

Accounting Information System of the Seventh-day Adventists Church-owned Secondary Schools in the Philippines

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Abstract

This paper examines the perception of accounting information system (AIS) users in the characteristics of their AIS; its responsiveness to change in information technology (IT), management's information need, and changes in number of students; and whether its objectives were met. The population of this study is the Seventh-day Adventists Church owned and operated secondary schools in the Philippines. It was found that the schools' AIS have the characteristics of successful AIS, responsive enough to changes and able to meet its objectives. Furthermore, it was found that there was no significant difference in the characteristics of the schools' AIS when grouped according to age of school, degree of computerization and manpower size. It was also found that there was no significant correlation between the responsiveness of the schools AIS with age of School, manpower size and budgetary support for the accounting department.

Keywords: AIS, IT, secondary schools

Introduction

Individuals must make decision throughout their lives, whether as members of families, groups and societies, or as employees and employers. Organizations are faced with the same task, which are more complex because organizations are engaged in many activities that affects many parties, thus there is an increasing importance of information to enterprises, and to our society, and to manage these data resources better.

Because of the complex environment that organizations operate in, they need sound financial facts that are communicated in a meaningful form. Accounting information system, which converts inputs to outputs, produces this financial information. The output of an accounting system provides information for people both internal and external to an organization and will be used as a basis for decision-making; therefore, the accuracy of the system's report is extremely critical.

At the stage of the 21st century, developments in information technology offer great advantage over a manual accounting system. Past studies that looked into the usefulness of computer technology found that accounting departments of some Philippines firms benefited from the usefulness of computer in terms of efficiency, accuracy and timeliness. Furthermore, it was found that increased productivity and improved customer services were some of the benefits expected from a computerized system (Moran, 1989). Regardless of all the benefits, accounting information can only be meaningful if analyzed and interpreted correctly.

The subject of this study is the Seventh-day Adventists Church-owned and Operated secondary schools in the Philippines. These schools are non-profit organizations, but like other profit institutions, they are faced with changes in both internal and external factors to the organization. This study focuses on the characteristics and responsiveness of the respondents accounting information system to changes and its ability to meet objective.

Related Literature

Accounting information system is a collection of resources designed to transform financial and other data into information (Bodnar & Hopwood, 1995). This information is then communicated to a wide variety of decision-maker. Organizations are continually faced with the need for new or better information because of the ever-changing nature of their environment. To meet this need, organizations information system must periodically undergo changes that range from minor to major overhauls.

Most organization needs to changes in the business or nature of the organization, needs of people, and technological development (Cushing & Romney, 1990). In order to remain responsive to the needs of the organization, the information system must change as the organizational changes. As people gain experience or take on new responsibilities, their information requirements often changes in users' information needs.

Having a system that is responsive to the needs of the organization and its people is possible, particularly because if the advances in IT have made IT less vastly. It can improve the accuracy and timeliness of information if it is effectively used (Moran, 1989). Furthermore, it can lower average production costs and lower average total costs, although the average overhead cost may be higher (Mitra & Chaya, 1996). On the other hand, IT can be a problem of not tailored into organization environment properly. It must fit the organization system and support the worker, otherwise it can be a disruption in the workers environment, thus, negatively impact the workers by increasing workload, mental strain, or decrease the workers' quality of work life.

A study of the computerized information system of credit guarantee corporations in the Philippines found that the system provide sufficient information on different areas. Information was found to be satisfactory accurate, reliable, timely, compete and useful. However, there were still problems encountered with delayed reports, lack of technical know-how, errors in reports, high cost of allocation, and lack of accounting and managerial control (Abuel, 1996). For these reasons, a system needs to be properly tailored to its environment and continuously undergo evaluation.

An accounting system is considered successful if it achieves four objectives: accurate and timely information, completed within a reasonable amount of time, meet organizations' informational need and gain users' satisfaction (Boockholdt & Li, 1991). An ideal accounting system should be able to process information efficiently, produce relevant information on a timely basis, ensure relevant high degree of accuracy and minimize possibility of theft and fraud (Anthony & Reece, 1989). Some other critical success factors are cost effectiveness. Flexibility, simplicity, reliability, users acceptance and managements' commitment (Manuel, 1997; Nash & Heagy, 1993). These qualities are somewhat overlapping; however, they reflect the features of an ideal accounting system.

The interaction between AIS and its environment and how they affect the attainment of AIS objectives is presented in the following figure.

