Investigating the Adoption of Computerized Accounting Information Systems Referencing Small and Medium Scale Enterprises

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ABSTRACT : *Small and Medium Enterprises (SMEs) are responsible for most net job creation and they make an important contribution to productivity and economic growth. Nowadays, organizations are more concern to use accounting information systems in order to enhance business performance and to achieve competitive advantages. They play a significant role in all economies. Thus, the main aim of this project is to identify & assess the factors influencing adoption of computerized accounting information system (CAIS) among small and medium scale enterprises (SMEs). . The sample selection is based on the convenient sampling technique. Data are collected through primary data collection methods. In this research, primary data collection is conducted by the methods of questionnaires with the special reference to Gampaha district Sri Lanka. The study uses 06 independent variables such as perceived ease of use, Human resource, management support, infrastructure, user perception and internal control and adoption of CAISs as the dependent variable. Furthermore, to analyze the data, the study used SPSS. The study results showed that only the perceived ease of use has the positive impact on adoption with the beta value of 0.670. Moreover, the study will be useful for the accounting software developers and government agencies to design and deploy useful accounting software for SMEs. Followingly, It will help to prosper the worldwide economy.*

KEYWORDS- *Computerized Accounting Information Systems, SMES, Adoption.*

I. INTRODUCTION

Computerized accounting system is one of result of the technological development. These technological developments highly impact to business word as well as small businesses. Accounting Information System is therefore defined as an application of computer and technology in the accounting process which include collecting, recording, storing and processing the data to produce information for decision makers Romney & Steinbart, (2006). Prior to 1960, inadequate function of technology has created doubt among the accountant on how secure the information is stored in the system. However, as the technology grows, manual accounting system is no longer capable to fulfil the needs of information for decision-making process in this highly competitive technology era. Thus, almost all of the organizations in the world moved from a manual accounting system to more sophisticated system that equipped with technology in order to cope with the increase in business transaction volume and high demand for useful information.

The research study of Otieno & Oima, (2013) have stated that development of information technology has had a dramatic influence on use of accounting information system. As computers become smaller, faster, easier to use and less expensive, the computerization of accounting function grows across the entire financial service industry. Further, this idea is confirmed by Tijani & Mohammed, (2013) and stated that the advent of ICT has offered

significant improvement to the way financial transactions in business are processed by professional accountants. Therefore, most of the countries, especially most parts of developed countries and developing countries, it is almost impossible to function as an accountant without requisite of ICT skills.

Small and Medium Enterprises (SMEs) are responsible for most net job creation and they make an important contribution to productivity and economic growth. They play a significant role in all economies and are the key drivers of innovation and growth Ali, Rahman, & Ismail, (2012). SMEs are now recognized worldwide to be a key source of dynamism, innovation and flexibility. According to statistics in industrialized countries, SMEs are major contributors to private sector employment. Empirical studies have shown that SMEs contribute to over 60% of Gross Domestic Production (GDP).and over 65% of total employment in high income countries. SMEs and informal enterprises account for over 65% of GDP and over 70% of total employment in low-income countries, while they contribute about 70% of GDP and 95% of total employment in middle income countries. In the Sri Lanka context SMEs contributes to generation of employment, generation of income, contribution for social activities and poverty reducing. According to the national policy framework for small medium enterprise development of ministry of industry and commerce, of Sri Lanka recognizes SMEs as the backbone of the economy, as it accounts for more than 75% of the total number of enterprises, provides 45% of the employment and contributes to 52% of the GDP. SMEs promote broad based equitable development and provide more opportunity for Women and Youth participation in the economic development of the country.

In traditionally, SMEs keep their records manually. That is very slow method and get more time and cost. Further manual accounting system which are often characterized by keeping a large number of books, documents, stationaries, double works in recording data and are usually associated with troubles and errors. However, failure to adopt and implement Accounting Information Systems is the reason why most companies fail to make sound decisions as their information keeping tend to be haphazard as the firm grows. This is one of the major problems in financial management concerns of SMEs. This problem is highly available in today's business arena. Even today generally most of enterprises still does not adopt CAIS and prefer to use manual accounting without detriment to quality. Non-adoption of CAISs has negatively affected SMEs as they cannot enjoy those benefits inherent with the use of CAISs. This has negatively affected the operations of SMEs to such an extent that some of them have even failed to survive.

Therefore, this research focused to address the gaps by assessing the influencing factors for adoption of ICT by focusing on use of CAISs by SMEs in Sri Lanka. The study is limited to SMEs in Nittambuwa area.

"How far the Factors are influencing on the adoption of computerized accounting information systems for small and medium scale enterprises?"

