

Alignment of Traditional Audit Practices to International Accounting Standards: Annotation of Scholarly Literature

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ABSTRACT

This study expanded the discussion of the developmental or evolutionary milestones in auditing and international accounting through combined research efforts in positive accounting theory, behavioral accounting research, and institutional theory of accounting. I applied insights from these theoretical approaches to explore recent developments in internal control systems. I reviewed twenty-nine annotated scholarly articles on internal control systems. I analyzed the COSO and COCO models of internal control systems, which are precursors to modern internal control systems. In addition, this study reviewed articles on internal control effectiveness and weaknesses to understand the determinants of internal control effectiveness and deficiencies. Evidence from the literature review indicates that implementing various internal control measures does not guarantee that an organization will accomplish its goals. The study concluded that organizations achieve their goals and objectives by balancing available internal control measures. This study is a scholarly annotation of various articles on internal control, followed by a narrative, integrated essay on emerging themes.

Keywords: Accountability; Accounting Theory; Disclosures; Financial Reporting; Internal Control.

INTRODUCTION

Internal control is a system of controls designed to safeguard the organization's assets. Contrary to errors in some quarters that ascribe internal control to an accounting function, internal control is a managerial function. When management understands this and shows the political will to strengthen control, the organization's assets are better secured. The effectiveness of internal control largely depends on internal audit efficiency. Organizational control has two strands: administrative control and internal audit. Weaknesses in either negatively affect the organization's internal control systems. This study therefore evaluates the determinants of internal control variants in the firm. A weak internal audit erodes managerial control and creates deficiencies in administrative control. In this study, I evaluated contemporary peer-reviewed articles and created annotated insights into the scholarly arguments on this topic. The objective is to identify common themes and patterns emerging from scholarly reviews.

Internal Control Material Weakness

The study by Bizarro, Boudreaux, & Garcia (2011) aims to improve understanding of the association between internal control material weaknesses and financial report restatements. In particular, the study examined the relationships between the number and type of internal control weaknesses reported and restatements made to the earnings statement. The study assessed the impact of some types of internal control material weaknesses and specific accounting features of restatements of a firm's financial report.

The study methodology includes examining financial report restatements filed with the Securities and Exchange Commission from December 2003 to March 2006. We extracted samples of firms that announced restatements from the LexisNexis News Library for periods from January 1, 2004, to December 31, 2005. In addition, we used a compilation of other firms that announced restatements by compliance week. The LexisNexis News Library sample included 518 restating firms and another 518 firms from the control group, for a total of 1,036 firms. The compliance week contributed 214 firms to the study. The study compared firms that restated and

those that did not restate over a 2-year period. The comparison included firm size, sector, and the year of restatement announcement for the restating firms. The study used logistic regression to assess whether reported material weaknesses in internal control are related to the probability that affected firms will restate earnings. To test for a relationship between material weaknesses in internal control and accounting restatements, the study assumed that a regression model including restatement and firm characteristics would capture firms' decisions to restate earnings. Overall, the authors used the Ge and McVay classification schema for internal control deficiency types to group the identified internal control weaknesses into groups ranging from 1 to 9.

This study is relevant because it provided scientific evidence of a relationship between reported internal control material weaknesses and the potential for earnings restatement, using 518 samples of both restating and non-restating firms from January 1, 2004, to December 31, 2005. The results showed a significant relationship between reported internal control material weaknesses and firms' likelihood of restating financial reports. The study also found a significant association between the reported number of internal control material weaknesses and the tendency to restate earnings. Another significant finding confirms that the type of internal control material weaknesses is associated with the tendency to restate earnings statements. The biggest issue with this study is the sample composition. The study excluded small firms that restated their earnings from the sample. The reason given is that smaller firms are not found in the LexisNexis News database. This paper could be extended by examining the association between reported internal control material weaknesses and the types of accounts affected when a restatement occurs.

Effects of Internal Reporting on Financial Disclosure Quality

Cavelius (2011) explained how firms produce financial disclosure. The author accomplished this by analyzing a firm's financial reporting system to determine the level of information disclosed in its financial statements. The paper noted that no prior work had explained how a firm organizes and compiles information for its financial disclosures. The article also compared the quality and content of information disclosed through management accounting or internal financial reporting with the information disclosed to the firm's investors and other stakeholders. The author expected to establish a link between the quality of internal financial reporting and the practices used to disseminate that information to investors and other users of the firm's financial statements.

The study examined select companies listed in the French directory of incorporated enterprises. This quantitative study used indexing. The author indicated that indexes were used to identify and measure the items in each financial statement across the sampled firms. Indexes as used in finance were adapted contextually by the paper to measure a list of 65 items drawn from the financial disclosure statements of the sampled firms to determine the quality of practices put in place by the studied organizations. The author's effort to create a schema for measuring the quality of internal reporting and the practices involved in communicating the information seems like a herculean task, as items in financial disclosures are not uniform across all listed French companies. However, it is possible to create an industry-level schema that groups reported items to standardize financial disclosure and reporting.

The study is important because it contributes to finance and accounting research. For the first time, Cavelius addressed a problem that had long divided internal control research: the gap between management's financial information and what was actually disclosed to investors and other stakeholders. The study was the first to record stakeholders' reactions to the organization's disclosed financial information. The study aimed to fill the gap between management accounting and reporting and the information reported to the general public. In addition, the study aimed to reach accounting professionals because it believed financial statement users' information needs are better served when the financial controller is willing to disclose more information from internal financial reports.

Cheh, Lee, & Kim (2010) focused on identifying financial and nonfinancial variables that can be used to identify companies that comply with the Sarbanes-Oxley Act in relation to material weaknesses in their internal control. The authors indicated that these variables would help predict compliance with internal control requirements and identify material weaknesses under the Sarbanes-Oxley Act of 2002. The study used the decision tree method to extract data from a pool of financial sources.

The study relied on the variables' predictive power in three previous articles to assess their ability to identify material weaknesses in the sampled organizations' internal control. Additionally, the authors identified, compared, and contrasted the variables used in the three previous studies to highlight the variables or groups of variables that provide the greatest predictive power. By doing so, the article provided external financial auditors with a needed clue on how to produce a quality, low-cost decision support plan that meets the provisions of the Sarbanes-Oxley Act of 2002. The results indicate a 98.47% prediction ratio of material weaknesses based on the predictive data mining technique used to analyze the variables from the three previously published studies. The study found that the variables from the three studies complement one another and, as such, help authenticate the accuracy of the authors' predictions.

The papers' relevance lies in their trailblazing effort to support other research on the subject. The study also laid the foundation for future inquiry on material weaknesses of internal control. The study is expected to improve audit firms' ability to develop customizable audit assignment tools that accurately predict material weaknesses in internal control in audit engagements. The results indicate potential improvements in the quality and transparency of financial reporting, helping investors and other users make investment decisions with confidence.

Effect of Information and Communication on Internal Control System

Cristina & Cristina (2009) examined the information and communication aspects of the internal control system. The authors assessed the two most widely used internal control frameworks, COSO and COCO, to determine which was most appropriate for the Romanian banking system. The authors justified the prevailing notions of COSO and COCO by noting that internal control is a process that can facilitate and sustain the accomplishment of enterprise objectives and entails managing significant operational risks, compliance, and financial statement reporting, all geared toward improving the effectiveness of business management.

The researchers conducted an empirical study to test the similarities and differences among the three sets of regulations on information and communication in the firm's internal control system. The researchers sourced their data mainly from the three sets of regulations mentioned earlier. The results indicated certain similarities between the two international regulations and the domestic framework. Moreover, the statistical coefficients suggested a high level of dissimilarity between the COSO and Coco frameworks. The values are also higher than the coefficients between the COSO framework and the Romanian framework. Critically, the emphasis on harmonizing internal control measures for information and communication needs to go beyond this to include their functional aspects.

Danescu, Prozan & Danescu (2011) examined how public institutions manipulate internal control functions and leverage the benefits of corporate governance to present their accounting reports as meeting transparency and credibility requirements. The authors noted that several models have emerged for studying internal control. In particular, Danescu, Prozan, & Danescu cited efforts to define control criteria and group them by underlying rationales. The article contends that controlling risks in organizations means implementing internal control functions that can prevent previously identified internal control problems.

The study mentioned a constructive method that uses well-articulated steps in its processes within the Public Finance General Directorate Mures. The authors indicated that the article relied on two questionnaires: the first assessed the available internal control, and the second analyzed the effect of available internal control activities on financial reporting and tax for 35 small- and medium-scale taxpayers. The article also used another approach, referred to as objectifying data, to further consider the synthesis and antithesis of ideas on internal control risks, especially in contemporary literature on management control systems.

The article contributed to the ever-growing literature on internal control activities. Uniquely, the article combined a constructive methodology with objective data from two questionnaires assessing internal control and its impact on financial reporting. The study is noteworthy for elaborating on identified internal control problems and offering specific implementation options that helped shore up revenues at Mures County.

