

## **Evaluation of Accounting Information Systems in Meeting the Requirements of Financial and Managerial Performance: "Field Study in the United Arab Emirates Private Hospitals"**

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### ***Introduction***

The rapid and successive developments in technology, especially information technology created an opportunity for companies to invest in such areas to achieve a competitive advantage. It is evident that installing advanced accounting information systems can support companies to achieve higher levels of financial and managerial performance. Incorporating Accounting Information System (AIS) into the field of Information and Technology systems (IT) creates opportunity to provide information that can assist different managers in the monitoring, evaluation, planning and decision-making functions. In addition to several economic benefits, the company is also likely to benefit from better cost control, assistance in improving the quality of products and services offered to customers. In this context, Grande et al. (2012) have mentioned that the Accounting Information Systems (AIS) are designed to help managing and controlling firms' economic-financial areas. According to Alsharayri (2012) accounting system has tended to be an information system that does not stop at the limits of financial information, but also includes descriptive and quantitative data which is valuable in decision-making.

Considering these facts, and also bearing in mind the pressures faced by private hospitals from different stakeholders such as firms, insurance companies and households to become more cost efficient and to provide more quality services, the study is aimed at evaluating the performance of accounting information systems implemented in the private hospitals of United Arab Emirates and in meeting the requirements of the financial and management performance.

### ***Problem of the Study:***

Accounting information system is part of the overall information system in organizations. It plays a significant role in providing all levels of decision-makers with relevant and reliable information. Since this is important for all organizations, it is more important even for hospitals which need this information to deal with a higher degree of uncertainty in the competitive market especially in the UAE private hospital system.

In addition to the important role for private hospitals in the UAE society, the AIS help hospitals for improving the quality of their financial and administrative performance, so the problem of the study can be formulated in the following questions:

- Does the accounting information system in private hospitals in the United Arab Emirates provide information to meet the requirements of the Financial Management Performance functions?
- Does the accounting information system in private hospitals in the United Arab Emirates provide information to meet the requirements of the Managerial Performance functions?

***Aim of the Study:***

The research aims to explore for any gaps in the performance of the accounting information system in the hospitals and to develop better suggestions to bridge the gap for improving the performance quality for better financial and managerial performance.

***Hypothesis of the Study:***

To achieve the objective of the study, the hypotheses were formulated as follows:

1. The accounting information systems in the United Arab Emirates private hospital did not provide information to meet the requirements of the financial performance function.
2. The accounting information systems in the United Arab Emirates private hospital did not provide information to meet the requirements of the managerial performance function.

***Significance of the study:***

Accounting Information System is the backbone of all industries or organizations engaged in any activity either for profit or for service or for charity. Over a period of time, the Accounting Information System has emerged as one of the major departments in all organizations providing information for supporting the financial and managerial decision making by the top management. Thus during the last two decades, the information technology has so advanced to meet the increasing demand of all departments in organizations. The significance of the present study is evaluating the performance of Accounting Information System in meeting the requirements of financial and Managerial performance functions in private hospitals in United Arab Emirates.

***Research Methodology:***

The data required for the study included both historical data and the current data. The current data required were collected through discussions and interviews with the support of a structured questionnaire prepared after pilot study. The research requirements were expressed in the questionnaire to gather the relevant information which included data to be collected with regard to the financial performance analysis, managerial performance analysis and the demographic data. The data were gathered through research tools included open ended; and closed ended question structure supported by Likert Scale and associated tools. The data gathered were reviewed and analyzed with the SPSS software utilizing associated statistical methods. Thirty eight responses were received out of the selected sample of forty two.

***Theoretical Framework and Literature Review:***

Accounting Information System (AIS) is vital to all organizations and perhaps, each organization either profit or non profit-oriented need to maintain the AISs. The output of an Accounting Information System is financial reports and statements that enhance its effective role in managerial policymaking and figuring out future plans. The financial reports and statements require an organizational structure that defines responsibility and power lines for different organizational units, achieves determined goals, and supports interdepartmental relations to achieve the strategic goals of the organization. Throughout the communication process, financial reports and statements creates interdepartmental integration and connectivity during the implementation and control phases. Accounting information plays an important role in the process of managing an enterprise's activity. In the last ten years, there has been an intensive process of implementing AIS in the world. These systems were implemented in large industrial and small trade enterprises. Later, implementation of AIS started in other enterprises and state institutions.

