IMPACT OF INTERNAL CONTROL SYSTEMS ON FINANCIAL PERFORMANCE OF LISTED COMPANIES IN SRI LANKA

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Abstract

Contemporary Sri Lankan companies confront various challenges in the business environment, such as technology advancement, global competition, public policies and regulations, etc. Accordingly, business organizations are required to implement Internal Control Systems (ICS) that provide effective solutions to address these complex business challenges that arise in a highly competitive and challenging environment. Thus, in terms of listed companies in Sri Lanka, the study *initially* assessed the level of the Internal Control Systems. S*econdly*, it examined the impact of the Internal Control Systems on financial performance using the COSO Model. The study followed a deductive research approach and a sample of 165 companies derived from the Sri Lankan companies listed in the Colombo Stocks Exchange based on a stratified systematic sampling technique. Primary data was collected through a self-administered questionnaire. One sample t-test was conducted to assess the level of the internal control system. Then, Multiple regression analysis was used to examine the impact of Internal Control Systems on financial performance. Findings indicated that the firms maintain effective Internal Control Systems within the organizations since there is a significant mean difference of 1.158 (test value of 3) with a mean value of 4.158 (out of 5) on an overall basis. Specifically, Internal Control Systems are effective in Control Environment, Control Activities, Risk Assessment, Information and Communication, and Monitoring Activities. Interestingly, as per the correlation analysis, dimensions of Internal Control Systems were positively correlated with financial performance. However, multiple regression analysis indicated that control environment, information and communication, and monitoring have a significant impact. In contrast, control activities and risk assessment displayed an insignificant impact on financial performance since Sri Lankan companies mostly focus on the overall internal control system rather than on specific elements of ICS. These findings suggested extensive policy implications for companies in implementing Internal Control Systems.

Keywords: COSO model, financial performance, internal control systems, Sri Lankan listed company.

1. Introduction

Organizations have to face different types of difficulties when achieving organizational objectives due to globalization and modern technologies. Internal Control System (ICS) is considered one of the internal factors providing directions to an organization. ICS is defined as the set of rules and procedures that help ensure the integrity of financial and accounting information, promote accountability, and prevent fraud (Kenton, 2021). According to Ishaku et al. (2020), ICS is the human nervous system that conducts various organizational activities. Moreover, Muhunyo (2018) stated that the completeness and accuracy of accounting records can be achieved by placing a proper internal control system.

When looking at the organizational context, an increasing number of business failures and challenges related to fraud will automatically encourage organizations to give more attention to their ICSs (Ng'Etich, 2017). Therefore, organizations have to pay attention to improving the quality of ICSs because an efficient ICS generates good business (Muhunyo & Jagongo 2018).

The research is intended to establish the impact of the internal control systems on the financial performance of an organization. Therefore, the findings of the study will help to identify the effectiveness as well as improvements within the ICSs and it is beneficial to management and other related parties.

2. Research Problem

The increasing number of business entities has encouraged the use of ICSs, ensuring businesses are conducted efficiently with adherence to internal policies. Moreover, if a proper ICS is in place, the completeness and accuracy of accounting records can only be achieved (Muhunyo & Jagongo, 2018). Richard et al. (2009) state that organizational performance can be measured using financial performance, product market performance, and shareholder return. Therefore, financial performance is essential to the organization and can be achieved through effective ICSs. Adequately designed and efficient ICSs give a higher financial performance to an organization (Ibrahim et al., 2017). Accordingly, listed companies on the Colombo Stock Exchange need to maintain a good ICS to enhance their financial performance. When considering the Sri Lankan context, companies listed in the Colombo Stock Exchange are significantly impacted by the efficiency of the financial market. The ICS is one of the significant factors that deals with the company's performance. Subramaniam (2008) stated that a good ICS prevents errors and fraud by monitoring the organizational and financial reporting processes and examining whether the entity complies with laws and regulations.

