

The Possibility of Accounting Information Systems to Support the Standard costs Analytical study Insurance Sector – Jordan

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Abstract

This study examines the evaluation of the relationship between accounting information systems & standard costs, researchers have used a sample of 27 insurance companies belonging to the insurance sector listed on the Amman Stock Exchange Securities, The study discussed at several major themes are: The standard cost system, as partial of the cost accounting information system and has a strong relationship with the budgeting system. Evaluation of performance using a standard cost system as a method of cost control. Standard costing system remains appropriate with the new business environment.

The study found many of the results was the most important focusing on objective accounting information system and the possibility to support the standard costs, so as to ensure make true decisions or correct decisions taken previously, this would preserve the continuity of the enterprise and increases the useful life or its product age, and guarantee them a competitive advantage in the business environment.

Keywords: Insurance Company, AIS (Accounting Information Systems), Standard Cost, ASE (Amman Security Exchange), Insurance Sector.

1- Introduction

the business world witness major shifts and changes increasingly & complex, the intensity of competition, rapid evolution of technology, the emergence of new institutions and the death of old institutions , the emergence of new products and the death of old products, and other things that are difficult for enterprise control, or even predict. In the midst of this climate became ensure the Enterprise survival is difficult and critical issue requires concerted efforts and great integrated and coordinated between information systems and all levels of it.

And a partial system from information systems is the accounting information system it has great importance like the other partial systems within the institution, depends on where the outputs to take many decisions, so staff are always working to bring it in line with the new changes which earns it a flexible capacity.

And a standard costing system is a link between cost accounting and budgeting because the data is a future costs, which means that the planning process impact on the adopted standards, and these standards as the goals that institutions want to achieve, This information provided by the standard costing system should be reach to the decision maker in the best of circumstances, and in the quickly time, as it should be reflective of reality, then the decision-maker can be relied on.

2- The Importance of the study

This study importance appears by showing the relationship of the standard costs from accounting point of view, and the relationship of accounting information systems, because modern technological development have had the greatest impact in recent decades on the quality of operations and competitive advantage in the business sectors.

The study focuses on the following question:

➤ How does the standard cost system within the system of accounting information in decision-making?

And it can retail this question to the following sub-questions:

2-1- What are the foundations upon which the design of cost accounting information system?

2-2- To what extent can rely on standard costing system in making the correct decisions?

2-3- Is standard costing system in compatible with the new business environment?

3- The study objective

This study aims to determine the nature of the relationship between the accounting information system and the rest of management information systems; and try to find a reliable way in the design of cost accounting information system; highlighting the props which underpin the preparation of a flexible standard cost system, appropriate with the quality of the information needed by the operators of the system; show the importance of measuring the deviations and analysis for decision-making, and the application of accounting responsibility; And adapt the standard cost system with the correct time.

4- The study hypothesis's

To accord with the study importance & the study objective, the researchers put many hypotheses to explain the matter of study as follow:

4-1- The standard cost system, partial of the cost accounting information system and has a strong relationship with the budgeting system.

4-2- Evaluation of performance using a standard cost system is the method of cost control.

4-3- Standard costing system remains appropriate with the new business environment.

5- The Literature Review :

5-1- 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.

5-2- 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.

5-3- 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.

5-4- The Study of Al-qtnani (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.

6- Standard costing system and decision-making

6-1- Preparation of standard costing system:

The use subject of standard cost appeared in the United States and England in order to running labor within the organization in a better way, but it soon expanded a free use in other inputs either variable or fixed, even formed as a one of the foundations that guide the production process and become system dependent upon of the institution in order to assess its performance.

6-1-1- What is the standard cost accounting system?

It is the process of preparation and calculation of standard costs (future or expected) that arising as a result of the exercise of the institution to their activities in anticipated conditions, and comparison with the actual costs (what actually happened) in order to calculate and analyze deviations. And produce information for decision-makers, and thus management control.

