Impact of Computerized Accounting Information Systems' Effectiveness in Increasing the Efficiency of Human Capital

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Abstract
The study aimed to identify the impact of Computerized Accounting Information Systems' effectiveness in increasing the efficiency of human capital in the financial departments in the public Sri Lankan universities. The population of this study consists of all employees in the financial departments in fifteen Sri Lankan public universities. The sample was selected from the three public universities which are located in Eastern province in Sri Lanka. Conclusion of this study has explained the significant model. The variables interpret the positive correlation and the significant relationship with the level of the skill and the innovation with the efficiency of computerized accounting information system in finance department of the Sri Lankan public universities.

Keywords: Human Capital, Computerized Accounting Information system

Introduction

Modern computerized accounting systems are based on the concept of database. A database is implemented using a database management system, which is define by a set of computer programs (or software) that manage and organize data effectively and provide access to the stored data by the application programs. The accounting database is well-organized with active interface that uses accounting application programs and reporting system.

The success of the system will be varying from the persons those who are engaging with the systems. The failure of the programmer or the user will be impact to the performance of the organization. The efficiency of the employee is most important for the growth of the organization. To build and improve the efficiency of the employee should be needed a well-organized guidance to them.

Problem Statement

In recent years, most private and public sector organizations were changed their reporting system. Most of them are following the computer based reporting. Computerized Accounting System has become a common for the organizations. Due to the rapid changes in the technology system has been more advantage and complicate for the users. By improving the efficiency of employee the gap between the user and system can be manageable in organizations.

Based on these, the problem of the study lies in investigating and identifying the efficiency of computerizing accounting information systems in the increasing the efficiency of human capital in the financial departments in the Sri Lankan public universities through answering the following questions:

1. What is the effectiveness of computerizing accounting information systems and their relation to the efficiency of human capital?

2. Is there an impact of the computerizing accounting information systems concerning the elements of human capital (skill, experience, knowledge and creativity) applied in the financial departments in the Sri Lankan public universities?

Literature Review

Computerized Accounting Information System is a tool with combination of Information and Technology systems (IT). It has been designed to help the management to control the firms' economic and financial area. Firms have given the focus to improve the efficiency of the human capital in an organization, because of the success in efficiency of Accounting Information System.

Also information technology has become one of the most important means which is used by different organizations in their different operations whether it is in operations of planning, supervising, or internal control, or documenting, or administrative affairs…etc. Nofan, Hamid Mohammed (2014).

Human capital is 'generally understood to consist of the individual's capabilities, knowledge, skills and experience of the company's employees and managers, as they are relevant to the task at hand, as well as the capacity to add to this reservoir of knowledge, skills, and experience through individual learning' (Dess & Picken, 2000).

There is a large and growing body of evidence that demonstrates a positive linkage between the development of human capital and organizational performance. The emphasis on human capital in organizations reflects the view that market value depends less on tangible resources, but rather on intangible ones, particularly human resources. (Philip Stiles, Somboon Kulvisaechana).

By developing the Human Capital organizations can improve their performance of the employees. This study lies with the human capital and Computerized Accounting Information System in the financial departments in the public Sri Lankan universities.

According the research finding of Nofan, Hamid Mohammed (2014), conclude that the public universities should follow the policy of acquiring and generating knowledge at the individual's level in the financial department in order to involve the employees in the conferences and internal and external courses ensure increasing the efficiency of outputs of computerized accounting information systems.

Methodology

The main objective of this study to find the impact of Computerized Accounting Information Systems' effectiveness in increasing the efficiency of human capital in the financial departments in the public Sri Lankan universities. For the purpose of finding data was collected by issuing the questionnaire to the selected sample.

Population of the study consists of the financial departments in the Sri Lankan public universities and the number of sample derived from three universities which are located in eastern province in Sri Lanka. In all of three universities which are located in the eastern province have the total employees in the financial department was 66 (Eastern University 29, South Eastern University 28, and Trincomalee Campus 9 employees are working in Finance department).

35 questionnaires were retrieved out of 50 distributed questionnaires to the employees of the financial departments in eastern province public universities in Sri Lanka. Data were collected and analyzed using SPSS software.

Human capital is the collective skills, knowledge, or other intangible assets of individuals that can be used to create economic value for the individuals, their employers, or their community. By improving the efficiency of the human capital can be change the efficiency of working environment. In this study is aimed to measure the how efficiency human capital will impact to the efficiency of computerized accounting information system.

Factor of human capital discuss using four sub variables which are skill, experience, knowledge and creativity. The analyzed results interpret the positive relationship of computerized accounting system by improving the efficiency of human capital.