Research question.

- What is the impact of the identified factors and the adoption of computerized accounting system for small and medium scale enterprises?

II. LITERATURE REVIEW

Empirical Studies

Munesinghe (2015) collected empirical data from 100 SMEs in North Central Province and used bivariate and factor analysis for further analysis. The literature identified factors for cost, business size, infrastructure, government support, administrative support, external environment, and perceived ease of use. The survey found that 40% of small businesses use computerized accounting system (CAISs) to maintain accounting records. There are no significant effects from demographic variables on CAISs use. Only the size of the business, the cost of the

business, and the external environment has a significant effect on the use of CAISs. Therefore, developers need to reduce CAISs software development costs by offering SMEs a variety of options. Also, better understanding of CAISs competitive advantage over small and medium-sized businesses can help embrace new technologies.

Sam, Oshino (2012) aimed to investigate SME practice of CAISs and to identify the factor affecting the adoption among SMEs in Melaka in Malaysia. This study reveals that CAISs adoption rate in SMEs in Melaka is high. Results from the analysis also shown the significant of independent variables and proved the relationships have been substantiated to the dependent variable which contribute to the usage of CAISs adoption between SMEs in Melaka. The findings indicate that CEO innovativeness, perceive ease of use and business competitiveness negatively correlated to the adoption of CAISs. Results reveals that only perceive usefulness are significantly positive correlated to CAISs adoption. Therefore, it can be deduced that adoption of CAISs among SMEs in Melaka is caused by its usefulness. The findings reveal that types of business and business location influence the adoption of CAISs. However, size (paid up capital, sales turnover and number of employee) do not influence the adopter. Results also indicate that CEO literacy on ICT, accounting and CAISs has influence the responded CEO to adopt CAISs in their business.

Rogers (2016) examined how small business owners in Central Ohio come to accept and use CAISs. Results showed a positive correlation between perceived ease of use, perceived usefulness, and the intent to adopt CAISs. The model predicted about 71% of the variations in intent to adopt CAISs. Using the portion of the sample where small business owners had not yet adopted CAISs (n = 34), the model was able to predict about 63% of the variation, and in the portion where small business owners had already adopted CAISs (n = 37), the model was able to predict about 70% of the variation. However, when splitting the sample between small businesses whose owners had already adopted CAISs and those who had not yet adopted CAISs, importance of ease of use and usefulness changed. Usefulness is more important to non-adopters and ease of use is more important for continued use. The implication for social change is the potential to reduce business failures. The study showed that 83% of small businesses over 5 years old currently use a CAISs and only 56% under 5 years old use a CAISs. Society could benefit from an increase in the number of successful small businesses, which would then contribute to economic expansion.

Shiraj (2015) this study examined the impact of using computerized accounting systems in financial reporting among SME in the South Eastern region in Sri Lanka. The study established that computerized accounting system had a great impact on quality of financial reports. The findings showed a strong significant positive relationship between the variables which implied that computerized accounting system and financial reporting among SMEs in South Eastern region of Sri Lanka. Khen (1994) attempted to examine the usage of computerized accounting system with the focus on accounting software usage in small and medium companies. The results showed that 97.7% of SMEs use computerizes accounting system, 88% of them uses standard software while 12% uses customized software. Study also showed that the SMEs rate the features of the system, stressing on the ease of the use software as their main criteria of selection. One important finding was that SMEs do not rate cost as important factor, but rather on the features of the software itself. Finally, SMEs rate the main aspect of computerized accounting system on their performance as easier date retrieval, as compared to the manual accounting.

Weerasinghe and Perera (2016) analyzed the Computerized Accounting System Usage by Small & Medium Scale Enterprises in Sri Lanka with reference to Colombo district. It is found that majority of the SMEs are using computerized accounting systems but not the best software available in the market. Also, there is a relationship in computerized accounting systems and the level of education of business owner and the accountant, number of accounting staff and the organizational structure. It is recommended to guide and carrying out trainings for SMEs by the government to adopt Computerized the SMEs with the technology and the boost the performance of the SMEs in Sri Lanka.Akanbi (2018) examine evaluated the adoption of the Accounting Information Systems (AIS) among business banks in Nigeria and the adoption consequences on their financial performance. The findings indicated that AIS adoption has an effective giant with all the performance indicators (ROCE, ROTA, GPM and

NOP) with α<zero.05. Therefore, the study recommends that Central Bank of Nigeria should continue to provide aid for AIS adoption with the aid of commercial banks in Nigeria, commercial banks have to adopt more on AIS so that you can gain more of their performance and additionally they ought to provide a platform for regular training and improvement of staffs, so that you can keep them abreast in AIS global.