6-1-2- The standard cost system components

- **Standard:** A measure, rate, or number to be determined in advance according to the engineering specifications for estimating.
- **Performance standards:** Express what should be the preferred relationship between the characteristics of the input and output characteristics
- **Standard cost:** Is the cost, which is measured on the basis of the criteria for a given volume of production or achievement.

6-1-3- the several types of standards costs:

- A constant value standards
- A band standard
- A probabilistic distribution standard
- A Current standard
- A Basic standard

7- Accounting Information systems:

7-1- Definition: The collection, storage and processing of financial and accounting data that is used by decision makers. An accounting information system is generally a computer-based method for tracking accounting activity in conjunction with information technology resources. The resulting statistical reports can be used internally by management or externally by other interested parties including investors, creditors and tax authorities.

7-2- The Elements of AIS: Accounting information systems that combines traditional accounting practices such as the Generally Accepted Accounting Principles (GAAP) with modern information technology resources. Six elements compose the typical accounting information system:

7-2-1- The People - the system users.

7-2-2- Procedure and Instructions - methods for retrieving and processing data.

7-2-3- Data - information pertinent to the organization's business practices.

7-2-4- Software - computer programs used to process data.

7-2-5- Information Technology Infrastructure - hardware used to operate the system.

7-2-6- Internal Controls - security measures to protect sensitive data.

8- Methodology:

8-1- The Community & the Sample Study: The researchers conducted the study on insurance companies operating in Jordan, and choose a sample of workers, was a random sample of 78 people working in insurance

companies (The researchers distribute for every company 3 questionnaires) that have been mentioned previously as follows:

Table (1)

S.N	The Insurance Firms In Jordan 2012
1	AL-NISR AL-ARABI INSURANCE
2	JORDAN INSURANCE
3	ARABIA INSURANCE COMPANY- JORDAN
4	DELTA INSURANCE
5	JERUSALEM INSURANCE
6	THE UNITED INSURANCE
7	JORDAN FRENCH INSURANCE
8	THE HOLY LAND INSURANCE
9	YARMOUK INSURANCE
10	AL-MANARA INSURANCE PLC.CO.
11	ARAB ORIENT INSURANCE COMPANY
12	JORDAN EMIRATES INSURANCE COMPANY P.S.C
13	ARAB LIFE & ACCIDENT INSURANCE
14	PHILADELPHIA INSURANCE
15	ARAB UNION INTERNATIONAL INSURANCE
16	NATIONAL INSURANCE
17	JORDAN INTERNATIONAL INSURANCE
18	EURO ARAB INSURANCE GROUP
19	ARAB GERMAN INSURANCE
20	THE ISLAMIC INSURANCE
21	THE ARAB ASSURERS
22	ARAB JORDANIAN INSURANCE GROUP
23	AL BARAKAH TAKAFUL CO.LTD
24	THE MEDITERRANEAN & GULF INSURANCE
25	FIRST INSURANCE
26	MIDDLE EAST INSURANCE

8-2- The questionnaire was distributed to workers in the insurance companies in Jordan in a systematic way compatible with the following table: (see Table (2)):

Table (2) Number of Questionnaires Distributed & Returned

Company Name	Number of questionnaire Distributed	Number of Surveys Returned
AL-NISR AL-ARABI INSURANCE	3	3
JORDAN INSURANCE	3	3
ARABIA INSURANCE COMPANY-JORDAN	3	3
DELTA INSURANCE	3	3
JERUSALEM INSURANCE	3	3
THE UNITED INSURANCE	3	3
JORDAN FRENCH INSURANCE	3	3
THE HOLY LAND INSURANCE	3	3
YARMOUK INSURANCE	3	3
AL-MANARA INSURANCE PLC.CO.	3	3
ARAB ORIENT INSURANCE COMPANY	3	3
JORDAN EMIRATES INSURANCE COMPANY P.S.C	3	3
ARAB LIFE & ACCIDENT INSURANCE	3	3
PHILADELPHIA INSURANCE	3	3
ARAB UNION INTERNATIONAL INSURANCE	3	2
NATIONAL INSURANCE	3	1
JORDAN INTERNATIONAL INSURANCE	3	2
EURO ARAB INSURANCE GROUP	3	3
ARAB GERMAN INSURANCE	3	3
THE ISLAMIC INSURANCE	3	3
THE ARAB ASSURERS	3	3
ARAB JORDANIAN INSURANCE GROUP	3	2
AL BARAKAH TAKAFUL CO.LTD	3	2
THE MEDITERRANEAN & GULF INSURANCE	3	3
FIRST INSURANCE	3	3
MIDDLE EAST INSURANCE	3	1
Total	78	70

