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Early Detection and Prevention of Corporate Financial Fraud

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Walden University

College of Management and Technology

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Marcia K. Schillermann

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Walden University

2018

Abstract

Early Detection and Prevention of Corporate Financial Fraud

by

Marcia K. Schillermann

MBA, Ashford University, 2014

BA, Ashford University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management and Technology

Walden University

November 2018

Abstract

The economic cost of financial statement fraud continues to be a problem for organizations and society. The research problem addressed in this study was the limited risk management strategies available for the early detection and prevention of financial statement fraud by corporate managers and auditors. These strategies are important to the proactive prevention of fraud. This study is important to future trustworthiness of financial statements. The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud using a risk management conceptual framework. The research question focused on current fraud detection and prevention policies and risk management strategies that are currently used for proactively detecting and preventing financial statement fraud. Multiple sources of information were used, including examining recent financial fraud scandals, interviews, documents, and past research. The target population was managers and auditors of publicly traded corporations. A purposive sampling procedure was used to select 23 participants, which provided rich data. The qualitative data was coded and analyzed using the concept of risk management, along with triangulation to ensure credibility. The key findings indicated that current practitioners are moving beyond the era of reactive measures born from the past fraud crises and are working toward improved financial statement quality and trust. The results of the study also indicated that future research should include proactive methods of preventing fraud. This study is socially significant because it could enhance the ability to trust financial statement reporting in the future and improve corporate reputations.

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Dedication

I dedicate this dissertation to my dad who passed away on June 13, 2018. He was a constant source of support throughout my life. I would not have had the courage to pursue my goals without the influence and guidance he provided. My dad will forever be in my heart and mind as I continue achieving my goals throughout life. He has been my inspiration in everything I set out to achieve. I love you Pop. Forever and always.

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I would also like to thank my family for the many times they had to wait for dinner while I worked on my dissertation. My husband and children were (usually) very patient with me throughout this process. I also thank my parents for always supporting my efforts and choices throughout my life. They always let me know that they were proud of my achievements. In addition, I thank my friends, classmates, and colleagues for supporting me and cheering me on every step of the way.

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Chapter 1: Introduction to the Study

The topic of this research was the proactive prevention of fraud through risk management policy, that is, the act of deterring fraud by removing the causal and enabling factors that lead to committing fraud. This requires mitigating fraud through improved organizational procedures and processes and developing a risk management policy. Eliminating the factors that lead to fraud will increase investor confidence. This research focused on deterring rather than detecting fraud and included an examination of the fraud triangle of factors: motive, rationalization, and opportunity.

This chapter covers the following topics: the background of the problem, a statement of the problem, the purpose of the study, the overarching research question, the conceptual framework, the nature of the study, definitions of terms, the assumptions, limitations, and scope and delimitations, the potential significance of the study to advance knowledge in the discipline, and the implications for social change.

Background of the Study

Previous research on financial statement fraud has focused on the perpetrators and consequences of fraud. For example, one researcher noted the large economic cost to the organizations and society (Free & Murphy, 2015). Another researcher focused on the motivation and personality traits of the perpetrators, citing general strain theory and group dynamics as potential catalysts of fraudulent behavior (Trompeter, Carpenter, Desai, Jones, & Riley Jr., 2013). Other researchers of interest have focused on risk oversight and poor governance as factors related to fraudulent behavior (Steffee, 2010; Ang, Jiang, & Wu, 2016). Murphy and Dacin (2011) listed lack of awareness as one of

three paths to fraud. Many researchers focused on reactive fraud detection, including the works of Kostova (2013), Throckmorton, Mayew, Venkatachalam, and Collins (2015), and Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013).

The gap in the literature, that is the basis for this research, is the minimal research attention directed toward proactive detection and prevention of fraud (Edge & Falcone Sampaio, 2009). Ahmed, Mahmood, and Islam (2016) noted a scarcity of real-world data related to effective detection techniques of fraudulent behavior, while Throckmorton, Mayew, Venkatachalam, and Collins (2015) identified the need to define factors for the development of effective detection tools. In existing studies researchers, such as Albrecht and Hoopes (2014) and Albashrawi (2016), primarily focused on reactive measures and consequences of financial statement fraud. The current study was necessary to advance the knowledge on proactive fraud prevention, and to focus on the risk management strategies that are available to prevent future occurrences of fraud.

Selected articles related to corporate financial fraud, and early detection and prevention of fraud are described here. Eutsler, Nickell, and Robb (2016) discussed auditor accountability and awareness of fraud risk, while Bazrafshan (2016) explored the differences in evaluation methods between audit students and experienced auditors. Hamilton (2016) proposed that audit quality is based on the auditors' perception of intent to commit fraud, while a study by Hollow (2014) explored the motivation to commit fraud. Other authors, such as Mui and Mailley (2015) and Murphy and Dacin (2011), examined aspects of the fraud triangle in relation to preventing financial statement fraud.

Several authors discussed fraud detection models. Ahmed, Mahmood, and Islam (2016) provided information on indicators of financial fraud activity, which may be useful for improving financial fraud detection techniques; Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) provided variables that explained the motivation for committing financial fraud, which helps in understanding how to detect financial fraud. Edge and Falcone Sampaio (2009) provided an evaluation of existing financial fraud detection models, and Dimitrijevic, Milovanovic, and Stancic (2015) highlighted the importance of preventive internal controls to detect and prevent financial fraud.

Steffee (2010) offered a risk management perspective that is similar to the perspective that this research project used, and Throckmorton, Mayew, Venkatachalam, and Collins (2015) defined important factors for the development of effective financial fraud detection tools. Free and Murphy (2015) provided information related to the economic costs of financial fraud, for both the organization and society, and Robu (2015) analyzed the relevance of adopting International Financial Reporting Standards (IFRS) in relation to financial statement confidence. Additional articles, focusing on recent instances of financial fraud, include Nevin, Rao, and Martin Jr. (2014); Knapp and Knapp (2013); and Gandel and Altman (2010). These articles were useful during the data analysis phase of this research.

Problem Statement

The economic cost of financial statement fraud continues to be a problem for organizations and society. In addition to the estimated organizational cost of \$572 billion per year in the United States, Perols, Bowen, Zimmermann, and Samba (2017) noted that

financial statement fraud indirectly, and negatively, affects employees, investors, and the efficiency of the markets. Financial statement fraud is a deliberate misstatement of the material facts of an organization's accounts that has significant negative effects on the economy, as highlighted by the actions of the United States Securities and Exchange Commission (SEC) following instances of fraud (Gupta & Gill, 2012). The general problem is the economic impact of financial statement fraud. According to (Perols et al., 2017), fraud in general carries an annual cost to organizations and investors of nearly 5% of revenues. In addition, the fraud report of the 2016 Association of Certified Fraud Examiners (ACFE) showed a record high of 2410 occupational frauds across 114 countries with a total loss of \$6.3 billion (Westhausen, 2017). The specific problem is that corporate financial managers and auditors may have limited risk management strategies for detecting and preventing fraud. Ahmed, Mahmood, and Islam (2016) noted a lack of effective anomaly detection techniques for fraud, indicating that changes in "normal" behavior make it difficult to apply anomaly detection for discovering fraudulent activity. Albashrawi (2016) noted that the problem of financial fraud is industry-wide and global. There is a general gap in the literature on the proactive prevention of financial statement fraud.

Purpose Statement

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. I examined recent financial fraud scandals, along with interviews, documents, and previous research. I

explored the problem from a participant perspective, using myself as the key instrument in data collection and analysis.

A qualitative, multiple-case study inquiry offered the opportunity to examine current practices for detecting and preventing fraud from a participant perspective. According to Yin (2014), a multiple-case design is a rigorous method that increases the analytic benefits and may provide more powerful conclusions. Examining methods of detection and prevention using a qualitative approach and involving practitioners, appeared to provide a better understanding of current practices for detecting and preventing fraud in a corporate setting as well as an understanding of the auditors' perspective in discovering financial fraud. The multiple-case study design was appropriate for gaining a deeper understanding of the topic through in-depth data collection that is rich in information (Patton, 2015). With this understanding, researchers can build upon current practices to create proactive models for detecting and preventing financial statement fraud. Practitioners can develop proactive risk management procedures for preventing fraud, and auditors can develop guidelines for risk oversight and early detection of fraud. The implication for social change was the ability to trust financial statement reporting in the future and thus improve corporate reputations.

Research Question

The research question for this study was: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? This qualitative, multiple-case study design enabled access to participants' actual experiences and perspectives related to the specific business problem.

The interview questions allowed me to address the research question. In addition, the review of archival documents and past fraud cases provided insight for analysis of the data obtained through the interviewing process.

Conceptual Framework

I used a conceptual framework to examine how the concept of risk management helps in understanding current practices for detecting and preventing fraudulent financial reporting in a corporate setting and understanding the auditors' perspective in discovering financial fraud. The concept of risk management involves the system of internal controls and corporate governance that guide the oversight of financial statement preparation. The concept includes aspects of loss prevention that I used to guide the study of proactively preventing fraud. During this study I benefited from the use of the risk management concept by building on the existing literature and recommendations. Dionne (2013) provided a history of the risk management concept along with recommendation for improvement, while Chinniah (2015) and Mehr and Forbes (1973) considered risk management models and the ethical issues of risk management. Power (2013) highlighted the need for emphasis on prevention over response to fraud, while Shapiro (2014) focused on internal controls for preventing fraud. In particular, the work of Snider (1990) put forth the idea of a shift from short-term thinking to long-term thinking in preventing loss. Servaes, Tamayo, and Tufano (2009); and Snider (1990) both noted the need for clear objectives in risk management, while Lister (2007), Crockford (2005), and Mehr and Forbes (1973) determined that risk management requires an adaptive approach to cope with changes in the corporate environment. Lister (2007) is a proponent of proactive

fraud risk assessment and determining risk based on the organizational environment. Maynard (1999), Mehr and Forbes (1973), and Servaes et al. (2009) suggested holistic risk management, encompassing a risk management culture that considers the complexity of modern corporations. Shapiro (2014) also considered the auditors' role in risk management through an understanding internal control. A thorough review of the risk management literature is provided in Chapter 2. Drawing on these works in risk management provided the basis for understanding current practices and emerging trends in fraud prevention and risk management and led to ideas for enhancing proactive fraud prevention.

I used post-positivism as the interpretive framework for my study. Post-positivism includes the idea that discretionary judgment is unavoidable in contemporary social science research, such as reality-oriented qualitative inquiry, and that knowledge is relative rather than absolute (Patton, 2015). Post-positivism was appropriate for the data analysis strategies of the case study, including rigorous methods of data collection and analysis. My associated belief was methodological. The multiple-case study method allowed me to capture the different perspectives of the participants and provided comparative advantage (Yin, 2014). Making comparisons and creating new knowledge are aspects of methodological beliefs. The interpretive framework and belief were in line with the multiple-case study design of this research.

Nature of the Study

I used a qualitative, multiple-case study design, which according to Yin (2014), is a rigorous method that increases the analytic benefits and may provide more powerful

conclusions. A qualitative approach was appropriate since there is little knowledge or theory related to the gap in the literature (Minichiello & Kottler, 2010). The multiple-case study design was appropriate for gaining a deeper understanding of the topic through in-depth data collection that was rich in information (Patton, 2015). The multiple-case study design allowed me to determine emerging patterns and commonalities (Lewis-Beck, Bryman, & Futing Liao, 2004).

