Fraud Risk Management Over Financial Reporting:
A Contingency Theory Perspective

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Fraud risk management an integral part of managing modern organizations. We examine the role that contingency variables play in fraud risk management. We consider environmental uncertainties, organization strategy, and organization size and note negative effects on fraud risk management. We argue that the prospector strategy is more likely to result in stronger controls and hence reduce the likelihood that fraud will be reported in the financial statements. On the other hand, when organizations choose a defender strategy, they are less likely to have strong controls, and there is an increased likelihood of fraud.

INTRODUCTION

Fraud is a major concern for companies and investors (KPMG, 2006; Trompeter, Carpenter, Desai, Jones, & Riley Jr, 2012). The corporate financial accounting scandals in the early 2000s led to a heightened concern about fraud (Agrawal & Chadha, 2005; Agrawal & Cooper, 2007; Hogan, Rezaee, Riley Jr, & Velury, 2008). Many investors suffered due to these scandals, and the professional judgment of corporate managers has been questioned (Carpenter & Reimers, 2005; Chinniah, 2015). The Committee of Sponsoring Organizations of the Treadway Commission is a joint initiative of five private sector organizations dedicated to providing thought leadership through the development of framework and guidance on enterprise risk management (ERM), internal control, and fraud deterrence (ACFE, 2016b). Fraud risk management, defined by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission’s framework, is a process that establishes visible and rigorous fraud governance procedures by creating a transparent and sound anti-fraud culture, assessing fraud risk periodically, designing, implementing, and maintaining preventive and detective fraud control procedures while taking swift action to respond to allegations of fraud. Thus became one of the most challenging contemporary issues facing businesses and institutions and threatened the financial survival of firms globally (Șerban, 2009; Woods, 2009).

The past few decades have seen reports of numerous fraudulent activities involving some of the world’s largest organizations (Agrawal & Chadha, 2005; KPMG, 2006; Hogan et al., 2008). Some of the higher profile cases of fraud include activities at Enron, Tyco, WorldCom, and the Bernie Madoff scheme. The increase in fraud discoveries has been attributed to increases in fraud cases as well as the
rigorous controls and risk management systems adopted by organizations (PwC, 2005). It has been estimated that a typical organization loses 5% of its revenue to fraud each year (ACFE, 2016a). In a 2009 survey conducted by PricewaterhouseCoopers LLP (PwC), PwC noted that 43% of all organizations surveyed across the globe reported increases in fraudulent activity (PwC, 2009). Firms have continued to try to address this issue over the last decade.

These high-profile fraudulent activities led regulatory agencies to introduce reforms aimed at reducing the risk of such fraud in the future (Collier & Agyei-Ampomah, 2005; Roybark, 2013). Building on older reforms such as the U.S Foreign Corrupt Practices Act of 1977 (FCPA), the Federal Managers' Integrity Act of 1982, and the Organization for Economic Co-operation and Development Anti-Bribery Convention of 1997; more recent regulatory oversight has come from the Sarbanes-Oxley Act of 2002, the Federal Sentencing Guidelines of 2005, and the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (ACFE, 2016b). Fraud risk management, including regulatory compliance, is, therefore, a necessary element for many businesses (KPMG, 2006).

Fraudulent financial reporting has been shown to have a nexus with weak corporate governance (Dechow, Sloan, & Sweeney, 1996). Corporate governance elements such as the board of directors and the audit committee play significant roles in the financial reporting process. Organizations that have shown weaknesses in these bodies have been determined empirically to be more likely to have produced fraudulent financial statements (Beasley, 1996). In addition, research suggests that weak internal controls have contributed to fraudulent financial reporting (Bell & Carcello, 2000). On the other hand, it has been shown that effective internal controls attenuate the possibility of business failure and fraudulent financial reporting (Chang, Yen, Chang, & Jan, 2014).

Businesses and organizations operate in a constantly changing environment (Emery & Trist, 1965). However, it is important to note that these changes may not be the same for all organizations. The changing environment may be such that some organizations experience relatively stable environments while other experience a rather turbulent environment. Thus, organizations operate in a changing environmental continuum (Smart & Vertinsky, 1984) and may face different fraud schemes based on the environments in which they exist.

The environment is a contingency variable. The organizational environment tends to be highly uncertain because of future changes that might impact the organization (Gordon, Loeb, & Tseng, 2009). These uncertainties can provide fraudsters with novelty fraud schemes that will negatively impact businesses. In analyzing the environment, we will do so in conjunction with a focus on the COSO framework.