The study population consisted of workers in the insurance companies in Jordan, and the estimated sample random (78) workers between the Director and Head of Department and employees, where the researcher using a random sample, were distributed (78) questionnaire on the study sample was obtained (70) questionnaires by retrieve 89%.

8-3- The Study Tools:

Questionnaire has been prepared on the “*The Possibility of Accounting Information Systems to Support the standard costing In Jordan,*” the study questionnaire consists of two main sections are:

8-3-1- Section I: It is a personality responder (Qualification, sex, the career characteristic).

8-3-2- Section II: It is a field of study and the questionnaire consists of 12 Para distributed on 3 major’s areas:

- I. 1st Major: The standard cost system, partial of the cost accounting information system and has a strong relationship with the budgeting system 4 paragraphs.
- II. 2nd Major: Evaluation of performance using a standard cost system is the method of cost control 4 paragraphs
- III. 3rd Major: Standard costing system remains appropriate with the new business environment 4 paragraphs.

And the researchers have been using (Likert) scale to measure the responses of the respondents to the questionnaire by paragraphs: see table (3):

Table (3) Likert Scale:

Response	Non	Small	medium	large
Degree	1	2	3	4

9- Statistical Analysis:

The researcher used many Statistical methods in this study as:

- The researcher unloaded and analysis of the questionnaire through a statistical analysis program (SPSS), and It was the use of non-parametric statistical tests because of that the Likert scale is ordinal scale has been the use of statistical tool the following:
 - I. Percentages and duplicates, mean and median: This is mainly for the purpose of knowing repeating variable categories According to the researcher, in the description o the study sample.
 - II. Cronbach's alpha test to see steady paragraphs questionnaire.
 - III. Spearman correlation coefficient: To measure the degree of correlation. This test is used to study the relationship between the variables in the case of data Non-parametric.

9-1- Cronbach's Alpha Coefficient: The researchers used Cronbach's alpha method for measuring the stability of the questionnaire, and the results were as shown in Table (4):

Table (3) Cronbach's Alpha Coefficient

S.N	Major	Alpha Coefficient
1	The standard cost system, partial of the cost accounting information system and has a strong relationship with the budgeting system	0.701
2	Evaluation of performance using a standard cost system is the method of cost control	0.799
3	Standard costing system remains appropriate with the new business environment	0.710
4	All areas of the questionnaire	0.736

9-2- Spearman correlation coefficient: The correlation coefficient between each grade every area of the questionnaire and the total score shows in table (5):

Table (5) Spearman correlation coefficient

S.N	Major	Spearman correlation coefficient	The Probability value (Sig)
1	The standard cost system, partial of the cost accounting information system and has a strong relationship with the budgeting system	0.755	(*0.000)
2	Evaluation of performance using a standard cost system is the method of cost control	0.712	(*0.000)
3	Standard costing system remains appropriate with the new business environment	0.575	(*0.000)

9-3- The Hypothesis's Test:

- If Sig. (P-value) is **greater** than the significance level $0.05 = \alpha$ according to the results (SPSS), it cannot reject the hypothesis nihilism (zero), and in this case the average views of respondents on the phenomenon under study is not materially different from the degree of neutrality which is(2.5).

- If the Sig. (P-value) is **less** than the significance level $0.05 = \alpha$ according to the results (SPSS) are rejected hypothesis nihilism (zero) and acceptance of alternative hypothesis that the average views of the sample is materially different from the degree of neutrality, and in this case could determine whether the average answer increases or decreases significantly the degree of neutrality.