In their study, Dhaliwal, Hogan, Trezevant, & Wilkins (2011) tested whether the value of a company's debt portfolio traded on the exchange increases after it discloses material weaknesses in its internal control over financial reporting. The authors noted that material weaknesses in internal control over financial reporting are closely connected to the high cost of the firm's debt portfolio. Conversely, the article suggested that weak internal control over financial reporting and disclosures reduces the accuracy of financial reporting figures. The authors contended that reduced accuracy in financial reporting will leave investors with insufficient information to complete a credit assessment before purchasing the debt and to determine whether the financial reporting disclosed adequate information about adherence to debt covenants.

The study found support for its hypothesis that disclosure of material weaknesses in section 404 reports is connected to the increase in the amount paid for the company's debt portfolio. In addition, the study suggests that the findings did not provide similar support for companies monitored by credit agencies and those not monitored by credit agencies. The authors also found that the high cost of debt resulting from material weaknesses disclosure is more evident in companies not rated by credit rating agencies than in those monitored by them. In line with their proposition that banks are better situated to monitor the debt market, the results suggest that bank monitoring is a major driver of monitoring outcomes. The study is instructive because it highlights the Sarbanes-Oxley Act's ability to provide investors and other users of the firm's financial disclosure with sufficient information through the Section 404 filing. This test is necessary to counter opinions that suggest the cost of sustaining the Sarbanes-Oxley Act outweighs its benefits. The study's findings reinforce the belief that the Sarbanes-Oxley Act provided debt traders with sufficient information to make investment decisions.

The study is deficient because the sample size is too small to make generalizations. Although the author cited the low number of firms that passed the sampling test, the sample size is still too small to draw generalizable inferences. In addition, the article appears to be missing vital control variables needed to test the study model's suitability. The article suggested further research on changes in a company's equity and debt costs and disclosures of material weaknesses by comparing and contrasting the effects of each monitoring entity.

Doyle, Ge, & McVay (2007) investigated the determinants of material weakness disclosures in financial reporting. The study sampled 877 individual disclosures from firms that classify internal control issues as either material weakness disclosures, the most severe internal control deficiency, eliminating 239 non-material weakness disclosures. The sample also includes 429 additional firms disclosing material weaknesses in internal control, bringing the total to 970 firms with internal control material weakness disclosures. The study classified internal control material weaknesses into two widely used categories: severity and the stated reason for the internal control problem. The authors examined the determinants to see whether internal control problems vary by severity or stated reason.

The study examined material weaknesses to determine whether they are connected to firm size and age, financial status, reporting complexity, growth rate, charges related to firm restructuring, and corporate governance policies. The study is unique because it focuses mainly on material weaknesses, which are vital to the internal control system. Moreover, disclosure of internal control material weaknesses is compulsory, while disclosure of significant deficiencies is voluntary.

The results found that internal control material weaknesses are more likely in smaller firms, relatively new firms, financially weak firms, less complex firms, fast-growing firms, and firms undergoing restructuring. From an economic perspective, the research is significant in identifying firms with internal control material weaknesses. Notably, it is doubtful if two years of data are enough to make generalizations of such significance, especially in a fast-changing aspect of a firm's management control system.

Effects of Internal Control Weaknesses on Debt Rating Changes

In their paper, El-Gazzar, Chung, and Jacob (2011) investigated the impact of reporting internal control weaknesses on changes in debt ratios. This study became necessary to highlight how firms have complied with Sarbanes-Oxley Act (SOX) requirements on internal control weaknesses and how reporting these weaknesses has affected firms. SOX requires firms to report on their internal control arrangements, and external auditors must confirm that management complied with reporting material weaknesses in its internal control statement.

Incrementally, the authors used the explanatory power of reporting internal weaknesses for debt ratios and rating changes.

They examined Standard & Poor's 2004 and 2005 annual reports on debt ratings to assess the impact of reporting internal control material weaknesses on the firms examined during the study period. This paper assessed internal control as an important organizational governance tool for evaluating transparency in an organization's internal operations and information and communication systems. The authors collected debt rating data for 2004 and 2005 from the Compustat database. Data screening resulted in 1,332 firms with complete debt-rating and financial data. To test the research design, the authors contrasted 68 firms that reported internal control weaknesses with another 68 firms that did not. The authors compared and contrasted these categories on a total-asset basis. Using the incremental explanatory power of reporting, the authors adapted Standard & Poor's rating tools by assigning cardinal variable values from 2 to 27.

A study on internal control stability is vital to organizational governance and has significant implications for firms' ability to receive favorable credit ratings and interest rates. This article argues that a firm's internal control system affects its credit risk evaluation and credit ratings. The study's findings confirm that reports of internal control weaknesses may change the quality of information available for credit risk ratings. While the study confirmed that reporting internal control weaknesses reflected in the firm's average investment behavior, the article did not support exporting the same behavior to other regulatory functions. The results have implications for global securities markets. Further research could extend the study to international securities markets. Future research would also be useful if it investigated actions firms take to correct identified internal control material weaknesses and how those actions affected their credit and market ratings.

Frazer (2012) examined restaurant managers' perceptions of internal control in small-scale restaurant businesses. The researchers hoped to determine whether a significant correlation exists between the dependent and independent variables and managers' conception of the internal control system, asset protection, demarcation of responsibilities, and transaction verification. The researchers used a survey method to gather data from study participants. Respondents were drawn from small restaurant business owners or operators in Nassau County, New York, and were randomly selected from a pool of 1,173 restaurants. The final sample included 270 restaurants.

The multiple regression results indicate a statistically significant relationship between managers' perception of internal control and the three predictive factors: asset protection, demarcation of responsibilities, and transaction verification. The findings suggest that study participants generally perceive insufficient internal control measures as prevalent among small-scale restaurant businesses in Nassau County, New York State. This finding falls short of the recommendations of the widely accepted COSO internal control framework.

While the results were significant for the relationship between the dependent variable of internal control and the three predictors, the study's small scale is a limitation. I am skeptical that the results would hold if the study were replicated on a larger scale. Even more doubtful is the outcome if the study were replicated in other small businesses that are not restaurants. It is important to compare the effects between small restaurants and other forms of small businesses so as to understand the adequacy or insufficiency of internal control systems in these forms of businesses.

Goh & Li (2011) extend previous studies that examined the usefulness of internal control activities in improving governance at the organizational level. This paper differs by investigating the impact of conservatism on firms' internal control and financial reporting. Accordingly, this study extends the literature on the effects of disclosing weak versus strong internal control by examining the relationship between internal control quality and conservatism in financial statements. This study defined conservatism as a high level of verification that equates good news with financial gain rather than treating bad news as a loss. The study used an agency-theory background within the positive theoretical approach to extol the usefulness of conservatism. The authors believed that strong internal controls strengthen the case for conservatism in financial statements. The study argued that organizations that adopt strong conservatism are more likely to be comfortable practicing it. In their view, such conservatism-leaning organizations tend to have strong internal control systems. The study warned

that weak internal controls will slow the pace of writing off losses, which in turn may lower the level of conservatism built into financial reports.

The study tested, in a scientific manner, the association between internal control quality and conservatism based on internal control reports from SOX 404. The sample includes one example of an internal control material weakness selected from January 2003 to November 2005, and the study applied three criteria randomly selected from the literature to reflect the need to recognize losses in a timely manner. The three criteria applied confirmed a positive association between internal control and conservatism. The study found lower conservatism among organizations reporting internal control material weaknesses than among organizations without internal control material weaknesses. The study also found higher conservatism among organizations that remediated previously reported internal control material weaknesses than among those that did not. Overall, the study confirmed the proposition that strong internal control promotes conservatism in financial reporting.

The study limitations include the exclusion of half of the sample size of 1, 098 internal control material weaknesses organizations that lacked SOX 404 opinions. The study attributes this to their not being in the accelerated filers category and not maintaining current registration with the Securities and Exchange Commission. Regrettably, the study is unsure of the possible impact of adding these firms back to the sample. Also, the study did not address the controversy over the cost-benefit effects of implementing SOX 404. The paper focused more on value issues associated with internal control material weaknesses than on the effectiveness of internal control measures.

Gumb & Noel (2009) conducted an exploratory study to assess the implications and operational procedures of French companies' obligation to account for their internal control activities. This legal obligation requires companies operating in France to explain their internal control structure and activities. The article aimed to provide an overview of company executives' perceptions about internal control within the French business environment. Using stakeholder theory and dialectics, the researchers explored financial transparency and offered a critical interpretation of complex financial and auditing control issues.

The research examined the 2004 annual reports, published in 2005, of firms listed on the French stock exchange index of the 40. The researchers conducted a content analysis of CEOs' reports on internal control to identify the role assigned to the internal control system in French CAC 40 firms. The study aimed to determine whether French CAC 40 companies made progress toward standardizing internal control practices. The results found that French companies' management teams have more flexibility, which should be reflected in content diversity and lexical richness.

Hammersley, Myers, & Zhou (2012) examined organizations that did not remediate past and disclosed internal control material weaknesses and continued to report the same weaknesses repeatedly. According to the article, the authors analyzed previously disclosed internal control material weaknesses to isolate the types of weaknesses that are not certain to be remediated. The authors extracted the sample from the Audit Analytics database. This database provided information on firms that reported internal control weaknesses for the first time, with year 0 set to 2006 and the following year as year 1. After elimination, 255 firms remained. Of those firms, 55 reported at least one material weakness in year 1, and the remaining 200 had no material weaknesses in their year 1 filings; these 200 firms served as the control group. The authors compared these firms to a control group of firms that reported material weaknesses and remediated them.