Questionnaire was prepared based on the research questionnaire done by Nofan, Hamid Mohammed (2014) which has done the reliability and validity using Cronbach Alfa and it was (85%) indicating the tool's appropriateness for the purpose of the field study.

Hypothesis testing

Hypothesis testing was developed with the combination of four alternative hypotheses.

H0: There is no significant relation between the efficiency of the computerized accounting information systems effectiveness in increasing the efficiency of human capital in employees of the financial departments in the public universities.

H1: There is a significant relation between the efficiency of the computerized accounting information systems effectiveness in increasing the efficiency of human capital in employees of the financial departments in the public universities.

The variable of Human Capital is combinations of four Sub Variables are level of employee skill, level of experience of employee, level of knowledge of employee and the creativity of the employees.
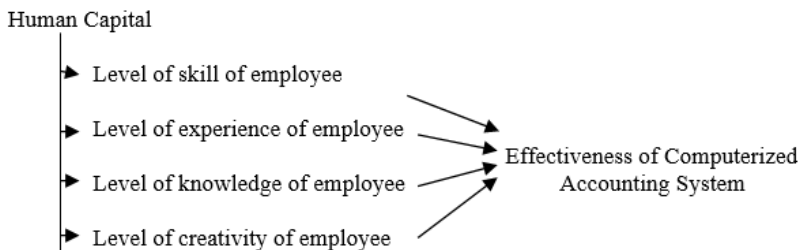
Conceptual model

Figure 1. Conceptual frame work

For the data analysis in this study has used the descriptive statistics and the regression analysis and the correlation. For the descriptive statistics analysis used the frequency, mean, standard deviation and the pie charts, bar charts, histogram and the scatterplot diagrams.

Data Collection Techniques
Data collection
Population of the study consists of the financial departments in the Sri Lankan public universities and the number of sample size was three universities which are located in eastern province in Sri Lanka.

Data was analyzed by using the primary data. Field study depends on collecting data using a questionnaire which was developed by the researchers using the research article of Nofan, Hamid Mohammed (2014). Thirty five questionnaires were retrieved out of fifty questionnaires which were distributed to the employees of the financial departments in the Sri Lankan public universities in 2015. Collected data were analyzed using SPSS software. The questionnaires were developed for the four sub independent variables and for the dependent variable by using the LICKERT scale measurement. Lickert scale measurement categorized as Agree strongly (5), agree (4), neutral (3), disagree (2), strongly agree (1).

Summary Information
Numeric Summary

Table 1. Frequency Table

Variable	Categories	Frequency	Mean	Standard Deviation
Job title	Financial Manager	06	3.49	1.147
	Chief of department	00		
	Programmer	00		
	Other	29		
Educational Level	GCE O/L	00	2.77	0.731
	GCE A/L	14		
	Degree	15		
	Postgraduate /Master	06		
	Other	00		
Working Experience	1-5 Years	11	2.03	0.822
	6-11 Years	12		
	> 11 Years	12		
Computerized package	Accounting	09	2.91	1.502
	Payroll	05		
	Stock	09		
	Overall	04		
	MS Office	08		

Frequency table describe the mean values standard deviation and frequency of the descriptive statistic. According the frequency of job title of the employee 29 of employees from 35 employees are representing as the "Other". Most of them have mentioned in their job title in the questionnaire as Computer Applicant Assistant, Bursar, Assistant Bursar

and etc. There was no any employee named as Programmer in the selected financial departments in the Sri Lankan public universities.

Visual Summary

Employee educational level is much more advance in the university recruiting system. All of the employees are qualified GCE Advanced Level and 17% of employees are qualified in postgraduate and master degree programs. 43% employees are having a degree programs. Employees are having the same level of percentage in working experience for both 6 years-10 years and more than 11 years are 34.3 percentages.

Department of finance in the public universities are using Computerized packages for the transactions of Accounting, Payroll Management, Stock Management as well as the Microsoft Office package.