Nestor (2017) this observes assesses the comparative evaluation of automated accounting system and guide accounting gadget of quoted Microfinance Banks in Nigeria from 2006-2015. Three hypotheses were formulated in keeping with objectives of the study. Ex-publish facto studies layout changed into followed and the statistics to examine have been obtained from truth books, annual reviews and account of the quoted Microfinance banks underneath look at. Paired sample T- take a look at become used to check the Hypotheses, at 5% vast degree with resource of SPSS version 22 statistical software program. Findings confirmed that automated accounting device has an advantageous impact on the stated profitability of banks greater than manual machine of accounting. Based on those findings, the look at recommends amongst others that Microfinance banks must enforce automatic accounting system than the manual accounting machine as it has more fantastic effect at the profitability stage of the banks.

III. RESEARCH METHODOLOGY

Research Design refers to a plan that describes how, when and where data are to be collected and analyzed so as to get an overall for answering the research question or testing the hypotheses Wambui (2015). In this study, quantitative method was used to analyze the data were "Determine the adoption of computerized accounting information systems for small and medium scale enterprises: special reference to Nittambuwa area, Gampaha district". Questionnaires were used as the main tool of data collection Furthermore; convenient sampling is used. For the data analysis, 35 micro and small businesses were selected as sample A conceptual framework is a set of broad ideas and principles taken from relevant field of inquiry and used to structure subsequent presentation. In this study, dependent variable is adoption of CAS in small and medium scale enterprises: while independent variables are factors which affect adoption CAS. The interrelationship between and among these variables are presented diagrammatically for supplementary understanding of the factors affecting applicability of CAS in small and medium scale enterprises.

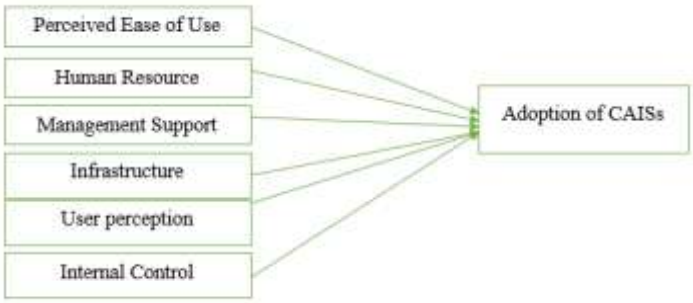

Fig. 1. Conceptual Framework

H1: There is significant influence between perceived ease of use and adoption of computerized account information system.
H2: There is significant influence between human resources of the business and adoption of computerized accounting information system.
H3: There is significant influence between management support and adoption of computerized accounting information system.

H4: There is significant influence between infrastructure and adoption of computerized accounting information system.
H5: There is significant influence between user perception and adoption of computerized accounting information system.
H6: There is significant influence between internal control system and adoption of computerized accounting

information system.

IV. ANALYSIS AND DISCUSSION

The table 4.1 depicts that 79.6% male and 20.4% female. Majority of the sample 37.8% was 21-30 years whereas 31.6% were between 31-40 years and 22.4% were 41-50 years and 8.2% were above 51 years. Further,

TABLE 4.1. Demographic data analysis

Category	**Variables**	**Frequency**	**Percentage**
Age	Below 20	0	0.0%
	21-30	37	37.8%
	31-40	31	31.6%
	41-50	22	22.4%
	Above 51	8	8.2%
Gender	Male	78	79.6%
	Female	20	20.4%
Education	Primary Ed	0	0.0%
	Ordinary Level	0	0.0%
	Advance Level	4	4.1%
	Graduate	48	49.0%
	Masters / Professional	46	46.9%
Experience	Year 1-2	0	0.0%
	Year 2-5	14	14.3%
	Year 5-15	61	62.2%
	More than 15 years	23	23.5%
System	Quick book	35	35.7%
	Tally	14	14.3%
	SAP	4	4.1%
	MYOB	2	2.0%
	Ezi Account	0	0.0%
	Sage	5	5.1%
	Peach tree	8	8.2%
	Decease / Profit	0	0.0%
	other	30	30.6%
Ownership	Sole Proprietor business	79	80.6%
	Partnership business	7	7.1%
	Company	12	12.2%
	Joined venture	0	0.0%

TABLE 4.2. Descriptive statistics

	Mean	Std. Deviation
Perceived ease of use	3.980	0.3204
Human resources	3.786	0.4816
Management Support	3.541	0.5592
Infrastructure	3.031	0.4175
User Perception	3.949	0.3328
Internal Controls	3.071	0.3590
Adoption of computerized accounting	3.133	0.5105

Table 4.2 shows the mean and Std. Deviation of each respective variable which essentially gives an indication of how wide ranging each respective variable can be.

