

**Research Article**

## **THE IMPACT OF ACCOUNTING INFORMATION SYSTEMS ON FINANCIAL PERFORMANCE – A CASE STUDY OF TCS – INDIA**

**Hadi Saeidi**

*Young Researchers and Elite Club, Quchan Branch, Islamic Azad University, Quchan, Iran*

*\*Author for Correspondence*

### **ABSTRACT**

Accounting information systems (AIS) as a part of company's information systems (IS) are seen as facilitating decision making within organizations and should be tailored to an organization's environment, requirements of task, and structure. An accounting information system is a structure that a business uses to collect, store, manage, process, retrieve and report its financial data so that it can be used by accountants, consultants, business analysts, managers, chief financial officers (CFOs), auditors and regulatory and tax agencies. In particular, specially trained accountants work with AIS to ensure the highest level of accuracy in a company's financial transactions and recordkeeping and to make financial data easily available to those who legitimately need access to it, all while keeping data intact and secure. In this research, given to the subject studied, the role of accounting information systems on organizational environment from the perspective of top managers, five hypotheses related to the research were taken into account. Questionnaire was designed in part of top managers, includes 30 questions. By using the statistical package SPSS for testing each relationship, an output value called P-value which is the same – p, significance probability was obtained. Finally, The mean of each research hypothesis, after the test was as follows: first hypothesis 4.2584, second 3.5123, third 3.0958, four 3.5966 and five hypothesis 3.7042.

**Keyword:** *Accounting Information System, Information System, Organization Performance, Accountants, Decision Making*

### **INTRODUCTION**

Accounting information systems characteristics are defined in terms of the availability of those characteristics and user satisfaction is a surrogate measure that is applied for measuring the performance of accounting information system.

Accounting is a system that provides information concerning the entity to a variety of interested users. The purpose of accounting information is to enable the users to make informed judgments. Since every decision involves several alternatives. Accounting information must assist the user to decide his course of action. Accounting is a process which with the help of accounting records produces financial statements. The Management is multiple foundation of knowledge whether in area of theory or practice which means that the theories, methodology and related models are based on principles of combination of scientific subjects such as economics, statistics, psychology, management accounting etc.

In management literature, the important duties of managers consist of planning, organizing, leading, supervising, controlling and decision making. Some of the management philosophers consider the decision making as foundation and basis of duties of a manager and some consider decision making as one of the main duties of managers. Anyhow the importance of decision making in management has become mooted in such way that some people consider management equal to decision making.

The Accounting Information System is considered to be one of the most important systems of any organization. Its objective is to provide necessary information to the managers at different levels. This information helps them in discharging their responsibilities in an effective and efficient manner in the areas of planning, resource control, performance evaluation and decision making.

### **Literature Review**

According to Soyode (1982), Accounting is the act of measuring, communicating and interpretation of financial activities. It serves as a business language being practically used by nearly everybody in one former another almost on daily basis (Soyode, 1982).

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Talaneh and Nakhjavani (1993) have an article regarding individual decision making with using of accounting information. The authors in this article mention some real experiences related to the application of accounting information system through individuals and the information processing method by them and also they have studied the probability of using of experiences in accounting theory development (Talaneh and Nakhjavani, 1993). Mark (1993) in a research has studied the effect of accounting information on managers' decision making. In this article that is more studied the general plan framework of total information technology. He has studied the role of information at first in macro level and concluded that information is valuable goods in developed countries and has fundamental role in their economy. In this research has been discussed regarding the conformity of cash flow estimation, change or reform of methods, evidences related to financial and management accounting report (Mark, 1993; Sprinkle, 2003; Horngren *et al.*, 2005). Accounting information, in the form of periodic reports or special analyses, is often a source of information for making decisions, including pricing, production levels and product mix, outsourcing, inventory policy, customer servicing, labour negotiations, and capital investments (Horngren *et al.*, 2005; Sprinkle, 2003; Neale and Maris, 2006).

Refer to advances our knowledge of information systems (IS) management by applying ideas and insights from accounting. An integrative cost–benefit framework is developed and applied to four areas of research: chargeback, outsourcing, decision support, and business process re-engineering and improvement. We show that the accounting literature contributes significantly to scholarship on the management of IS (O'Connor and Martinsons, 2006; Dillard, 2008).

