THE IMPACT OF THE QUALITY OF INTERNAL CONTROL SYSTEM ON THE REAL EARNINGS MANAGEMENT: EVIDENCE FROM EMERGING CONTEXT

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INTRODUCTION

The information is the foundation of a firm's decision-making. The direction, bias, irrelevance, and defection of information may lead to erroneous conclusions and harm decision-makers (Salehi et al., 2020). Therefore, to help make the right decisions, a company releases its written records that convey the business activities and the financial performance of a company as financial statements. To become valuable and meaningful information, financial statements must include qualitative and quantitative characteristics. Users of financial statements are satisfied with their expectations when the financial statements are highly understandable, relevant, reliable, and comparable. To ensure the integrity of financial statements, ensure the reliability of financial statements and ensure the financial statements are free from significant misstatement, a company implements mechanisms, rules, and procedures known as internal control. However, when the company's internal control system is not robust, managers tend to manipulate financial data and make fraudulent procedure to financial statements to present an overly optimistic view and improve the company's financial position. In earning management theories, discuss those procedures. Accrual earnings management refers to managing earnings according to accounting principles. In contrast, real earnings management (REM) refers to managing earnings according to the firm's actual operational operations (Darmawan et al., 2019). Managers employ these strategies to increase earnings to affect market valuation and, eventually, the firm's value (Darmawan et al., 2019). According to Roychowdhury (2006), REM refers to the manipulation practices or actions introduced in real operational activities to attain short-term financial goals. Real activity-based earnings management is highly likely to harm various stakeholders by misrepresenting normal operating activities rather than accrual-based earnings management (Dissanayake & Ajward, 2019).

The purpose of manipulating earnings is to make a firm's financial statements reflect what the corporation wants its performance to seem like rather than what it performs. This presents a company's business activity, and financial position in an unrealistically favorable view is majorly affected the company's future. This may cause to provide opportunities to misappropriate company assets, and ultimately it may cause the company's existence. However, if there is a strong internal control system, managers may not be able to do such a manipulation. According to Guo and Chen (2020), one of the internal control objectives is to improve the accuracy of financial reporting. Accordingly, effective internal control can reduce the risk of accounting and financial reporting errors due to unintentional procedures and estimating errors, lower the risks associated with business operations and strategy, and discourage earnings.

Numerous earlier researchers have conducted studies on the subject of the current research theme at the international level (Yan, 2019; Xu & Kim, 2021; Wali & Masmoudi, 2020; Chen et al., 2020), and their findings mainly revealed that the quality of internal control system harms REM. However, a lack of studies has been found in the Sri Lankan context. Therefore, the present study aimed to examine whether the quality of the internal control system of listed non-financial companies in Sri Lanka impacts REM behavior.

METHODOLOGY

This section explains the research methodology of this study, where the sample selection procedure, data collection, the conceptual framework, and operationalization of the variables and measurements are elaborated. Since this study aimed to investigate the impact of the quality of the internal control system on REM, a quantitative approach was followed. The study by Wali and Masmoudi (2020) and other notable recent studies both adopted a similar methodology. This study used a sample of 140 non-financial companies listed on the Colombo Stock Exchange covering the period 2017 to 2021 based on information available, the financial period ending 31st March, and being listed throughout the selected period. No biases were observed based on the omitted firms.

Figure 1 below indicates the conceptual diagram developed based on the comprehensive literature review.

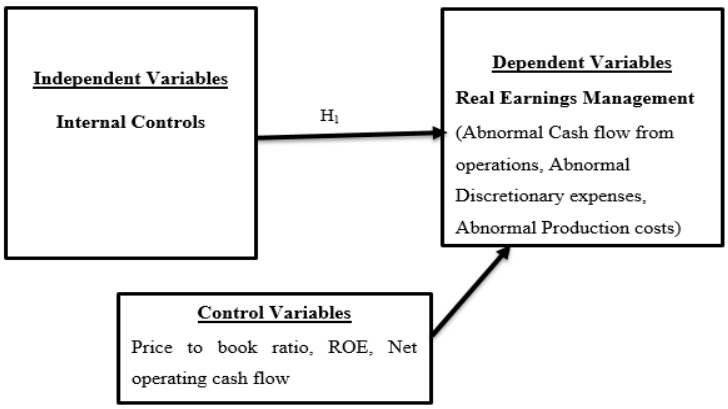

Figure 1 Conceptual Framework

Based on the variable structure, the conceptual framework illustrates the arrangement and relationships of critical variables. Accordingly, the following hypothesis was developed:

Hypothesis: The quality of the internal control system of listed companies affects the REM.