The study found entity and account weaknesses in the sampled organizations that did not remediate their material weaknesses. They were also more likely to report technical accounting deficiencies among their employees. The authors tested determinants of a firm's inability to remediate past and reported material weaknesses. They also examined what is likely to happen to organizations that fail to remediate their material weaknesses. The authors also examined the characteristic features of organizations that have first reported internal control weaknesses, regardless of the type of weakness. Many of these organizations have complex organizational structures that expose them to accounting risks.

The findings suggest that firms may not remediate internal control weaknesses when they are overwhelmed by a complex organizational structure. Conversely, remediation happens quickly in organizations with few material

weaknesses. Similarly, remediation may not happen fast enough in organizations with a small audit committee. This, however, can lead to unpleasant outcomes, such as higher audit fees, and if non-remediation continues, external auditors may reverse a previously unqualified opinion to a qualified opinion. It may also negatively affect their credit ratings. The worst consequence may be the external auditor's outright resignation. The study is useful to the users of the company's financial reports. It also helps managers make cost-efficient decisions about whether to remediate previously reported material weaknesses.

The main focus of the article by Haron, Ibrahim, Jeyaraman & Chye (2010) was to investigate internal control or audit variables that cause Malaysian companies to disclose internal audit reports voluntarily or compulsorily to the firm's investors and other users of the firm's financial reports. The study proposed that firms seek stronger internal controls to satisfy stockholders' informational needs through more detailed disclosure of internal control characteristics. Their mission was to identify key specific internal control variables that could warrant either voluntary disclosure of internal audit reports or mandatory compliance with a legal obligation. To achieve this purpose, the authors used a systematic approach to sample 121 companies from a database of 599 companies listed on the Malaysian Bursa.

The study used an exploratory approach and a structured interview mailed to 40 of the 121 selected companies. The target population was the internal audit heads of the selected companies, which were obtained from the Malaysian Board of Internal Auditors. The study ensured respondents' anonymity. The authors found a significant relationship between voluntary internal control audit disclosure and strong financial performance among the sampled companies. The authors' observation indicates that companies that voluntarily report their internal control audit reports tend to have higher financial performance and higher-quality public audit assurance.

However, the study did not state the possible effect of internal control quality on the financial performance of the companies listed on the Malaysian Bursa. A follow-up test examined the effectiveness of audit committees by assessing relationships among internal control characteristics. The results showed that internal control disclosures could be quantified to measure internal control characteristics. The study's construct had limited ability to measure operational performance compared with profit ratios, which use other measures based on non-objective variables. Despite these limitations, the study contributed to the literature on internal control disclosure by examining both the empirical and theoretical foundations of internal control disclosures, as well as appropriate variables and characteristics of internal controls.

Ibanez (2007) investigated how the audit function translates the impact of internal control threats into control risk assessment and the extent and orientation of the processes and assumptions for including threats in the firm's internal control systems. The article was written with the COSO internal control framework in mind. Conceptually, the study drew on Waller (1993), which reviewed working notes from KPMG Peak Marwick audit engagements. The study used an experimental design and focused strictly on decision-making and audit judgment. The study included one independent variable: the availability of threat in the internal control system. The predictors and dependent variables were the selection of main audit procedures, risk assessment of the internal control system, and the anticipated time to complete the audit.

The authors conducted three case studies and randomly assigned them to study respondents. The cases included one without internal control problems in the sales cycle; the second case had internal control problems but remained within valuation estimates; and the third case served as the control group, in which all components of the internal control system in the sales cycle functioned properly. The study adopted a one-factor between-subjects analysis of variance (ANOVA) design. The study tested the hypothesis that auditors' reactions to threats to internal control systems differed. Accordingly, the information provided to participants followed the COSO internal control framework.

The results indicate no significant differences among the three study groups, reflecting the impact of the independent variable. The study also found that auditors react to, or adjust, their audit strategy in response to available evidence of internal control problems. This suggests that the preferred audit framework would be the business risk-leaning audit model. The MANOVA results indicated that threats to internal control do not influence the control risk assessment or the choice and level of audit procedures used.

To What Extent Does Internal Control Effectiveness Increase the Value of Internal Evidence?

Janvrin (2008) posits that lower source objectivity on evidence persuasiveness will be significantly minimized if audit procedures provide for strict evaluation of the persuasiveness of items generated through the firm's normal internal auditing of operations. This article is unique in that previous studies did not account for the combined impact of internal control effectiveness and evidence-source objectivity on persuasiveness. Given the reduced impact of lower source objectivity on internal control persuasiveness, auditors will be less apprehensive about performing audit assignments with fewer evidence items from outside sources. The author used the judgment formation approach as the study's theoretical background. The sample of 24 auditors came from a reputable accounting firm.

The author, however, cautioned that external auditors may need to find more evidence items if their proposition fails the source objectivity test. If so, the author noted that auditors can provide evidence that other characteristics of available evidence items can reduce the effects of poor source objectivity on evidence persuasiveness. The article is useful in both theory and practice. It provides an in-depth understanding of how changes in different evidence characteristics affect how auditors form an audit opinion. The article also highlights increased attention from standard-setting agencies and regulators to the subjectivity of financial figures. Moreover, finance managers rely on these figures to prepare financial reports that form the basis for profitability ratios and investor decision-making. The article gives accounting professionals insight into the outcomes of pursuing quick accounting report preparation and how it affects auditors' opinions.

The article tested variables for evidence of manipulation of source evidence and objectivity. The study found that the more effective internal controls are, the less likely auditors are to rely on internal controls over external evidence. Another finding suggests that auditors rely more on internal control effectiveness when evaluating external evidence items. Unfortunately, internal control activities do not support external evidence items. The article has several issues. The first being generalization of tasks and assertions. The study's findings cannot be generalized to other auditing assignments that may involve higher- or lower-than-expected levels of material misstatement. In addition, sampling 24 auditors from a single accounting firm further creates a generalization problem. This, in turn, makes it difficult to generalize the results to other audit situations. In addition, the article used a within-subjects design, which can increase the likelihood of demand effects. Another limitation is that some evidence items cannot be quantified. The study provides enormous opportunities for further research. Researchers might explore whether the findings generalize to quantifiable evidence items.

Jeong-Bon, Byron & Liandong (2011) were motivated to investigate the outcomes of loan contracting in the face of internal control material weaknesses. The study compared and contrasted the main features of loan contracts from firms with internal control material weaknesses with those from firms without them. The study sample of 3,164 packaged loan accounts was drawn from the Securities and Exchange Commission (SEC) database containing SOX 404 disclosure filings between 2005 and 2009. From the sample, the authors compared loan contract provisions for borrowers with internal control material weaknesses and those without. The researchers isolated a controlled set of borrowers with specified loan provisions that could affect loan contract terms.

The study found that loan coverage is higher for firms with internal control weaknesses than for those without. This finding supports the view that banks consider internal control strength in setting loan contract interest rates. The study also found that the type of internal control weakness influences loan contract terms. The authors observed that firms with severe internal control weaknesses pay higher loan interest rates than those with less severe weaknesses. Furthermore, the study confirmed that lenders insert strict terms in the loan contracts of firms with weak internal control systems. The paper tested samples of firms that processed identical loans before and after their initial reporting of internal control weaknesses under SOX 404 disclosure requirements. The results were stunning. Lenders charged significantly more to firms with internal control weaknesses and less to those without reported internal control weaknesses. Similarly, the study found fewer covenants attached to loan contracts for both firms with and without internal control weaknesses. The author interprets this as evidence that disclosing internal control weaknesses reduces the number of financial covenants attached to loan contracts. An alternative explanation is that the decrease reflects broader SOX 404 provisions.

The study contributes to the literature on the economic impact of financial reporting efficiency on debt portfolios. The paper also contributes to the literature on loan portfolios and contracts. The study provides new evidence of the need for SOX 404 filing in internal control disclosures, particularly for private debt options. The study is useful to commercial banks and private equity lenders, who now have more leverage and access to borrowers' information, helping them make underwriting decisions. Above all, the study contributed significantly to the debate about the cost-benefit analysis of firms complying with SOX 404 provisions.

Jokipii (2010) investigated internal control effectiveness using a contingency approach. In doing so, the study analyzed contingency features in firms to determine whether adopting certain internal control characteristics improves assessments of internal control effectiveness. Jokipii used contingency theory to explain different forms of internal control and the characteristics practiced in many organizations. The study sample was drawn from the MicroMedia Database, a resource for companies doing business in Finland. Using defined criteria, the study selected 1469 companies for sampling. Data collection used internet-based questionnaires. Of the 1469 companies emailed questionnaires, 762 responded; of those, 741 were valid and included in the study. The author analyzed relationships in firms' internal control structure using structural equation modeling. The results suggest that environmental changes affect internal control more than the specific contingency characteristics the author analyzed.