As an essential corporate governance mechanism, there were many studies conducted in developed countries regarding the ICS and financial performance, such as Germany (Brown, 2008) and the United Kingdom (Alzeban, 2020). When looking at the Sri Lankan context, as a developing country, there is a dearth of studies focused on this area and a limited number of studies conducted with the ICSs and financial performance. Existing studies are also based on specific areas or specific firms.

For example, Muraleetharan (2011) studied the impact of ICSs on the financial performance of public and private listed companies in the Jaffna district. However, a dearth of studies is conducted based on listed companies in Sri Lanka. Thus, the study focused on the impact of the ICS on the financial performance of the listed companies in CSE.

When considering developing countries, few studies have focused on the ICS, and organizations focus less on the ICSs (Jayasena et al., 2021). It is interesting to highlight those existing studies mostly focused on agency theory (Muraleetharan, 2011; Athurupana, 2019; Nzabandora, 2013; Hamour et al., 2021). However, the study was conducted based on multiple theories (i.e., Agency theory, Contingency theory and Reliability theory). On the other hand, empirically, there is a dearth of recent research conducted based on the impact of internal control components as a whole and separately on financial performance in Sri Lanka (Madhushani and Jayasiri,2021). For example, Muraleetharan (2011) studied the impact of ICSs on the financial performance of public and private listed companies in the Jaffna district. In the Sri Lankan context, companies listed in CSE play a crucial role in the financial system's stability. Therefore, the study focused on the listed companies in Sri Lanka.

Based on the above arguments, in terms of listed companies in Sri Lanka, the study *initially* assessed the level of the ICS. *Secondly*, it examined the impact of the ICS on financial performance using the COSO Model.

Empirically, the study perceived it to be significant as it used a globally accepted model for ICS (i.e., the COSO model). Thus, the findings are expected to be more comparable. Practically, the findings of the study emphasized the necessity for focusing on the effectiveness of individual elements of an ICS along with the overall effectiveness of an ICS.

3. Literature Review

3.1. Empirical Studies

Currently, most organizations have a growing interest in their internal control. Teru et al. (2017) reviewed the impact of information accounting systems for effective internal control on firm performance and found that better internal

control gives high financial performance. In the Sri Lankan context, there is a dearth of studies conducted regarding the ICS (Muraleetharan, 2011; Madushani & Jayasiri, 2021; Prabath and Kawshalya, 2018).

Prabath and Kawshalya (2018) studied the impact of ICS on the financial performance of public banks in Sri Lanka. Similarly, Kumuthinidevi (2016) studied the effectiveness of ICSs in private banks in the Trincomalee district and concluded that all variables moderately support the effectiveness. An empirical study on the impact of internal control and the financial performance of private and public organizations in the Jaffna district reveals that internal control significantly impacts financial performance. Further, that study identified control environment, information and communication negatively influence financial performance. In contrast, risk assessment, control activities, and monitoring dimensions of internal control led to better financial performance (Murleetharan, 2011).

3.2. Theories, Models, and Hypotheses Development

3.2.1. Internal Control System and Agency Theory

Agency theory identifies the relationship between managers and investors by segregating the duties and responsibilities of the manager on behalf of the investor and the compensation paid to the manager for the services received from the investor (Jensen & Mckling, 2019). To give a theoretical framework for the concepts and variables, Odek and Okoth (2019) used agency theory. They explained an agent is utilizing the resources of a principal and they have little to no risk because all losses will be the burden of the principal. The theory argues that agents have more information than principals, and this information asymmetry is the reason for the agency gap (Muhunyo, 2018). The study accommodated the Agency theory as ICSs improve organizational performance by reducing agency costs (Kisanyanya & Omagwa, 2018).

