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Determining Factors on Applicability of the Computerized Accounting System in Financial Institutions in Sri Lanka

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Abstract : This research aimed to measure the determining factors on applicability of the Computerized Accounting System (CAS) and to examine the relationship among the factors influencing of CAS in the Financial Institutions in Sri Lanka. By using multiple regression analysis, authors found that there is a positive impact with positive statistical significance of human resource and infrastructure as independent factors on the dependent variable, there is a negative impact of the cost on the application of the CAS and there is no statistically significant impact of administrative performance on the applicability of the CAS to Financial Institutions in Sri Lanka.

Keywords: Computerized Accounting System (CAS), and Financial Institutions

Introduction

An adoption of Computerized Accounting Systems (CAS) becomes vital and may well be the determining factor for the survival or success of an entity, especially Financial Institutions. The companies' managers and owners require update, correct and real time accounting information in order to survive in market. It is very desirable for financial information to have all the qualitative characteristics, but qualitative characteristics and especially two characteristics of "relevancy" and "reliability" are often inversely correlated. Thus increasing one will decrease the other one and that has led to the fact that all qualitative characteristics of accounting information cannot be gathered together at same time. CAS is the application of the computer based software used to input process, store output accounting information. The application is to support advancing technologies that enable firms to use computer programmes to perform tasks that were previously done manually. The need for

computerization of accounting system is due to increase in the number of transactions as a result of the policy of continuous expansion of the business. It is very important to computerize its systems and different functions as it considers two mandatory rules that govern its operations, technology must benefit your business and if technology does not benefit your business then you don't need it. For this reason, the accounting section which the firms considers very important is highly computerized for the purpose of improving on record keeping, proper maintenance of different loss of cash or loss of accounting records.

A more simplistic view is presented by Klien (2002) stressed that a business either small or big business must have equivalent accounts namely, the income, capital, expenses and liabilities. Various software package introduce such as interface, wizards file, icon and pre built templates for multipurpose. It can be memorizes by saving the data and the forms that been used regularly. By using this feature, record keeping will be consistent and also save time, Davis and Dunn (2005).

The purpose of this study is to determine the impact of factors affecting the applicability of the Computerized Accounting System in the Financial Institutions in Sri Lanka.

Research Problem

The problem of the study emerges that the used accounting system in the most of the firms is a conventional one, and must operate a new computerized accounting system, so as to keep abreast of developments of CAS. The researchers found through personal interviews and previous studies to find out some of the obstacles that prevent the possibility of applying the CAS in the Financial

Institutions such as human resource, administrative performance, cost and infrastructure, where some other previous studies took some of the obstacles that prevent the possibility of applying a CAS in the other business sectors such as infrastructure and human resource. So the questions of this study emerged in order to help solving the problem of the study depending on the following questions:

Research Questions

This study aims to answer the following research questions:

- What variables determine the decision of Financial Institutions in Sri Lanka to adopt CAS?
- Is there any relationship between the determining factors and the applicability of the CAS?

Objectives of the study

This study attempts to achieve the following objectives:

- To measure the factors influencing the CAS in the Financial Institutions in Sri Lanka.
- To examine the relationship among the factors influencing of CAS in the Financial Institutions in Sri Lanka.

Methods and Materials

Conceptual Model

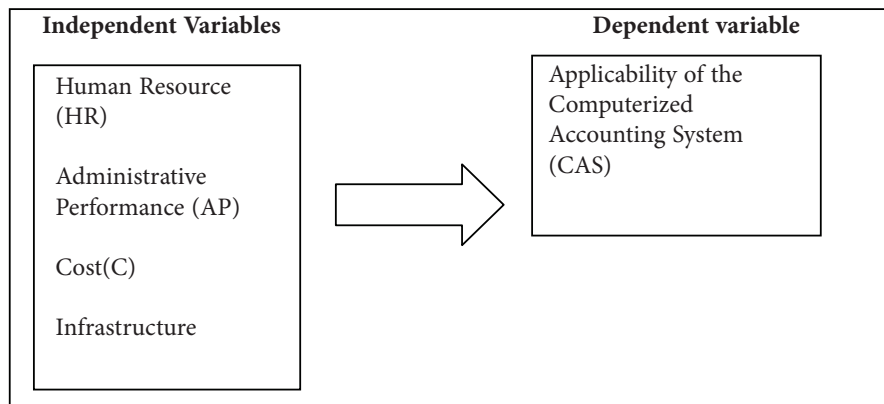


Figure 1: Conceptual Model

Significance of the study

The significance of the study is came from theoretical and practical contribution through revealing the importance of using the CAS in the Financial Institution in Sri Lanka, so the decision-makers keep pace with technological developments in many Financial Institutions in the world. The contribution of this study is to encourage the decision-makers using the CAS will lead to a transition from scarcity of information to the state of abundance of information, as well as to the quality of appropriate information that give objectivity and integrity. While the theoretical contribution of this study used new variables that the previous studies didn't use in measuring the dependent variable such as administrative performance and cost. This study will also help in having the possibility to implement a CAS in the Financial Institutions, because of the saving of time, effort and cost, it will also help to correct the obstacles that hinder the computerization of the accounting system in the Financial Institutions. The importance of this study also came through what confirmed on the need to keep pace with the technological developments in accounting, as considered a system of information specialized in generating the informational data of an Financial Institutions.