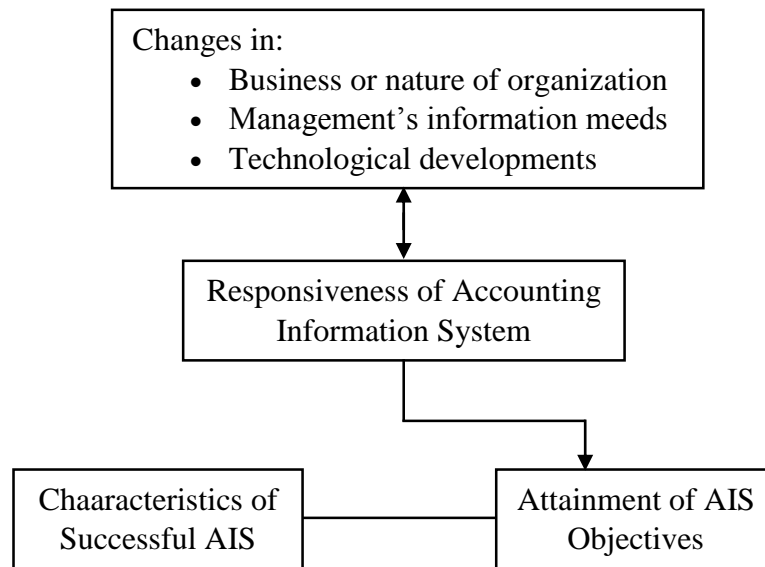


Figure 1.1

Interaction between AIS and changes and the attainment of its objectives.

Research Question and Hypothesis

This study sought to find out whether the accounting the accounting information system of the Seventh-day Adventists Church-owned and operated Secondary schools have coped up with changes in information technology, management's informational need, and organization's growth in terms of increase in number of students. The study also assesses the ability of the system to meet its objectives, and likewise, the system's characteristics.

It is expected that the characteristic of the schools' AIS would be significantly different when they are grouped according to the years the schools have been in operation; degree of computerization and the budget size for accounting department. It is also expected that the responsiveness of respondent schools' AIS is significantly related to the number of years the schools have been in operation, current manpower size and size of budget for accounting department. Both hypotheses were tested in its null form.

Research Design

Population and Sample. In 1999 the Seventh-day Adventists Church owns and operates twenty-two (22) secondary school in the Philippines. Thirteen (13) were included in this study because of the number of students. It was expected that the schools' AIS would face more strain as the number of students increase.

Research Instrument. The closed-ended questionnaires were used in gathering the respondents' perception, while documentary analysis and unstructured interviews were also used in obtaining relevant historical data, policies and organizational structure.

Statistical Tools. In quantifying and interpreting the responses received the Likert Scale (as modeled below) was used.

Range	weight	Interpretation
4.51 – 5.00	5	Strongly Agree
3.51 – 4.50	4	Agree
2.51 – 3.50	3	Slightly Agree
1.51 – 2.51	2	Disagree
1.00 – 1.50	1	Strongly Disagree

The Kruskal-Wallis test (H test) was used in testing for significant difference in the characteristics of schools' AIS. Pearson Correlation was used to find any significant relationship between the responsiveness of respondent schools' AIS and the number of years the schools has been in operation, current years enrolment manpower size and current budget for accounting department.

Findings

Characteristics of Respondent Schools' AIS. Summary to the questions and the responses received are presented in Table 1.

Table 1
Characteristics of Respondent School's AIS

Characteristics of successful AIS	Weighted Mean	Verbal Interpretation
a. Information generated by accounting department is correct.	4.49	Agree
b. The information generated by accounting department is timely.	4.10	Agree
c. The information generated by accounting department satisfies the organization needs.	4.14	Agree
d. The AIS wins users acceptance.	4.20	Agree
e. The AIS is cost effective.	3.92	Agree
f. The AIS is adequately flexible.	4.04	Agree
g. The system offers simplicity.	4.35	Agree
h. The AIS is reliable.	4.00	Agree
i. Management Shows commitment to the AIS	4.03	Agree
Average Weighted Mean	4.14	Agree

The responses ranges from a low of 3.92 to a high of 4.49, all are verbally interpreted as agree. The average weighted mean is 4.41, which means that the respondents agree that the schools' AIS have the characteristics of successful AIS.

The respondent schools' AIS were then tested for significant differences when they are grouped according to number of years schools have been in operation, degree of computerization and current year's budget for the accounting department. It was found that there are no significant differences. All there calculated H value is lesser are the χ^2 value of 3.841 at α 0.05 and degree of freedom of one (2-1).