9-3-1- The 1st Hypothesis: as we can see in the table (6) about the arithmetic mean value of the probability (Sig.) for each paragraph of the **first** area:

Table (6): The arithmetic mean value of the probability (Sig.)

S.N	Paragraph	Mean	Mean %	Rank	Sig.
1	Paragraph 1	3.45	86.25	1	*0.000
2	Paragraph 2	3.39	84.75	2	*0.000
3	Paragraph 3	3.37	84.25	3	*0.000
4	Paragraph 4	3.48	87.00	4	*0.000

By looking at the paragraphs as set in the table above (no: 6), especially the arithmetic mean, which have to be more than 2.5 to accept the hypothesis, we note that most of the paragraphs above degree of neutrality, namely, (2.5), when the level of significance (0.05) the mean **more** than the neutrality degree that means **accepting** hypothesis No: 1.

9-3-2- The 2nd Hypothesis: as we can see in the table (7) about the arithmetic mean value of the probability (Sig.) for each paragraph of the **second** area:

Table (7): The arithmetic mean value of the probability (Sig.)

S.N	Paragraph	Mean	Mean %	Rank	Sig.
1	Paragraph 5	3.54	88.50	1	*0.000
2	Paragraph 6	3.35	83.75	2	*0.000
3	Paragraph 6	3.45	86.25	3	*0.000
4	Paragraph 8	3.33	83.25	4	*0.000

By looking at the paragraphs as set in the table above (no: 7), especially the arithmetic mean, which have to be more than 2.5 to accept the hypothesis, we note that most of the paragraphs above degree of neutrality, namely, (2.5), when the level of significance (0.05) the mean **more** than the neutrality degree that means **accepting** hypothesis No: 2.

9-3-3- The 3rd Hypothesis: as we can see in the table (8) about the arithmetic mean value of the probability (Sig.) for each paragraph of the **second** area:

Table (8): The arithmetic mean value of the probability (Sig.)

S.N	Paragraph	Mean	Mean %	Rank	Sig.
1	Paragraph 9	3.39	84.75	3	*0.000
2	Paragraph 10	3.43	85.75	4	*0.000
3	Paragraph 11	3.60	90.00	5	*0.000
4	Paragraph 12	3.45	86.25	6	*0.000

By looking at the paragraphs as set in the table above (no: 8), especially the arithmetic mean, which have to be more than 2.5 to accept the hypothesis, we note that most of the paragraphs above degree of neutrality, namely, (2.5), when the level of significance (0.05) the mean **more** than the neutrality degree that means **accepting** hypothesis No: 3.

10- The study Result:

By the results of testing hypotheses above the researcher to several key conclusions:

- Accounting Information Systems is a way to remind individuals to the quantity and value of the exchanges that took place between them, have evolved today and become an essential function organization cannot be dispensed with, but that which is imposed by law, the accounting identifying, measuring and connect economic information to enable users of such information to form an opinion for the purpose of making the necessary decisions.
- Cost accounting information system, which is governed by the flexible laws, its outputs are necessary to make operational decisions such as pricing decisions, and corrective decisions for certain operations, This branching does not prevent the existence of an exchange of information between them, for example, the first system provides second system by a purchase price, and the second system provides the first one by information of the cost of production for the commodity, to the valuation of inventories of finished or semi-finished products.
- information system of cost accounting if simple, it means that the cost of measuring information is low, but has dragged all this simplicity that the cost of errors is high, but if this system is complex and equipped with the latest technological methods, it will lead to accurate information, the cost of errors in which low, but it may lead to the cost of measurement is high, and therefore as a matter of moderation As a matter minimize costs, to be cost-accounting system optimization is to achieve the lowest total cost (the cost of measuring the cost of errors), and this is when it intersects the curve of the cost of measurement with the curve of the cost of mistakes.
- The process of comparing the objectives of the system with the actual results serves as a feedback system. In order to be comparable meaning must first be setting goals or reference standards in a scientific and objective, it is not exaggerated, and be modest, and this is a task of the planning system, for this when determining the planned standards it takes into account all sources of technical, accounting and behavioral within the organization and external sources .

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