3.2.2. Internal Control System and Contingency Theory

Contingency theory is a social theory that describes how contingent factors impact the organization's function. Organizational effectiveness depends on technology, size, information system, etc. Contingency theory defines the relationship between the structure of internal control effectiveness and the organization's performance (Ng'Etich, 2017). Another empirical researcher studied the structure and effectiveness of internal control through a contingency approach and found that ICSs mediate with the contingency's characteristics (Jokipii, 2006).

3.2.3. Internal Control System and Reliability Theory

Reliability theory is the probability of completing an expected function during an interval (Gavrilov & Gavrilova, 2005). Reliability theory argues that ICSs are used to assess and control risks (Odek and Okoth, 2019). Reliability theory describes the level of internal control over the reliability of financial reporting (Odek and Okoth, 2019; Ishaku et al., 2020). Therefore, according to the theory, assessing and controlling risk is vital to deduct errors and fraud. Evaluating internal controls to ensure reliability, compliance, and effectiveness is essential. Accordingly, by considering the agency theory, contingency theory, and reliability theory, the central hypothesis was developed as follows:

H1: Internal control systems significantly impact the financial performance of Sri Lankan listed companies

3.2.4. COSO Model

The COSO model is a framework used to establish internal control by ensuring that an entity operates transparently and ethically, in accordance with the applicable standards. It is designed and established to provide reasonable assurance with regard to effective and efficient operations, reliable financial reporting, and compliance with the laws and regulations (Schneider & Becker, 2011). According to the COSO model, ICSs are classified under five dimensions: control environment, control activities, risk assessment, information and communication, and monitoring activities. According to five dimensions, we develop our sub-hypotheses as follows:

The control environment has a significant influence on the operating and strategic decisions of an organization. It consists of five principles: integrity and ethical values, the Board of directors' independence from management and oversight of internal controls, Organization structure, Attracting, developing, and retaining quality employees, management's control philosophy, and risk appetitive (Committee of Sponsoring Organizations of the Treadway Commission, 2013).

H1a: Control environment significantly impacts the financial performance of Sri Lankan listed companies

Control activities mainly deal with the policies, procedures, and mechanisms related to the organization. Nyakundi et al. (2014) defines control activities as the policies and procedures that help ensure management directives are carried out to minimize the problem.

H1b: Control activities significantly impact the financial performance of Sri Lankan listed companies

Risk assessment identifies, evaluates, and monitors risks and takes relevant actions for firm-associated risks. According to Inusah and Abdulai (2015), an organization should focus on a cost-versus-benefit approach when assessing risks.

H1c: Risk assessment significantly impacts the financial performance of Sri Lankan listed companies

Information and communication is communicating information between the entity and other interested parties to coordinate activities. It focuses on the nature and quality of information needed for effective control and effective communication between all levels of management (Gamage, 2014).

H1d: Information and communication significantly impact the financial performance of Sri Lankan listed companies

Monitoring is the reviewing of activities to measure the quality of operations (Thabit, 2017). It briefly explains the positive and negative effects of the organization (Kumari & Weerasooriya, 2019).

H1e: Monitoring activities significantly impact the financial performance of Sri Lankan listed companies

Based on the above discussion, a conceptual framework was developed as follows.

Figure 1: Conceptual Framework
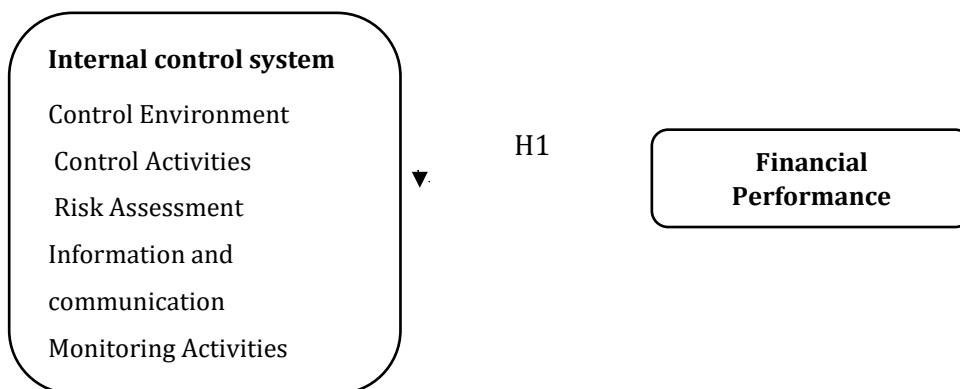
Source: Author Constructed

