Accreditation and Quality Assurance, We note that the study sample is distributed over all the properties of the sample with almost all of its levels, and this indicates the study sample's inclusion for all properties and subdivisions.

Among the most prominent highlights contained in these characteristics are the following: that the study sample in terms of the classification of universities to Public and private were distributed (40%) and (60%), respectively, These Percentages approximate true Percentages of the universities on the ground, (38.50%) of the universities, which the Public number (10) out of the universities (26) University, And the percentage (61.50%) for private universities, which number (16) out of the University (26) University, This shows the distribution of the sample according to the reality of universities in terms of classification, The largest number of universities founded between the period (1990-2000) and the number (9) by universities (45%), they indicate the occurrence of significant development in infrastructure for education in this period, It also supports it is that after the year (2000) approximately (4) universities were established to become the number (13) of the University established since (1990) out of (26) Universities of Public and Private in Jordan, and all of universities in sample study use Electronic accounting system, and that indicates that went on universities to keep up with technological development and the importance of the data collected. The data was collected from the target group who is using the Electronic accounting system, And (13) University of any rate of (65%) of the sample identified the number of students with less than (10) thousand students, and this supports the recent establishment of a large number of universities, mostly because the number of students in universities, the newly founded relatively limited, and most of the universities by (60%) and a sum of (12) Universities were established therein, the Office of Accreditation and Quality Assurance (2007) and beyond, and this indicates the extent of follow-up and supervision by the Accreditation Commission for Higher Education Universities established in (2007) (accreditation Commission of Higher Education, 2012) to ensure that these continue to comply with the accreditation standards of public and private universities to adopt and adjust the quality of higher education and ensure good standards at all levels through the Office of accreditation and quality Assurance in each university.

Second, quantitative indicators of financial performance in the public and private universities in Jordan. This is in part the following question: Do electronic accounting information systems used at the university provide the following information:

No.	Statement The amounts specified in the budget		Spe	Spending		Spending ratio to the amounts specified		The rate of change of the amounts specified for this year with the previous year		The rate of change of the Spending amounts for this year with the previous year		General	
		Av.	Sd.	Av.	Sd.	Av.	Sd.	Av.	Sd.	Av.	Sd.	Av.	Sd.
1	For scientific research and conferences	2.80	0.616	2.85	0.489	1.25	0.55	1.25	0.55	1.25	0.55	1.88	0.423
2	For the development of "software and hardware"	2.65	0.671	2.70	0.571	1.30	0.47	1.30	0.47	1.30	0.47	1.85	0.372
3	For the purchase of books, references and periodicals	2.65	0.671	2.70	0.571	1.35	0.587	1.35	0.587	1.35	0.587	1.88	0.418

Table 2. Arithmetic means (Av.) and standard deviations (Sd.) for quantitative indicators of financial performance "scientific research, development, purchase of books and references"

Table 3. Arithmetic means and standard deviations for quantitative indicators of financial performance "EPS, ROA, the cost of the student, compared to the cost of a faculty member with the return"

NO.	Statement	Current year		Previous year		The rate of change		General	
		Av.	Sd.	Av.	Sd.	Av.	Sd.	Av.	Sd.
1	Earnings per share (EPS)	1.850	0.366	1.750	0.444	1.050	0.224	1.550	0.196
2	Return on assets (ROA)	1.950	0.224	1.150	0.366	1.000	0.000	1.367	0.149
3	Rate annual cost of student	1.100	0.308	1.350	0.489	1.050	0.224	1.167	0.202
4	Compared to the cost of a faculty member with a return to the level achieved by the number of students	1.050	0.224	1.050	0.224	1.000	0.000	1.033	0.103

Was selected quantitative indicators of financial performance mentioned in the previous tables based on previous studies mentioned above, And guide standards of quality and quantitative indicators of quality assurance and certification of the Arab Universities Union members, issued by the Board of Quality Assurance and Accreditation in Arab Universities Union of Arab Universities for the year (2009)¹.

Have also been split level and the values of the answer in Tables former number (2, 3) to the three levels are as follows:

Table 4. Level and the values of the answer to a questionnaire study

Answer	Provide entirely	Provide partially	Do not provide	Average answers
Answer Value	3	2	1	2

Note in each of the two tables (2 and 3) that the overall average for the sample answers for each indicator is the lowest average of the answers (2), This average (2) indicates that the Electronic accounting system provides quantitative indicators of financial partially; Provide partial quantitative indicators of financial performance as defined by the researcher and financial managers who were interviewed is: That the Electronic accounting system is available use data necessary to calculate the quantitative indicators of financial performance, but it has not been developed to provide these indicators have the final image, does not contain any system on the screens, especially for quantitative indicators of financial performance.