The organization’s strategy will also impact fraud risk management. Some firms may adopt flexible controls to allow for quick innovations and adaptations with changing environmental conditions while others may not (Jokipi, 2010). The flexibility of controls at some point may result in undetected misstatements and consequently fraudulent financial reporting.

The size of an organization may influence the design and use of management system (Hoque & James, 2000). Extant literature suggests that when the size of an organization increases its processes become more sophisticated (Hoque & James, 2000; Libby & Waterhouse, 1996). These sophisticated processes may influence fraud risk management.

In this paper, we will explore how contingency variables affect fraud risk management. We first discuss the existing literature on environmental uncertainty, strategy, and organization size on fraud risk management, and suggest propositions. We then provide a discussion and broad implications of the propositions developed in this paper.

LITERATURE REVIEW AND PROPOSITIONS

Existing literature suggests that fraud has been a major problem for organizations (Summers, 2008). Between 1999 and 2009, the dollar value associated with misstatements or misappropriations increased sharply to nearly $120 billion across 300 fraud cases reported. This indicates a mean of about $400 million per case compared to a mean of $25 million per case in the decade from 1987 to 1997 (Beasley,
Carcello, Hermanson, & Neal, 2010). The largest amount of these frauds occurred in the early 2000s and involved some of the world's most notable organizations such as Enron, WorldCom, and Tyco among others (Beasley et al., 2010). The magnitudes of some of these frauds indicate a failure on the part of those charged with governance and external auditors (Dyck, Morse, & Zingales, 2007).

A survey conducted by Ernst and Young indicated that nearly 82% of all organizational frauds were perpetrated by employees (Carpenter & Mahoney, 2001). The Accounting and Auditing Enforcement Release (AAER) issued during 1998-2007 claim that 89% of fraudulent financial reporting cases involve CEOs and CFOs (Beasley et al., 2010).

Fraudulent financial statements may be described as an intentional, material misstatement of a company’s financial statements (Chinniah, 2015). Grazioioli, Johnson, & Jamal (2006) define a fraudulent financial statement as “an intentional process of deception by the company’s management.” The National Commission on Fraudulent Financial Reporting (NCFFR) (1987) claims that fraudulent financial reporting is irresponsible behavior that results in materially misleading financial statements. KPMG (2006) states that falsification and manipulation of financial records lead to fraudulent financial reporting.

Rezacee (2002) recognizes that misapplication and interpretation of accounting standards or manipulation of accounting practices are two ways by which organizations create fraudulent financial reporting. Prior research on the subject identified that organizations who commit financial statement fraud have historically performed poorly (Carcello & Palmrose, 1994; Dechow et al., 1996; Lys & Watts, 1994). Mohamed (2013) suggests that financial statement fraud provides significant risks to businesses and has the potential of eroding any successes that the businesses may have achieved. Fraudulent financial reporting has had a detrimental effect on many organizations. Some of these effects include adverse reputation, poor business relationships, and financial and motivational losses to staff (PwC, 2005).

Existing literature suggests six compelling factors of fraudulent financial reporting. These include rapid growth, weak control environment, management's focus on meeting earnings projections, evasiveness of management, ownership status, the interaction between weak internal control and aggressive management attitude towards internal controls (Bell & Carcello, 2000).

To prevent the types of fraud listed above and mitigate the risks associated with fraud, risk management is fundamental to an organization’s internal control (McPhee, 2005). The process of fraud risk management ensures that risks which may impact the achievement of corporate objectives are identified, prioritized, reported and monitored both formally and informally (Woods, 2009). The classification of a risk as severe, material or tolerable acts as an influence upon the level of control that is required to reduce the residual risk to acceptable levels and affects the frequency of monitoring (Woods, 2009).

Spira and Page (2003) posit that effective internal control systems diminish risk and guarantees financial statements that are essentially free of material misstatements due to fraud and compliance with laws and regulations. Altamuro and Beatty (2010) report that internal controls help to create financial statements that are free of material misstatement. Ratcliffe and Landes (2009) argue that internal controls over financial reporting are intended to provide reliable financial statements.

COSO (1992) defined “internal control as a process or system that affected every level of individuals in the organization.” COSO argues that the purpose of the designed internal control is to provide reasonable assurance concerning the (1) business operation and (2) issued financial statements.