4. Research Method

The study followed a quantitative methodological approach to test hypotheses. The study sample considered Managers, Finance Officers, Heads of Departments, and Executives from the field of Accounting and Finance divisions

as respondents representing 165 companies from a population of 296 companies listed on the Colombo Stock Exchange. The researcher used Morgan's Table to select the sample size, including a sample of 20 GICS companies in Sri Lanka. The study is based on the stratified systematic sampling method in which the respondents are categorized into strata and selected randomly with a fixed or periodic interval. The study used a Self-administered questionnaire to gather data from the respondents. The questionnaires comprise a five-point Likert scale ranging from 1 (i.e., Strongly disagree) to 5 (i.e., Strongly agree).

Financial performance is considered the dependent variable, whereas control environment, control activities, risk assessment, information and communication, and monitoring activities are considered independent variables per the development of the hypotheses. Table 1 represents the working definitions of the variables based on the literature and the sources used to identify items for the questionnaire. All the variables were measured through a self-administrated questionnaire using a five-point Likert scale.

Table 1: Operationalization

Variable	Items	Working Definitions	Measurement	Source
Financial performance	5	Financial performance is the change in the organization's financial state or the financial outcomes that result from management decisions and their implementation. (Kumari and Weerasooriya, 2019).	Five-point Likert scale	Kumari and Weerasooriya, (2019)
Control Environment	4	The control environment includes how management teams are involved in controlling an entity towards the problem, including communication, integrity, HR practices and ethical values (Hayali et al., 2013).	Five-point Likert scale	Munene (2009)
Control Activities	4	Control activities are defined as establishing policies, procedures and mechanisms that govern the management's	Five-point Likert scale	Alawaqleh, (2021)

Variable	Items	Working Definitions	Measurement	Source
		directives (Herwiyanthi et al., 2020).		
Risk Assessment	4	Risk assessment is a systematic procedure to identify and analyze risks and how to reduce those risks (Kumari et al., 2019).	Five-point Likert scale	Aziz et al., (2015)
Information and communication	4	Information and communication involve the process of generating information with high quality and communicating that information effectively (Kumari et al., 2019).	Five-point Likert scale	Ishaku et al., (2020)
Monitoring	4	Monitoring is defined as the process of evaluating the quality of the functions and the performance of an entity (Ishaku et al., 2020).	Five-point Likert scale	Robert and Elmad, (2019)

Source: Author Constructed

According to above Table 1, financial performance can be objectively measured by operations and policies in monetary terms (Kumari and Weerasooriya, 2019). The study used Descriptive Statistics and a sample test to assess the level of the ICSs (Hamour et al., 2021), whereas Multiple regression analysis and Correlation analyses were used to examine the impact of ICSs on financial performance (Jacob et al., 2016; Ahmed and Muhammed,2018).

The relationship between the dependent variable (Y) and the independent variable (X) can be stated as follows by using a multiple linear regression model.

$$Y= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

where, Y = Financial Performance; α = Constant; X1 = Control Environment; X2 = Control Activities; X3 = Risk Assessment; X4 = Information and Communication; X5 = Monitoring; ε = Error term.

5. Findings and Discussions

5.1. Descriptive Statistics

According to Table 2 below, descriptive statistics are performed using an independent variable, such as control environment, control activities, risk assessment, information and communication, and monitoring, and a dependent variable, such as financial performance. Mainly, descriptive statistics are used to assess the level of internal control of listed companies as shown in research objectives. According to that, all the mean values were calculated at approximately 4, indicating that all the variables are important factors in determining internal control. Therefore, mean values of independent variables indicated that firms have well-operating internal control systems.