If we look in particular to the averages for each indicator separately, we note that the accounting systems of electronic availability of the amounts specified in the budget and Spending as a value and not as a percentage of each of the indicators of scientific research, and the development of "software and hardware", and the purchase of books, references and periodicals in order to access to the averages of arithmetic beyond the value of the answer (2), This means that they tend to Provide entirely, The rest of averages some of which is lower than the value of the answer (2) Any savings they convergence by Provide partially sense mentioned above, such as the proportion of Spending ratio to the amounts specified, and the current year and Previous to the annual average cost of the student, and some Indicators value (1): is any weakness in provider to the do not provide the system for this indicator, such as the rate of change between the current year and prior to the indicator compared to the cost of a faculty member with the yield levels achieved by a number of his students.

Were confirmed previous data in terms of the (Provide entirely, Provide partially, and weaknesses in Provide) for quantitative indicators of financial performance through personal interviews conducted with financial managers, been identified as the mechanism used to have in the calculation of the quantitative indicators mentioned above, and emphasized that special attention in the amounts specified in the budget and Spending, These amounts are available electronically because the budget amounts intervention on the system at the beginning of the year, spending system provides special reports for each expense individually or collectively, and this confirms the result of the special Questionnaire Provide entirely, and mechanism of

¹ See Al-Hajj *et al*, (2009), Guide standards of quality and quantitative indicators of quality assurance and accreditation of members of the Arab Universities Union, the Arab Universities Union, the Secretariat, the Council of Quality Assurance and Accreditation of Arab Universities.

calculating previous indicators Said that is calculated each, but not all, and they counted manually and not electronically to the lack of screens a private performance indicators, with the knowledge that the basic data for the calculation of these indicators are obtained from the system electronically, and this confirms Provide partially mentioned above.

Third: differences in the answers that is attributable to the Characteristics of the Sample

Statistical analysis results showed that there was no statistically significant differences at the level of significance (5%) attribute to the characteristics of the study sample in terms of the (classification of the university, and the year of the establishment of the university, and the number of university students, the year of the establishment of the Office of Accreditation and Quality Assurance, and Using System), this means that the answers of the study sample did not differ from each other with a variation of these Characteristics.

Fourth: hypothesis testing

The study investigates the main hypothesis: That the accounting information systems in electronic public and private universities in Jordan do not provide quantitative indicators of financial performance.

From the study's thesis divaricated the following hypotheses: *That the accounting information systems in electronic public and private universities in Jordan do not provide:*

Hypothesis	T Tabulated	T Calculated	SIG.	Av.	Result
Quantitative indicator for scientific research and conferences.	2.093	1.270	0.219	1.880	Acceptance
Quantitative indicator of the development of "software and hardware".	2.093	1.803	0.087	1.850	Acceptance
Quantitative indicator for the purchase of books, references and periodicals.	2.093	1.285	0.214	1.880	Acceptance
Quantitative indicator of the earnings per share (EPS).	2.093	1.283	0.352	1.550	Acceptance
Quantitative indicator of the return on assets (ROA).	2.093	1.201	0.112	1.367	Acceptance
Quantitative indicator of the rate of the annual cost of the student.	2.093	1.342	0.140	1.167	Acceptance
Quantitative indicator of the cost comparison between the faculty member and the return achieved by.	2.093	1.211	0.124	1.033	Acceptance

Table 5. Hypothesis testing

Applying the decision rule to test the hypotheses of the study and are as follows: the null hypothesis is accepted if the following conditions are achieved: -

- A. (T) Calculated is less than (T) Tabulated.
- B. Significant greater than (5%). (Al-battesh and Abu-Zenah, 2007,192)

We find in the previous table that the value of (T) calculated is less than the value (T) Tabulated for all hypotheses, and the Sig. greater than (5%), This means that all hypotheses may have made conditions mentioned previously, accordingly, all will be accepted sub-hypotheses previous which is reflected acceptance of a major hypotheses "That the accounting information systems in electronic public and private universities in Jordan does not provide quantitative indicators of financial performance" and quantitative indicators of the phenomenon in the previous table No. (5), and with note previous analysis that these systems provide the most quantitative indicators of financial performance in partially "Mean: system provides basic data to calculate the quantitative indicators of financial performance, but it has not been developed to provide these indicators have the final image."

5. Conclusions

The electronic accounting information systems in public and private universities in Jordan do not provide quantitative indicators of financial performance in general. In details the provision of indicators has been classified into: Provide entirely (Total), Provide partially, and weaknesses in Provide that may even reach the point of total lack of provision.