The case study design is an inductive process that begins with the data and ends with theory. This was appropriate for my research as I gained an in-depth understanding of financial fraud, from a management and auditor perspective, related to early detection and prevention of fraudulent reporting. Lewis-Beck, Bryman, and Futing Liao (2004) noted that case studies use theoretical sampling to replicate previous findings or extend emergent theory. Replicating previous findings helped explain emerging patterns in the study. A single case study design was not appropriate as it would not have provided sufficient access to interview participants for data collection. In addition, according to Yin (2014), the single case study design is appropriate when examining critical or unusual cases. This study did not include any critical or unusual cases.

The multiple case study design for this research was holistic, since there was a single unit of analysis for the study. An embedded design was not appropriate as the research question did not indicate any subunits for analysis. I collectively examined the data, through the risk management lens, as a means of exploring potential concepts for proactive early detection and prevention of financial statement fraud. This multiple-case study included selected managers and auditors of public corporations within the United

States. I explored current fraud policies as the unit of analysis for the study and used the interview responses and written policies as the unit of measure for determining what could make current policies more proactive.

The boundaries of this multiple-case study were limited to approximately 23 respondents, as necessary for reaching data saturation. Interview participants were limited to managers and auditors of public organizations. The scope of this multiple-case study was limited to the methods of detecting and preventing fraud in the context of the interview responses and organizational policies of the selected managers and auditors of public corporations. The time frame for this study was approximately 12 weeks, and the limit of approximately 23 respondents helped stay within this time constraint. Yin (2014) noted that the scope of a multiple-case study should be such that additional information is of decreasing relevance. The boundaries and scope ensured data saturation for the study.

The qualitative data included 23 e-mail interviews with managers and auditors from public corporations operating in the United States. The number of corporations and participants was dependent upon reaching saturation for the data collection. In addition, the data included reviewing past cases of fraud and reviewing documents, such as current risk management procedures and notes to the financial statements, of five large public corporations. I used a purposive sampling strategy to ensure cases with relevant information. According to Stake (2006), the sample size for multiple-case studies is too small for random selection, and qualitative fieldwork requires a sample tailored to the specific study, although case selection can be adjusted as the study progresses (Lewis-Beck, Bryman, & Futing Liao, 2004). For comparability, organizations for document

review were chosen based on size and industry. In addition, multiple cases allowed me to conduct a comparative analysis to discover contrasts, commonalities, and patterns (Mills, Durepos, & Wiebe, 2010). Comparative analysis and replication provided me with robustness of findings (Yin, 2016). This was helpful in understanding the current procedures in place for detecting and preventing fraud. The use of multiple cases also increased the possibility of transferability. The data were analyzed using qualitative coding methods; the QSR NVivo 12 Plus software was used to determine themes and patterns in the collected data.

Definition of Terms

Corporate culture. A set of shared social traits and business behaviors learned through the history and goals of the organization, including the values communicated by management (Rockness & Rockness, 2005).

Corporate financial fraud. Violations of the Internal Revenue Code (IRC) and related statutes committed by large, publicly traded (or private) corporations, and/or by their senior executives (Internal Revenue Service, n.d.).

Corporate governance. A monitoring mechanism, including the board of directors and audit committee, that ensures the integrity and quality of financial reporting, and the effectiveness of the internal and external audit functions (Rezaee, 2005).

Corporate responsibility. The continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large (Naqshbandi, 2017).

Early detection and prevention. The act of decreasing the ability of organizations to make illicit profits (Ahmed, Mahmood, & Islam, 2016).

Financial statement fraud. The intentional act of producing materially misleading financial statements to deceive or misrepresent the organization's financial position (Albashrawi, 2016).

Fraud. An intentional act, considered illegal or unethical, committed within the course of employment (Murphy & Dacin, 2011), making the organization appear more, or less profitable (Apostolou & Apostolou, 2012).

Fraud risk management. A highly articulated, transnational web of ideas and procedures which frame the future within present organizational actions, and which intensify the responsibility of senior managers (Power, 2013).

Proactive fraud prevention. The presence of internal controls designed to prevent fraudulent behavior, dependent upon the adequacy of the controls and the ethical culture of the organization (Simeunović, Grubor, & Ristić, 2016).

Tone-at-the-top. The ethical atmosphere created in the workplace by the actions and communications of the organization's leadership (Sengur, 2012).

Unusual fraud. Financial statement fraud that is undetectable through common audit testing (Dai & Handley-Schachler, 2015).

Assumptions

I focused this study on the assumption that minimizing the occurrence of financial statement fraud is possible through honest reporting and implementation of risk management policies. The potential of current and potential future risk management

policies to minimize financial statement fraud were examined through structured interviews with managers and auditors of public corporations in the United States. In addition, past fraud cases were examined to determine the possible failures of risk management policies. This assumption was necessary to provide focus on the proactive implementation of and potential for improvement to existing risk management policies without focusing on the criminal aspect of dishonest financial reporting.

Scope and Delimitations

The scope of this study involved management and internal auditor perspectives related to risk management and its potential for preventing financial statement fraud. This focus was chosen due to those participants' knowledge and expertise in the field of financial statement preparation and allowed me to gather data that was relevant to the proactive prevention of financial statement fraud from a risk management perspective. The perspective of non-management employees would not be appropriate since they do not have responsibility for preparing financial statements for the organizations. The fraud triangle perspective was not appropriate for this study because it would put the focus on the perpetrators of fraud and not the proactive prevention of fraud.

This study was delimited to for-profit organizations in the United States to avoid language barriers and to ensure that the financial statements were in the public domain. I also limited the collection of interview data to 23 participants to adhere to the time constraints of the study. The main sources of data collection included structured interviews and archived data from the organizations, college libraries, and financial news

websites. Methods of data collection, such as observation and audio documentation, were not considered in this study due to an inability to access this type of data.

The study involved the researcher examining recent financial fraud scandals in addition to using interviews, documents, and previous research. I explored the problem with myself as the key instrument in data collection and analysis. The potential for transferability was increased by selecting participants and organizations that were part of a large industry and did not exhibit overly unique traits for that industry. For example, one organization was from the banking industry, which is governed by many regulations to ensure conformity. The potential for generalizability is low due to the delimitation of five organizations and 23 participants for the study.

Limitations

There were a few challenges associated with the multiple-case study methodology. One was identifying cases that were worthy of study. To that end I used a purposive sampling strategy. Another challenge was the ability of the researcher to set boundaries and time constraints to control the amount of data collected. I limited the study to five cases to control the boundary and time constraints of the study. This study was limited in the transferability of information due to the use of a few participants. However, I increased the potential transferability by identifying organizations that do not exhibit a unique business situation. The study was also limited by an inability to conduct face-to-face interviews with follow-up questions. Future studies would benefit from a semi-structured interview format to provide additional depth of information.

A potential bias that could have influenced the outcome of the study was that the information came from internal organizational participants who may have been reluctant to disclose information related to the policies and procedures of their organizations. One way I addressed this bias was to ensure anonymity by using electronic interviews that did not identify the participants' organizations. Another way I addressed this bias was by triangulating the data with the management notes to the financial statements of the five selected organizations.

Significance

In this research, I contributed to addressing a gap in the understanding of proactive financial statement fraud prevention by focusing on financial fraud detection and prevention in large corporations. I addressed an under-researched area of corporate financial fraud and the need for proactive models to prevent it (Edge & Falcone Sampaio, 2009). Fraudulent financial reporting is intentional (Levine, 2010) and has become commonplace or normal (Henry, 2012). The results of this study allowed me to provide much-needed insights into current practices for detecting and preventing financial fraud, and the potential for creating proactive models to prevent and detect fraud.

Significance to Practice

Practitioners will be able to use these new models and research to develop risk management procedures for preventing fraud in a vastly changing business environment. In addition, auditors will be able to develop guidelines for the early detection and prevention of fraud based on the new research theories and methods for proactive

prevention. Practitioners can also use this information to implement procedures to prevent fraud in the financial statement reporting process.

Significance to Theory

Researchers can build on current practices to create proactive models for detecting and preventing financial statement fraud by following the recommendations in Chapter 5 of this study. This study is significant for understanding the current perspective of practitioners and how this can be applied to creating new models and theories for the proactive prevention and detection of financial statement fraud. Future researchers can build on this information to derive new theories for proactive prevention of financial statement fraud.

Significance to Positive Social Change

The implications for social change include the potential to increase trust in financial statement reporting in the future and thus improve corporate reputations. This research may impact positive social change by providing the potential for testing new theories and models related to the proactive prevention of financial statement fraud and improving the ability to trust in financial statement reporting. The research may also impact positive social change by implementing procedures that will proactively prevent fraud rather than just detecting fraud after it happens, ultimately resulting in improved corporate reputations. In addition, the research may impact positive social change by allowing internal auditors to design processes to prevent fraud from occurring in financial statement reporting, and thus improving the ability to trust in financial statement reporting.

Summary and Transition

Previous researchers focused on the perpetrators and consequences of financial statement fraud, such as the studies by Free & Murphy (2015) and Trompeter, Carpenter, Jones, and Riley Jr. (2014). There has been minimal research on the proactive detection and prevention of financial statement fraud. The economic cost of fraud is high and continues to be a problem, as evidenced by the works of Perols et al. (2017) and Westhausen (2017). There are few risk management strategies available for the detection and prevention of financial statement fraud. The need for understanding current fraud policies and practices is imperative to exploring what would make current policy more proactive for early detection and prevention of fraud. For this study I included a risk management and audit perspective, using a qualitative multiple-case design for rigor and analytic benefit. I expect this research to fill a gap in the understanding of financial fraud detection and the need for proactive prevention models.

In Chapter 2, I provided a thorough review of the literature related to the key concepts on the early detection and prevention of financial statement fraud. Some of the key concepts reviewed include the audit function, prevention strategies, detection models, risk management, and the causes and consequences of financial statement fraud. The literature review also includes information on the impact of financial statement fraud.

In Chapter 3, I included a detailed description of the research methodology, including the role of the researcher and participant selection logic. The instrumentation, data collection, and analysis methods are also discussed. I concluded this chapter with a discussion of the trustworthiness of the research. In Chapter 4, I included the results of

the study along with the relevant themes that emerged during the analysis of the data. In Chapter 5, I included a discussion of the study results and interpretation of the findings. I presented conclusions and recommendations based on the results of the study along with the implications for social change.

Chapter 2: Literature Review

The problem is corporate financial managers and auditors have limited risk management strategies for detecting and preventing fraud. The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. The impact of financial statement fraud can be devastating as noted by Perols (2011); Prentice (2012); Robu (2015); and Ugrin and Odom (2010). The need for a risk management approach is evidenced by Crockford (2005); Lister (2007); Mehr and Forbes (1973); and Power (2013).

The following are examples of literature on the key concepts of financial statement fraud. Fligstein and Roehrkasse (2016); Free and Murphy (2015); and Nevin, Rao, and Martin Jr. (2014) evaluated the causes and consequences of financial statement fraud, while Albrecht, Holland, Malagueño, Dolan, and Tzafrir (2015); Hollow (2014); and Ng, White, Lee, and Moneta (2009) considered the ethics and motives of financial statement fraud. Kostova (2013); Simha and Satyanarayan (2016) and Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) considered the auditor's responsibility in detecting financial statement fraud; Dimitrijevic, Milovanovic, and Stancic (2015); Kramer (2015); and Prentice (2012) examined the corporate role in detecting financial statement fraud, and finally, Brazel, Jones, Thayer, and Warne (2015) studied investor perceptions of financial statement fraud.

