

**MEDIATING EFFECT OF INTERNAL CONTROL SYSTEM (ICS) ON THE  
RELATIONSHIP BETWEEN E-ACCOUNTING AND THE FINANCIAL  
PERFORMANCE (FP): EVIDENCE FROM SMES IN COLOMBO DISTRICT**

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**INTRODUCTION**

Organizations must adapt to new trends, globalization, and competitiveness to survive and improve in this dynamic business climate. If any organization refuses to adjust to these new circumstances and sticks to its old techniques, it will lose its competitive advantage. E-accounting is responsible for analyzing and monitoring an SME's financial position, generating essential decision-making files, and providing high-quality content to support other SMEs' tasks. However, using E-accounting poses its challenges. It is difficult to detect data manipulation unless internal monitoring systems are kept up to speed with rapidly changing technical systems. Internal control is responsible for monitoring accounting data, ensuring that it is relevant, and ensuring better SMEs FP. E-accounting is an essential component derived from technologies in general, but the main issue is whether applying E-accounting contributes to FP results. As a result, numerous studies have been undertaken to investigate the effects of E-accountancy on overall achievement. However, the research has overlooked the mediating impacts of the Internal Control System on the relationship between E-accounting and FP in SMEs. For this reason, and given the scarcity of studies on the subject, this article focuses on analyzing whether there are mediating effects of the ICS on the relationship between E-accounting and FP of SMEs in the Colombo District.

**METHODOLOGY**

The survey research approach is used in the study methodology. The researcher chose the sample using a random sampling method. The sample size is 240 employees familiar with accounting roles Account assistants, Account executives, Accountants, Finance Managers & internal auditors in SMEs in the selected district. To generalize the results from the research sample to the general population, the sample should be representative of the population. This study uses primary data to collect data for the study. Primary data is gathered to improve the richness of the study. The questionnaire was developed based on existing literature and previous quantitative studies. All measures were graded on a five-point Likert scale, with one representing "strongly disagree," 2 representing "disagree," 3 representing "neutral," 4 representing "agree," and five representing "strongly agree."The formulation of the questionnaire used-acceptable language. The survey research method can provide a broad capability, ensuring a more accurate sample to gather targeted results to draw conclusions and findings.

In this research, E-accounting is the independent variable. E-accounting, the independent variable, is determined by variables such as information quality, cost reduction, fast decision-making, and software's ease of use. The ICS, on the other hand, is the mediator variable. Accordingly, the dependent variable is FP. The conceptual framework (Figure 1) for the study has been developed by considering the mediating effects of the ICS on the relationship between E-accounting Characteristics and FP of SMEs in the Colombo District as Follows

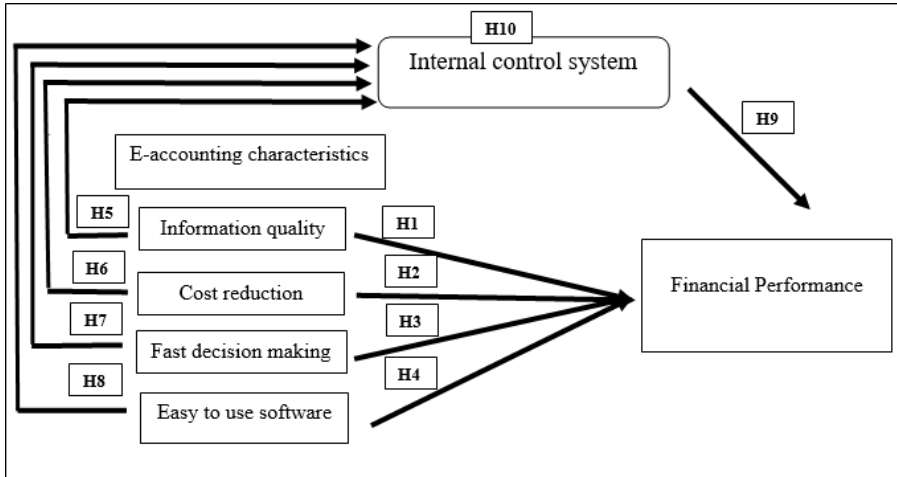


Figure 1 Conceptual Framework

Data analysis is the most crucial part of any research that summarizes collected data. It entails using analytical and logical reasoning to analyze data to identify patterns, correlations, and trends. According to the characteristics of the gathered data, it was analyzed as a quantitative data analysis through the SPSS version 21. The study use reliability, validity, normality test, descriptive statistical analysis, correlation analysis, and multiple regression analysis following statistical techniques to analyze the sample's survey data.

## RESULTS AND DISCUSSION

The accuracy of information is essential in the research study. Cronbach’s Alpha analysis was used to evaluate the reliability of the instrument. As a result, the study conducted a reliability test to assess inter-item correlation in each questionnaire variable, as Cronbach’s alpha values ranged from 0.701 to 0.905, showing an acceptable level. Descriptive statistics describe the behavior of the data. If the data points are close to the mean, indicating that the responses are uniform, then the standard deviation will be slight. Table 1, descriptive statistics calculated table is presented below.