The study confirms the strong influence of environmental challenges and strategies on internal control characteristics, rather than perceived effectiveness. The author suggested that changing environmental conditions require adjustments using internal control tools. The study found that internal control effectiveness improved as environmental challenges increased. Regarding size and mechanical composition, the primary model found no significant statistical relationship. Critically, the study lumped formal and informal controls together, which may have obscured how internal control structure changes with organizational size. Although the study measured the entire organizational structure, it ignored the possibility that some organizations may have multiple variations of their organizational structure. This inconsistency may increase the likelihood of changes in the composition of the control system.

The study is important in increasing the knowledge base on internal control characteristics and how they contribute to the effectiveness of a firm's internal control systems. The study contributed to the growing literature on internal control structures by presenting a scientific measurement construct for internal control effectiveness. Moreover, previous studies did not fully explore the impact of the contingency approach on internal control; therefore, this work examined the potential implications of using contingency methodology for internal control effectiveness. This study is also important because it adds to knowledge about internal control in management studies. It also examined management perceptions of the firms sampled. The study also contributes to understanding key characteristics of contingency theory that affect internal control effectiveness. Overall, the article highlights the specific needs of firms that use some form of internal control system. Further research is recommended to explore whether more contingency characteristics influence internal control effectiveness.

Internal Control and Enterprise Risk Management-from Traditional to Revised COSO Model

Krstic and Dordevic (2012) highlighted the emergence of a new outlook on the internal control system, based on risk assessment and management. The article noted that the growing complexity of business organizations and the operating environment affects the relationship between the enterprise and the environment. They noted that such a relationship is prone to internal control system risk. The authors analyzed the revised COSO internal control framework, which, they argued, promotes timely identification, management, and monitoring of risk in contemporary business organizations.

The article described internal control as a vital tool for reducing organizational risk. The article further argued that COSO was designed to provide safety nets that help organizations achieve their stated goals and objectives. The study noted that risk assessment is a key part of risk management, through which the organization identifies and analyzes potential risks to the internal control system. The article praised the COSO internal control framework and highlighted the COSO model as a tool for achieving organizational goals and objectives.

The study focused on the traditional method. Basically, the traditional approach tends to identify, control, and manage organizational risks. The authors noted that the revised COSO model entails goal setting, event identification, and responding to identified internal control risks. The article concluded that internal control is intended to detect and warn management of potential risks, periodically evaluate the risks the organization faces, and provide management with strategies for resolving them.

Lenghel (2012) portrayed internal control as including surveys, analysis, and periodic verification of internal control activities to ensure adherence to laid-down rules and regulations, as well as proffering solutions to identified risk factors. Lenghel (2012) expanded his definition to include all strategies introduced by management intended to provide avenues for internal control risk mitigation and increase the chances of the organization fulfilling its aims and objectives. The article defined the internal control system as comprising interdependent activities that use special processes and methods. Its aim is to provide knowledge of economic phenomena by reporting their legal manifestations.

The study concluded that regulations did not explicitly specify the processes and policies for implementing internal control for any specific organization. Lenghel also noted the lack of detailed internal-control forms, beyond a typology of internal control linked to time frames. Regarding domestic rules, the article did not provide clear rules and methods for assessing internal control. However, Lenghel provided extensive information on the leading attribute of internal control, described as its accounting and financial aspects. He attempted to classify internal control according to the goals of the accounting and finance functions. He proposed an internal control methodology that includes programming, preparation, implementation, documenting internal control activities, and using the information collected from the internal control implementation process.

Lin, Pizzini, Vargus, & Bardhan's (2011) article summarized their analysis of the role of an organization's internal audit function in disclosing material weaknesses under the SOX 404 Act of 2002. This study complements the earlier work on the internal audit function by Prawitt, Smith, & Wood. Their study found evidence supporting their claim that the internal audit function can improve the quality of financial reporting by reducing the influence of factors that weaken internal control. The current study extended Prawitt, Smith, & Wood's work by examining the connection between the internal audit function and internal control over financial reporting, including its role in preventing and detecting potential threats to strong internal control.

The article relied on data from the Institute of Internal Auditors' Global Auditing Information Network survey conducted between 2003 and 2004. The study sampled 214 companies. Of those, 45 reported at least one material weakness based on their SOX 404 filings. The study found that internal audit staff's educational qualifications and the level of assurance provided by auditors are connected to financial reporting and the remediation of past material weaknesses. Regarding internal audit activities, the authors found that material weakness reports were negatively related to the internal audit function's use of question-and-answer. The authors also observed a positive relationship between material weakness reporting and the internal audit function's routine of assigning grades to audit assignments and coordinating audit assignments between internal and external auditors. The study noted that these activities improve effective functioning and compliance with SOX 404 filing.

The study helped close the literature gap on the impact of the internal audit function on financial report quality. The article extended the literature on internal auditing, internal control, and financial reporting using survey data; the authors established a relationship between material weaknesses and internal audit functions. Specifically, the study contributed by examining internal audit functions to determine whether internal audit involvement improves external audit efficiency. The study has a couple of issues. First, relates to the sample size. Evidently, the sample size is so small that the findings cannot be generalized. Given the large number of control variables, the statistical tests performed may have been diluted. Again, the participation of relatively large companies in the GAIN survey put the study's ability to generalize its findings at risk.

Examining the Potential Benefits of Internal Control Monitoring Technology

In this article, Masli, Peters, Richardson, & Sanchez (2010) conducted a study to test the Committee of Sponsoring Organizations of the Treadway Commission (COSO) assertion that enhanced internal control monitoring makes the organization more efficient and effective and provides better internal control audit

assurance. In line with this assertion, the authors aimed to identify any advantages that may accrue when firms implement policies that fully incorporate internal control monitoring to strengthen internal controls. The study used a sample of 139 firms drawn from announcements of firms implementing internal control monitoring technology. The authors supported their research with a population-based control sampling technique to reduce errors usually associated with choice-inclined sampling bias. The control group comes from the audit analytics directory called the SOX 404 internal controls database. The authors developed and tested hypotheses about the benefits of internal and external audit assurance on firms' internal control effectiveness, focusing on internal control monitoring.

The results confirmed the hypothesis, as the study found a positive relationship between the technology used in internal control monitoring and improvements in internal control and the prompt release of audit reports. Consequently, the study found that technology, when used to improve internal control monitoring, may benefit both internal and external assurance reports. Additional findings support the proposition that reform-based internal control monitoring technology produces higher assurance ratings than compliance-based internal control monitoring technology. While the study documented benefits related to assurance outcomes of internal control monitoring technology, it did not state how much benefit accrues to other auditing quality-related efforts. Similarly, the study did not document the extent to which internal control monitoring technology affects other aspects of internal control monitoring.

The study, however, contributed to the growth of accounting and auditing literature, especially in accounting information systems. The article claimed to be a leading source documenting the economic benefits of complying with the COSO position that internal control monitoring helps strengthen internal control within the organization. The article is valuable for documenting the strategic importance of information technology in internal control auditing and for enriching the literature. The study could be extended by examining the relationship between specific outcomes and other types of internal control monitoring technology.

The article by Munsif, Raghunandan, & Rama (2012) extends Ettredge, Li, & Sun's work on the impact of SOX Section 404 internal control quality assessment on audit delay in the SOX era. Ettredge, Li, & Sun (2006) found that firms with material weaknesses in internal controls delayed completing their annual audit reports. This finding came from a study of the first year of the Sarbanes-Oxley Act. This study extended that work by investigating the relationship between internal control weaknesses and audit report delays beyond the first year, notably in the 5th and 6th years of reporting under Section 404. In effect, the authors used data from 2008 and 2009. The other aspects of the study relate to accelerated and non-accelerated filers, as well as whether corrected past internal control material weakness disclosures are connected to delays in the audit report. The study analyzed 2,839 companies selected from the audit analytics database for relevant information on firms' Section 404 reports.

The study found that in 2008, increased audit delays caused by internal control material weaknesses followed a downward trend for non-accelerated filers but not for accelerated filers. The same downward trend continued and was even steeper in 2009, as the impact of internal control material weaknesses declined for accelerated filers relative to non-accelerated filers. The study also found that firms correcting already cited internal control material weaknesses recorded a substantial reduction in audit delay. Expectedly, firms that revised earlier reports experienced longer audit lags than firms with perfect Section 404 reports in the 2008 and 2009 audit years. Overall, the authors found that auditors treated less-than-normal accelerated filers the same as other accelerated filers, and treated non-accelerated filers differently when assessing the impact of internal control material weaknesses and audit delays.

The study contributes scientific evidence of the benefits of reduced audit delays when companies act to improve internal control material weaknesses. The study also highlights and addresses the initial difficulties firms encountered in complying with Sarbanes-Oxley Act Section 404. The study's inclusion of non-accelerated filers is a major extension of Ettredge, Li, & Sun because non-accelerated filers were not required to file at the time of their research. Another addition is the concept of remediation, which other research on internal control material weaknesses and audit lags has left out.