Table 1 below illustrates the operationalization of the selected dependent, independent and control variables.

Table 1 Operationalization of Variables

Variable	Measurement	Related Studies
Internal Control (*ICS* $_{i,t}$)	IC Index (Note 01)	Liu and Kong (2020)
Real Earning Management *(REAM* $_{i,t}$*)*	Abnormal cash flow from operations *i,t,* Abnormal production cost *i,t,* Abnormal discretionary expenses *i,t,*	Cho and Chun (2015)
Abnormal Production Costs *(PROD* $_{i,t}$*)*	$PROD_{i,t}/A_{i,t-1}=\alpha_0+\alpha_1/A_{i,t-1}+\alpha_2 S_{i,t}/A_{i,t-1}+\alpha_3 \Delta S_{i,t}/A_{i,t-1}+\alpha_4 \Delta S_{i,t-1}/A_{i,t-1}+\varepsilon_{i,t}$	Wali and Masmoudi (2020); Yan (2019)
Abnormal Cash Flow from operations *(CFO* $_{i,t}$*)*	$CFO_{i,t}/A_{i,t-1}=\alpha_0+\alpha_1/A_{i,t-1}+\alpha_2 S_{i,t}/A_{i,t-1}+\alpha_3 \Delta S_{i,t}/A_{i,t-1}+\varepsilon_{i,t}$	Liu and Kong (2020); Yan (2019); Roychowdhury (2006)
Abnormal Discretionary Costs *(DISEXP* $_{i,t}$*)*	$DISX_{i,t}/A_{i,t-1}=\alpha_0+\alpha_1/A_{i,t-1}+\alpha_2 S_{i,t-1}/A_{i,t-1}+\varepsilon_{i,t}$	Li et al. (2020); Wali and Masmoudi (2020)
Return on Equity *(ROE* $_{i,t}$*)*	Average balance of net profit/stockholder's equity	Yan (2019); Li et al. (2020)
Price to Book ratio - *(PBR* $_{i,t}$*)*	The ratio between share price and its book value of firm i for the period t.	Wali and Masmoudi (2020)
Net operating cash flow *(CFO* $_{i,t}$*)*	Net operating cash flow/Total assets	Liu and Kong (2020)

Note 01: The study's independent variable, which is the quality of the internal control system, has been measured via the internal control reporting quality. It has calculated by using an audit opinion issued by an external or internal auditor as to the quality and accuracy of the financial statements prepared by an enterprise (Thanh & Cheung, 2010; Chen et al., 2018).

In order to satisfy the objectives of this study, data cleaning and screening techniques (i.e., winsorization and treating of missing data), diagnostic test analysis (i.e., testing for linearity, normality, multicollinearity, and heteroscedasticity), descriptive statistics and Multivariate analyses were performed. The findings obtained by applying these analyses are discussed in the next section.

RESULTS AND DISCUSSION

The results of the descriptive analysis, correlation analysis, and the ordered logistics and panel versions of the multivariate regression analyses are presented with the resulting discussion in this section.

Table 2 Result of Descriptive Analysis

Variable	Mean	Min.	Max.	SD	Skewness	Kurtosis
ICS $_{it}$	0.81	0.60	1.00	0.13	-0.95	2.14
REAM $_{it}$	16.43	-2.49	11507	435.23	26.38	696.99
PBR $_{it}$	58.26	0.01	715.25	100.8	2.10	7.50
ROE $_{it}$	0.11	-1.54	2.50	0.36	2.37	17.60
CFO $_{it}$	0.24	-0.35	1.95	0.43	2.07	6.15

Note: Definitions of these variables are indicated in Table 1. Variables were winsorized at 5% due to the presence of outliers.

The mean values of the dependent variable $REAM_{it}$ turn out to be 16.43 and 435.23 of the Standard Deviation value. According to the decision criteria, table $REAM_{it}$ was moderate level. As for ICS_{it} , it bears a mean of 0.81, ranging between 0.60 to 1.00.