Table 1 Descriptive Statistics

	Min.	Max.	Mean	SD
Information Quality	1.40	5.00	4.52	0.43
Cost Reduction	1.20	5.00	4.38	0.46
Fast Decision Making	1.00	5.00	4.44	0.44
Easy to Use	1.20	5.00	4.42	0.46
Internal Control System	1.11	5.00	4.47	0.45
Financial Performance	1.50	5.00	4.46	0.42

Table 2 shows the correlation coefficients between dependent and independent variables. Overall, due to the positive correlation between E-accounting characteristics and FP and ICS. In the analysis, every Pearson correlation value is positive, and every P value is less than 0.01. Therefore, every hypothesis is accepted according to the correlation result.

Table 2 Pearson Correlations among Independent, Dependent and Mediating Variables

	IQ	CR	FDM	EUS	ICS	FP	EA
IQ	1						
CR	0.705**	1					
FDM	0.636**	0.727**	1				
EUS	0.669**	0.765**	0.715**	1			
ICS	0.747**	0.788**	0.741**	0.764**	1		
FP	0.680**	0.720**	0.719**	0.745**	0.831**	1	
EA	0.851**	0.908**	0.871**	0.896**	0.862**	0.812**	1

The researcher develops four major models to examine the objective of the study. Therefore the models of the study are as follows,

Model 01 - Effect of E-accounting on Financial Performance

1.1. E-accounting Characteristics (Independent Variable Dimensions) on Financial Performance

$$FP = a + \beta_1IQ + \beta_2CR + \beta_3FDM + \beta_4EUS + \varepsilon$$

$$FP = 0.612 + 0.194 (IQ) + 0.145 (CR) + 0.250 (FDM) + 0.278 (EUS) + \varepsilon$$

1.2. E-accounting (Independent Variable) on Financial Performance

$$FP = a + \beta_1EA + \varepsilon$$

$$FP = 0.613 + 0.866 (EA) + \varepsilon$$

Model 02 - Effect of E-accounting Characteristics on Internal Control System

2.1. E-accounting Characteristics (Independent variable Dimensions) on Internal Control System

$$ICS = a + \beta_1IQ + \beta_2CR + \beta_3FDM + \beta_4EUS + \varepsilon$$

$$ICS = 0.098 + 0.280 (IQ) + 0.271 (CR) + 0.215 (FDM) + 0.218 (EUS) + \varepsilon$$

2.2. E-accounting Characteristics (independent Variable) on Internal Control System

$$ICS = a + \beta_1EA + \varepsilon$$

$$ICS = 0.105 + 0.983 (EA) + \varepsilon$$

Model 03 – Effect of Internal Control System on Financial Performance

$$FP = a + \beta_1ICS + \varepsilon$$

$$FP = 0.986 + 0.777 (ICS) + \varepsilon$$

Model 04 – Effect of E-accounting Characteristics and Internal Control System on Financial Performance

$$FP = a + \beta_1EA + \beta_2ICS + \varepsilon$$

$$FP = 0.563 + 0.399 (EA) + 0.475 (ICS) + \varepsilon$$

The researcher tried to find out the impact of the E-accounting system on FP with the mediating effects of an ICS. For this purpose, multiple regression analysis was used. Mediation is a hypothesized causal chain in which one variable affects a second variable that, in turn, affects a third variable. A regression approach was used to examine whether ICS mediates the relationship between E-accounting and FP. The results of the mediation analysis (Baron & Kenny, 1986) regression approach were reported in the following table.

Table 3 Summary of Regression Models

Details	Model 1	Model 2	Model 3	Model 4
R	0.812	0.862	0.831	0.852
R <sup>2</sup>	0.660	0.743	0.691	0.727
Adjusted R <sup>2</sup>	0.659	0.742	0.689	0.724
Sig.	0.000	0.000	0.000	0.000
Constant	0.613	0.105	0.986	0.563
$\beta$ coefficient				
EA	0.866*	0.983*		0.399*
ICS			0.777*	0.475*

Note: \* denotes the significance at the 0.05 level.

To identify the mediating role of ICS, four models were taken into consideration. According to the above-derived results, it can be concluded that ICS plays a partial mediating role in the connection between E-accounting and FP from SMEs in Colombo District.