Palfi's (2009) study of the Romanian banking system's internal control system aimed to determine which of the two widely acclaimed internal control frameworks, COSO and COCO, best fits the Romanian system. Palfi noted that the Romanian internal control system has a lot in common with the two international internal control frameworks. The Basel Committee on Banking Supervision defines the Romanian internal control framework. Put differently, the study aimed at identifying which of the two internal control models, COSO or COCO, the Romanian framework approximated. Palfi emphasized the control environment, which he said is critical to studying internal control frameworks. The researcher empirically examined the three internal control frameworks by noting their similarities and differences as they relate to the control environment.

The study found that the Romanian internal control environment is more similar to COSO than to the COCO framework. The study also reports that the statistical coefficient values confirm that the Romanian framework is more similar to COSO and COCO than to the two regulations. The analysis of management philosophy, operating style, and human resource policies suggests that the Romanian model is more similar to the COSO framework than to the COCO framework. The same holds for the analysis of commitment to competence, organizational framework, and delegation of authority and responsibility, which suggests that the COSO model and the Romanian framework are more similar than the COSO model and the COCO model.

According to the literature review, no particular internal control framework is better than the others. The literature review found no instance where one control framework is better than the others. The study thus concluded that the Romanian model is comparable to the COSO and COCO models.

Petrovits (2011) investigated whether disclosing internal control material weaknesses affects the number of contributions received from donors thereafter. The study examined the possible causes and consequences for not-for-profit entities of reported material weaknesses in internal control over reporting. To accomplish this purpose, Petrovits relied on Weisbrod and Dominguez as the study's theoretical model. This model seems suitable because it measures donors' and donations' reactions to different economic variables. The study collected data from the A-133 single audit database and the Internal Revenue Service Form 990. Information extracted from the A-133 single audit database includes data on the audited organization, how much in federal government awards was expended, the auditors' names and the nature of the audit they conducted, the auditors' opinion, data on internal control activities, and the reported audit findings. The Form 990 contained data on income, expenditure, and the balance sheet.

The study is unique because not-for-profit organizations gave the author an opportunity to investigate the impact of internal control material weakness disclosures, since giving to charity is direct evidence of how stakeholders respond to these disclosures. The study noted a possibility of increased internal control problems among complex not-for-profit organizations with poor financial positions. The study found that a donor's giving decision is affected after internal control weaknesses are reported by auditors. The study claims its findings can be generalized to all nonprofit organizations because it provides long-term evidence that donors rely on internal control reports to make giving decisions. The study also found that the Internal Revenue Service is working to strengthen rules governing nonprofit accounting and internal control to increase donors' confidence that their charitable donations are well managed. While watchdog groups have measures in place to monitor the use of donor funds, the effectiveness of such measures remained questionable.

While efforts are underway to develop internal control frameworks for nonprofit organizations, this area is relatively new. Hence, future research should examine which donors assess nonprofit internal controls before making giving decisions. It would be seen how internal control weaknesses could affect management decisions on executive compensation and earnings.

Using the COSO Model of Internal Control as A Framework for Ethics Initiatives in Business Schools.

In Poel & Vanstraelen (2011), the authors examined the association between internal control reporting and accrual quality based on the Netherlands version, referred to as the "comply or explain principle". The Netherlands version provided a useful alternative way of examining internal control from the regulator's point of view. Previous studies on internal control laws and financial reporting were based on the Sarbanes-Oxley Act. Thus, this article complements existing studies that examined the relationship between two sections of the

Sarbanes-Oxley Act: SOX 302 and 404, which address internal control regulations and the quality of financial reporting. They did this by examining other available environments for understanding internal control regulation. Accordingly, the authors examined the comply-or-explain environment as it relates to the internal control sections of the Netherlands corporate governance rules, as well as accrual quality. The study also examined the possible reasons business organizations gave for declining to provide information on their internal controls.

The study sample included all firms listed on the Amsterdam Stock Exchange between 2004 and 2005. In all, the authors extracted 171 companies from the Dutch database Reach and the 2004 International Financial Reporting System database. The authors manually extracted data relating to internal control requirements of the 171 firms sampled. The results suggest no relationship between accrual quality and a company's description of internal control measures. However, the study found a positive relationship between accrual quality and a firm's unaudited internal control effectiveness. In addition, the study noted an increased rate of noncompliance with the release of internal control effectiveness reports.

The study is relevant to current discussions across continents on internal control laws and regulations, the cost of implementing internal control strategies, and how to determine the effectiveness of internal control measures. Regarding the reasons given for noncompliance by some companies, the findings suggest no uniform reason for noncompliance by the affected companies. Overall, studies on different forms of internal control laws will further deepen our understanding of internal control settings and cost-effectiveness. The most glaring handicap of this article remains measurement. The article shows signs of potential bias, especially in how it measures internal control. The article has internal validity issues related to collecting relevant variables, which requires subjective judgment. Generalizing the study results is only possible when comparing or explaining environments. Further research is suggested to determine whether the study findings apply to other settings using different monitoring strategies.

Schneider & Becker (2011) aimed to make a compelling case for applying the widely accepted COSO model of internal control to tertiary education business schools. The article urged business school faculty to adopt the COSO internal control model, traditionally used in accounting, as a strategy for bringing business ethics and practices into business schools and colleges. In particular, the study argued that business schools should adopt the COSO model to guide, coordinate, implement, and evaluate their operations. Part of the study's strategy was to conduct a comparative analysis of business and educational operating models to support applying the COSO internal control model to academic management.

As the literature shows, the article asserted that in the business world, shareholders and other stakeholders rely on financial reports to evaluate a corporation's success or failure. Likewise, stakeholders in educational institutions depend on schools to provide the public and other interested groups with information that attests to effective and efficient administration of the entire educational process. Accounting professionals have previously promoted sound internal control techniques in the business world through the establishment of the Treadway Commission.

The article suggested that educational institutions, starting from the base of the pyramid, must implement ethically sound policies akin to the COSO model to improve the control environment. He urged key executives of educational institutions to invest both their political and financial muscles in maintaining a control environment where organizational ethics control all firm activities. The authors also called for integrating the monitoring aspect of control into mainstream organizational policy initiatives.

Stefanesu & Murean (2010) examined which of the two widely accepted internal control models, COSO & COCO, Romanians used as the basis for framing their internal control model for the credit system in policies on internal control and separation of duties. According to the study, the researchers reached their conclusions by comparatively analyzing the two existing control models alongside Romanian domestic regulations. Accordingly, the authors analyzed the similarities and differences among Romanian regulations and the COSO and COCO internal control models. The comparative assessment emphasized adherence to segregation of duties within the organization and the implementation of sound internal control policies.

The study found evidence of official harmonization of the internal control systems identified in the literature review. The article also noted that it sourced information mainly from the provisions of the COSO, COCO, and Romanian internal control regulations. While the study alluded to significant evidence of comparability among the three internal control models, much is to be desired, as it mainly addressed issues related to harmonizing duties. The study did not broaden its scope to the current developmental stage of the Romanian banking sector. Much work remains to investigate the internal control systems of the Romanian banking system, with evidence and contributions from credit institutions.

Verovska (2012) aimed to harmonize global knowledge on internal control systems and determine how to apply consolidated experience to Latvian organizations. As a step forward, the study articulated a list of recommendations drawn from previous articles on internal control systems for external auditors to evaluate. The researchers' methodology included analyzing empirical literature, statistically and comparatively evaluating global experiences with internal control systems, and systematically examining prevailing ideas on internal control problems.

The study evaluated the COSO internal control framework put forward by the Committee of Sponsoring Organizations of the Treadway Commission. The article briefly highlighted the five basic components of the COSO model, which was later modified to include the internal control environment, organizational objectives, and event identification. The article argued that internal control may not always detect or prevent fraud, regardless of how adequate the organization's internal control system is. However, Verovska maintained that organizations can create an efficient and effective internal control system based on their specific needs; typically, the goal is to maintain a balance that supports the organization's mission, goals, and objectives.

The study concluded that organizations should develop an internal control system that reflects their unique structure. The article criticized the European Union (EU) stipulation, which applies only to companies listed on the exchange. According to the article, this stipulation is no longer sufficient.

Wittayamon (2012) aimed to investigate internal control effectiveness and how it produces reliable financial reports for firms listed on the Thai exchange. In effect, the article investigated the impact of internal control effectiveness on the reliability of internal financial reports. It also examined the association between internal control variables and resulting internal control effectiveness. Moreover, the study analyzed internal control effectiveness as a possible driver of internal control variables such as compliance quality, internal communication, and risk management efficiency. Wittayamon used the contingency approach to develop the study. The contingency approach was chosen because an organization's effectiveness is closely associated with internal features common to most organizations. In addition, a widely held assumption is that the contingency approach influences the selection of internal audit control effectiveness and the reliability of financial reports.

The sample was selected from the Chief Internal Auditors of firms listed on the Thai exchange. A total of 564 Internal Auditors were sent questionnaires by mail. Out of this number, 124 responses were considered valid from the 135 responses returned. The questions used a Likert scale rating of 1 to 5. The study found internal control effectiveness to be strongly significant for the reliability of financial reports. One possible reason is the importance of internal control in improving a firm's corporate governance statements. The study also confirms that compliance quality, risk management efficiency, and adequate continuous monitoring affect internal control effectiveness more significantly. The study noted that, except for the insignificant influence of internal communication between firms' policies on accounting standard practice, guidelines, or firms' rules, internal control measures need improvement to be effective. The results did not show the impact of internal communication and the adequacy of continuous monitoring on internal control effectiveness.