As quoted in Scott and Davis (2007), contingency theory suggests that “there is no one best way to organize; however, any way of organizing is not equally effective” (Galbraith, 1973, page 2). Thus, contingency theory assumes that the best way to organize depends on the environment (Scott & Davis, 2007). Contingency theory also suggests that the setup of an organization is a major determinant of how internal controls may be designed and used in that organization thus, a relationship between the internal control system and the contingency variable result in better organizational performance (Fisher 1998). Therefore, organizations can adapt their fraud risk management to fit environmental changes. Thus, as suggested by (KPMG, 2006), there is no universal fraud risk management approach for all organizations. Literature indicates that both the details of the risk control structure and how it is used in practice are
contingent upon four variables: environment, strategy, technology, and size. Woods (2009) suggests that contingency variables have been identified in prior literature as factors influencing the design and operation of management control systems; though not explicitly studied in the context of fraud risk management.

**Environmental Uncertainty**

Environment uncertainty is defined as “the change or variability in an organization’s external environment” (Gordon et al., 2009, p.308). Existing research suggests that organizational uncertainty is a fundamental pillar of the contingency theory (Burns & Stalker, 1961; Galbraith 1973; Lawrence & Lorsch, 1967). Chenhall (2003) argues that the environment is a significant force that influences the very basis of contingency-based research. Extant research acknowledges that environment impacts organizations (Child, 1972, Emery & Trist, 1965; Scott & Davis, 2007). The environmental impact on organizations may occur in different sections of an organization. One such section may be the area of fraud risk management. Prior studies suggest that environmental characteristics could impact the design of control structures and performance (Chenhall 2003; Hoque & James 2000). Gordon et al. (2009) defined environmental uncertainty as the change or variability in an organization’s external environment and found evidence to suggest that environmental uncertainty present significant challenges to organizations because the organizations are not able to determine future events that may affect them. Additionally, the environmental uncertainty experienced by organizations presents a range of risks to the organizations because the organizations are not able to determine future events that may impact them (Gordon et al. 2009). Therefore, the responses to those risks may only be determined by the type of environmental uncertainty that the organization faces.

Chenhall (2003) identified some of these environmental uncertainty elements as technology and governmental rules and regulations. Changes in any of the environmental factors may cause a response of a policy shift by the organization (Woods, 2009). Such a policy shift may require flexibility on the part of management as it relates to fraud risk management to adopt the necessary fraud risk procedures to prevent any effect of the environmental changes resulting in fraud and subsequently fraudulent financial statement. For instance, changes in technology may result in control lapses that could lead to fraudulent financial statements. Chenhall (2003) argues that environmental characteristics could impact the design of internal control structures.

COSO (1992) suggests that the internal controls of organizations are intended to provide reasonable assurance that financial statements will be free of material misstatements including fraudulent activities. Environmental uncertainties consequently impact fraud risk assessment of the organization. The fraud risk posed by environmental uncertainty may be severe or tolerable and impact the level of internal control that will be needed to manage the fraud risk.

Technology, for instance, could impact how financial information is managed in the organization. Information technology may help dissemination of information and management of the controls process to ensure timely intervention. It may also help with the training of management and staff on any novelty technology that will consequently impact the fraud risk management of the organization. The threat and risk posed by issues related to cybersecurity cannot be overemphasized. Many organizations have had their security and controls system breached and had been exposed to risks that have the potential to affect the organization’s financial statements. Clearly, many organizations may not be aware that new technologies that may be used to breach their systems have emerged and therefore, may be exposed to such risks.

In the United States, for instance, where two main political ideologies prevail; liberalism and conservatism, and where political power is a renewable resource, it is important to note that any changes in government have the potential of introducing new regulations that could potentially impact fraud risk assessment. The dichotomy between liberalism and conservatism in the United States leads to significant differences in policies in virtually all the various sectors of the United States economy. For instance, the clear disagreement between liberals and conservatives about the role of man in climate change has determined the level of emphasis and amount of resources devoted to issues related to the environment.
This implies that whenever elections approach, the potential for changes in environmental policy with the potential of significant risks to organizations which may impact their financial statements is elevated.

Therefore, environmental uncertainty creates potential risks that adversely affect management’s ability to manage fraud, and the discussion above provides a solid foundation for which we propose the following:

Proposition 1: Environmental uncertainty negatively affects fraud risk management over financial reporting.