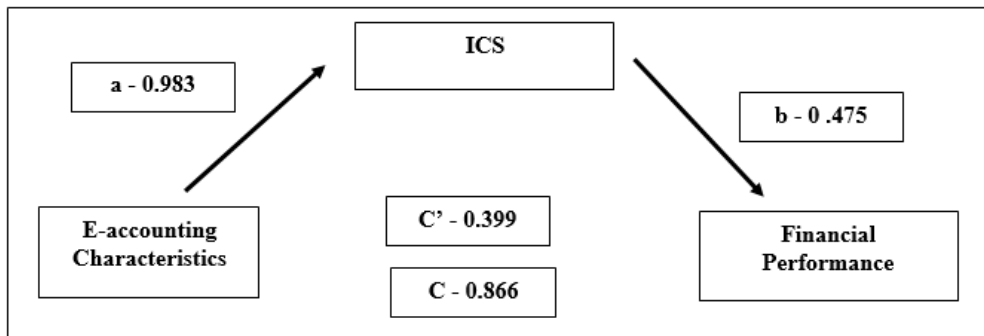


Figure 2 Coefficient Path

This model can be conceptualized as a causal model where E-accounting Characteristics on FP is mediated by ICS as shown in Figure 4.3.

Here,

- a - Regression weight on E-accounting Characteristics when predicting ICS.
- b and c'- The regression weights on ICS and E-accounting Characteristics respectively, when both are used together to FP.
- c - Regression weight on E-accounting Characteristics when predicting FP.

A measure of the mediation impact is the difference between c and c'. This difference is equal to the product of the paths to and from the mediator. Thus,  $c - c' = ab$ . The total impact of X

on Y (c) can be decomposed into a direct component (c') and an indirect component (ab),  $c = c' + ab$ .

Regression analysis was conducted to find the beta value of a, b, c and c'. And the model fits were shown in the appendices. The mediation impact can be measured as the reduction in the regression weight for E-accounting Characteristics on FP:  $c - c' = 0.866 - 0.399 = 0.467$ . Alternatively, and equivalently (within rounding error), the mediation impact can be calculated as the product of the indirect paths from E Accounting to FP through ICS:  $a*b = 0.983*0.475 = 0.467$ . Thus, it is equal to zero.

$$a*b = c - c'$$

$$0.983*0.475 = 0.866 - 0.399$$

The total impact is equal to the direct impact plus the indirect impact:

$$0.866 = 0.399 + 0.983*0.475 \text{ in the notation of mediation analysis: } c = c' + a*b$$

As the difference is equal to zero as per the decision criteria, it could be concluded that ICS plays a mediating role. And this study accepted the formulated hypothesis too. Therefore, the researcher interprets the mediating effects of the ICS on the relationship between E-accounting Characteristics and FP.

As per the literature, the researcher has mentioned ten hypotheses for all the relationships among the three variables.

Table 4 Summary of Hypotheses Testing

Hypotheses	Correlation		Decision	Regression		Decision
	r	P		$\beta$	P	
H1:	0.680**	0.000	Accepted	0.194	0.000	Accepted
H2:	0.720**	0.000	Accepted	0.145	0.022	Accepted
H3:	0.719**	0.000	Accepted	0.250	0.000	Accepted
H4:	0.745**	0.000	Accepted	0.278	0.000	Accepted
H5:	0.747**	0.000	Accepted	0.280	0.000	Accepted
H6:	0.788**	0.000	Accepted	0.271	0.000	Accepted
H7:	0.741**	0.000	Accepted	0.215	0.000	Accepted
H8:	0.764**	0.000	Accepted	0.218	0.000	Accepted
H9:	0.831**	0.000	Accepted	0.777	0.000	Accepted
Hypotheses	Decision Criteria					Decision
H10:	By using the notation of mediation analysis: $c = c' + a*b$ Here, the difference in the equation is equal to zero as per the decision criteria $0.866 = 0.399 + 0.983*0.475$ $0.866 = 0.866$					Accepted

Based on the results presented in Table 4, the findings also show that mediating effects of the ICS on the relationship between E-accounting and FP of SMEs in the Colombo District. Through this study, ten hypotheses are tested. The findings confirmed the study's first eight hypotheses. The findings are consistent with the evidence and ideas presented in the literature review. Furthermore, this research will shed light on the viability of accounting software in

improving the quality of work in SMEs. Through this study, E-accounting characteristics (data quality, cost reduction, speedy enactment of business decisions, and the easy usage of software) had a significant positive impact on FP and an ICS. Also, significant positive relationship between ICS and FP. In contrast, the current study provides a more refined understanding of the positive effect mediating the influence of the ICS on the relationship between E-accounting and FP of SMEs in the Colombo District.

## CONCLUSIONS AND IMPLICATIONS

This study concluded that ICS is mediating the connection between E - accounting and FP of SMEs in the Colombo District. Prior research conducted in Sri Lanka did not examine this objective as thoroughly as research conducted internationally using a variety of variables. Sri Lankan context has not done the research for the Colombo district using ICS as mediating variable. However, this study used mediating variables and four independent variables Information Quality, Cost Reduction, Fast Decision Making, and Ease of Use. This study has theoretical, empirical, as well as practical implications. Therefore, the study improves the existing literature on the title, and it will help increase the knowledge of students and scholars interested in this topic. Furthermore, the study is essential for potential SMEs to decide whether to implement or improve E-accounting.

**Keywords:** E-accounting, financial performance, internal control system, small & medium scale enterprises

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