Hypotheses of the study

Based on the research questions of the study these hypotheses have been formulated as the following:

- H₁**: There is a positive impact of human resource on the CAS in the Financial Institutions in Sri Lanka.
- H₂**: There is a positive impact of administrative performance on the CAS in the Financial Institutions in Sri Lanka.
- H₃**: There is a positive impact of cost on the CAS in the Financial Institutions in Sri Lanka.
- H₄**: There is a positive impact of infrastructure on the CAS in the Financial Institutions in Sri Lanka.

Sample size

Sample	Number
Banking sector	50
Non-banking Financial Institutions	30
Insurance companies	30
Total	110

This study revealed that from the 110 questionnaire, only 100 complete sets for analysis. Response rate was presented 91%.

Model

Following multiple regression model has been formulated for the analysis of this study.

Eq.1

$$\text{Applicability of the CAS} = \beta_0 + \beta_1 \text{ HR} + \beta_2 \text{ AP} + \beta_3 \text{ C} + \beta_4 \text{ I}$$

Where

HR: Human Resource, AP: Administrative Performance, C: Cost and I: Infrastructure

Method of data collection

This study is mainly based on primary data. Structured survey questionnaires have been used. In the questionnaire the perception has been calculated by 5 point Likert Scale where 5= very important and 1= very unimportant. This study will also be adopted on personal interviews with many of the staff of these Financial Institutions.

Variables of the study

Human resource, administrative performance, cost and infrastructure have been employed as independent variables whereas applicability of the CAS has been employed as dependent variable.

Population and sample

100 staff who are using CAS are surveyed of three different types of Financial Institutions such as banking sector, non-banking Financial Institutions, and insurance companies which are the listed Public Limited Companies in Colombo Stock Exchange based on the random sampling basis.

Results and Discussion

Correlation analysis

No variable was excluded due to the lack of higher link problem between the independent variables with each other (Multicollinearity) and that, as shown in Table 1. The bilateral test analysis also confirmed that correlation between all independent variables with the dependent variable is high and statistically significant as shown in Table 1

Table 1: Pearson Coefficient

Variables	Applicability of the Computerized Accounting System	Human Resource	Administrative Performance	Cost	Infrastructure
Human Resource (HR)	0.7230	1.0000	0.7114**	0.4590	0.8123**
Admin Performance (AP)	0.0812	0.7114**	1.0000	0.5210	0.8340
Cost (C)	0.3420	0.4590	0.5210	1.0000	0.7666
Infra	0.5712	0.8123**	0.8340	0.7666	1.0000

Correlation is significant at the 0.01 level (2-tailed)

Source: Calculations are based on data

Regression analysis

Table 2: Multiple linear regression – output 1

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
	10.982 (A)	0.964	0.952	0.06752

Source: Calculations are based on data

Regression model analysis showed that the relationship between applicability of the CAS and human resource, administrative performance, cost and infrastructure had explained 95.20% of the variance in the factor influencing the applicability of the CAS in Financial Institutions in Sri Lanka.

In Table 2, the study found that the independent variables combined were with relationship with the dependent variable of 0.982 which is a strong positive relationship, in addition to the contribution of all independent variables to the dependent

variable was by R. Square 0.964, this indicates that the independent factors combined explain the rate of 0.964 of the change in the behaviour of the dependent variable, which considered a high percentage, while the statistical independent variables represented in the human resource, cost and infrastructure amounted to the impact of these variables combined on the dependent variable through the Adjusted R Square 0.952.

Table 3: Multiple linear regression – output 2

Anova (b)

Model		Sum of squares	df	Mean square	F	Sig
1	Regression	8.123	5	1.652	349.69	0.0000 (a)
	Residual	0.434	94	0.005		
	Total	8.557	99			

a. Predictors: (constant)

b. Dependent variable: applicability of the CAS

Source: Calculations are based on data

In term of overall significant of this model, Table 3 shows that significant model emerged (F 5, 94 = 349.69, p<0.001)

Table 4: Multiple linear regression – output 3

Coefficients (a)

	Collinearity VIF	Statistics Tolerance
Constant		
Human Resource (HR)	1.624	0.666
Admin Performance (AP)	1.682	0.599
Cost (C)	2.576	0.368
Infrastructure (I)1	4.059	0.257

a. Dependent variable: applicability of the CAS

Source: Calculations are based on data

Table 5: Multiple linear regression – output 4

Coefficients (a)