Several theoretical perspectives are discussed as alternative ways of viewing AIS research and applications. Here, we continue this line of inquiry by considering how to frame AIS research and application within a pluralistic context so as to initiate and sustain multiple voices engaging in dialog and debate. Such a framing provides theoretical and methodological guidance in the design, implementation, and evaluation of AIS in work organizations (Dillard, 2008; Matthew, 2010) why managers use accounting information in their work. First, managers primarily use accounting information to develop knowledge of their work environment rather than as an input into specific decision-making scenarios. In this role, accounting information can help managers to develop knowledge to prepare for unknown future decisions and activities. Second, as accounting information is just one part of the wider information set that managers use to perform their work, it is imperative to consider its strengths and weaknesses not in isolation but relative to other sources of information at a manager's disposal. Third, as managers interact with information and other managers utilizing primarily verbal forms of communication, it is through talk rather than through written reports that accounting information becomes implicated in managerial work (Matthew, 2010).

## **Objectives of Study**

In brief, the objectives of this study are as follows (Saeidi, 2014):

1. To study the role of accounting information systems and its potential contribution in Tata Consultancy services (TCS).
2. To identify the lacunas of the accounting information system.
3. To determine the extent of awareness and perception of managers regarding accounting information system.
4. To study the difference between the managers who use accounting information system with other managers who do not use the same while taking various decisions.
5. To determine the effectiveness of accounting information system in decision making of managers on organizational performance.

## **Statement of Hypotheses**

1. There is positive relationship between accounting information systems and the organizational performance.
2. There is a positive relationship between financial performance of the organization and tools of accounting information system.

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**3. Return on investment (ROI) of the organization has positive relationship with accounting information system.**

### Sample Size

This refers to the number of items to be selected from the universe to constitute a sample. The statistical population or universe of this research will be out of the Tata Consultancy Services (TCS) companies in India.

Date will be collected from executives working in Non financial executive in Chennai office. Then total sample were taken out of 40 executives working in non financial executive return the questionnaire.

### Reliability Analysis

To determine validity of the questionnaire, formal validity technique is used. To measure reliability of the questionnaire, Chronbach's alpha method was used the following results were obtained:

**Table 1: Measure reliability of the questionnaire with Chronbach's alpha method**

Chronbach's alpha			
Non Finance Executives	Managers AIS	using Finance Managers	Variables
0.80	0.83	0.77	Knowledge and understanding of managers and accountants
0.79	0.87	0.93	Decision making of managers
0.81	0.79	0.83	Organizational performance
0.77	0.86	0.87	Financial performance
0.83	0.78	0.76	Organizational resources

As shown in the table 1, reliability of all variables of the research model is unacceptable range (higher than 75%) indicating reliability of the questionnaires employed. It can be concluded that the questionnaire has good validity and reliability.

### Testing Hypotheses

To calculate indices studied, questionnaires were used in which individual questions have Likert scale and can be considered as relative data. To summarize data and information, first by giving score to each item, average score of questions involved in the respective factors is calculated and considered as one of factors. The important point is that indices calculated is always in the range of one to five and since all questions are positive, high number indicates the effect of accounting information on the respective factor.

### Test Procedure and Decision Making

By using the statistical package SPSS for testing each relationship, an output value called P-value which is the same –p, significance probability was obtained.

A particular accuracy should be considered in any test which is called test accuracy denoted by  $1-\alpha$  and in literatures it is considered 90% or 95% or 99%. In this research, test accuracy is considered 95%.

If P-value is smaller than 0.05, null hypothesis implying lack of accounting information effect on a particular factor is rejected with 95% accuracy (the effect of accounting information system on the factor is accepted).

### Research Variables

**Variable 1:** Knowledge and understanding of managers and accountants from accounting information systems.

Knowledge and understanding of non finance executives using accounting information systems is above the average 3.

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To measure the hypothesis, one-sample t-test is used in which average score of knowledge and understanding of non finance executives using accounting information systems is compared with the average value 3 and the following results are obtained:

**Table 2: One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
40	4.2584	.91518	.14471

**Table 3: One-Sample Test**

Test Value = 3					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper
8.696	39	.000	1.25838	.9657	1.5511

Considering table 2 & 3 and p-value obtained which is less than 0.05, it is found that there is a significant difference between average score of knowledge of managers using accounting information systems and average value, 3. So it can be concluded that the hypothesis implying high knowledge of managers using accounting information systems is accepted at 95% level.