The following authors evaluated and presented models for the detection and prevention of financial statement fraud. Ahmed, Mahmood, and Islam (2016); Gray and Debreceeny (2014); and Gupta and Gill (2012) suggested fraud detection models, while

Lin, Chiu, Huang, and Yen (2015); and Mui and Mailley (2015) examined the fraud triangle as a basis for fraud detection. Other authors offered prevention strategies by testing fraud mitigation models (Bagdoyan, 2016; Perols, Bowen, Zimmermann, & Samba, 2017; & Sabau, Sendroiu, & Sgardea, 2013), while others offered ideas on the use of regulations and legislation as fraud deterrence mechanisms (Henry, 2012; Robu, 2015; Rockness & Rockness, 2005; & Ugrin & Odom, 2010).

This chapter includes the following topics: the literature search strategy, the impact of financial statement fraud, a review of the literature related to the conceptual framework of the study, a review of the literature related to the key concepts of the problem, and some differing views present in the literature.

Literature Search Strategy

The following exhaustive literature review includes articles retrieved through two of Walden University's library databases: Business Source Complete and Thoreau. The search terms used to identify relevant literature were as follows: *financial statement fraud, auditing and control, financial fraud prevention, risk management, corporate responsibility, fraud detection, fraud regulations and legislation, fraud motives, corporate governance, fraud triangle, and investor perceptions.*

Conceptual Framework

Risk Management

Dionne (2013) provided the origins of risk management in the literature. The first studies in risk management occurred between 1955 and 1964, with the first academic books being written in 1963 and 1964. Early risk management literature did not include

corporate finance risk but was associated with market insurance to protect individuals and companies from accident losses. The author mentioned some important advancements in risk management over the decades, including the use of derivatives to manage risk in the 1970s, risk portfolios in the 1980s, and the creation of risk manager positions in the 1990s. The author also discussed risk management problems linked to the 2007 financial crisis and recommended further improvements to risk management.

Risk management was originally derived from the field of insurance. Mehr and Forbes (1973) suggested the merging of risk management theory with financial theory, seeing the firm as a holistic functionality. Consideration of corporate objectives is the first step in this proposed risk management model. The authors contend that risk management should be incorporated into the overall corporate decision process, and suggested the model brings realism to the decision process.

Snider (1990) also discussed the objectives of risk management. The author noted the importance of clearly defined risk management objectives. Snider (1990) highlighted steps in creating risk management objectives. Creation of a risk management policy comes from the risk manager or a management consultant. Policy statements are generalized and provide guidance for decision-making. The author identified some things that influence the setting of objectives, including organizational structure, reporting structure, and short/long term goals. Past focus on short term goals led to ignoring loss control and prevention. The author made a few recommendations for improving risk management, including a call for expanding risk management beyond insurance as Mehr and Forbes (1973) suggested, risk management education programs, and shifting risk

management away from finance to encourage long-range thinking. This research is useful for understanding the evolution of risk management, and the continued need for education in the field of risk management.

Similar to previous research, Snider (1991) recognized the need for expanding the function of risk management beyond insurance, and the need for risk management education. The author discussed the concept of risk management. The research included the history of advances in risk management, including recognition by academia, the first academic books on risk management, and the implementation of a risk manager position in organizations. The author highlighted an initial resistance by senior management, citing the notion that change equals uncertainty. Snider (1991) also discussed a crisis in the early 1970s, related to insurance, that led to acceptance of the risk management concept. In 1973, the Geneva Association was established, encouraging research on risk management, and publishing many conceptual papers on the topic. The author recommended academics as a source of advancement in risk management and setting international standards for risk management.

Crockford (2005) discussed risk as a function of change. The article was originally published in the *Geneva Papers* in 1976. The author defined risk management as the ability to cope with change. The author determined that rapid change puts a strain on risk management, making it harder for organizations to adapt. Similar to Mehr and Forbes (1973), Crockford (2005) recommended that risk management should be a function of all managers, not a single department of the organization.

Spikin (2013) also provided a comprehensive literature review of risk management. The author discussed the foundations of risk management theory. The author noted the demand for a higher level of risk management following scandals, and the evolution of new threats as technology evolves. The article provided an explanation of the concept of risk, including cause, probability, context, and uncertainty. Spikin (2013) also discussed the characteristics of risk, such as loss, disutility, and severity of effects. The author provided a distinction between the concept of risk and the concept of uncertainty. Keeping in line with the earlier studies of Mehr and Forbes (1973) and Crockford (2005), Spikin (2013) discussed a comprehensive risk management approach (enterprise risk management).

While the previous research focused on a holistic approach to risk management, Lister (2007) discussed the importance of an antifraud program. The organization must know the risks to mitigate them. This requires a comprehensive fraud risk assessment, in keeping with the holistic approach. An anti-fraud program can improve stakeholder confidence. However, Lister (2007) suggested the approach should be proactive and reactive, by identifying risks and having an action plan in the event fraud occurs. The three key components of the plan included setting the tone through policies and communication, being proactive through assessing and monitoring risks, and being reactive by designing a response plan. Lister (2007) included an evaluation of creating a plan by using the fraud triangle, and tips for including a third-party assessment for designing the program. The author cautioned that the plan should be ongoing to accommodate a changing environment.

Chinniah (2015) examined ethical issues related to manipulating financial statement data. The author studied the effectiveness of government ethical standards and like Lister (2007), highlighted the need for a fraud management program in organizations. Chinniah (2015) also examined the preparers' incentives to manipulate financial statement data when stakes are high. The author provided recommendations for preventing and detecting fraud.

Ovidiu-Constantin, Alin-Constantin, and Madalina (2010) highlighted the importance of risk management and its role in auditing within the organization. A risk management program means higher trust of the organization's financial statements and lower audit risk. The authors noted the benefits of implementing a risk management program, similar to previous research, but also defined the internal auditor's role in assuring risk management. An audit risk model is offered for external auditors based on the risk management of the organization. The authors cited risk management as a solution to the fraud crises.

Power (2013) highlighted the difference between fraud and fraud risk. The author provided an analysis for understanding the system of thought related to fraud risk management, as opposed to previous research related to the organizational programs. The analysis involved examining fraud risk in a specific case. The researcher provided a managerial and legal focus in understanding risk management. The author challenged the view that risk management is simply a response to past fraud, by emphasizing prevention as opposed to response. The fraud risk apparatus elements considered by the author include external auditing, risk, fraud, internal control, risk management, and regulation.

Maynard (1999) suggested that management is evaluated by the effectiveness of risk management, with internal auditing being a key element. The author identified best practices related to the internal audit role in risk management. However, Maynard (1999) pointed out that none of the identified best practices were required by regulations.

Unlike studies on the effectiveness of risk management, Stulz (2008) examined what it means for risk management to fail. A large loss does not always mean risk management failed. The author addressed how failure can be used to improve risk management and noted that effective risk management is not a guarantee against failure. Stulz (2008) lists the five types of failure as inappropriate measures, mismeasurement/overlook, ignoring known risks, lack of communication, and failure to monitor/manage. The author noted that historical data models are only effective to a degree and suggested the use of scenario analysis to supplement.

Servaes, Tamayo, and Tufano (2009) examined the relationship between risk management theory and practice. The authors included a survey of CFOs on the value of risk management. Corporate risk management function is defined as a set of methods and procedures to identify the kinds and levels of risk exposure and responses. According to the survey, the greatest risks are commercial, financing, and foreign exchange rate. Less than half of the organizations included a risk analysis in the strategic planning process. The top benefit of risk management planning is improved organization-wide decision making, with risk awareness culture as a goal. Another listed benefit is stable earnings and business reputation. A lack of measures to evaluate the risk management function is noted. The authors listed the benefits and costs associated with risk management. Many

CFOs were unable to estimate the value of risk management functions in the organization. Many organizations reported risk management as less than 10% of the finance budget. Risk-based thinking is not incorporated into everyday activities. Suggestions for the risk management function included incorporating risk-based thinking, defining clear objectives, and instilling a risk-aware culture. This is similar to the holistic approach suggested by others.

Shapiro (2014) provided a description and breakdown of a framework for internal control of fraud risk. The author highlighted the need for auditors to have a deeper understanding of five components of internal control. The five components are the control environment, information and communication, risk assessment, control activities, and monitoring. The author suggested potential uses of computer-based and human resources for internal control.

Prior to the Shapiro (2014) research, Bamberger (2010) investigated the accountability challenges associated with the automation of compliance with risk management laws. The author argued that automation of risk management leads to skewed decision making due to automation bias and hindering of good judgment. Automation is increasing to deal with the increasing risk management requirements set forth in the various laws. The parameters of automated programs are subject to programmer interpretation of the regulatory laws. This can lead to altered perceptions of decision makers and a lack of careful review.

Bamberger (2010) explored the automation phenomenon and the failure of regulators to address the challenges. Section 404 of the Sarbanes-Oxley Act requires the

development of an internal risk management system but allows for regulatory discretion. The author noted that rating agencies are starting to include risk management procedures in their credit ratings. The author also noted a tendency to automate due to the rising costs of compliance but recommended an accountability approach to decision making. The article highlighted the benefits and pitfalls of using technology for compliance. The main pitfalls cited were an inability to reflect uncertainty, and a lack of reasoned human judgment. Bamberger (2010) recommended integration of human judgment and accountability in decision making into the technology-based risk management program.

Seow (2009) also investigated the use of technical knowledge in identifying fraud risks. The author compared the use of decision aids by experienced directors and inexperienced students. Risk management is a key oversight responsibility of boards and audit committees. A risk assessment is part of the responsibility to ensure the integrity of financial decisions. The author examined the effect of guidance on director performance of risk assessment, using a hypothetical case. The findings indicated the importance of expertise in decision making. Similar to the work of Bamberger (2010), Seow (2009) cautioned against the use of generic decision aids with experienced business people and suggested the need for detailed/contextual guidance.

Song, Hu, Du, and Sheng (2014) expanded on previous works and presented a hybrid machine learning method of assessing financial statement fraud risk. The authors used Chinese company data to identify the risk factors and develop the model. The research included an examination of the effectiveness of the proposed approach to improve fraud prediction results. The authors reviewed the literature on risk factors,

assessment methods, and prevention measures. The presented method for risk assessment included the use of a machine learning model with fraud risk rules. The authors tested the model using quantitative logistic regression. Experimental results indicated the method helps assess the risk of financial statement fraud. Overall, the proposed method is useful for auditors due to the easy to understand variables and rules.

Srivastava, Mock, and Gao (2011) examined the Dempster-Shafer (DS) theory to manage uncertainties related to audit risk. The authors used DS theory to model how decision makers think of uncertainties and expanded on the previous research of Bamberger (2010) and Seow (2009) by considering the plausibility and belief aspects of fraud and focusing on evidence and reasoning. The authors developed a fraud risk model to assess belief and plausibility based on the fraud triangle factors of incentive, opportunity, and attitude. The authors suggested the use of two separate risk assessment models. One model to assess errors, and one model to assess fraud.

Aggarwal, Erel, Stulz, and Williamson (2009) studied the effects of economic and financial development of a country on the level of investment in corporate governance. Findings indicated that higher development results in higher investment, and lower investment in corporate governance results in lower firm value. The authors also provided the minimum governance standards for an audit: consulting fees are less than audit fees, the audit committee is made up of independent outsiders, and auditors are ratified at the annual meeting.

In contrast to the previous research related to internal controls, Nix and Morgan (2013) provided empirical evidence of the opinions of CFOs on the effectiveness of using

external certified fraud examiners (CFE). The results indicated that the use of CFEs is beneficial to the organization. CFEs provide a method of internal control and corporate governance for organizations. A CFE specializes in fraud detection and prevention. The research included a survey of CFOs perceptions of the values and benefits of using CFEs. A benefit of this study is that it shows the value of CFEs for organizations and highlights the importance of future uses, including updated academic courses. A limitation of the research is that it only surveyed CFOs. The author does not include the perceptions of other stakeholders, such as auditors and organizational board members.