***Managerial Performance and Accounting Information System:***

There are many studies that were conducted in the area of Accounting information system management and utilization. According to the studies that were conducted by Hongjiang Xu, (2010), management is engaged with different types of activities which require good quality and reliable information. Hongjiang Xu was of the opinion that quality information is one of the competitive advantages for an organization. Later Dalabeeh et. al (2012), conducted further studies in this regard for the further advanced utilization of the accounting information system mentions in his studies that the accounting system is strongly connected with various administrative processes; it helps rationalize decisions, makes the administrative process more effective in satisfying the needs of the organization's management and raises the levels of performance in order to realize goals.

The researches done by Hongjiang Xu as well as Dalabeeh et. al has its relevance when the observations made by Elena et.al (2011) were reviewed. Elena has mentioned in addition utilization of the Accounting Information Systems in the area of management and control of topics related to firms, the system can be effectively utilized in the economic and financial area. Elena has also mentioned that the stunning advancement in technology has opened up the possibility of generating and using accounting information from different viewpoints which supported the administration in managerial decision making.

There were other studies that were conducted prior to these studies. These references have relevance as of today since the accounting system developed gradually and to reach its present requirements. One of the earlier studies in this regard conducted by Al-Dhufairy (2008), is of the opinion that the accounting information system play a significant, effective role in providing all levels of decision-makers with timely, accurate and precise information which helps them take the right decisions, and they play an important role in the process of managing an enterprise's activity. He refers the importance as they exist inside the organization and control all its activities.

In support to the references made by Al Dhufairy, it is further seen that H. Sajady et. al (2008) has also observed the need of accounting information systems as important organizational mechanisms that are critical for effectiveness of decision management and control in organizations.

According to Abd el-Rahman, et al (2012), it was of the view that the value of an accurate and efficient accounting system is demonstrated by its ability to aid all organizations, by contributing to improving the quality of services, reducing costs and eliminating all resource-wasting activities. The AIS contributes to extent the knowledge and enhance the experience which eventually leads to developing the organization and increasing its competitive advantage through the improve system's ability to provide the right information at the right time. The amount and quality of information available to managers is a good indicator of organizational success. Managers who receive relevant and reliable information can plan for the future, improve cost control, improves the quality of their performance.

### ***Financial Performance and Accounting Information System***

Financial managers need the financial and accounting data provided by AIS to evaluate the firm's past performance and to map future plans. AIS is a system of managing and processing transactions, disseminating required reports, and ensuring an appropriate control environment relating to business financial transaction. The outcomes of AIS, the financial reports, are required at numerous levels of detail at different levels of management and by other stakeholders. In fact, the outcomes of an AIS feeds into various decision streams at operational, tactical, and strategic levels of the organization. Users require financial and related information with various degrees of detail and with various levels of analysis.

### ***Earlier research findings in the area of Accounting Information System:-***

There were many studies conducted in the area of utilization of information systems in diversified sections of the activity. These studies have thrown light into the effective utilization of the systems in the present day in hospitals. Some of the studies that were done off late are being discussed.

Al Qatananeh (2004) aimed to identify and analysis the role of accounting information system to provide quality accounting information to meet the managerial requirements in Jordanian manufacturing companies. The research done on a sample of 45 which constituted 60% of the population showed that there exist relationship between Accounting Information System component and quality of information received.

In another research conducted by Sajady et al. (2008) the effectiveness of accounting information systems for finance managers of listed companies at Tehran stock exchange were studied. The results indicate that implementation of accounting information systems at these companies caused the improvement of managers' decision-making process, internal controls and the quality of the financial reports and facilitated the process of the company's transactions. The results did not show any indication that performance evaluation process had been improved.

The study conducted by Ovidia et al. (2011), the result generated insights about the linkages between the exploitation of inside information on capital markets, the integration of organizational information, the use of accounting information, the relationship between information asymmetry and cost of capital, and the computer-based aspects of an organization's information system. The findings of this study have implications for the evolution of information

Systems models, the accountant's relationship to the information system, and the role and utilization of accounting information in decision-making strategies and processes.

The study identified the role of computerized accounting information systems in reducing the costs of medical services provided at King Abdullah University Hospital. The research identified that there is a significant role for computerized accounting information systems in the reduction medical services costs at the hospital. The study recommended to retain the highest levels of computerized accounting information systems through keeping up with the latest developments in the fields of software, hardware and databases, conducting regular maintenance which helps raise the level of services provided to patients at King Abdullah University Hospital, developing work procedures along with the progress of computerized accounting information systems, and conducting more research on the role of computerized accounting information systems in reducing the costs of medical services at other hospitals which were not included in previous studies such as the University of Jordan Hospital and private hospitals.