Table 2: Descriptive Analysis

Variable	Range	Minimum	Maximum	Mean	Std. Dev
Control Environment	4	1	5	4.07	0.58
Control Activities	2	3	5	4.22	0.49
Risk Assessment	3	3	5	4.15	0.47
Information and Communication	2	3	5	4.17	0.42
Monitoring	3	3	5	4.19	0.43
Financial Performance	2	3	5	4.28	0.42

Source: Output of Data Analysis

As an independent variable, the Control Environment has a minimum value of 1, and other variables have a minimum of 3. The maximum value is 5 for all the variables, and the range value is between 2 and 4. The questionnaire represents a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

5.2. One Sample T-test

One sample t-test was conducted to assess the level of ICS in Sri Lankan listed companies. According to Table 3, the ICS level was satisfactory since all the independent variables (i.e., control environment, control activities, risk assessment, information and communication and monitoring) have an approximate mean value of 4 (out of 5). Further, all the calculated mean values

were significantly above the test value of 3. However, the highest level of the internal control variable is considered as control activities since the variable possesses the highest mean value (i.e., 4.217) and the highest mean difference (i.e., 1.217) among five internal control-related variables. On the other hand, the internal control variable's lowest level is considered the control environment since the variable calculated the lowest mean value (i.e., 4.065) and the lowest mean difference (i.e., 1.065) among five internal control-related variables. Interestingly, the findings reveal that the internal control level is satisfactory in listed firms.

Table 3: One Sample T-test

Variable	t	Mean	Mean Difference [a]	Sig.
Control Environment	90.59	4.07	1.07**	0.000
Control Activities	109.75	4.22	1.22**	0.000
Risk Assessment	113.64	4.15	1.15**	0.000
Information and Communication	128.50	4.17	1.17**	0.000
Monitoring	123.98	4.19	1.19**	0.000

[a] the significance of the difference between the test value of 3 (Mid value) and the mean values, where **Difference is significant at 1%.

5.3. Correlation Analysis

The correlation Table 4 represents the relationship between internal control variables against the financial performance of listed companies in Sri Lanka. The results showed that all five variables positively relate to financial performance.

Table 4: Correlation Analysis

Variable	Pearson Correlation	Sig.
Control Environment	0.346**	0.000
Control Activities	0.467**	0.000
Risk Assessment	0.421**	0.000
Information and Communication	0.481**	0.000
Monitoring	0.477**	0.000

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

The correlation between the control environment and financial performance is statistically significant at 0.01, less than 0.05, with a Pearson correlation coefficient of +0.346. If the Pearson correlation is more than between 0.3 and 0.49, there is a moderate relationship between variables. Therefore, 0.346 is higher than 0.3, and a moderate relationship exists between the control environment and financial performance. It indicates that the control environment positively impacts financial performance. There is a significant correlation between control activities and financial performance at 0.01 level with a coefficient of +0.467. It indicated that control activities positively impact financial performance with a moderate relationship (0.3<0.467<0.49).

The risk assessment and financial performance have a Pearson correlation of +0.421, representing a positive impact between risk assessment and financial performance. The correlation between information and communication and financial performance is statistically significant at 0.01, with a Pearson correlation of +0.481. It reveals a positive relationship between information and communication and the financial performance of listed companies. The correlation between monitoring and financial performance is +0.477, indicating that monitoring positively impacts and has a moderate relationship to financial performance. Therefore, as presented in the table below, all five variables have a positive impact with a moderate relationship with the financial performance of listed companies.

5.4. Multiple Regression Analysis

Multiple regression analysis was conducted to examine ICS's impact on financial performance; the results are displayed in Table 5 (i.e., Summary of Multiple Regression Analysis).