Critically, the study objective, as implied by its focus on internal control effectiveness, is limited to firms listed on the Thai exchange. This constraint requires future studies to test these objectives and add objectives in other areas, if needed. The survey data are insufficient to validate the responses. This limitation may reflect differences in respondents' practices. Future surveys should merge data or draw on different sources. While the study's theoretical approach was contingency, the article provides evidence that it leaned toward a holistic methodology. It used this to evaluate employee behavior alongside internal control measures.

This depth component will expand the previous breadth section by critically analyzing current literature on organizational internal control. This paper will examine current internal control literature to see which theories have been adapted and how accounting theorists deploy them to advance the use of internal accounting control measures within the organization. In the analysis, it will identify factors responsible for internal control failures and those that strengthen it for discussion. In addition, this paper will evaluate how organizations use internal controls to accomplish their goals.

Understanding internal control systems in the organization.

Undeniably, internal control means different things to different people. These differences in meaning can be attributed to the organization's goals and objectives. For the most part, internal controls are linked to the policies, rules, and regulations put in place by organizational managers and are intended to provide, among other things, reliability and assurance in financial reports. The reliability of a firm's financial reporting measures the efficiency and effectiveness of its internal control systems (Wittayapoom & Limsuwan, 2012). As Wittayapoom and Limsuwan (2012) suggest, proper bookkeeping and accurate disclosure of accounting information benefit stockholders and other users. Hence, Wittayapoom and Limsuwan (2012) contend that the quality of an organization's financial reporting affects its internal control system. Citing Skaife et al (2007), the authors highlighted the importance of the internal control system to a firm's corporate governance strategy. Wittayapoom and Limsuwan (2012) maintained that a firm's corporate governance strategy stems from its statement of internal control system, which is geared toward an efficient and effective system of control that results in reliable financial statements.

Accordingly, Wittayapoom and Limsuwan (2012) posit that organization managers use internal control measures as a check-and-balance device that directs accountants in the accounting processes of recording and reporting as well as in attaining enterprise objectives. The authors attributed organizational failure or success, and the reliability of financial statements and reports, to the efficiency and effectiveness of internal control systems. Collaborating to the above assertion, Poel and Vanstraelen (2011) added that the main purpose of internal control measures is the provision of assurance of the reliability of the firm's financial statements. They emphasized that firms constantly perform accuracy checks, ensure completeness, and properly authorize all business transactions as an indication of a functional internal control system (Poel & Vanstraelen, 2011). Hence, they defined internal control as a process that increases the reliability of financial reports (Poel & Vanstraelen, 2011, p. 185).

Similarly, Petrovits, Shakespeare, & Shih (2011) construed internal control as the set of actions established by a firm's management to provide reasonable assurance of efficient and effective business operations, reliable financial statements, and regulatory compliance. This implies that internal control reports show the organization's risk level and prompt organizations to focus on implementation and the need for quarterly reviews of internal control systems.

In conclusion, Petrovits, Shakespeare, & Shih (2011) described internal control problems as risk conditions (risks that negate financial reporting standards and regulatory conditions) worthy of reporting to stockholders and other users of the firm's financial reporting. Typically, internal control reports indicate if any reportable risk condition exists and whether the reportable condition is a material weakness (Petrovits, Shakespeare, & Shih, 2011). Jokipii (2010) offered another perspective on internal control, noting that internal control measures strengthen organizational monitoring and reporting processes. Jokipii also noted the efficacy of internal control systems in ensuring that organizations comply with appropriate rules and regulations. El-Gazzar, Chung, & Jacob (2011) introduced transparency to the internal control discourse. According to Gazzar, Chung, & Jacob, an internal control system is a corporate governance tool that emphasizes transparency in a firm's internal management and information systems.

Wittayapoom and Limsuwan (2012) described another aspect of internal control as risk management efficiency, which enables organizations to continually update workplace rules and regulations, work standards, and guidelines, especially those related to compliance quality. In addition, they stressed the need for intra-organizational communication, particularly regarding accounting policies, standard practices, company rules, and regulations (Wittayapoom & Limsuwan, 2012, p. 81). The authors also emphasize continuous monitoring as part of internal control. They note that continuous monitoring includes both preliminary and final monitoring.

The former offers suggestions for achieving internal control effectiveness, while the latter involves analyzing how efficient or effective the firm's internal control measures are (Wittayapoom & Limsuwan, 2012). Overall, the authors concluded that internal control systems are vital to stockholders, investors, and other users of the company's financial reporting because they help ensure the trustworthiness of the financial statements.

While an internal control system is necessary for effective and efficient management, this understanding stems from the historical conception of internal control as a primary accounting function (Krstic & Dordevic, 2012). This conception generally means that internal control includes steps taken to protect a firm's assets and to ensure that the firm's financial reports are accurate and a true reflection of the organization's overall financial health. Over time, internal control has evolved to include policies, rules, and regulations created by top management to ensure the organization achieves its goals (Krstic & Dordevic, 2012). Given the importance of internal control in organizational management, efforts should continue to develop and improve its efficiency and effectiveness.

Lenghel (2012) articulated the important roles of internal control as including reducing uneconomical and inefficient business activities; treating management directives as sacred; ensuring accurate financial records; protecting the sanctity of the internal control process; and aggressively implementing control activities (p. 156). These roles unite in promoting the purpose of internal control, which, according to Lenghel (2012), is to unify objectives, identify major drivers of success, and communicate the entity's performance to top management. Thus, internal control entails applying official policies and procedures at all levels of organizational management to issues related to asset protection, performance evaluation, division of functions, and verification of approving authorities.

Internal control models

One tool of effective and efficient organizational management is the internal control mechanism. Generally, Lenghel (2012) described control as a periodic survey, analysis, and verification of organizational activities intended to expose potential risks and recommend measures to improve them. Lenghel (2012) further described internal control as encompassing all steps the organization takes to improve risk management of potential or actual risks and increase its ability to achieve its stated goals and objectives. Verovska (2012) stated that the purpose of internal control is to make the organization competitive, improve stability in organizational finances, and create investor confidence and reliability in the company's financial reporting. In today's unstable economic environment, investors prefer firms with reliable, stable financial records; firms that adopt and follow universally accepted financial accounting standards; and firms that protect their investment interests (Verovska, 2012).

To assess an organization's internal control needs, auditors rely on a conceptual framework as a standard or reference for defining and interpreting internal control (Ibanez, 2008). Similarly, Danescu, Prozan, & Danescu (2011) noted the emergence of models intended to support the optimal implementation of internal control. The choice of which internal control model would be used by an organization depends on its structure, legal or incorporation status, volume of activity, the nature of the business sector where they operate, the need or urgency of control, and how positive the management is towards the idea of internal control (Verovska, 2012). Jokipii (2010) noted the utility of internal control in enhancing an organization's monitoring, reporting, and compliance activities. In these roles, internal control plays a vital part in a firm's success. Thus, internal control does not exist in a vacuum (Jokipii, 2010). In the next paragraph, we will briefly discuss the COSO and COCO frameworks, as they are among the most widely used by organizations across continents. Other known models articulated by Jokipii (2010) are: the Basel framework, the combined code, and the Turnbull guidance.

The COSO model

As sophisticated as internal control measures may be, their application depends on the unique characteristics of the organization applying them. Gumb and Noel (2009) noted that the US set up in 1985 a think-tank called the Committee of Sponsoring Organizations of the Treadway Commission (COSO), whose main task, according to Verovska (2012), was to provide informed recommendations for executive management of corporations on critical issues affecting the organization such as internal control, fraud detection and prevention, risk management, financial reporting, and ethical standards for business organizations. The COSO model contains five major areas: the control environment, risk assessment, control activities or means of control, information

and communication, and monitoring (Verovska, 2012; Gumb & Noel, 2009; Krstic & Dordevic, 2012; Frazer, 2012; Palfi, 2009; Schneider & Becker, 2011).

Schneider & Becker (2011) noted COSO's pioneering role in internal control, stating that the model offered organizations a framework for developing extensive, structured measures to implement and monitor internal control systems. Accordingly, Schneider & Becker suggested that organizations with well-structured and functioning internal control systems are more likely to present financial reports that fairly represent their business activities. On the other hand, Schneider & Becker suggest that organizations with ineffective internal control systems are more likely to risk issuing financial reports that may mislead users. The COSO internal control framework is useful to auditors who use it to plan their audit investigation. The authors noted that the COSO framework stands out as a contemporary model for planning, implementing, and evaluating ethical standards in business schools (Schneider & Becker, 2011). COSO's definition of internal control does not guarantee that a firm's goals and objectives will be attained, but it indicates that reasonable assurance can be provided (Schneider & Becker, 2011; Verovska, 2012).