Salah et al (2010) proposed a framework to examine the relationship between contextual factors, management accounting system (MAS) and managerial performance within the health care industry. The support of contingency theory was utilized to identify the contextual factors that may influence the use of MAS; namely organizational strategy, technology, structure, external environment, and size. The study findings showed that the framework provided clarity in linking the perceived usefulness of MAS information characteristics to managerial performance that has been viewed as problematic by past studies.

Doinea et al (2011) generated insight about the linkages between the exploitation of inside information on capital markets, the integration of organizational information, the use of accounting information, the relationship between information asymmetry and cost of capital, and the computer-based aspects of an organization's information system. The study lead to the observation that there are implications for the evolution of information systems models, the accountant's relationship to the information system, and the role and utilization of accounting information in decision-making strategies and processes.

Alsharayri (2012) did a study in this area of accounting information systems performance with reference to Jordanian private hospitals. The sample were collected from fifteen hospitals in Jordan, The data on analysis revealed the factors that the modern equipment's are costly and cover-up the costs, manpower talents needs improvement. This has placed challenges with the employees and hospitals were finding it difficult to keep employees updated with the technology.

### ***Present Study on Accounting Information System utilization:-***

The present research was done in various private hospitals in UAE. The research sample was 38 employees. The detail of the analysis is as follows:-

The study revealed the following factors among the sample population. Out of the total population, 346. 8% had a work experience for 6 – 10 years while 26.3% had an experience of 1 – 5 years. Rest of the population with more than 11 years of experience came up to 18.4%.

Further the study revealed that 55.3% of the populations were holding masters' degree while 44.75 % has bachelor degree.

The job positions held by the respondents included diversified positions in the accounting and finance department. Maximum of the respondents coming up to 34.2% were holding senior consultant positions while 21.1% were holding the accountant's job. Out of the other respondents 15.8% were working in office billings.

These details are explained in Table 1

**Table 1: distribution of the sample according to the personal variables**

	Categories	Frequency	percent
<b>Work experience (years)</b>	1-5 years	10	26.3
	6-10 years	14	36.8
	11-15 years	7	18.4
	More than 15 years	7	18.4
	<b>Total</b>	<b>38</b>	<b>100.0</b>
<b>Educational degree</b>	Bachelor	17	44.7
	Master	21	55.3
	<b>Total</b>	<b>38</b>	<b>100.0</b>
<b>Present position</b>	Financial manager	3	7.9
	Head- accounting dept	2	5.3
	Senior accountant	13	34.2
	Deputy director financial admin affairs	1	2.6
	Accountant	8	21.1
	Official billing	6	15.8
	Revenue manager	2	5.3
	Accounts assistant	3	7.9
	<b>Total</b>	<b>38</b>	<b>100.0</b>

Reliability Analysis:

**Table 2: the result of reliability (Cronbach Alpha)**

No	Domain	Alpha	Item No
1	Financial performance	0.89	10
2	Managerial performance	0.92	10
<b>Total study tool</b>		<b>0.94</b>	<b>20</b>

The highest cronbach alpha value reached 0.92 for domain "managerial performance". And the lowest alpha value was 0.89 for domain (1) "financial performance". Since the total alpha value of the study tool reached 0.94 this indicates to accept reliability. (Table 2).

#### Means and standard deviation for "Financial Performance" domain

**Table 3: Means and standard deviation for "financial performance" domain items and total means of them (n= 38)**

No	Items	Mean	Standard. Deviation	Rank	Agreement Degree
1	Provides information which reflects the financial performance	4.29	0.57	1	High
2	Provides detailed information about the services provided in terms of cost, price, and profitability	4.13	0.62	3	High
3	Provides information which reflect the financial transaction	4.26	0.69	2	High
4	Provides additional financial information in form of statistical tables, graphs help in making comparisons and performance evaluation	3.34	0.91	10	Medium
5	Provides financial information assisting in the planning of financial resources	3.89	0.69	6	High
6	Provides information that assists in evaluation of financial events that have occurred in the past accurately	3.95	0.73	5	High
7	Provides information that contributes in the formation of predictions about future financial performance	3.87	0.84	7	High
8	Provides periodic and regular financial reports	4.03	0.85	4	High
9	Provides information necessary to evaluate the cost of services and products provided	3.74	0.72	8	High
10	Provided information necessary to help in the cost control	3.47	0.98	9	Medium
<b>Total Means</b>		<b>3.90</b>	<b>0.54</b>	-	<b>High</b>

Table (3) shows that the highest means reached (4.29) out of (5) for item (1) "provides information which reflects the financial performance" by high agreement degree, then for item (3) "provides information which reflect the financial transaction", by high agreement degree (means 4.26), then for item (2) "provides detailed information about the services provided in terms of cost, price, and profitability", by high agreement degree (means 4.13), And the lowest means was (3.34) for item (4) "provides additional financial information in form of statistical tables, graphs help in making comparisons and performance evaluation" by medium agreement degree. The total means for "**financial performance**" domain reached (3.90) by high agreement degree.