To explain the percentage of variation in the dependent variable "financial performance," as explained by the independent variables, we used a regression model to determine R square, as displayed in Table 5. Based on the model summary, the findings show that the independent variable contributes 37.2% of the variation in financial performance, as explained by an adjusted R square of 35.2% with a significance value of 0.000.

Table 5: Summary of Multiple Regression Analysis

Variable	β	t	Sig.	VIF
Constant	1.179**	3.641	0.000	

Control Environment	0.118*	2.367	0.019	1.201
Control Activities	0.145	1.919	0.057	2.022
Risk Assessment	0.061	.793	0.429	1.921
Information and Communication	0.173*	2.058	0.041	1.788
Monitoring	0.247**	3.364	0.001	1.485
F-Value	18.814			
R2	0.372			
Adjusted R Square	0.352			
Sig.	0.000			
N	165			

Source: Output of Data Analysis

Considering the findings of the above table (Table 5), the unstandardized coefficient (β) for the control environment is equal to 0.118. It indicates that the control environment positively impacts financial performance with an unstandardized coefficient of 0.118. the impact is statistically significant at 5% (Sig., 0.019). Similarly, information and communication also impact financial performance with an unstandardized coefficient of 0.173, which is statistically significant at 5% since the p-value is less than 0.05 (0.041). Interestingly, there is statistically enough evidence to support that the internal control variable of monitoring displays the highest unstandardized coefficient (i.e., 0.247) at 1% (Sig., 0.001<0.01). However, there is no impact of risk assessment and control activities on financial performance because the significant value is greater than 0.05. To find the impact, the study mainly used descriptive statistics, correlation analysis, and multiple regression analysis as described in existing literature (Hamour et al., 2021; Jacob et al., 2016; Ahmed and Muhammed, 2018). The findings showed a positive relationship between the five components of internal control and financial performance. From that Control Environment, Information Communication and Monitoring significantly impact the financial performance of listed companies.

The empirical studies showed a significant relationship between ICS and financial performance (Muhunyo, 2018; Ali, 2013; Nyakundi et al., 2014; Hamour et al., 2021) since it is evident in the study that risk assessment and control activities are not statistically significant, the study recommends that

organization should focus more on the Control Environment, Information and Communication, and monitoring. The findings also align with the empirical study conducted by Athurupana (2019), which found that control activities insignificantly impact the financial performance of commercial banks. Further, the researcher suggests maintaining and improving the existing internal controls in listed companies to enhance the financial performance to build a sound economic system. Interestingly, Madhushani and Jayasiri (2021) also argued that Sri Lankan companies focus more on overall ICSs rather than on individual elements.

Considering the hypothesis, correlation analysis (Table 4) indicates a positive relationship between internal control variables and financial performance, whereas regression analysis (Table 5) supports the statement. For instance, H1a is considered to be a supported hypothesis. Considering H1b, findings show that it is statistically insignificant and positively impacts financial performance. Therefore, the control environment has an insignificant impact on financial performance, and H1b is insignificant. Hypothesis (H1c): risk assessment impacts the financial performance of listed companies in CSE. The correlation analysis reveals that it positively impacts financial performance but is not statistically significant. Therefore, H1c is not supported. The study found that H1d impacts positively, and the impact is also statistically significant. Therefore, H1d is a supported hypothesis. According to the findings, H1e is also statistically significant and positively impacted. Therefore, H1e is a supported hypothesis.

6. Conclusion

The study identifies ICSs and their effectiveness in financial performance in organizational contexts. The study consists of two main research objectives, namely, to assess the level of ICS and to examine the impact of ICS on financial performance. In particular, the study demonstrates how independent variables (Control Environment, Control Activities, Risk Assessment, Information and Communication, and Monitoring) impact the Firm performance of listed companies in Sri Lanka.