Also related to external controls, Eutsler, Nickell, and Robb (2016) investigated the increased likelihood of enforcement action against auditors when fraud is discovered. The researchers used counterfactual reasoning theory that the auditor could have done more. The research included a review of alleged fraud cases by the SEC but is limited by the small sample size. The results indicated a positive relationship between going concern opinion modifications and the increased likelihood of enforcement action. The authors determined that documenting fraud considerations outside the standard audit requirements may increase instances of legal action. This may be due to consideration that the outcome could have been prevented, a potential conclusion of negligence, or that the auditors performed the procedures but failed to prevent fraud.

The Eutsler et al. (2016) research has implications for standard setters. In addition, auditors' judgments and the threat of legal action could motivate improved audit quality. The authors discussed auditor accountability and the awareness of fraud risk. The research included univariate and multivariate analysis. The opinion of the authors was

that an outcome-based process may deter good judgment of auditors. This research is useful for understanding auditor motivations.

Apostolou, Hassell, and Webber (2001) also focused on external controls. The authors conducted a survey of forensic experts to determine the weight and importance of the 25 risk factors set forth in SAS 82, the consideration of fraud in an audit. The research potentially provides guidance for auditors in assessing management fraud risk. The main requirements of an audit include consideration if risk factors are present and assessing the risk of material misstatement. The presence of risk factors should trigger an audit response. The authors used analytic hierarchy process to rank the factors. A list of the 25 factors is provided, ranging across 3 categories: management characteristics and influence over the control environment, industry conditions, and operating and financial stability characteristics. The authors created a decision model from the survey responses, finding overall that the management characteristics category ranked most important. The findings indicated that the most important individual factors are significant compensation tied to aggressive accounting practices, and management failure to display appropriate attitude about internal control. The authors also identified several risk factors not included in SAS 82, most related to the control environment. Apostolou et al. (2001) cautioned that a combination of factors may signal increased risk.

In contrast to the reviewed literature, Hess and Cottrell (2016) provided recommendations for fraud detection and prevention in a small business environment. The authors described the unique challenges and opportunities of fraud risk for small businesses. The sources of risk described in the study include customers, vendors,

employees, and the Internet. A fraud risk management plan was developed in the study. A benefit of this study is that it highlighted the importance of risk management for fraud. A limitation of the study is that it focused only on small businesses.

This study benefited from the use of the risk management concept by building on the existing literature and recommendations. Dionne (2013) provided a history of the risk management concept along with recommendation for improvement, while Chinniah (2015); and Mehr and Forbes (1973) considered risk management models and the ethical issues of risk management. Power (2013) highlighted the need of emphasis on prevention over response to fraud, while Shapiro (2014) focused on internal controls for preventing fraud. In addition, Ovidiu-Constantin, Alin-Constantin, and Madalina (2010) highlighted the importance of the auditors' role in risk management, and Stulz (2008) emphasized the need for case analysis.

Many of the authors of risk management literature noted knowing the risks of fraud. This proposed study may benefit by building on the various suggestions of the authors. Snider (1990) stressed the importance of clearly defined objectives for risk management, while Apostolou, Hassell, and Webber (2001); Lister (2007); and Seow (2009) highlighted the importance of identifying the risks to mitigate the risks. In addition, Maynard (1999) recognized the potential of auditors to use risk management effectiveness as a tool for evaluating management during the audit process. Building on the existing literature could have implications for standard setters to improve risk management and fraud prevention.

Literature Review

The topic for my dissertation was early detection and prevention of financial statement fraud. I examine the problem of financial statement fraud from a participant perspective using a qualitative, multiple-case study to better understand current practices for detecting and preventing financial statement fraud. A review of the literature provides information on existing theoretical and conceptual bases of fraud detection and prevention. I analyzed the literature to determine current assumptions and issues related to financial statement fraud. In addition, I examined the conceptual framework and methods of past research and identified gaps in the literature for future research.

Impact of Financial Statement Fraud

Financial statement fraud has significant impact in several areas. One area is the economic impact of financial statement fraud. Another area is the integrity of organizations and their financial statements. Finally, financial statement fraud impacts investors' ability to trust financial statement information.

Economic Impact

Financial statement fraud affects various market participants, including investors, organizations, and employees. The works of Perols (2011); and Ugrin and Odom (2010) provided information related to the organizational and indirect costs of financial statement fraud. In addition to the monetary costs to organizations, the reputation of the organizations may be in question when fraud occurs. Investors lose confidence in the organization and may experience loss of savings or retirement investments. In many

cases, the employees are affected through stock incentive programs and organization-sponsored retirement/pension programs.

Financial Statement Integrity

Organizations should preserve the integrity of their businesses through the honest, accurate presentation of financial information. An article by Prentice (2012) highlighted the importance of monitoring ethical behavior in corporations. The author provided examples of potential organizational and psychological causes of ethical missteps. The examples included obedience to authority, conformity bias, and loss aversion. The author included several psychological factors that may influence susceptibility to unethical behavior, including overconfidence, self-serving bias, and moral rationalization. The article pointed out the need for careful monitoring of executive actions.

Investor Confidence

Investors should be able to have confidence in an organization's financial statements. Robu (2015) provided an analysis of the relevance of IFRS adoption to confidence in financial statement information. The author studied a sample of 59 companies pre- and post IFRS adoption. The results of the study indicated a slight increase in value relevance after adoption of IFRS. The methodology of the study included examining the influence of IFRS adoption on stock prices. The author studied the value of standardized reporting, and transparency as a solution to financial market confidence.

Fraud Causes and Consequences

Several authors focused on past cases of fraud. For example, Fligstein and Roehrkasse (2016) provided an evaluation of the mortgage securities financial crisis of 2007 to 2009 to explain the increase in fraudulent behavior. The authors focused on the changes in competitive conditions and positions in the market. The study examined the characteristics and causes of the activities that occurred during the financial crisis. The work of the authors has implications for the regulation of financial fraud and advances the theoretical perspective of interaction between firms and market structures.

While Fligstein and Roehrkasse (2016) focused on the mortgage crisis, Dutta, Caplan, and Marcinko (2014) provided a case study of fraud perpetrated by the Japanese company Olympus. The authors demonstrated the poor governance structure leading to the ability to hide losses. The researchers described the economic backdrop and events leading to the problems at Olympus. The authors also included a description of Japan's GAAP standards in the 1980s and the role these standards played in the Olympus deception. The Japanese government, under pressure, issued a new standard in 1999. Olympus management was able to circumvent this new standard using a loss separation scheme, by setting up shell companies to purchase the toxic assets and avoid loss recognition. Additional schemes were initiated by Olympus management to continue the deception for nearly two decades. Dutta, Caplan, and Marcinko (2014) provided an examination of the flaws in corporate governance, leading to the Olympus fraud. This case study highlights the need for proactive methods of preventing financial statement

fraud. In addition to GAAP standards, organizations should have good internal controls in place.

Like Dutta, Caplan, and Marcinko (2014), Nevin, Rao, and Martin Jr. (2014) focused on a specific case of fraud. The authors provided an historical summary of the events of the Waste Management fraud case. Although, the case involved the use of questionable accounting methods to recover from bad decisions rather than poor governance. The Arthur Anderson firm was aware of the irregularities and issued unqualified opinions. A description of non-GAAP practices, such as netting related to assets and income smoothing, is described. The article outlined several years of inappropriate actions related to financial reporting. A change in CEOs led to a large restatement of income in 1998, causing a 33% fall in stock price, and a paper loss of \$6 billion for shareholders.

Dilla, Harrison, Mennecke, and Janvrin (2013) provided a unique perspective by analyzing virtual world fraud to understand the implications for real world fraud. The authors examined virtual world fraud using the fraud diamond model of motive, opportunity, rationalization, and capability. Behavior in the virtual world was observed to provide insights for real world behavior. The authors found that some of the implications from the study that carry over to the real world are motivation, overestimating the capability of detection mechanisms, and evaluating risk management strategies.

Other researchers focused on the motives to commit fraud. Free and Murphy (2015) focused on the intent to co-offend in fraudulent activity. The purpose of the research is to explain why people decide to co-offend, by understanding criminal

behavior through the social nature of crime. The authors view the data through an organizational and social context. The research included interviews with 37 people convicted of co-offending in fraud and led to the construction of three archetypes of social bonds leading to co-offenses. The archetypes are individual-serving, organization-serving, and affective. The research highlights the motives and rationalizations of the participants. The authors suggested broadening of the fraud triangle to include the concept of co-offense. A benefit of the research is that it extends fraud research to include the social nature of crime and highlights the need to consider the organizational culture in relation to committing fraud. A limitation of the study is that it only includes the opinions of people convicted of fraud, and the authors were unable to cross-validate some of the information.

In contrast, Ndofor, Wesley, and Priem (2015) focused on the opportunity to commit fraud. The authors provided a study of information asymmetry between CEOs and shareholders in complex industries, and the likelihood of the CEOs committing fraud. The authors considered opportunity as a necessary precondition for fraud. The findings indicated that the potential to commit fraud increases with higher levels of CEO stock ownership. This is contrary to agency theory and the alignment of goals through equity-based compensation. Ndofor et al. (2015) considered CEO actions less transparent where information asymmetry exists. The authors hypothesized that an aggressive audit committee reduces the likelihood to commit fraud. The researchers used a sample of 453 firms that restated earnings between 2002 and 2005. In each case, the CEO benefited from the misstatement. The study included a matched pair sample of firms that did not

restate earnings. The authors tested the effect of information asymmetry on the probability to misstate earnings. The results of the test supported the hypotheses, with the existence of good corporate governance moderating the effect. The researchers did not provide the level at which stock options are high enough to increase the likelihood of fraud.

Kang (2008) provided yet another angle in the fraud literature with a study of the reputational penalties associated with financial fraud and the subsequent reputational penalties of firms associated with the accused firm. The author considered director interlock, where a person affiliated with one firm sits on the board of another firm. The findings indicated an increase in reputational penalty for the associated firm. A decline in market value represents one of the negative effects. The author drew on signaling and attribution theory to explain the connection to associated firms. The study included a sample of 244 associated firms and 30 accused firms from 1998 to 2002. The findings also indicated that increased uncertainty leads to decreased investor confidence. However, good governance structure increased investor confidence. The implications of the study findings suggest the need for governance reform.

Still other researchers focused on the reporting aspect of fraud. For example, Gordon, Henry, Peytcheva, and Sun (2013) examined the association between management disclosures and restatements, and market reaction. The researchers highlighted the importance of prior disclosure. The measures of disclosure used by the authors include the amount and tone of the disclosure. The authors used a specific event for the study, with a sample including 919 restatements by 834 public companies, pre-

Sarbanes-Oxley. Only restatements involving accounting irregularity were included, along with supplemental information including SEC filings before and after the restatement. The authors conducted a separate examination of fraud and non-fraud subsamples.

One finding of the Gordon et al. (2013) research was that pre-disclosure leads to a less negative market response. Another finding was that an optimistic tone leads to a more negative market response. The authors used a regression model to test the study hypotheses. The researchers also measured market reaction to the specific event, as well as the amount and tone of the pre-disclosures. The findings of this research may inform management choices of disclosure for other adverse events. Future research could examine additional attributes of pre-disclosures.