Organization Strategy

Organizational strategy can be defined as “the codification of the means by which objectives are intended to be attained” (Otley, 1999, p.366). Organizational strategy has been identified as a significant element in internal control design (Otley, 1980). Organizational strategies determine how internal controls may be used (Miles et al., 1978; Simons, 1990). Langfield-Smith (1997) and Chenhall (2003) propose that the strategy is a major determinant of the type of control adopted by organizations. Otley (1999) suggests that organizations configure their control systems in line with their strategy.

For our paper, we explore the prospector and the defender strategies (Fisher, 1995). Miles and associates (1978) argue that the prospector strategy emphasizes prospecting for problems and searching for ways through which the organization may respond quickly to the threat. Organizations that adopt the prospector type strategy emphasizes proactivity and constant and continuous search for potential changes in environmental conditions and trends. Because continuous search may result in identifying potential problem that existing organizational structures may not find, the organizations tend to adopt flexible technological, administrative, and control structure built to serve both current and future needs of the organization and can be modified in time to mitigate against any environmental change that has the potential to result in fraudulent financial statements. Thus organizations that adapt the prospector strategy may not commit resources to rigid processes that are difficult to change in a short time with a high degree of routines. Landfield-Smith, (1997) suggests that organizations that adopt a prospector strategy tend to implement decentralized policies.

Decentralization requires that organizations have specific controls that will mitigate against any threat of fraudulent activities in the specific department, and have entity-level controls that may prevent any risk not captured by the entity level controls. This, therefore, implies that the control environment must be stronger for organizations that adopt the prospector type of control. Decentralization also means that the organization must have an enhanced monitoring system across the entire organization to ensure that any deviations and exceptions from expected standards are quickly identified and reported. Equally, the reporting system must be very efficient in a way that will provide an immediate report on any potential threat of fraud. Therefore, organizations that adopt the prospector strategy needs to have enhanced information and communication, and monitoring components of internal controls. Organizations that have the prospector strategy mindset tend to have strong internal controls and may have an enhanced ability to prevent fraudulent activities. Therefore, prospector-type organizations have an elevated ability to protect themselves from changing environmental condition while their flexible structures allow for speedy response to such environmental changes and uncertainties. More formally, we propose the following:

Proposition 2a: A prospector strategy positively affects fraud risk management over financial reporting.

Organizations that adopt a defender strategy thrive in an environment that is relatively stable (Miles et al., 1978). Those organizations that adopt a defender strategy tend not to favor decentralization and as such are characterized by centralized decision making and are mostly associated with weak internal control. These organizations may not be able to adjust to deviations and exceptions quickly and efficiently. Organizations that adopt defender controls strategy tend to have rigid controls and cannot quickly respond to changes in their environment (Miles et al., 1978). The result is that this may hinder
the organization’s ability to prevent fraudulent activities that have the potential of leading to fraudulent financial reporting. Thus, organizations that employ a defender strategy are not likely to be effective in preventing fraudulent activities. Therefore, we propose the following:

**Proposition 2b:** *A defender strategy negatively affects fraud risk management over financial reporting.*

**Organization Size**

Hoque and James (2000) posit that the size of an organization influences its methods and management system. Thus, when organizations grow, their increased size results in increased control problems (Merchant, 1981; 1984). Extant literature suggests that when organizations grow, they become more specialized and sophisticated (Bruns & Waterhouse, 1975; Hoque & James, 2000; Libby & Waterhouse, 1996). Hackenbrack (1993) found that auditors show more commitment to fraud detection when auditing large clients than when auditing small client and suggest client size is a fundamental element of fraud risk. Lawrence and Lorsch (1967) identified the existence of a relationship between the size of an organization and its structure. The size of a firm impacts the design and use of management controls (Haka, Gordon, & Pinches, 1985; Shields, 1995). Duncan, Flesher, and Stocks (1999) indicate that the size of an organization is directly proportional to its internal control structure.

The methods and management system adopted by an organization is significantly influenced by the size of the organization (Hoque & James, 2000). The growth of organizations in size present the organization with new control challenges (Merchant, 1981, 1984). Therefore, organizations tend to become more specialized, sophisticated and require expanded controls systems to confront these new challenges (Hoque & James 2000; Libby & Waterhouse 1996). Specializations require that each specific section will have controls that will mitigate any potential fraud threat that will eventually lead to fraudulent financial reporting. Large organizations are characterized by internal differences in various sections of specialization and have resources available to manage any form of risk associated with specific sections. Therefore, large organizations are more likely to invest and have effective and efficient monitoring and information systems, and have flexible structures that will ensure quick deployment of resources to prevent any threats associated with any changes in the organizations’ risks, and have a positive effect on internal control structure and fraud risk management.