The creation and publication of the COSO control framework have definitely altered organizational managers' perceptions of internal control systems. In effect, the COSO report helped organizations reach their goals and steered them toward a need-based evaluation of internal control systems. The COSO model was framed to equip internal control systems to provide protection instrumental to achieving organizational goals and objectives (Krstic & Dordevic, 2012). Part of this strategy is carefully defining the internal control system's risk assessment functions by identifying and analyzing potential threats the organization faces (Krstic & Dordevic, 2012).

The control environment

The control environment typically comprises the people who work for the organization. It structures the organization and sets the tone that influences the organization's collective consciousness (Palfi, 2009). Basically, the control environment underpins all forms of internal control that provide the organization with much-needed structure and discipline (Palfi, 2009). At its core, it reflects top management's integrity and ethical values, as their idiosyncrasies set the organization's standards (Palfi, 2011). The control environment reflects the organization's culture and is therefore the most critical force in internal control systems (Schneider & Becker, 2011).

Risk assessment

Changing rules and regulatory requirements make risk assessment necessary to keep up with trends in the organization's environment (Schneider & Becker, 2011). In its simplest form, risk assessment involves how the organization identifies and evaluates potential risks that might impact its ability to accomplish stated goals and objectives (Palfi, 2009). According to Krstic & Dordevic (2012), organizations should focus more on identifying factors that may expose or increase the organization's risk level than on finding a method for identifying risks. Organizations are expected to evaluate identified risks to determine their level of exposure and map ways to mitigate risks to an acceptable level.

Control activities

Control activities refer to all the policies, procedures, rules, and regulations the organization puts in place to identify and prevent risks that could affect its ability to accomplish its mission, goals, and objectives (Krstic & Dordevic, 2012). Control activities protect the organization's assets and promote the integrity and reliability of the firm's financial recording and reporting system (Schneider & Becker, 2011). Control activities aim to prevent and detect fraud and theft of the organization's assets.

Information and communication

Organizations are expected to adopt information specific to their needs (Krstic & Dordevic, 2012). Information must be collected and disseminated in a timely manner to help organizational members to perform their duties. Communication of organizational events and activities should include top-down, bottom-up, and across-the-

organization channels to ensure employees understand their specific roles within the internal control system (Krstic & Dordevic, 2012; Frazer, 2012).

Monitoring

The effectiveness and efficiency of any internal control system depend on constant monitoring and evaluation. Monitoring and evaluation aim to improve the organization's quality and performance procedures (Krstic & Dordevic, 2012). Monitoring is an essential part of internal control and is typically performed by an organization's internal auditors (Krstic & Dordevic, 2012). Monitoring may take the form of regular management and supervisory activities, as well as other activities by organizational members in the course of their daily work (Frazer, 2012). In essence, monitoring refers to all activities that evaluate the effectiveness and efficiency of an organization's internal controls over time (Palfi, 2009).

The COCO model

In 1995, the Canadian Institute of Chartered Accountants issued the Guidance on Control in line with the COSO Integrated Framework of 1992 (Stefanescu & Muresan, 2010, p. 149). Essentially, recent studies on COSO and COCO have found that the two internal control models are complementary (Stefanescu & Muresan, 2010; Cristina & Cristina, 2009). While the COSO model comprises five major control elements, the COCO model is structured around four key elements that articulate the twenty control criteria. The main elements of COCO include: purpose, commitment, capability, and monitoring and learning criteria (Stefanescu & Muresan, 2010). Palfi (2009) noted that the COCO control model contextualized control in terms of task performance. Palfi went on to define control in terms of organizational elements that collectively support the attainment of enterprise objectives. In addition, Palfi noted that COCO was intended as a guide outlining criteria for evaluating the effectiveness of internal control. Palfi added that the COCO model is considered more user-friendly and exact in meaning. While the COSO and COCO frameworks articulated a standard structure and goal for internal control, Jokipii (2010) urged organizations to develop internal control systems tailored to their needs. Critically, none of the control frameworks clearly explained the relationship between a firm's characteristics and internal control (Jokipii, 2010, p. 116).

Purpose

Purpose as an element of control sets the direction for the organization. Within these criteria, the model gives the organization clear objectives, risk-management guidelines, and pathways for policy implementation, planning, and meeting performance targets (Palfi, 2009).

Commitment

This element helps organizational managers instill a sense of identity, organizational culture, and ethical values in members. It also includes policies on human resources, authority, and responsibility, as well as a culture of accountability (Palfi, 2009).

Capability

These criteria detail organizational goals towards acquiring competences. It articulates policies that address acquiring knowledge, skills, and tools. It also includes communication plans, information dissemination, coordination, and control activities (Palfi, 2009).

Monitoring and learning

Monitoring and learning deals with how the organization evolves. This criterion periodically evaluates the organization's environment and monitors performance against set targets. It also reexamines the organization's information needs and sets policies to evaluate the effectiveness of controls (Palfi, 2009).

Internal control effectiveness

Internal control plays an active role in the reliability of a firm's financial reports when auditors review internal controls promptly (Wittayapoom & Limsuwan, 2012). Internal control can be effective and beneficial to the organization if top management designs it carefully. To ensure internal control effectiveness, organizations must periodically review their entire structure and activities to strengthen operational profitability and the reliability of financial statements (Wittayapoom & Limsuwan, 2012). According to Wittayapoom and Limsuwan (2012), the reliability of the firm's financial statements is the most important aspect of the internal control efficiency system. Moreover, Wittayapoom and Limsuwan indicated that internal control requires creating and maintaining the firm's control system through efficient risk management policies, strict compliance rules, and regular monitoring of internal control implementation.

In a study that measured how internal control effectiveness resulted in the reliability of financial statements through internal auditing, accounting control, and a review of past studies, Wittayapoom and Limsuwan found that internal control effectiveness was significantly related to the reliability of financial statements and largely due to the fact that internal control is important to the organization's corporate governance strategy. The study also found that effective risk management practices, high-quality compliance policies, and continuous monitoring of implementation and progress significantly affected internal control effectiveness (Wittayapoom & Limsuwan, 2012). Overall, Wittayapoom and Limsuwan's study strongly supported the study hypotheses. This implies that the more effective internal controls are, the more likely financial reports are to be reliable.

Janvrin (2008) conducted a study that examined two evidence characteristics, source objectivity and internal control effectiveness, and how they impact auditors' evaluation of evidence that supports accounting estimates used in financial reporting. Significantly, the study found that internal control effectiveness has less impact on evidence strength when auditors choose internal rather than external evidence (Janvrin, 2008, p. 264). The study also found that auditors rely more on internal control effectiveness when evaluating external evidence. Janvrin (2008) concluded that this finding was unexpected because the client's internal control system is not contingent on external evidence items. The study found that effective internal control reduces reliance on internal rather than external evidence when evaluating provisions for doubtful accounts and product warranty claims (Janvrin, 2008, p. 274). Regrettably, the pre-test group suggested that the disparity in customer credit policy for provisions made for doubtful accounts is evidenced only in internal control effectiveness. Thus, these differences warrant questioning, as they may affect internal control effectiveness and the customer business risk model.

Jokipii (2009) conducted a study that investigated the contingency attributes organizations can choose from to model their internal control framework and how much it results in effective and efficient control. The study used a web survey of 741 Finnish companies, and the results suggest that companies choose internal control structures that best fit their environmental uncertainty and, at the same time, achieve what the author termed "observed control effectiveness" (Jokipii, 2009, p. 115). Thus, Jokipii (2009) asserted that environmental uncertainty and strategy are associated with internal control structure, while internal control structure is related to observed effectiveness.

As interesting as her work may be, Cavelius (2011) conducted a study reviewing the comparability of information quality in internal control reports against information published for investors and shareholders. Drawing on a sample of companies listed on the French stock exchange, the article compared and assessed the sampled information by measuring the quality of financial communication processes and internal control reporting systems. According to Cavelius, the intent was to measure the quality of these two constructs and develop a framework to indicate potential benefits.

Masli, Peters, Richardson, and Sanchez (2010) measured the potential results of internal control monitoring routines by considering the usefulness of monitoring technology, as reflected in the strength of internal control systems and external assurance outcomes. The study identified a sample of companies that had proven use of internal control monitoring technology in relation to the requirements of the Sarbanes-Oxley Act of 2002 (Masli et al., 2010). Their study found that adopting internal control monitoring technology is closely linked to a lower likelihood of material weaknesses (Masli et al., 2010).

Goh and Li (2011) investigated the association between internal controls and the timely recognition of material loss. The study extended existing work on the impact of weak and strong internal controls by examining how internal control quality relates to the timely recognition of loss, often termed “conservatism” (Goh & Li, 2011, p. 976). The results found that companies that disclosed internal control material weaknesses showed less conservatism, or less timely recognition of loss, than companies without material weaknesses. The study also found that companies that remediate previously reported material weaknesses tend to be more conservative than those that fail to remediate. Overall, the results align with a maxim suggesting that sound internal control promotes conservative financial reporting and timely loss recognition (Goh & Li, 2011).