Following pie chart is explaining the educational level of the employees in the finance departments in Sri Lankan public universities.
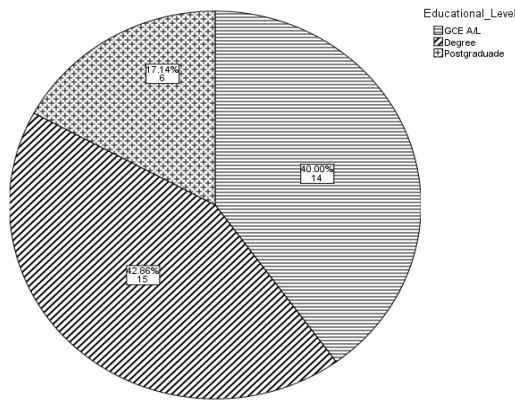
Figure 2. Educational Level

The following cluster bar chart explains the educational level of the employees related with the employee working experiences. According to the results most postgraduate employees are having higher working experiences.
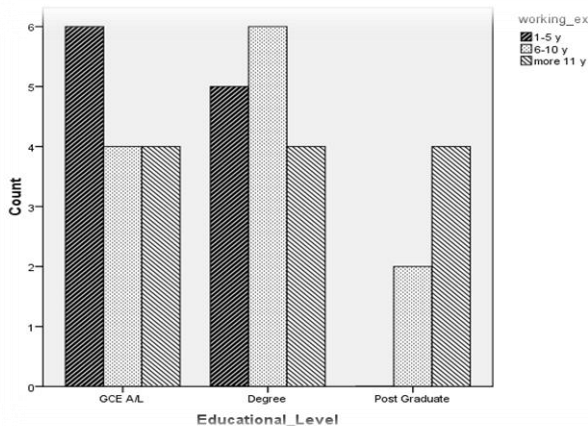
Figure 3. Working Experience

There is high level of employee who has only working experience in between one to five years is only qualified GCE Advance Level. The employees who are having a degree are normally equal in each working experiences.

Figure 03 explain the figure regarding the job title and Computerized Accounting System which they are using. All employees under job category like Bursar, assistant Bursar, and Computer Applicant Assistant are categorized as "other". Most of financial managers are engaging with overall computerized accounting packages which are included Accounting, Stock and Payroll system. In the "other" job category most of employees are using the Accounting Packages for their usual works those who are being under accounting field. Stock package and Microsoft Office packages are equally formulated by the employees and next the employees are engaging with the payroll packages. Less of amount in "other" category employees are using the overall accounting packages.
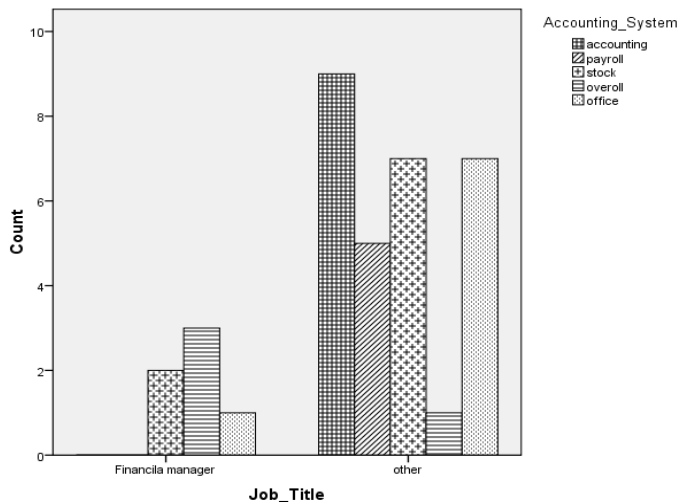
Figure 4. Job Title

Data Analysis

The aim of this study the impact of Computerized Accounting Information Systems' effectiveness in increasing the efficiency of human capital in the financial departments in the public Sri Lankan universities. For the study research hypothesis was developed by using four independent variables.

H0: There is no significant relation between the efficiency of the computerized accounting information systems effectiveness in increasing the efficiency of human capital in employees of the financial departments in the public universities.

H1: There is a significant relation between the efficiency of the computerized accounting information systems effectiveness in increasing the efficiency of human capital in employees of the financial departments in the public universities.

For the alternative hypothesis there are there are four alternative hypotheses has been discussed based on the independent variables. Hypothesis will be measured how Skill, Experience, Knowledge and Innovation will impact to the efficiency of Computerized Accounting System

Multiple Regression Analysis

Table 2. Results of Multiple Regression analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.693	**0.480**	0.411	0.5275
Anova				
Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	0.077	4	0.019	6.929	**0.000**
Residual	0.083	30	0.003		
Total	0.161	34			

Coefficients								
Model	Unstandardized Coefficient		Standardized Coefficient			95% Confidence Interval for B	
	B	Std Error	Beta	t	Sig.	Lower bound	Upper bound
Constant	-1.588	0.784		-2.027	**0.052**	-3.188	0.012
Skill	1.019	0.407	0.341	2.053	**0.018**	0.187	1.850
Experience	-0.088	0.214	-0.063	-0.411	0.684	-0.525	0.349
Knowledge	-0.112	0.389	-0.039	-0.287	0.776	-0.906	0.682
Innovation	0.958	0.270	0.557	3.551	**0.001**	0.407	1.509

According to the coefficient of determination is 0.480; therefore, 48% of the variation efficiency of the Computerized Accounting System data is explained by four sub variable of Human Capital.