Fleming, Riley Jr., Hermanson, and Kranacher (2016) expanded on the reporting aspect of fraud and provided a study on the differences inherent in financial reporting fraud between public and private companies. The authors noted a lack of available data for private companies, using a dataset provided by the Association of Certified Fraud Examiners. Fleming et al. (2016) cited financial reporting fraud as the costliest form of occupational fraud, with a median loss of \$1 million per incident. This is in addition to the reputational impacts, such as bankruptcy and loss of market value. Some of the findings of this research included that the stronger controls of public companies lead to the use of less obvious methods of reporting fraud, such as timing differences, and that there is usually a larger number of participants in the fraud due to stronger controls. The

main goal of this research was to highlight the differing concerns between public and private companies for auditing purposes.

Ethical Considerations and Motives of Fraud

Ng, White, Lee, and Moneta (2009) focused on developing an instrument for detecting a manager's propensity to fraudulently manage earnings. The authors used a survey method of ethical scenarios to gather information for designing the fraud detection instrument and used factor analysis to analyze the responses. The authors used a moral intensity construct to examine a manager's intention to act in a specific manner. The construct included six characteristics of moral intensity including magnitude of consequences and social consensus. The findings indicated that the proposed instrument is valid for measuring moral intensity in future studies.

Ng et al. (2009) provided information relevant to ethical decision making, and the development of an instrument for determining an individual's propensity to commit fraud. One major limitation to this study is the sample population. The authors administered the survey to graduate students with little or no real-world experience in business management. In addition, the proposed instrument measures intention rather than actual behavior. This information is useful in academia but may not have real-world relevance as people may say one thing and do another (intention vs. behavior).

Similarly, Uddin and Gillett (2002) examined the effects of moral reasoning and self-monitoring on the intention to report fraudulently. The authors investigated two "red flags" for financial statement fraud. The red flags are lack of moral fiber and personality anomalies. Reasoned action theory was used to test the research hypotheses. The findings

indicated that participants with high moral reasoning are more influenced by their own attitudes toward fraud than low moral reasoners. A benefit of this study is the application of the theory of reasoned action to fraud behavior. In contrast to Ng, et al. (2009), this study was limited by the use of hypothetical scenarios in place of real-world data, and a low response rate to the survey. This research is useful for understanding the effect of moral reasoning level on the intention to commit financial statement fraud.

Shafer (2002) also studied moral reasoning. The author examined fraudulent financial reporting in the context of an ethical decision-making model. The ANOVA results indicated that materiality and risk are significant factors influencing the likelihood of committing fraud, and that perceived morality is not significant. The author used the Jones theory of moral intensity to explain the prevalence of earnings management. The author examined the effects of materiality and noted the existence of rationalization when the amount is immaterial. A key indicator of unethical behavior is the perception of what peers would do. The findings indicated a more than 50% likelihood to commit fraud when the amount is immaterial.

Some researchers studied motivation for fraudulent behavior. For example, Hollow (2014) studied the motivation of bank managers and employees to commit fraud. The research involved a mixed-methods, exploratory study. The author used 64 cases from the UK financial sector in an effort to provide a better understanding of the motives for committing fraud. The research is intended for accountants and regulators, to better assess and improve prevention and detection measures. The author described the motivators of committing fraud, and the fraud triangle as an assessment of risk. The

motivators can be personal, work-related, or external, and the author found occupational status to affect the motivations. The research included the use of qualitative insights from the sample to supplement the findings, and advance knowledge for a deeper understanding of the motivation factors.

Hollow (2014) provided a quantitative analysis, and discussion of the results. The findings indicated that the motivations of bank managers and employees are similar to those of manager and employees in other work sectors. The author also found a significant difference in the motivating factors based on occupational level. For example, low level employees respond to personal pressure, while higher level employees respond to work-related or external pressures. This research is useful for understanding motivating factors and the influence of occupational level, as well as the qualitative methodology.

Another aspect of motive to commit fraud is influence. Albrecht, Holland, Malagueño, Dolan, and Tzafrir (2015) used a case study to examine the role of power/influence on participation in financial statement fraud. The authors proposed a model based on the French and Raven taxonomy of power. The researchers considered how upper management recruit participants in fraud. Recent research suggested collusion in financial statement fraud. Albrecht et al. (2015) expressed the necessity to understand the relationships between perpetrators and conspirators. The research in this article builds on the fraud triangle to include influence over the perceptions of subordinates.

Albrecht et al. (2015) used a case study to present a model of how collusive acts occur in organizations. The data collection included interviews and review of court

documents. The findings indicated that the case started with pressure to meet analyst forecasts and the need to recruit other participants with reporting responsibilities. The case in this study involved over 30 participants spanning a period of four years. Some of the reasons for participation included promotion/salary, increased stock option value, fear of dismissal, and following directions of a superior. The findings of Albrecht et al. (2015) indicated that power affects perceptions and actions. For example, the perception of entitlement and the perception of a superior's power. The authors found reward and punishment to be the most effective forms of power, and suggested future research is needed on international aspects of power.

Vranješ (2017) expanded on previous research. The author studied corporate fraud at the global level and presented a conceptual framework of criminal activities and motives. The motives presented included pressures, opportunity, and justification. The research included several charts of criminal activities based on information from the Association of Certified Fraud Examiners (ACFE), with the most common type being misappropriation of funds. The author recommended prevention as a priority for management and suggested more research on the efficiency of mechanisms for early detection and prevention of fraud.

Audit Function

Some researchers focused on the responsibilities of auditors. Kostova (2013) established the interdependence between the characteristics of fraud and adequate audit procedures. The author described the auditors' responsibility to disclose errors and fraud. Auditors are expected to form an opinion and provide a conclusion on the reliability of

the financial statements. In addition, the author described economic factors leading to fraud, and identified the characteristics of fraud. The author named the economic environment as a major factor leading to fraud. For example, organizations are under pressure to achieve financial targets.

While Kostova (2013) provided a focus on economic factors, Love (2012) examined the auditors' responsibility for fraud detection as it relates to reporting standards. It is noted that the GAAS standards recognize the inability to provide absolute assurance, but rather provide reasonable assurance and reduced risk of material misstatements. An auditor's discovery of questionable information requires re-evaluation of all areas of the audit. Fraudsters can conceal their actions through false statements and documentation during the audit process.

Past frauds led to changes in the auditor responsibility and standards. Love (2012) noted the differences between conducting a GAAS audit and a fraud examination. A GAAS audit results in the auditor's opinion of the fairness of the financial statement presentation. A fraud examination is costly due to the need to examine all material balances. The GAAS audit is designed to reduce risk of material misstatement.

Love (2012) expressed that increased fraud is due to the complexity of the current business environment rather than the economic environment. The author also examined the placement of blame when fraud occurs, noting that the blame is widespread, from the auditor to the fraudster, to those who look the other way. The auditor is not a guarantor of the financial statements. There is an ongoing responsibility to assess issues and make changes to standards as needed.

In contrast to the previous studies, Nicolaescu (2013) provided a focus on internal audit's role in detecting fraud. The size of the audit company affects the perceived quality of the audit report. The author discovered that a conscientious personality increases the perceived ability to detect fraud. The ability to detect fraud is also enhanced by the existence of internal auditors. One study suggested brainstorming as a tool for internal auditors in responding to risk assessments. The author concluded that internal audit is an important part of corporate governance.

Philmore and Michael (2005) provided a needed study on the perception of the auditors' responsibility for detecting fraud post Enron. The study involved the nature and extent of fraud in Barbados. The authors used a mixed methods design for this exploratory study. The research involved a survey of 43 respondents regarding their perceptions and experiences on fraud. The intent of the qualitative approach was to support the quantitative survey to fully understand the research question. The authors conducted face-to-face interviews as a rich source of insight. The research in this article is useful to investors, auditors, and regulators, and contributes to the understanding of the auditors' role in detecting fraud. The authors provided a historical background of the auditors' role, and a review of the related literature, but found a lack of consensus on the role of the auditor.

There were several findings presented in the Philmore and Michael (2005) study, along with the statistical significance of those findings. The majority of respondents considered fraud detection the responsibility of the auditor, while others saw detection as management's responsibility. In particular, those respondents with an accounting

background felt that management is responsible for detecting fraud. However, the findings indicated a consensus of auditor responsibility if the audit was deemed poorly executed.

Schmidt (2014) provided different look at the audit function by examining the impact on auditors' judgments based on accessibility to the organization's control environment. The author investigated the influence of decision aids on auditors' mental representation. The question that is studied is whether the auditors' approach to accessing memory of audit evidence influences the evaluation of control environment effectiveness. The experiment is based on a case study of an organization that experienced fraud. The results indicated that mental representation of the auditors, impacts control environment assessment and subsequent judgments. The author determined that memory interference creates bias in audit judgments, recommending the need for rigorous review of control environment effectiveness assessments.

Several researchers focused on perceptions of auditors. Johnson, Kuhn, Apostolou, and Hassell (2013) examined the auditors' fraud risk assessments relative to management attitude. The authors tested if observable indicators of narcissism are viewed by auditors as an indicator of increased risk. The findings of this study indicated a link between narcissism and fraud, consistent with behaviors observed in recent frauds. The authors evaluated the auditors' ability to recognize fraud, finding that ability is higher with experienced auditors. The study concluded that managerial narcissism is an observable measure and recommended improving fraud assessment guidance.

Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) provided a synthesis of the literature related to fraudulent financial reporting. The authors suggested a fraud model based on the auditor's perspective. Trompeter et al. (2013) reviewed literature across multiple disciplines, including criminology, ethics, finance, organizational behavior, psychology, and sociology. The auditors' fraud triangle was described as the managerial incentive, attitude, and opportunity to commit fraud. The authors' intent was to broaden the perspective of fraud through insights from the other disciplines, and the proposal of a model that focuses on the auditor's role in assessing and detecting risk.

In contrast with the research of Johnson, Kuhn, Apostolou, and Hassell (2013) related to auditors' perceptions of management, Sengur (2012) provided a study of auditors' perceptions of the effectiveness of existing fraud prevention measures. The author identified three categories of corporate fraud: fraudulent financial statements, misappropriation of assets, and corruption. The study focused on actions to mitigate fraud, as set forth in an Exhibit to SAS 99. The actions include creating a culture of honesty and ethics, evaluation of processes and controls, and developing an oversight process. The author provided a description of the prevention measures and considered the differences between the fraud types. The findings indicated that auditors perceive the measures for preventing fraudulent financial reporting to be more effective than the measures for preventing the other types of fraud.

Simha and Satyanarayan (2016) also studied the perceptions of fraud detection and prevention methods, but used qualitative interviews of forensic auditors. The authors also considered the role of technology in fraud detection and prevention. This research is

in response to a lack of qualitative articles, and the use of forensic auditors as participants. The authors conducted qualitative interviews with current forensic investigators to extend the knowledge base. The research included a literature review on the accounting context of fraud, along with existing detection and prevention methods. The literature review also included information related to the use of technology to commit and combat fraud. The intent of the author was to understand the phenomenon of fraud from the perspective of forensic auditors, using the lived experiences of the auditors. The authors described their methodology, including the researcher as an instrument in the research process.

Simha and Satyanarayan (2016) found that forensic auditors consider fraud detection methods to be inadequate, and feel the need for augmenting, and increasing the use of prevention methods. The researchers provided recognition of the dual role of technology in fraud. Other findings included physical safety concerns of investigators, and the potential need for auditors to have training in criminal profiling, technology, and behavioral finance. The authors end the discussion with a call for future research.