Considering the objectives, the first objective represents the level of ICSs of listed companies and is measured using descriptive statistics and the One Sample T Test. The findings reveal that firms have maintained efficient ICS and operate it promptly since all the ICS variables possess mean values that are significantly greater than 3. The second objective is to examine the impact of ICSs on financial performance. The correlation analysis reveals that all five dimensions of internal control have a positive impact on financial performance. Considering the findings from the regression analysis, it indicated that control

environment, monitoring, information, and communication are statistically significant.

In contrast, risk assessment and control activities are statistically insignificant to financial performance. Therefore, the study recommends that organizations focus more on Control Environment, Information and Communication, and Monitoring. In contrast, they should also consider risk assessment and control activities to develop a more effective internal control environment.

When considering the limitations, the study is limited to the companies listed on the Colombo Stock Exchange. On the other hand, the study is limited to the internal factors affecting financial performance and does not focus on external factors. The study recommends that future studies use primary and secondary data for data collection. Also, future studies can use control variables, for example, firm size, in the conceptual framework for controlling the risk when implementing the internal control system. On the other hand, future studies can focus on internal and external factors affecting the ICS. Also, the researcher suggests applying areas like challenges when implementing ICS and the impact of information technology on ICS in future studies.

References

Abu Hamour, A. M., Massadeh, D. D. M., & Bshayreh, M. M. (2021). The impact of the COSO control components on the financial performance in the Jordanian banks and the moderating effect of board independence. *Journal of Sustainable Finance & Investment*, 1-15.

Ahmed, A. M., & Muhammed, A. A. (2018). Internal control systems & its relationships with the financial performance in telecommunication companies—a case study of Asiacell‖. *International Journal of Scientific and Technology Research*, 7(11), 82-88.

ALAWAQLEH, Q. A. (2021). The effect of internal control on employee performance of small and medium-sized enterprises in Jordan: The role of the accounting information system. *The Journal of Asian Finance, Economics and Business*, 8(3), 855-863.

Alzeban, A. (2020). The relationship between the audit committee, internal audit, and firm performance. *Journal of Applied Accounting Research*, 21(3), 437-454.

Abd Aziz, M. A., Ab Rahman, H., Alam, M. M., & Said, J. (2015). Enhancement of the accountability of public sectors through the integrity system,

internal control system, and leadership practices: A review study. *Procedia Economics and Finance*, 28, 163-169.

Ali, K. H. (2013). Contribution of the internal control system to the financial performance of financial institutions: A case of People's Bank of Zanzibar Ltd (Doctoral dissertation, Mzumbe University).

Brown, N. C., Pott, C., & Wömpener, A. (2008). The effect of internal control regulation on earnings quality: Evidence from Germany. *University of Southern California, Los Angeles, CA*.

Ejoh, N., & Ejom, P. (2014). The impact of internal control activities on the financial performance of tertiary institutions in Nigeria. *Journal of Economics and Sustainable Development*, 5(16), 133-143.

Fatihudin, D. (2018). How measuring financial performance. *International Journal of Civil Engineering and Technology (IJCIET)*, 9(6), 553-557.

Gavrilov, L. A., & Gavrilova, N. S. (2005). Reliability theory of ageing and longevity. *Handbook of the Biology of Aging*, 3-42.

Ibrahim, S., Diibuzie, G., & Abubakari, M. (2017). The impact of internal control systems on financial performance: The case of health institutions in the Upper West region of Ghana. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 684-696.

Ishaku, A. A., Kakanda, M. M., & Danladi, S. (2020). Assessment of the effectiveness of internal control systems of Adamawa state ministries, departments, and agencies in Adamawa state, Nigeria. *Asian Journal of Economics, Business and Accounting*, 18(1), 57-71.

Inusah, A. M., & Abdulai, S. (2015). Assessing internal financial controls of the Lands Commission of Ghana. *European Journal of Business, Economics and Accountancy*, 3(3), 51-65.

Jensen, M.C. and Meckling, W.H. (2019). Theory of the firm: Managerial behavior, agency costs and ownership structure. In *Corporate Governance* (pp. 77-132). Gower.