The respondents agreed that their schools' AIS are responsive enough to changes in information technology, management's information needs and growth in the number of students. The summary of their responses is presented in Table 2

Table 2
Responsiveness of AIS to Changes

Changes	Weighted Mean	Verbal Interpretation
1. Information technology	4.11	Agree
2. Management information needs	3.99	Agree
3. Increase in number of student	4.11	Agree
Average Weighted Mean	4.07	Agree

The respondent schools' AIS were then related to the number of years the schools have been in operation, current manpower size and school year's budget for accounting department. The test for significance in relationship is summarized Table 3.

Table 3
Pearson Correlation Analysis of the Responsiveness of AIS

variable	r	P	Verbal Interpretation
1. Number of years schools have been in operation	-.40	.228	Low negative relationship but not significant
2. Current school year manpower size	-.64	.132	Slightly strong negative relationship but not significant
3. Current school year's budget for accounting department	.17	.478	very low relationship
If P is lesser than α 0.05, there is a significant relationship			

Although the r-value showed low negative relationship for the first three variable, the relationship is not significant for the number of years the schools have been operating and the manpower size of the schools. Therefore, it's not valid to conclude that the longer the schools have been in operation and the more manpower they have, the less responsive they are to changes. There is also no significant relationship between budgetary support and the responsiveness of AIS to changes. Ideally, when the budget for the accounting department increases, there should be an increase in the responsiveness to the changes in management's information needs, increase in number of students, and technological developments.

The respondents also agreed that the schools' AIS able to meet its objectives (average weighted mean of 4.07). the questions and responses are summarized in table 4.

Table 4
Objectives of Accounting Information System

objectives	Weighted Mean	Verbal Interpretation
1. The accounting information system generates useful information in helping management and users solve problems.	4.16	Agree
2. The benefits of the AIS exceed its costs.	4.21	Agree
3. The AIS process data and generates information accurately and completely.	4.09	Agree
4. Users are able to access the system when they need to.	3.84	Agree
5. The AIS generates information timely.	3.94	Agree
6. Efficient customer services is provided.	4.30	Agree
7. The system has sufficient capacity to operate in peak times and handle future growth.	3.97	Agree
8. The system is user friendly.	3.80	Agree
9. The system is sufficiently flexible to accommodate operating requirement changes of a reasonable magnitude.	3.99	Agree
10. The AIS facilitates problem solving and future developments.	4.06	Agree
11. The AIS is auditable.	4.44	Agree
12. There is an adequate security to safeguard data, records and documents from unauthorized users.	4.06	Agree
Average Weighted Mean	4.07	Agree

The responses range a low of 3.82 to a high of 4.44; all are verbally interpreted as “agree”. The specific objectives such as the system is user friendly and users could access the system at the time they need do scored the lowest weighted means of 3.82, 3.84 which are verbally interpreted as a low “agree”. The question whether the system generates information on a timely basis and the system has sufficient capacity to handle periods of peak operations scored a weighted means of and 3.94 and 3.94, which are verbally interpreted as average “agree”. The question whether the system provide efficient customer service and whether the system is auditable scored the highest with weighted means of 4.30 and 4.44 respectively.

Conclusions and Recommendation

This study examines the perception of users of AIS. The population are the Seventh-day Adventists Church owned and operated secondary schools in the Philippines. The study sought to find out whether the respondent schools’ AIS has the characteristics of a successful AIS, how responsive it is to changes in organization or business nature, management’s information need and IT. The study also sought to find out whether there are differences in the characteristics when the schools are grouped according to a variety of variables and whether there are significant relationships between the responsiveness of the AIS and variety of variables. Furthermore, the study sought to find out whether the AIS meet its objectives.

Generally the respondents agreed that the schools' AIS have the characteristics of successful AIS, responsive enough to changes and able to meet its objectives. However, when grouped according to age of school, number of students and budget for accounting department, there were no differences found in the characteristics of the schools' AIS. Therefore, the null hypotheses that there were no significant differences cannot be rejected. It is expected that the longer the school has been operating the better the AIS, the more students the school has the more strained its AIS and the more budgetary support the accounting department the better its AIS. It can then be concluded that the younger schools were able to tailor its AIS to the organization's setting properly as was the older schools, schools with more students had their AIS tailored to work under heavy strains and schools with less budgetary support for accounting department were able to maximize whatever resources they have to meet the criteria for an ideal AIS.

When the responsiveness of the schools' AIS was related to age of schools, it was found that there was slight negative correlation, which is not significant. Thus, both young and older schools are responsive to changes. When the responsiveness of AIS was related to manpower size and budgetary support, there was no significant relationship.

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