Bazrafshan (2016) expanded on previous research by including the perceptions of students. The author explored the differences in evaluation methods of fraud risk components between college accounting students and experienced auditors. The results showed that experienced auditors find the misappropriation of assets to be the most important fraud risk component, while accounting students find management characteristics to be the most important fraud risk component. Two additional components were considered in the research, industry conditions and operating

characteristics. The findings showed differences in perceptions between experienced auditors and college accounting students.

Several authors focused on the ability of auditors to detect fraud. Klarskov Jeppesen and Leder (2016) provided an analysis of auditor experience with corporate psychopaths. Psychopathy is a personality disorder, including no remorse in harming others to obtain money/power. This study has implications for the assessment of fraud risk. The survey involved Danish auditors. 43% of auditors experiencing psychopathic managers, found fraud. This confirms the need to question the integrity of managers exhibiting those traits. The article lists the common traits. There is also reference to a proposed fraud diamond theory, highlighting the need to detect predators.

Kranacher and Stern (2004) provided suggestions for enhancing fraud detection. According to a COSO study, CEOs perpetrate 75% of all frauds. While Klarskov Jeppesen and Leder (2016) expressed the need for auditors to question the integrity of managers, Kranacher and Stern (2004) noted a potential conflict of interest between auditors and the hiring engagement organization. Legislation serves as a deterrent to fraud behavior, as auditors must actively search for fraud. The author recommended expanding the education of auditors to include understanding behavior, and supplementary investigative and analytical skills.

The research of James (2003) focused on the financial statement users' perceptions of the internal auditors' ability to prevent financial statement fraud. The author used auditor reporting structure and sourcing of auditors as a basis for examining perceptions. This is similar to Kranacher and Stern's (2004) concern of conflict of

interest. The findings indicated that when auditors report to senior management, there is less confidence in the ability to prevent fraud. No difference in perception, based on auditor sourcing, was found. The examination included the effect on perceived protection in the areas of deterrence, detection, and reporting of fraud. The author mentioned that voluntary disclosure of reporting structure will increase confidence. The sampling for this research was limited to a survey of bank lending officers.

McKee (2014) expanded on previous studies related to the ability of auditors to detect fraud. The author claimed that auditor lack of direct experience with fraud exists, and that failure to adequately plan risk assessments may be detrimental for auditing firms. The author noted that research showed that 40% of auditors never encounter fraud during their careers. A common audit deficiency is a lack of planned procedures for identifying fraud risk, and low levels of professional skepticism. McKee (2014) presented an analytical model using just three variables that is easy to implement using logistic regression in Microsoft Excel. The prediction rate of the model was 69% accurate when tested on 50 fraud and 50 non-fraud organizations. The variables used in the model were company size, auditor tenure, and bankruptcy probability. When the model shows a 50% or higher probability, the author recommends analysis of all red flag indicators. However, the error rate of almost 31% suggests that the probability cutoff should be higher. The testing of this model was limited to organizations with approximately \$15 million in assets and requires further testing for accuracy.

Still other researchers studied the quality of the audit function. Hamilton (2016) presented a study to determine auditors' assessment of intentionality in identified

financial misstatements. The author proposed that the quality of an audit is based on the auditors' perception of intention. The study involved consideration of the perspective of the person responsible for the misstatement, and the auditors' evaluation of actions from the responsible party's point of view. The experiment involved the assessment of a hypothetical case for intentionality by 82 auditors, to evaluate the auditors' judgment. The study showed that auditors considering the perspective of the responsible party show greater skepticism in cases of high fraud risk, resulting in a higher materiality assessment. This study considered the post-fraud state. The author recommended audit training in understanding intent.

While Hamilton (2016) studied auditor perceptions, Glover, Prawitt, and Drake (2015) analyzed the use of substantive analytical procedures (SAP) in auditing large income statement accounts, such as revenue. The authors noted that regulators discourage the use of SAPs due to a presumed lack of useful evidence. In addition, PCAOB inspectors argue that SAPs are insufficiently precise for use with income statement accounts, citing that the auditor threshold for evaluation differences is too high. The authors argued that not using SAPs diminishes the overall audit quality. The researchers considered designing procedures to provide useful evidence when using SAPs. The authors provided an overview of the current audit environment. The study focused on important regulatory issues. The authors provided an analysis of prior research and reviewed auditing standards.

Audit procedures were the focus of other researchers. Green (2003) identified steps for auditors to protect against fraudulent financial reporting. One of those steps

included listening to potential whistleblowers. Another step was to look for/identify red flags by asking questions. The author offered suggestions of questions to ask. Another step for auditors is to use external benchmarks to recognize oddities in reporting. The author recommended adjusting audit activities to match changing trends. This research is focused on the role of the internal auditor as a support to the external auditors.

While Green (2003) focused on identifying red flags, Trotman and Wright (2012) recommended a triangulation framework of audit evidence. The researchers tested for conditions where auditors should change their risk-assessments based on external evidence related to business objectives. The authors suggested change risk assessment procedures when there are contradictions between internal and external evidence. The results of the study indicated that auditors only change their risk assessment procedures when the two types of internal evidence are in conflict. The authors focused the research on the auditors' response to different types of evidence. The researchers tested a hypothesis of client concealment strategies as related to the probability of fraud, and of the impact of evidence on the probability assessment. The authors performed quantitative analysis using an experimental design. Auditors were given a scenario to assess. Based on the results, the authors suggested training to encourage triangulation of audit evidence.

Some authors provided research on automated methods of detecting fraud. Simeunović, Grubor, and Ristić (2016) examined the use of digital forensic analysis for detecting fraud. The specific case examined in the research related to employee fraud, but the concepts introduced could be effective for investigating accounting frauds and detecting digital evidence of fraud. The authors noted that of an overall 65% of detected

fraud, 10% is detected by auditors and 23% is detected by proactive internal controls. Simeunović et al. (2016) stated that proactive prevention requires adequate controls and creating a workplace culture of honesty and integrity. In an era of big data, technology, and complexity, the authors recommended a combined approach to fraud prevention of digital analysis and auditing skills.

Similar to Trotman and Wright (2012), Fortvingler and Szívós (2016) focused on the risk assessment aspect. The authors examined two approaches to audit fraud risk assessment. The authors provided a comparison of the traditional versus the decomposition method of risk assessment, and the influence of each method on the perceived level of risk. The traditional method of risk assessment follows the prevailing standards of auditing while the decomposition method breaks the risk assessment down into the sub elements of the fraud triangle along with a fourth element to consider audit failure to detect fraud. The authors also explored how the two methods affect audit procedure decisions. The findings of the study indicate that the decomposition method increases auditor sensitivity to fraud cues. In addition, the decomposition method improved high risk scenario identification, but did not increase the quality of the audit plan.

Some additional research included the work of Dai and Handley-Schachler (2015). The researchers proposed a model for auditors to detect unusual fraud where conspiracy to commit fraud may be present. The model allows for assessing the risk of criminal conspiracy. Auditors provide judgment of the accuracy of the financial statements based on evidence provided by the organization. There is potential for

conspirators to provide false evidence, requiring the auditor to exercise professional skepticism throughout the audit. Some of the recommended audit methods to bypass interference from conspirators include using a business risk approach, analytical procedures, and inherent risk assessment. The authors recommended further research on methods to detect conspiracy to commit fraud.

Contrary to some of the research, Westhausen (2017) investigated the weaknesses of the internal audit function. The author discussed the success factors for internal auditing as a means of fraud control and used information from ACFE to identify weaknesses associated with internal auditing. Westhausen (2017) noted that the internal audit function of controlling fraud is on the rise. Growth in technology, such as digital data, assists in increasing the effectiveness of the internal audit function. One of the weaknesses mentioned is weak or missing internal controls, such as the ability to override those controls. The author also listed self-perception/overconfidence as a weakness of the internal auditors and recommended increased training and knowledge. Another weakness is the acceptance of anti-fraud responsibility. The author noted that 17% of internal auditors do not accept responsibility for fraud prevention, and 80% are unclear on their role of responsibility for preventing fraud.

Corporate Responsibility

Several researchers focused on the executive function of corporate responsibility. Conyon and He (2016) investigated the relationship between executive compensation and financial fraud. The findings indicated a negative correlation between executive compensation and corporate fraud. The study included data from publicly traded Chinese

companies between 2005 and 2010. The authors found evidence to support the hypothesis that executives are penalized through lower compensation as punishment for fraudulent behavior. The findings also indicated that the magnitude of punishment increases with stronger corporate governance. The research extends the existing literature related to the relationship between executive compensation and fraud by focusing on Chinese companies. The authors used agency and contracting theory to understand executive compensation and corporate governance.

In contrast to the aspect of compensation, Prentice (2012) highlighted the importance of monitoring ethical behavior in corporations. The author provided examples of potential organizational and psychological causes of ethical missteps. The examples include obedience to authority, conformity bias, and loss aversion. The author included several psychological factors that may influence susceptibility to unethical behavior, including overconfidence, self-serving bias, and moral rationalization. Prentice (2012) pointed out the need for careful monitoring of executive actions. While the examples and information in this article are certainly not exhaustive, it does provide a starting point for considering the causes of unethical behavior.

Yet another angle was provided by Schrand and Zechman (2012). The authors provided an analysis to improve the understanding of why firms misstate earnings. The sample for the study included 49 firms subject to SEC Accounting and Auditing Enforcement Releases (AAERs), in the 1990s and 2000s. The AAERs suggest intent for 13 of the 49 sample firms. Evidence from the study suggests that unintentional misstatements are optimistically biased and may lead to a slippery slope for management.

The authors examined the 13 fraud cases separately. The authors also used two alternative samples to further examine the relationship between overconfidence and AAER propensity. The first alternative sample included firms from the software and hardware industry, and the second alternative sample included firms from all industries. The authors used univariate testing for the initial analysis, and a logit model for the supplementary analysis. The researchers also included an analysis of executives from the firms. The results of the study showed that many of the cases were unintentional, resulting from optimistic bias. Further analysis indicated that overconfidence can lead to financial reporting concerns in the future.

Some researchers expanded on the executive function by including corporate culture. Enofe, Amaria, and Hope (2012) provided an examination of the effects of corporate culture, changes in employee lifestyle, and greed on the propensity to commit fraud. The authors provided a definition of corporate culture and noted that legislation deters but does not prevent fraud. The study mentioned tone at the top and communication in relation to corporate culture. The authors listed needs, opportunity, and justification (e.g. low pay/benefits) in relation to employee lifestyle changes. Enofe, Amaria, and Hope (2012) conducted a survey questionnaire of respondents in Jacksonville, Florida. The study found that corporate culture influences the potential for fraud. The authors contend that upper level employees are more likely to commit fraud due to greed or self-interest. The authors purported that it is impossible to eliminate fraud, but possible to reduce through internal control and corporate culture.

While many authors focus on large corporations, Kramer (2015) examined fraud in small businesses. The author believes knowledge is key to preventing small business fraud. Not all fraud is discovered, due to the concealment nature of the crime. The author cited the fraud triangle as the most widely accepted theory of why people commit fraud. Understanding the fraud triangle assists in the prevention of fraud. Most effective way to minimize fraud is to remove the perceived opportunity. Understanding of red flags also aids in detection. The author provided an industry definition of materiality.

Internal controls were also studied in relation to corporate responsibility. Dimitrijevic, Milovanovic, and Stancic (2015) showed how the use of preventive internal controls improves overall quality of control and company performance. The article is primarily informational, and the authors indicated that a developed internal control system provides a protective barrier against fraud. The authors focused on financial statement fraud in this article. The researchers described the concept and importance of internal control. The authors also identified the goals and constraints of internal control. The essence and scope of fraud in financial statements was described by the authors. In addition, the researchers discussed internal control techniques and management's role and responsibility for organizing internal controls. Dimitrijevic et al. (2015) highlighted the need for internal control and for designing preventive techniques to avoid fraud.