	Un Standardized Coefficients Standard error	Un Standardized Coefficients B	Standardized Coefficients B	T	sig
Constant	0.118	0.665		5.522	0.000
Human Resource (HR)	0.017	0.293	0.420	15.433	0.000
Admin Performance (AP)	0.023	0.015	0.025	1.267	0.235
Cost (C)	0.024	-0.276	-0.424	-11.089	0.000
Infrastructure (I)	0.035	0.138	0.176	3.444	0.001

a. Dependent variable: applicability of the CAS

Source: Calculations are based on data

In this study, the relationship between the independent variables and dependent variable from regression analysis is:

Equation 1

Applicability of the Computerized Accounting System (CAS)

$$= 0.420 \text{ HR} + 0.025 \text{ AP} - 0.424 \text{ C} + 0.176 \text{ I}$$

(15.433) (1.267) (11.089) (3.444)

Where t value is in parentheses.

This indicates that applicability of the CAS will increase by 0.420 when Human resource goes up by one, increase by 0.025 when administrative performance goes up by one, decrease by 0.424 when cost goes up by one and increase by 0.176 when infrastructure goes up by one. In conclusion the

findings that have been gathered revealed the variables have positive and negative influence the applicability of the CAS in Financial Institutions in Sri Lanka.

Further, results of multiple regression for the entire independent variables, indicates that some independent variables have positive correlation and statistically significant with the dependent variable and these variables are:

Human Resource: There is a positive correlation between the human resource and the application of the computerized accounting system at a significance level equal to 0.000. The results of the analysis showed that the strength of the impact of the human resource on the dependent variable was equal to 0.293.

Infrastructure: There is a positive correlation between the infrastructure and the application of the computerized accounting system at a statistical significance level equal to 0.001, where the magnitude of the effect of this variable on the dependent was 0.138.

The results of multiple regression showed as stated in Table 5 that the independent variable (cost) of a negative relationship with the dependent variable. The power of the impact of this independent variable is -0.276 While the results of multiple regression confirmed that the independent variable (administrative performance) has a weak correlation and not statistically significant where the strength of the relationship is 0.023 and non-statistical significance amounted to 0.235.

Discussion

The study hypotheses were tested based on a multiple regression model, which was designed for this purpose that included the application of the CAS in the Financial Institutions in Sri Lanka as a dependent variable, in addition to the factors affecting the application of the CAS associated with these Financial Institutions as independent variables.

Testing of the Hypotheses

To test the first hypothesis which stipulates that there is an impact of statistical significance for the human resource on the CAS to the Financial Institutions in Sri Lanka, and upon the results of multiple regression analysis that accepts the H_1 hypothesis, when the level of significance equal to 0.000. This indicates that there is a positive correlation between human resource on the CAS to the Financial Institutions in Sri Lanka, and whenever the human resource was well prepared in terms of training, practical and knowledge and in the term of using this system, that leads to an increased desire in the application of this system to the Financial Institutions in Sri Lanka with the amount of 0.293.

To test the second hypothesis which stipulates that there is a statistically significant impact of administrative performance on the CAS Financial Institutions in Sri Lanka. And based on the regression results which rejects the H_2 hypothesis and that because of the weak presence of positive correlation that is not statistically significant between the administrative performance of the Financial Institutions in Sri Lanka and the applicability of the CAS in these Financial Institutions at the level of significance equal to 0.235 and this result confirms that the administrative performance has no importance in influencing the transition from the conventional accounting system to a new CAS and that from the viewpoint of the study sample.

To test the third hypothesis which stipulates that there is an impact of statistical significance for the cost of the CAS in Financial Institutions in Sri Lanka. The study found through a multiple regression that there is a negative impact of the cost of the applicability of the CAS to the Financial Institutions in Sri Lanka with the amount of -0.276 and at the level of statistical significance 0.000 Thus, the study accepts the H_3 hypothesis, where these findings demonstrate that if the cost increased, this will lead to dissatisfaction in shifting from the conventional accounting system to the CAS with the amount of -0.276 and vice versa.

To test the fourth hypothesis which stipulates that there is no statistically significant impact of infrastructure on the CAS in the Financial Institutions in Sri Lanka. The study found through multiple regression that there is a positive impact of infrastructure on the CAS in the Financial Institutions in Sri Lanka amounted 0.138 and at statistical significance level of 1.00 Thus, the study accepts the H_4 hypothesis. Where these results confirm that as the infrastructure of the Financial Institutions was well prepared so the applicability of the CAS will be easier, the provision of infrastructure in the Financial Institutions in Sri Lanka will lead to the applicability of the CAS for these Financial Institutions with the amount of 0.138.

Conclusion

There is a positive correlation statistically significant between human resource and infrastructure in one hand and between the applicability of the CAS in the Financial Institutions in Sri Lanka.

There is a negative correlation statistically significant between the cost and the applicability of the CAS in the Financial Institutions in Sri Lanka.

It has been found that there is a weak positive correlation which is not statistically significant between the administrative performance and between the applicability of the CAS in the Financial Institutions in Sri Lanka.

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