On the contrary, small organizations tend not to be that specialized and do not command enough resources to manage certain types of risks. Therefore, smaller size organization tend to have weaker internal control structures (Wallace & Kreuzfeldt, 1995). Consequently, small size organizations are associated with a negative effect on the internal control structure and fraud risk management. Thus, an organization’s ability to manage fraud risk will depend on the size of the organization. Based on this discussion, we propose the following:

**Proposition 3:** *The size of the organization is positively related to fraud risk management over financial reporting.*

**DISCUSSION**

The impact of contingency variables on fraud risk management cannot be overemphasized. Based on the propositions, managers and practitioners within organizations should consider the type of strategy they pursue and the size of the organization, and how these may impact their financial control systems. More specifically, we believe that organizations will be able to successfully manage threats and fraud risk that can lead to fraudulent financial reporting if the organizations understand the interaction between the contingency variables and the risk associated with these variables as it relates to fraud risk management. Environmental uncertainty caused by technological and regulatory changes may have a negative effect on fraud risk management of organizations. The strategy that an organization adopts may also positively or negatively influence the organization's fraud risk management over financial reporting strategy. When an organization adopts a prospector strategy, it enhances its ability to manage its fraud risk.
On the contrary, when an organization adopts a defender strategy, it impedes its ability to manage its fraud risk. The size of organizations also positively or negatively affects its ability to manage its fraud risk. Small organizations lack the resources needed to quickly respond to changes that have the potential of leading to heightened fraud risk which may result in fraudulent financial reporting. On the contrary, large organizations are more likely to decentralize and implement decentralized controls coupled with their ability to acquire and deploy the needed resources to alleviate any potential threat and risk of fraud.

This paper supports extant research finding that some contingency variables such as environmental uncertainty and organizational strategy affect internal control effectiveness (Chenhall, 2003; Hoque & James, 2000; Otley, 1980; Jokipi, 2010). However, the paper further proposes that contingency variables such as environmental uncertainty, the organization’s strategy, and the organization’s size affect fraud risk management over financial reporting. We hope this paper helps to direct the attention of decision-makers and those charged with governance to the contingency variables that influence fraud risk management. The effect of contingency variables on fraud risk management over financial reporting has not been studied, and our paper attempts to fill this gap.

Limitations

A major limitation of this paper is that other variables such as CEO duality, insider control of management teams, and culture that may influence fraud risk management were not considered. Additionally, the effect of changes in management on fraud risk management over financial reporting was not considered. Nevertheless, we consider changes in management and the composition of the board of directors as potential contingency variables that may impact fraudulent financial reporting.

Future Research Directions

In this paper, we have discussed several contingency variables that may affect fraudulent financial reporting. However, there are many other contingency variables. Future research may consider the impact of other contingency variables such as culture, the composition of the board of directors of organizations, CEO turnover, and CEO duality. It is important to note that, empirical research that will test the proposition offered in this paper will contribute in no small way to validate the impact of contingency variables in fraud risk management.

CONCLUSION

The focus of this paper is on how contingency variables affect fraud risk management over financial reports. This paper integrates the body of knowledge from auditing and management and attempts to provide insight into the role that contingency variables may play in fraud risk management. Extant literature document that organizations operate in an environmental continuum where at one end is the stable environment and the other end is an unstable environment. We have looked at how technological and regulatory changes affect organizations’ fraud risk management abilities. We have concluded that environmental uncertainties pose serious challenges to organizations and therefore hinder their ability to manage fraud risk.

Organizations have been shown to adopt one of two internal control structures associated with the two dominant organizational strategies: the prospector and the defender strategies. In this paper, we have discussed how the prospector strategy enhances the organization's ability to manage fraud risks. We argue that the prospector strategies have a positive effect on fraud risk management over financial reporting. Also, we have discussed how the defender strategy hinders the organizations' ability to manage fraud risks. Hence, the defender strategy has a negative effect on fraud risks management.

We have also discussed the effect of the size of an organization on fraud risk assessment and noted that larger organizations have the resources to implement flexible control structures. They also tend to specialize and therefore may have controls over each specialized area. This helps organizations to manage fraud risks effectively. On the other hand, we discussed how smaller organizations lack the resources to
implement flexible, effective controls. As such, they tend to have weak control structures which inhibits their ability to manage fraud risks over financial reporting.

REFERENCES


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