Jokipii, A. (2006). The structure and effectiveness of internal control: A contingency approach. *Vaasan yliopisto*.

Kisanyanya, A.G., & Omagwa, J. (2018). Internal Control Systems and Financial Performance of Public Institutions of Higher Learning in Vihiga County,

Kenya. *IOSR Journal of Business and Management (IOSR-JBM)*, 20(4), 31 41.

Kumuthinidevi, S. (2016). A study on the effectiveness of the internal control system in the private banks of Trincomalee. *International Journal of Scientific and Research Publications*, 6(6), 600-612.

Kumari, K. A. H. M., & Weerasooriya, W. M. R. B. (2019). Impact of effective internal control implementation on private commercial bank's financial performance; special reference to the Central Province of Sri Lanka. *International Journal of Scientific and Research Publications (IJSRP)*, 9(12), p9645.

Muhunyo, B. M., & Jagongo, A. O. (2018). Effect of internal control systems on the financial performance of public institutions of higher learning in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3 (2): 273, 87.

Madhushani, R.R.P., & Jayasiri, N.K. (2021). Impact of Internal Control on Financial Performance: Evidence from Sri Lanka. *Global Review of Accounting and Finance*, 12 (1): 16– 27.

Muraleetharan, P. (2011, October). Internal control and impact of financial performance of the organizations (special reference public and private organizations in Jaffna district). In *International Conference on Business & Information* (pp. 1-14).

Ng'etich, W. K. (2017). The Effect of Internal Controls on the Financial Performance of Firms Listed at the Nairobi Securities Exchange (Doctoral dissertation, University of Nairobi).

Nzabandora, M. (2013). The effects of the internal control system on the performance of Uganda Revenue Authority: a case study of Cyanika and Bunagana customs, Kisoro district, Uganda.

Nwobodo, H., Adegbie, F. F., & Banmore, O. O. (2020). Effect of Bank Internal Control System on Non-Financial Performance of Selected Quoted Deposit Money Bank in Nigeria. *Journal of Management, Economics, and Industrial Organization*, 4 (2): 77, 88.

Nyakundi, D. O., Nyamita, M. O., & Tinega, T. M. (2014). Effect of internal control systems on the financial performance of small and medium-scale business enterprises in Kisumu City, Kenya. *International journal of social sciences and Entrepreneurship*, 1(11), 719-734.

Odek, R., & Okoth, E. (2019). Effect of internal control systems on the financial performance of distribution companies in Kenya.

Prabath, H. K. E., & Kawshalya, M. D. P. (2018). The Impact of Internal Controls on Financial Performance in Public Sector Banks in Sri Lanka. *4th International Conference for Accounting Researchers and Educators, Department of Accountancy, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka*.

Rae, K., & Subramaniam, N. (2008). Quality of internal control procedures: Antecedents and moderating effect on organizational justice and employee fraud. *Managerial Auditing Journal*.

Ramadhan, M. G., Herwiyanti, E., & Ramadhanti, W. (2017). The Effect of Internal Control System towards Financial Performance in PT. Kereta Api Indonesia. *Jurnal Akuntansi dan Bisnis*, 17(2), 110-119.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3), 718-804.

Schneider, K. N., & Becker, L. L. (2011). Using the COSO model of internal control as a framework for ethics initiatives in business schools. *Journal of Academic and Business Ethics*, 4, 1.

Teru, S. P., Idoku, I., & Ndeyati, J. T. (2017). A review of the impact of accounting information systems for effective internal control on firm performance. *Indian Journal of Finance and Banking*, 1(2), 52-59.

Thabit, T., Solaimanzadah, A., & Al-abood, M. T. (2017). The effectiveness of the COSO framework to evaluate the internal control system: the case of Kurdistan companies. *Cihan International Journal of Social Science*, 1(1), 44.