Internal control weaknesses

The literature on internal control weaknesses, especially the impact of a material internal control weakness disclosure on the reliability of financial reporting, is replete with mixed reactions (Kim, Song, & Zhang, 2011). Evidence from various studies is not uniform about its impact on the organization and users of the organization’s financial reporting (Kim, Song, & Zhang, 2011). Internal control material weakness is used variously to refer to accounting deficiencies that are significant or an aggregation of significant accounting deficiencies that may result in non-detection of material misstatement of an organization’s financial statements (Doyle, Ge, & McVay, 2007, p. 194). Dhaliwal, Hogan, Trezevant, & Wilkins (2011) further explained internal control material weakness as the unlikelihood that a significant accounting misstatement may neither be prevented nor detected in an organization's financial reports.

The GAO taxonomy of internal control weaknesses articulates four major classifications: irregular recognition of revenue; wrongful recognition of expenditure; wrongful accounting of business combinations; and sundry irregular accounting such as non-disclosure of third-party transactions, improper accounting in respect to non-monetary and round trip transactions, off- balance sheet transactions, foreign trade transactions, etc (Bizarro, Boudreaux, & Garcia, 2011, p. 79). Moody's classification includes two major types of internal control material weaknesses: the first relates to weaknesses in controls arising from stated account balances, such as weaknesses resulting from income tax transactions. The second relates to organization-related control items, such as weak environmental control and defective financial accounting and reporting procedures (Bizarro, Boudreaux, & Garcia, 2011, p. 79).

In a study that used the release of a partial Section 404 report of the Sarbanes-Oxley Act to test if the publicly traded debt of an organization increased with the disclosure of material weaknesses in internal control over financial reporting, Dhaliwal, Hogan, Trezevant, & Wilkins (2011) found that a disclosure of a material weakness in internal control is closely connected with an increase in an organization’s pricing of debt. However, the authors questioned whether the result would be the same for firms rated by credit bureaus and those not rated by credit rating agencies. Interestingly, material weakness in internal control over financial reports indicates that organizational managers can easily manipulate company cash flow and other resources. This may increase the firm’s default rate, which in turn prompts investors to raise their required return (Dhaliwal et al., 2011). The study found strong evidence supporting its prediction that the higher cost of debt resulting from disclosing internal control material weaknesses is more evident in organizations not monitored by credit rating agencies than in those that are (Dhaliwal et al., 2011). Further analysis indicated that bank monitoring appears to drive monitoring activities. This study aims to provide evidence that Sarbanes-Oxley reporting standards can influence the cost of debt in both private and public equity markets for firms that reported internal control material weaknesses in their financial statements.

Doyle, Ge, & McVay (2007) conducted a study that evaluated the determinants of internal control weaknesses in 779 companies that reported internal control material weaknesses under sections 302 and 404 of the Sarbanes-Oxley Act from August 2002 to 2005. Specifically, the study examined whether internal control material weaknesses are related to the size of the company in terms of market capitalization; age of the company; the financial status of the company; the complexity of the firm's financial reporting; growth rate of the company; cost of restructuring the organization; and its corporate governance goals (Doyle, Ge, & McVay, 2007, p. 194). The study found that internal control material weaknesses are most likely associated with companies that are smaller, financially unstable, experiencing rapid growth, and restructuring their operations (Doyle, Ge, &

McVay, 2007). The authors noted that individual firm features may hinder a firm from instituting a sound internal control system.

Kim, Song, & Zhang (2011) conducted another important study on internal control material weaknesses, examining the implications of internal control weaknesses in a bank's loan contracting regime. Using a sample of 3164 loan facilities reported in Sarbanes-Oxley Section 404 disclosures between 2005 and 2009, the researchers compared loan contracts and their stipulations for firms with internal control weaknesses and those without (Kim, Song, & Zhang, 2011). Significantly, the study found that loan coverage is about 28% higher in companies with internal control material weaknesses than in those without, in full-model regressions (Kim, Song, & Zhang, 2011). Notably, the study found that the severity of internal control material weaknesses in loan contracting matters (Kim, Song, & Zhang, 2011). Consequently, the research found that lenders impose stricter loan terms on borrowers with internal control material weaknesses than on those without. The study also found that firms with internal control weaknesses are more likely to impose collateral security than those without (Kim, Song, & Zhang, 2011).

Bizarro, Boudreaux, & Garcia (2011) examined the connection between the number and types of reported internal control weaknesses and financial reporting restatements. The Sarbanes-Oxley Act was partly instituted to improve the openness of financial reporting and, consequently, reduce the number of reported income restatements in financial reports (Bizarro, Boudreaux, & Garcia, 2011). The study specifically examined whether the number of reported material internal control weaknesses affected the likelihood that an organization would restate its financial reports, as well as the impact of the type of internal control weaknesses and the characteristic features of income restatements (Bizarro, Boudreaux, & Garcia, 2011). Their study found empirical evidence of a connection between reported internal control material weaknesses and the likelihood that a firm would restate its earnings, based on a sample of 518 firms that restated their statements from January 1, 2004, to December 31, 2005 (Bizarro, Boudreaux, & Garcia, 2011). The authors found significant relationships between reported internal control material weaknesses and the likelihood that a firm would restate its financial reports. The authors also found that the number of internal control material weaknesses reported by a company significantly influenced the chances that the company would restate its financial statements (Bizarro, Boudreaux, & Garcia, 2011). The study also found that the type of internal control material weakness reported significantly influences the probability that a firm will restate its financial statements. Regrettably, the sample did not include small-scale enterprises that restated their financial statements because the database from which the study drew its sample did not report them (Bizarro, Boudreaux, & Garcia, 2011).

Hammersley, Myers, & Zhou (2012) investigated disclosures related to material weaknesses to determine which types of material weaknesses are most likely to be remediated. The study found that firms that failed to remediate previously reported internal control material weaknesses characteristically report a lower percentage of accounting-related weaknesses, a higher percentage of entity-related weaknesses, and are most likely to rationalize that their accounting staff lacks necessary accounting knowledge compared to the firms that remediated (Hammersley, Myers, & Zhou, 2012). Interestingly, the study found that auditor fees and the likelihood of an auditor resigning from the audit increase with more internal control material weaknesses in firms that do not remediate previously reported material weaknesses (Hammersley, Myers, & Zhou, 2012). Consequently, the study found rapid decreases in credit lines for non-remediating firms with entity-type material weaknesses. This suggests significant implications for the cost of obtaining credit as non-remediating firms' creditworthiness declines (Hammersley, Myers, & Zhou, 2012).

El-Gazzar, Chung, & Jacob (2011) investigated the impact of corporate internal control material weaknesses on changes in debt ratings. The study examined the effects of incremental exploratory power of reporting internal control material weaknesses on changes in debt ratings using samples from the Standard and Poor 2004 and 2005 debt ratings (El-Gazzar, Chung, & Jacob, 2011, p. 422). The research found that firms reporting internal control weaknesses are associated with changes in debt ratings. The researchers imply that reporting internal control material weaknesses changes the quality of financial information available to credit rating agencies for credit risk assessment (El-Gazzar, Chung, & Jacob, 2011).

Cheh, Lee, & Kim (2010) combined variables from three prior studies to assess the predictive power of each study's variables. The study identified both financial and non-financial variables used to predict internal control

material weaknesses as defined in the Sarbanes-Oxley Act (Cheh, Lee, & Kim, 2010). The study identified several independent variables used in three prior studies and selected the variables that provided the highest predictive rate for the data mining model, producing 98.47 percent prediction accuracy (Cheh, Lee, & Kim, 2010). The study found that each set of variables from the previous three studies complemented the others, strengthening the model's ability to make accurate predictions.

Munsif, Raghunandan, and Rama (2012) extended Ettredge, Li, and Sun (2006), which concluded that firms with unhealthy Section 404 reports have longer audit lags. Munsif, Raghunandan, and Rama (2012) were the first to use data from the 5th and 6th years of Section 404 reporting. The authors compared accelerated and non-accelerated filers and examined the impact of remediating previously reported internal control issues. Multiple regression results showed that accelerated entities with poor Section 404 reports have audit lag reports, and vice versa (Munsif, Raghunandan, & Rama, 2012).

Lin, Pizzini, Vargus, and Bardhan (2011) place an organization's internal audit at the center of their research. The study examined the internal audit unit's role in disclosing internal control material weaknesses as reported by firms under Section 404 of the Sarbanes-Oxley Act. The researchers gathered data from 214 companies and evaluated them for possible associations between internal control material weaknesses and internal audit roles, functions, and features (Lin et al., 2011). The results suggest that material weakness disclosures are negatively related to internal audit personnel's educational status. This, in turn, negatively influences the extent to which quality assurance strategy is integrated into audit activities and field data collection (Lin et al., 2011). The study also found that internal audit functions are more strongly related to material weakness disclosures than competences, objectivity, and investment decisions (Lin et al., 2011). Overall, the study suggests that external auditors are more likely to detect internal control material weaknesses when they work in concert with the internal audit function on their audit assignment (Lin et al., 2011).

CONCLUSION

This paper examined relevant literature on current trends in internal control systems. In particular, we briefly examined the two widely used internal control frameworks: the COSO and COCO. Notably, these models predate contemporary internal control systems. Evidence from the literature shows that internal control does not fully assure that an organization will fulfill its objectives. However, some views suggest that organizations should apply a mix of controls to balance their mission, goals, and objectives.

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