The total prevision has been confined as a financial value on only two out of five parts, namely: the value of the amounts specified in the budget, and the value of disbursements. These two parts relate to only three indicators out of seven indicators, namely:

A. Scientific research indicator.

B. Development indicator "software and hardware".

C. Books purchase, references and periodicals indicator.

As for the partial provision was represented in that the electronic accounting system used makes the data necessary to calculate the quantitative indicators of financial performance available, but it has not been completely developed to provide these indicators, in other words, the system does not contain specific screens (Applications) for quantitative indicators of financial performance. This is represented in the three remaining parts of the previous five, namely: The proportion of the expense to the amounts specified, the rate of change in disbursements for this year with the previous year, and the rate of change of the amounts specifies, namely:

A. Scientific research indicator.

B. Development indicator "software and hardware".

C. books purchase, references and periodicals indicator.

The scope of partial provision has also widened to the following parts: the rate of the current year, the rate of the previous year, and the rate of change for each of the following indicators:

A. Earnings per share. (EPS)

B. Return on assets (ROA).

C. The annual average cost of the student.

A general weakness appeared in the indicator's ability to provide that may even reach up to a lack of provision of the following three parts: the rate of the current year, the rate of the previous year, and the rate of change of the indicator of comparison between a faculty member with the yield he earns attributed to the number of his students.

6. Recommendations

The study stresses the need to develop the electronic accounting systems in public and private universities in Jordan to contain screens (Applications) through which all the quantitative indicators of financial performance mentioned in the study can be calculated, or any appropriate quantitative indicators that signify the performance of universities, their development and prosperity.

References

1. Abdul Karim, N. and Alawneh, S., (2009), *The impact of investment in information technology on the financial performance of Corporation companies listed on the market Palestine*, Najah University Journal of Research (Humanities), Volume 23, Issue 4, pp. 989-1028.

2. Akl, M.M., (2009), *Introduction to financial management and financial analysis*, 1st edition, Almoshtamaa Alaraby library for publishing and distribution, Amman-Jordan.

3. Abu Nassar, M. and Humidat, F., (2009), *Accounting Standards and International Financial Reporting "theoretical and practical aspects"*, 2nd Edition, Dar Wael for publication, Jordan-Amman.

4. Al-battesh, M. W. and Abu Zeina, F., (2007), *Methods of scientific research, "research design and statistical analysis,"* 1st edition, Dar Al-masera for publication and distribution and printing, Amman-Jordan.

5. Al-Hajj, F. A. and Majed, S. Sh. and Gerissat, E. (2009), *Guide standards of quality and quantitative indicators of quality assurance and accreditation of universities Arab members of the Union*, the Union of Arab Universities, General Secretariat, the Council of Quality Assurance and Accreditation of Arab Universities.

6. Burkhardt, J. H. and Wheeler J. R. C., (2013), *Examining Financial Performance Indicators for Acute Care Hospitals*, Journal of health care finance, Vol.39(3), pp. 1–13.

7. Grande, E.U. and Estebanez, R.P. and Colomina, C.M., (2011), *The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs*, The International Journal of Digital Accounting Research Vol. 11, pp. 25 – 43.

8. Hamdan, A.M. and Anasoh, M.S. and Al-Otaibi, M.H., (2012), *The impact of the ownership structure in the level of investment in information technology and its impact on the performance of the Jordanian banks: an analytical study of the period 2003-2008*, Journal of the Islamic University of Economic Studies and Management, Volume 20, Issue 2, pp. 381-416.

9. Harif, M. and Hoe, C. and Izham, M., (2012), *The Financial and Non-Financial Performance Indicators of Paddy Farmers' Organizations in Kedah*, Social Séance Research Network, and Available on Line: <u>http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2130415</u>.

10. Qasim, A. R. M., (2012), *analysis and design of accounting information systems*, 5 th edition, Dar Al-thakafa for Publishing and Distribution, Amman-Jordan.

11. Sammak, M. A. S., (2011), *Research Methods "Foundations and Applications"*, Dar Yazori for publication and distribution, Amman-Jordan.

12. Sawang, S., (2011), *Key Performance Indicators for Innovation Implementation: Perception vs. Actual Usage*, Asia Pacific Management Review, Vol. 16(1), pp. 23-29.

13. Turner, L. And Weickgenannt, A., (2009), *Accounting Information System Controls And Processes*, Northern Kentucky University, United State of America. On line Available: <u>www.wiley.com/college/turner.</u>