In addition to the research on management responsibility for implementing internal controls, Raghunandan and Rama (1994) highlighted information related to internal controls, and the need to include the information in annual reports. The author reviewed 80 annual reports. The author cautioned to be aware of wording in reports, for

example: what internal controls should do as opposed to whether the controls were effective. Some suggestions of items that should be in the annual reports include: control limitations, communication between internal auditors and the audit committee, and CEO signature on management report. The author suggested that some internal controls are not implemented due to cost/benefit. Controls are fluid and require acknowledging the potential for improvement.

Ang, Jiang, and Wu (2016) investigated fraud committed by Chinese companies that are listed on the United States stock exchange. The researchers analyzed factors that differentiate between firms that have committed fraud and those that have not. The findings of the research indicate that the level of respect for laws and regulations affects the propensity to commit fraud. Poor governance leads to fraudulent activity. The authors also found evidence that non-fraudulent firms send signals to investors, after a scandal, to differentiate themselves from fraudulent firms. This study extends the literature on financial fraud to include cross-listed companies, and the potential to commit fraud based on differences in laws and regulations across countries. The authors chose to focus the study on Chinese companies due to a major scandal in 2011/2012. The study was limited to one country and does not represent factors that may be present in other countries with cross-listed firms. However, the research does provide insights for investors when considering cross-listed stocks.

Investor Perceptions

Brazel, Jones, Thayer, and Warne (2015) studied investor perceptions of financial reporting fraud. The authors surveyed 194 experienced, nonprofessional investors

regarding perceptions on the frequency of fraud, the use of financial information, the importance of conducting their own fraud risk assessments, and the use of fraud red flags. This study is important to standard setters for investor protection. The purpose of the research was to establish investor concern with conducting fraud risk assessments, and what information they use for the assessments. The authors developed a framework for predicting investor fraud perception, and the importance of conducting fraud risk assessments. The researchers tested if the use of risk assessments leads to the use of red flags.

The survey for the Brazel et al. (2015) research included a diverse group of active investors across 38 states. The survey included questions on the perception of fraud prevalence and the use of financial statement information, determining a positive influence on risk assessments and the subsequent use of red flags. The red flags used include SEC investigations, pending litigation, violations of debt covenants, and high management turnover. The authors found that investors perceive analysts, regulators, and external auditors to be reliable sources for the detection and reporting of fraud. This is contrary to other research. The authors used regression analysis to test the hypotheses of the research and found that the survey method allowed for examination of multiple relationships simultaneously.

Fraud Detection Models

The topic of financial fraud detection and prevention can be found across various disciplines of the literature. Existing research indicates the need for an in-depth understanding of the factors related to fraud. For example, Ahmed, Mahmood, and Islam

(2015) suggested the need to understand abnormal behavior as an indicator of fraudulent activity, while Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) focused on understanding the auditors' perspective in detecting and preventing fraud.

A review of the literature provided useful information for conducting future research. Ahmed, Mahmood, and Islam (2015) provided information on indicators of financial fraud activity, which may be useful for improving financial fraud detection techniques. Throckmorton, Mayew, Venkatachalam, and Collins (2015) defined important factors for the development of effective financial fraud detection tools. Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) provided variables explaining motivation for committing financial fraud, which helps in understanding how to detect financial fraud.

Trompeter, Carpenter, Desai, Jones, and Riley Jr. (2013) proposed an expanded framework of fraud detection and prevention to include the act and concealment of fraud, and the benefits to the perpetrators of fraud. The intention of the model is to help auditors design detection tests that may effectively detect and prevent fraudulent reporting. The authors noted the importance of understanding the control environment and identifying factors for the design of audit procedures. Trompeter et al. (2013) expect the auditor model to broaden the perspective of fraud detection. The research in this article includes an examination of existing anti-fraud measures and the elements of fraud. The authors also provided an evaluation of the auditors' role in detecting and preventing fraud, as well as the consequences of fraud.

Several researchers focused on data mining models for fraud detection. Gray and Debreceeny (2014) explored the application of data mining techniques to fraud detection in the audit process. The authors proposed a taxonomy to guide future research on the topic. The intent of the research was to discover patterns of observed fraud schemes. Some examples of data mining include financial statement data, textual data, e-mail data, and Internet data, such as blogs, financial statement disclosures and press releases. In addition, the data mining techniques include process mining and role mining. The above techniques are currently used in specialized audits, but the authors proposed applying the techniques to routine audits, by identifying situations appropriate for the use of data mining.

The research by Gupta and Gill (2012) presented a data mining framework for preventing and detecting fraud. The authors tested the framework to provide empirical results of the validity of three data mining tools. The presented model included the selection of 62 financial ratio variables for input, and the sample set included data for organizations with reported fraudulent activity. The testing used a rule monitor for detecting anomalies. Of the three data mining methods tested, the authors found the decision tree method to be the most sensitive to the correct identification of fraud, and the genetic programming method to provide the best specificity for identifying fraud.

While Gupta and Gill (2012) focused on financial data mining, Goel and Gangolly (2012) conducted quantitative testing of the qualitative textual content of annual reports. The authors considered the differences in the writing and presentation of annual reports between fraud and non-fraud companies. The researchers' intent was to

determine fraud cues in the linguistics of the annual reports. The findings indicated that fraudulent reports use linguistics to paint a favorable picture of the company, including masking descriptive statements with un-informative verbiage. The authors provided information from studies indicating improved accuracy with linguistic analysis. In this study, the researchers used text mining to uncover hidden indicators. Prior research focused primarily on the quantitative indicators of fraud, with a limited ability to accurately predict instances of fraud. The authors identified six categories of cues associated with fraudulent reporting. This research is useful as a tool for auditors to understand the potential signaling present in the written portion of the annual reports. The research is also useful for understanding the non-financial cues to fraudulent reporting.

Albashrawi (2016) provided a review of the various studies on data mining techniques for fraud detection from 2004 to 2015. The author found 41 techniques across 65 published articles. The largest application of data mining techniques regards financial statement fraud and bank fraud. Common detection methods of the most used techniques are outlier identification and hidden trends. The work of Albashrawi (2016) helped to identify the best methods of data mining detection based on the type of fraud, frequency of use, and accuracy. The findings indicate that the logistic regression model is used most frequently, and that supervised techniques outperform unsupervised techniques for detecting financial statement fraud. For the purpose of this research, financial fraud is classified as financial statement fraud, bank fraud, insurance fraud, and other fraud, with financial statement fraud and bank fraud making up 63% of the total found in the various

articles on data mining. Albashrawi (2016) noted that one third of the articles were published in the United States.

Expanding on previous studies, Li, Xu, and Tian (2014) combined data and text mining techniques to provide enhanced fraud detection capability. The authors noted a lack of research on the combined use of the techniques. The researchers used a genetic algorithm to identify optimal parameters for the model, using financial and narrative data from 10-K filings. Li et al. (2014) found that the combined techniques increased the interpreting and explanatory power of the models.

Another widely researched area of fraud models is the machine learning methods. Perols (2011) compared the performance of popular statistical and machine learning models of fraud detection. The focus was on the use of these models in detecting financial statement fraud, with consideration of the distinguishing characteristics of financial statement fraud. The sample set included data obtained from prior SEC fraud investigations. The author examined the performance of different classification algorithms to provide guidance for predictors to use when creating new models. The author found that logistic regression and SVM outperformed other classification algorithms. The results of this study are useful for audit planning.

In contrast to Perols (2011) work, Cavusoglu and Raghunathan (2004) focused on decision models. The researchers provided a comparison of the decision theory and game theory approaches to fraud detection software. The authors investigated the problem of optimal configuration of fraud detection software. Decision theory presumes that a firm's actions do not influence fraudulent behavior, while game theory presumes that fraudulent

behavior is influenced by actions of the firm. The authors used a quantitative approach to derive optimal configurations using decision and game theory. A comparison of the approaches determined that game theory results in lower costs to the firm in most situations. The results suggest that a decision theory approach can result in significant harm to the firm. This article provides firms with information related to configuring fraud detection software using decision theory and game theory. The authors highlighted the need to consider user behavior when making software configuration decisions. The research in this article would benefit from a real-world application of the approaches through a case study.

Abbasi, Albrecht, Vance, and Hansen (2012) tested a meta-learning framework for fraud detection, using an automated approach. This framework could be useful as a decision-making aid. The authors noted a deficiency in detection efforts, requiring a more robust approach. The research included the use of a design science paradigm method as guidance to solve the problem. Meta-learning identifies the learning processes with easy to apply features and algorithms by combining multiple machine learning techniques. It is appropriate for complex problem solving and increases the chance of finding a good-fit model.

Abbasi, Albrecht, Vance, and Hansen (2012) expanded on previous works and noted that effective detection requires the ability to detect fraud across industry, reporting style, and type of fraud. The proposed model uses financial ratios and an adaptive learning approach to improve detection under procedural bias and over time. Testing of

the framework showed improved detection over existing methods, with a high confidence level. This model provides the potential for auditors to assess fraud risk ratings.

Similar to text mining techniques, Hajek and Henriques (2017) examined the potential to develop a fraud detection system based on the information and comments found in the annual reports. The authors used machine learning methods for the study. The researchers combined financial and linguistic data with the goal of establishing an early warning system. Hajek et al. (2017) included 311 alleged fraud reports and 311 non-fraud reports from 2005 to 2015. The authors noted the importance of text mining due to the large amount of textual data in the annual reports. The findings indicated that poor financial performance could increase the potential for committing fraud. In addition, the authors found that fraudsters are more likely to include negative wording in the annual reports. An interesting result from the collected data was that fraud firms have low profitability and abnormally high earnings per share growth. The findings also highlighted the need to examine information from the financial statements along with the analysts' forecasts. The significance of this study could be increased through larger sampling in future studies.

Uğurlu and Sevim (2015) studied the importance of financial statement accuracy to credit risk management in banks. The purpose of the study was to predict fraud risk to prevent bank credit risk. The authors used an artificial neural network (ANN) methodology to analyze 289 organizations for the year 2007. The organizations for the study were selected based on ability to fulfill obligations, which could lead to Type 1 and Type 2 errors. The authors identified common features of fraudulent financial statements,

such as small net assets and rapid growth. However, the findings indicated that there is a lack of generally accepted variables for detecting fraud, due to the differing reasons for the fraud. Although many models exist for detecting fraud, the authors found the ANN model to have 90% accuracy for detecting financial statement fraud.

The research of Kanapickiene and Grundiene (2015) involved the use of financial ratios as fraud indicators. The authors' intent was to distinguish which financial ratio values indicate fraud. The analysis of financial ratios represents a simpler method of detecting potential fraud. The purpose of the research was to develop a model of fraud detection based on financial ratios. The choice of financial ratios to examine is based on the fraud motivations. Some of those motivations are financial difficulty of the organization and growth expectations of the organization. This method of fraud detection requires interpreting the results to determine what value indicates fraud. The authors performed quantitative testing of the relevant ratios.

While financial ratio analysis may help detect fraud, Albrecht and Hoopes (2014) used an expert witness and relevant factors to discuss reasonable expectations of detecting fraud. The authors described the auditors' role in detecting fraud and discussed the gap in expectations of users of financial statements and auditing standards. This gap can potentially lead to lawsuits against auditors. The authors noted that the auditor is not responsible for "guaranteeing" the accuracy of the financial statements. The researchers provided real-world examples where an audit might not detect fraud during a competent audit, providing an understanding of what constitutes auditor negligence. The sample included audits considered to be adequate, as well as audits considered to be insufficient.