TABLE 4.3. Reliability Analysis

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.766	0.804	9

It is very important to the researcher to ensure the reliability of the measures which were developed to achieve particular research purpose. If the corresponding alpha value of given set of question, less than 0.6 are considered to be poor, those in the 0.7 range acceptable and those over 0.8 good. (Sekaran & Bougie, 2010). Researcher tested the reliability by using Cronbach's Alpha value as shown in Table 4.3. The reliability of the all variables is greater than the accepted minimum level 0.7.

TABLE 4.4. Pearson Correlation Co-efficient

Variables		Adoption to CAISs
Perceived Ease of Use	Pearson	0.395
	Sig (2-tailed)	0.000
Human Resources	Pearson	0.285
	Sig (2-tailed)	0.005
Management Support	Pearson	0.324
	Sig (2-tailed)	0.001
Infrastructure	Pearson	0.174
	Sig (2-tailed)	0.086
User perception	Pearson	0.344
	Sig (2-tailed)	0.001
Internal Controls	Pearson	0.117
	Sig (2-tailed)	0.253

Table 4.4 shows Pearson correlation between variables. Accordingly, Perceived ease of use, Human Resources, Management Support and User perception had positive correlation with Adoption of computerized accounting

Pearson correlation co-efficient value of 0.395, 0.285, 0.324 and 0.344 respectively. In contrast, Infrastructure and Internal Controls had not have significant correlation values.

Regression Analysis

TABLE 4.5. Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.540	8	0.693	3.123	.004[b]
	Residual	19.735	89	0.222		
	Total	**25.276**	**97**			

TABLE 4.6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.468[a]	0.219	0.149	0.4709

TABLE 4.7. Co-Efficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.665	0.623		1.068	0.289
	Perceived ease of use	0.670	0.328	0.421	2.041	0.044
	Human resources	0.112	0.125	0.106	0.897	0.372
	Management Support	0.189	0.096	0.208	1.964	0.053
	Infrastructure	0.029	0.133	0.023	0.214	0.831
	User Perception	-0.122	0.292	-0.080	-0.418	0.677
	Internal Controls	-0.223	0.163	-0.157	-1.373	0.173

Table 4.5 provides the measures of how well the overall model fits and how well the predictors predict. Significant Anova indicates the model fit has achieved. Further, as per Table 4.6 46.8% of adoption of CAISs has been explained by selected dependant variables. Table 4.7 portrays Coefficients, it indicates the direction of relationship between independent and dependent variables, and it will explain the degree each predictor affects the outcome when the effect of all other predictors is held constant.

Thus, the equation can be expressed as follows,

Adoption of CAISs. = 0.670(Perceived Ease of Use)

TABLE 4.8. Hypothesis Testing and Results

Hypothesis	Variable	B	P Value	Accepted or Not Accepted
H1	There is significant influence between perceived ease of use and adoption of computerized account information system.	0.670	0.044	Accepted
H2	There is significant influence between human resources of the business and adoption of computerized accounting information system.	0.112	0.372	Rejected
H3	There is significant influence between management support and adoption of computerized accounting information system.	0.189	0.053	Rejected
H4	There is in significant influence between infrastructure and adoption of computerized accounting information system.	0.029	0.831	Rejected
H5	There is significant influence between user perception and adoption of computerized accounting information system.	-0.122	0.677	Rejected
H6	There is in significant influence between internal control system and adoption of computerized accounting information system.	-0.223	0.173	Rejected

V. CONCLUSION

The main problem of the research study was to determine the Adoption of Computerized Accounting Information Systems for Small and Medium Scale Enterprises, in Nittambuwa Area, Gampaha District. The conceptual framework was developed based on theoretical information to examine the Adoption of Computerized Accounting Information Systems for Small and Medium Scale Enterprises. Data was collected as primary data throughout a structured questionnaire with the closed ended questions. And the data were analysed using SPSS software. Out of the six proposed hypotheses, only one hypothesis were accepted.

VI. FUTURE RESEARCH DIRECTIONS

Finally, this study can be identified determinants the Adoption of Computerized Accounting Information Systems for Small and Medium Scale Enterprises in Nittambuwa Area, Gampaha District. Hence the findings of the study are applicable to this Area only. Future researchers can do this research around the country with significant sample size. Further, future studies can be conducted with mediating and moderating variables too.

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