Anova analysis explain that the model of the variables are significant because of significant value is 0.000.
Hypothesis testing
$\qquad$ H0: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = 0$
$\qquad$ H1: at least one $\beta \neq 0$
Significance Level based on the coefficient table

Table 3. Coefficient table decision table

H0	β	P value	Decision	Conclusion
$\beta 1 = 0$	$\beta 1 \neq 0$	0.018	Reject H0	Skill is significant
$\beta 2 = 0$	$\beta 2 \neq 0$	0.684	Do not reject H0	Experience is not significant
$\beta 3 = 0$	$\beta 3 \neq 0$	0.776	Do not reject H0	Knowledge is not significant
$\beta 4 = 0$	$\beta 4 \neq 0$	0.001	Reject H0	Innovation is significant

Estimate model
$\hat{Y} = -1.588 + 1.019(\text{skill}) + 0.958(\text{innovation}) - 0.088(\text{experie.}) - 0.112 (\text{knowledge})$

Standardized coefficient of the variables impact on efficiency in computerized accounting system is explains that skill and the innovation of the employee in the financial departments in the public Sri Lankan universities have the positive impact and experience and knowledge of the employee in the financial departments in the public Sri Lankan universities have the negative impact.

Correlation Analysis

Table 4. Results of Correlation Analysis

		Skill	Experience	Knowledge	Innovation	System
Skill	Pearson Correlation	1	.013	.009	.234	.471**
	Sig. (2-tailed)		.940	.959	.176	**.004**
	N	35	35	35	35	35
Experience	Pearson Correlation		1	.192	.489**	.207
	Sig. (2-tailed)			.269	**.003**	.234
	N		35	35	35	35
Knowledge	Pearson Correlation			1	.171	.048
	Sig. (2-tailed)				.326	.786
	N			35	35	35
Innovation	Pearson Correlation				1	.600**
	Sig. (2-tailed)					**.000**
	N				35	35
System	Pearson Correlation					1
	Sig. (2-tailed)					
	N					35

Two variables are significant because of the less p value and the other two variables are insignificant.

Skill and Efficiency of the system p value $0.004 < 0.05$

Innovation and Efficiency of the system p value $0.000 < 0.05$

Experience and Efficiency of the system p value $0.234 > 0.05$

Knowledge and Efficiency of the system p value $0.786 > 0.05$

Skill and the Innovation have significant relationship with the efficiency of Computerized Accounting System. But the Experience and the Knowledge have insignificant relationship with the efficiency of Computerized Accounting System. All four of independent variables are having the positive correlation with the efficiency of Computerized Accounting System. Innovation of the employee has the highest correlation among the variables is 0.600. Next highest correlation shows the skill is 0.471. Knowledge has the lowest correlation which is close to the 0 value is 0.048. According to the Pearson correlation analysis explain that the all independent have the positive correlation in between the dependent variable.

Conclusion

Analyzed data conclude that the variable models are significant. Both independent and the dependent variables are normally distributed. The model is significant when it compare

with the one independent variable. The independent variable is consisting with the combination of four sub independent variables. Form those variables; two of them are not significant. Only level of skill and level of innovation are significant with the efficiency of computerized accounting information system. According the results of correlation is also explaining the same results of the significant.

Level of the skill and the level of the knowledge of the employees are highly effecting to the efficiency of computerized accounting information system. Due to the rapid changes in the technology; employee should have a creative thinking ability and the flexibility to be familiar to the new technology. Employee should be more advantage than engaging knowledge. Employees should have creative mind to adapt to the system. It will make more easiness to improve the efficiency of the computerized accounting information system of the employee in the finance department in the Sri Lankan public universities.

Recommendation

1. The employees in the finance department at eastern province universities should want to more concern on the knowledge and the experience of the employee.
2. The knowledge of the employee regarding the Computerized Accounting Information systems can be improved by having the practical sessions using the expert resource person in the field
3. The research finding concludes that there is no relationship with the experience and the system efficiency. The experience of the employee should be weight with the usage of the system by employees.

Limitation of the Study

- The some variables are insignificant. In this study; only four sub independent variables are discussed. So variables should be increased and reliable.
- Model adequacy is small. Data collection and the collected should be more should be stronger.

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