Table 3 Result of Correlation Analysis

	$REAM_{it}$	ICS_{it}	PBR_{it}	ROE_{it}	CFO_{it}
$REAM_{it}$	1.000				
ICS_{it}	-0.060*	1.000			
PBR_{it}	0.051	0.058	1.000		
ROE_{it}	0.098*	0.056	0.103	1.000	
CFO_{it}	0.141*	0.131	0.226	0.142	1.000

Note: Dependent Variable is $REAM_{it.}$ Definitions of these variables are indicated in Table 1.
*p<0.10; **p<0.05; ***p<0.01

It indicates that there is -0.060 of correlation between ICS_{it} and $REAM_{it}$ that means ICS_{it} has significant negative correlation on $REAM_{it}$. There is 0.098 of significant positive correlation between ROE_{it} and $REAM_{it.}$ Furthermore, there is a significant positive (0.141) of correlation between CFO_{it} and $REAM_{it.}$

Table 4 Result of Regression Analysis

REAM	Coefficient	Standard Error	t-value	Significant
CONSTANT	177.199	99.582	1.780	0.075
ICS_{it}	-0.351	120.407	-2.010	0.044
PBR_{it}	-0.178	0.166	-1.070	0.284
ROE_{it}	93.578	45.671	2.050	0.040
CFO_{it}	148.514	38.923	3.820	0.000

Note: Dependent Variable is $REAM_{it.}$ Definitions of these variables are indicated in Table 1.
*p<0.10; **p<0.05; ***p<0.01

This model reveals that the coefficient for all three variables, such as ICS_{it}, ROE_{it}, and ROE_{it} is significant at the 0.05 level, indicating that these variables have a significant impact on REM ($REAM_{it}$). Results shows that ICS_{it} has a significant (P<0.05) negative impact (β = -0.351) on $REAM_{it}$. ROE_{it} has positive significant positive impact (P>0.05) on $REAM_{it}$ (β = 93.578). This finding is consistent with Xu and Kim (2021) and Wali and Masmoudi (2020). Moreover, the R^2 value of the study was 0.1330. It has been interpreted that the independent variables have influenced about 13.33% of the dependent variable. The remaining 86.67% has been influenced by other factors not considered in this study. Accordingly, the research hypothesis formulated in the present study was supported.

CONCLUSION AND IMPLICATIONS

This study aimed to find out the impact of the quality of the internal control system on the REM of the selected 140 non-financial listed companies in the Colombo Stock Exchange from 2017 to 2021. Accordingly, the number of observations in this study was 700. To achieve the study's objectives, descriptive analysis, correlation analysis, and regression analysis were used as statistical tools. The researcher used the Roychowdhury model (2006) to measure the REM in this study. The study's independent variable is the quality of the internal control system, measured via the quality of internal control reporting (Chen, Li, & Wang, 2018). It was measured by calculating the opinion given by the independent auditor to the companies by referring to their financial statements. In the study, insights may provide investors, economic analysts, and regulators with early caution indicators of potential problems in a corporation regarding internal control failures and aid stakeholders in assessing the effectiveness and efficiency of the board and earnings management methods. Thus, REM was negatively impacted by the quality of the non-financial listed companies' internal control system. Moreover, it suggests that adequate internal control can prevent REM behavior.

This study has certain limitations, and the findings should be interpreted subject to these limitations. This study considered only the non-financial firms listed on the Colombo Stock Exchange. In addition, the researcher has only considered five years for this research. Further, this study used only the Roychowdhury Model (2006), though other alternative measures for estimating REM exist. Thus, the above factors should be taken into consideration by future researchers.

Keywords: Colombo Stock Exchange, quality of internal control system, real earnings management.

REFERENCES

Darmawan, P. E., Sutrisno , T. & Endang , M. (2019). Accrual earnings management and real earnings management: increase or destroy firm value?. *International Journal of Multicultural and Multireligious Understanding, 6*(2), 8-19.

Li, Y., Li, X., Xiang, E., & Djajadikerta, H. G. (2020). Financial distress, internal control, and earnings management: evidence from China. *Journal of Contemporary Accounting and Economics, 16*(3), 1-48.

Liu, Z., & Kong, D. (2020). Research on correlation between internal control and earnings management of electric power listed companies. *Journal of Applied Science and Engineering Innovation, 7*(3), 119-124.

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics, 42*(3), 335-370.

Salehi, M., Shiri, M. M., & Hossini, S. Z. (2020). The relationship between managerial ability, earnings management and internal control quality on audit fees in Iran. *International Journal of Productivity and Performance Management, 69*(4), 685-703. https://doi.org/10.1108/IJPPM-07-2018-0261

Wali, S., & Masmoudi, S. M. (2020). Internal control and real earnings management in the French context. *Journal of Financial Reporting and Accounting, 18*(2), 363-387.

Yan, S. N. (2019). The empirical research on the correlation between the internal control and earnings management in private listed companies. *Advances in Economics, Business and Management Research, 87,* 304-310.