**Variable 2:** Accounting information systems affect managers' decision making.

To test the hypothesis, it should be examined whether average score of managers' decision making is in average range (equal to 3)?

To answer the question, one-sample t-test is used in which average score of managers and accountants decision making is compared with the average value, 3 and the following results are obtained:

**Table 4: One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
40	3.5123	1.18021	.18662

**Table 5: One-Sample Test**

Test Value = 3					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower	Upper
2.745	39	.009	.51226	.1348	.8897

Considering table 4&5 and p-value obtained, it is found that there is a significant difference between average score of managers' decision making and average value, 3. So the hypothesis implying the effect of accounting information systems on managers' decision making is accepted at 95% level.

**Variable 3:** accounting information systems affect organizational performance of managers.

To test the hypothesis, it should be examined whether average score of organizational performance of managers is in average range (equal to 3)?

To answer the question, one-sample t-test is used in which average score of managers organizational performance is compared with average value 3 and the following results are obtained:

**Table 6: One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
40	3.0958	1.34418	.21253

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**Table 7: One-Sample Test**

Test Value = 3					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
.451	39	.0655	.09583	-.3341	.5257

Considering table 6 & 7 and p-value obtained which is more than 0.05, it is found that there isn't a significant difference between average score of organizational performance of managers and average value, 3. So it can be concluded that the hypothesis implying the use of accounting information systems improves organizational performance of managers is rejected at 95% level.

**Variable 4:** Accounting information systems affect financial performance of managers.

To test the hypothesis, it should be examined whether average score of financial performance of managers is in average range (equal to 3)?

To answer the question, one-sample t-test is used in which average score of managers financial performance is compared with average value 3 and the following results are obtained:

**Table 8: One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
40	3.5966	1.25478	.19923

**Table 9: One-Sample Statistics**

Test Value = 3					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
2.995	39	.005	.59661	.1935	.9997

Considering table 8&9 and p-value obtained, it is found that there is a significant difference between average score of financial performance of managers and average value, 3. Since average score of financial performance of managers is 3.59 (higher than average value) it can be concluded that the hypothesis implying the use of accounting information systems improves financial performance of managers is accepted at 95% level.

**Table 10: One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
40	3.7042	1.18032	.18663

**Table 11: One-Sample Test**

Test Value = 3					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
3.773	39	.001	.70417	.3267	1.0817

**Variable 5:** accounting information systems affect organizational resources.

To test the hypothesis, it should be examined whether average score of organizational resources is in average range (equal to 3)?

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To answer the question, one-sample t-test is used in which average score of organizational resources is compared with average value 3 and the following results are obtained:

Considering table 10 & 11 and p-value obtained, it is found that there is a significant difference between average score of organizational resources and average value, 3. Since average score of organizational resources is 3.7 (higher than average value) it can be concluded that the hypothesis implying the use of accounting information systems improves organizational resources is accepted at 95% level.

## **Conclusion**

Finally, in this study researcher after analysis of data find the positive and negative relationship between AIS and influence factors on the organization, after analysis of data in non finance executive group with hypothesis (H1, H2, H3) for each variables, researcher find the positive relationship in Knowledge and understanding of managers and accountants, decision making, financial performance and organizational resources, it means AIS is influence on the these variable. But only in organizational performance variable p-value obtained which is more than 0.05, it is found that there isn't a significant difference between average score of organizational performance of managers and average value, 3. So it can be concluded that the hypothesis implying the use of accounting information systems improves organizational performance of managers is rejected at 95% level.

## **Suggestions**

1. Accounting units should utilize the utmost benefit of related knowledge based on computer systems so that relevant financial reports to the informational needs of each authorized sections would be clear to understandable and reliable in the best possible way with the short span of time.
2. Management should pays utmost attention to the role of accounting information system in better understanding of financial dimensions of development as one of the important tools of decision making and planning.
3. Management should improve its knowledge about accounting information systems and financial analysis.
4. Management should evaluate accounting policies which is used in company in the set time table and it should be revised according to the principal and standard for giving more useful accounting information systems in case of need.

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