#### Means and standard deviation for "managerial performance" domain

**Table 4: Means and standard deviation for "managerial performance" domain items and total means of them (n= 38)**

No	Items	Mean	Standard. Deviation	Rank	Agreement Degree
1	Assists management in improving the quality of service provide	3.76	0.79	8	High
2	Assists management in the planning and allocation resources	3.95	0.61	2	High
3	Assists management in controlling the implementation of the activities and stated plans	3.84	0.72	6	High
4	Assists management in coordination process	3.84	0.72	6	High
5	Assists management in process of supervision	3.87	0.74	5	High
6	Helps managers in making different types of decisions	3.89	0.73	3	High
7	Provides control criteria and indicators assist management in detecting deviations	3.68	0.81	10	High
8	Provides decision maker information appropriate to the nature of the decision in terms of quality, time and cost	3.76	0.82	8	High
9	Provides information contribute to the develop of control procedures	3.89	0.73	3	High
10	Provides information lead to increase the effectiveness of the planning process	4.00	0.74	1	High
<b>Total Means</b>		<b>3.85</b>	<b>0.56</b>	-	<b>High</b>

Table (4) shows that the highest means reached (4.00) out of (5) for item (10) "provides information lead to increase the effectiveness of the planning process" by high agreement degree, then for item (2) "assists management in the planning and allocation resources", by high agreement degree (means 3.95), then for item (6) "helps managers in making different types of decisions", by high agreement degree (means 3.89), And the lowest means was (3.68) for item (7) "provides control criteria and indicators assist management in detecting deviations" by high agreement degree. The total means for "**managerial performance**" domain reached (3.85) by high agreement degree.

#### Hypothesis's test:

**The first hypothesis:** The accounting information systems in the United Arab Emirates private hospital did not provide information to meet the requirements of the financial performance function. To test this hypothesis (One Sample T. test) was applied to explore the role of AIS in meeting the requirement of financial performance, (test value (3) for five Likert scale), table (5) shows that.

**Table 5: the result of (One Sample T. test)**

Financial performance	Mean	Standard. Deviation	df	t. value	sig	hypothesis result
	<b>3.90</b>	<b>0.54</b>	37	10.150	0.00	Reject

Table (5) shows that there are statistically significant of the role AIS in meeting the requirement of financial performance, whenever t. value was (10.150) by significant (0.00) when comparative means for this domain (3.90) with criteria value for five Likert scale (3). This indicates to there are the role AIS in meeting the requirement of financial performance. Therefore we reject hypothesis one and accept the alternative hypothesis to become as follows:

“The accounting information systems in the United Arab Emirates private hospital provide information to meet the requirements of the financial performance function”. The second hypothesis: “The accounting information systems in the United Arab Emirates private hospital did not provide information to meet the requirements of the financial managerial function”. To test this hypothesis (One Sample T. test) was applied to explore the role of AIS in meeting the requirement of managerial performance, (test value (3) for five Likert scale), table (6) shows that.

**Table 6: the result of (One Sample T. test)**

managerial performance	Mean	Standard. Deviation	df	t. value	sig	hypothesis result
	3.85	0.56	37	9.376	0.00	Reject

Table (6) shows that there are statistically significant of the role AIS in meeting the requirement of managerial performance, whenever t. value was (9.376) by significant (0.00) when comparative means for this domain (3.85) with criteria value for five Likert scale (3).

This indicates to there are the role AIS in meeting the requirement of managerial performance. Therefore, we reject hypothesis one and accept the alternative hypothesis to become as follows:

“The accounting information systems in the United Arab Emirates private hospital provide information to meet the requirements of the financial managerial function”.

### **Conclusions and Recommendations**

- The accounting information systems in the United Arab Emirates private hospital provide information to meet the requirements of the financial performance function.
- The accounting information systems in the United Arab Emirates private hospital provide information to meet the requirements of the managerial performance function.

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