The authors identified some factors that are difficult to detect, including outsiders helping to conceal the fraud, reluctance of people to disclose information, voluminous amounts of accounting records, and lying.

While it may be difficult to detect some types of fraud, Yucel (2013) investigated the effectiveness of the 42 red flags, from SAS No. 99, in detecting fraud. The study included evidence from auditors in Turkey. The author administered a questionnaire, adapted from prior research, to firms engaged in independent audit activities. The researcher used the SPSS 17 program to analyze the questionnaire responses. The author described fraud detection and manipulations and discussed the evaluation of fraud risk in audits. The author also discussed the indicators of fraud and manipulation. The findings of the research indicated that red flags related to opportunity to commit fraud are the most effective. Mean analysis of the data showed that rapid growth and unusual profits are the most effective red flags for detecting fraud. The author determined that the use of red flags provides an early warning system of fraud. This research provided insight of auditors' perceptions related to the use of red flags in detecting fraud.

In contrast to red flags as a means of detecting fraud, Kingston, Schafer, and Vandenberghe (2004) looked at a legal model of fraud detection. The purpose of the research was to explain the model and specify fraud detection user requirements. The study involved the European Union and online investment fraud. The authors provided a discussion of the fraud problem and approaches to developing solutions. In addition, some existing ontologies were compared. This research highlights the complex nature of fraud, and the need for an ontology to manage large amounts of data. The authors

considered the needs of fraud investigators, and the need to break fraud cases down to distinct layers. The suggested layers for a fraud case study include hypothesis, law, and evidence. The authors suggested searching for evidence based on specific laws, to narrow the scope of an investigation and guide the user to gather relevant evidence. The research of Kingston, Schafer, and Vandenberghe (2004) points toward the need to consider multiple aspects of fraud and to consider a holistic approach to fraud prevention.

Edge and Falcone Sampaio (2009) focused on the evaluation of current fraud detection models with respect to possible proactive capabilities of fraud detection. The authors provided a critical evaluation of fraud detection architectures and processing models, using a comprehensive survey method. The challenges related to proactive fraud detection were discussed. The authors findings indicated that fraud detection is primarily reactive, but escalating costs of fraud drive the need for proactive models.

The Edge and Falcone Sampaio (2009) research provided information on current models of fraud detection and provided information related to existing challenges of creating proactive models of fraud detection. The information is useful for future research to examine these challenges and design models that may be effective for proactive fraud detection. The research limited to an examination of current models of fraud detection and a discussion of challenges for proactive detection based on these models. The authors do not advance a new model but do provide information for new avenues of research in the field.

Wuerges and Borba (2014) proposed to estimate the percentage of undetected fraud in United States organizations. The authors added a misclassification parameter to

the traditional logit model for detecting fraud to examine differences in the results. The Wuerges et al. (2014) model included variables related to the fraud triangle. The authors concluded that the SEC is unable to report/detect every instance of fraud. Wuerges et al. (2014) suggested that the traditional models are invalid without the correction for misclassification. This is controversial and requires more research. The proposed model in this article may be valid to the extent that all relevant variables are included.

Gottschalk (2014) provided an exploratory study of private investigations by fraud examiners in Norway to identify the characteristics of investigation reports. The research included a review of 21 reports from private-sector financial crime specialists, such as Ernst & Young and Price Waterhouse Coopers. The findings included differences in the scope, length, and cost of the reports, with a correlation between the length and cost. The author also found that the length of the report may differ based on the type of firm producing the report. This research is very preliminary and requires further testing.

The Fraud Triangle

Mui and Mailley (2015) examined the application of the fraud triangle to the crime triangle, using scenarios of asset misappropriation. The authors used the crime triangle to extend the focus of fraud to include the victims of fraud and the environment where fraud occurs. The application of both triangles provides a comprehensive/macro view of a fraud event. The authors highlighted the need for strategies that consider the environment where fraud occurs, to include supervisors, managers, and targets of the perpetrator. The results of this study led to proposed questions to identify gaps in risk management and could facilitate the design of fraud management strategies.

Lin, Chiu, Huang, and Yen (2015) examined the fraud triangle variables of fraud detection using data mining techniques. The authors provided a comparison to the results from a survey of experts. Lin et al. (2015) used the results to rank the fraud prediction factors by importance, providing a potential solution to the budget and resource constraints of organizations for detecting fraud. The research included 129 fraud organizations and 447 non-fraud organizations and considered 32 factors for fraud assessment based on expert opinions. Lin et al. (2015) identified the top-ranking factors produced by the various data mining techniques as compared to expert decisions. The findings showed that two factors exist in the top 10 across all models examined. Those factors are the need for external financing and financial restatement frequency. The authors found the expert decisions to be consistent with the empirical results of the study and identified some gaps between the expert decisions and the prediction models. One advantage of the research is the use of objective measures. In addition, this research provided an effectiveness comparison of the detection tools used for the study.

McMahon, Pence, Bressler, and Bressler (2016) contended that not every fraud can be identified using the fraud triangle methodology. The authors suggested adding a fourth element of capability, for example signing authority. McMahon et al. (2016) noted that it is difficult to detect fraud due to the deceptive nature of fraud, and that the top priority of management should be preventing fraud. Prevention can be implemented by using deterrence factors, such as surprise audits and whistle-blowing hotlines. The authors reviewed the literature related to prevention and detection and discussed the various techniques found in the literature.

Prevention Strategies

The research of Murphy and Dacin (2011) built on the existing fraud triangle to develop a framework that identifies three psychological pathways to fraud. The authors drew attention to ethical decision-making and increased the understanding of the psychology of committing fraud. The three pathways identified are lack of awareness, intuition coupled with rationalization, and reasoning. The use of reasoning includes reducing the negative effects of fraud once the perpetrator makes the decision to commit fraud. This study provided a theoretical foundation to explore fraud prevention mechanisms.

Some researchers expressed the importance of tone-at-the-top to preventing fraud. Beasley, Carcello, and Hermanson (2000) listed COSO's efforts to mitigate fraudulent financial reporting. It is interesting that these efforts precede the bigger scandals such as Enron. The authors offered suggestions for future focus based on the COSO conclusions. For example, a focus on company size, tone at the top, and timing of fraud are among the proposed areas. In addition, the findings indicated that the quality and reporting structure of the audit committee is important. As with many articles, the fraud triangle, specifically opportunity and incentive, are among the main areas of focus in detecting and preventing fraud.

In addition to tone-at-the-top focus, Rezaee (2005) reviewed actual financial fraud cases and presented strategies for preventing fraud. The author listed factors that contributed to the financial fraud scandals, and described the methods used to explain and justify fraud. Some of the proactive strategies suggested included a fraud vulnerability

review, vigilant corporate governance, a corporate fraud prevention program, enforcement procedures, and forensic auditing.

Expanding on previous works, Sabau, Sendroiu, and Sgardea (2013) provided a qualitative analysis of the efficiency and performance of anti-fraud strategies in a high integrity work environment. The authors identified anti-fraud success drivers and described the need for an anti-fraud strategy. The researchers also presented an operational framework for developing an anti-fraud strategy. The framework includes an anti-fraud culture (tone-at-the-top), company policy, and a positive work environment. Additional aspects of the framework include core values, written strategy, and a code of conduct. The authors concluded that an ethical culture and high integrity environment assist in the prevention of fraud acts.

Jurinski and Lippman (1999) outlined the changes in fraud detection procedures set forth in the Statement on Auditing Standards (SAS) No 82, "Consideration of Fraud in a Financial Statement Audit." SAS No 82 is intended for external auditors. The authors also outlined the changes set forth by the Private Securities Litigation Reform Act of 1995. One of the changes in SAS No 82 relates to the assessment of risk of material misstatement, considering almost 40 fraud risk factors. Another change is the documentation of identified risk factors. The authors listed potential changes to audit techniques, and suggested managements' role in preparing for an audit, and noted that most fraud is discovered through internal controls.

Perols, Bowen, Zimmermann, and Samba (2017) used data analytics to address the challenges of developing fraud detection models. The challenges addressed in the

research are the rarity of observation, the abundance of explanatory variables, and the broad underlying definition of fraud. The results, when tested on actual cases, showed a 10% performance increase over current fraud detection models. The authors introduced three data analytic models for this research, along with recognition that all fraud is not alike. The researchers used quantitative analysis on a sample of fraud and non-fraud firms. The analysis detected trends to determine future applications of the proposed methods of data analytic fraud detection. The authors test the models for improved prediction.

Bagdoyan (2016) presented a study of the weaknesses in fraud mitigation, related to immigrant investors. The author provided an evaluation of the fraud detection efforts for the immigrant employment-based investment program. The Bagdoyan (2016) study outlined the steps for investigating potential unlawful sources of funds. These steps include conducting a site visit to assess potential risks and performing expanded background checks. Fraud detection is hindered by massive amounts of paper files (14 million pages annually). Digitization of paper files is recommended, as well as documentation to guide fraud detection efforts. The author described the framework and steps for detecting immigrant investment fraud.

Regulations and Legislation

Ang, Jiang, and Wu (2016) studied the effects of respect for the law on propensity to commit fraud. The authors investigated fraud committed by Chinese companies that are listed on the United States stock exchange. The researchers analyzed factors that differentiate between firms that have committed fraud and those that have not. The

findings of the research indicated that the level of respect for laws and regulations affects the propensity to commit fraud. Poor governance leads to fraudulent activity. The authors also found evidence that non-fraudulent firms send signals to investors, after a scandal, to differentiate themselves from fraudulent firms. This study extended the literature on financial fraud to include cross-listed companies, and the potential to commit fraud based on differences in laws and regulations across countries. The authors chose to focus the study on Chinese companies due to a major scandal in 2011/2012. The study is limited to one country and does not represent factors that may be present in other countries with cross-listed firms. However, the research does provide insights for investors when considering cross-listed stocks.

Auditing standards are important to the detection of fraud. This resource, by Flood (2015), is part of the *Wiley Practitioner's Guide to GAAS 2015*. In this chapter of the book, Flood (2015) stated the objectives of an auditor and provided the fundamental requirements of an audit, including guidelines for obtaining information and evidence, identifying risks, adjusting procedures based on findings, evaluating evidence, and communicating possible fraud. The author also listed the requirements of the auditor when fraud is discovered. In addition, the author listed the potential incentives, opportunities, and attitudes for each risk factor. This book provided an understanding of the standards and interpretations for conducting an external audit. The entire book is a great resource for reviewing auditing standards.

Rockness and Rockness (2005) explored the financial reporting scandals of the early 2000s and the resulting legislation. The research provided an historical perspective

of the attempts to legislate following the scandals. The authors provided a summary of the frauds, and the ethical consequences of the subsequent legislation, in an effort to determine the likelihood of future frauds. The researchers explored the question of government legislation versus the corporate culture for ethical behavior. The authors developed a framework positing four premises of corporate management behavior. The premises are failure of past attempts, failure of corporate controls, the need for a strong corporate culture of ethics, and the need to build on a rewards and punishment system. The authors examined the likely impact of attempts to legislate ethical behavior and described the SOX regulatory response to the fraud scandals.

A benefit of the Rockness and Rockness (2005) research is the historical perspective of the scandals and the description of the regulations provided for in SOX. A limitation of the research is that the focus is on older scandals and does not consider the existence of newer frauds despite the implementation of SOX. This research is useful for highlighting past legislation and the continued failures of detecting and preventing fraud. The need for continued research is evident.

The work of Ugrin and Odom (2010) expanded on previous research by examining the deterrence mechanisms set forth by the Sarbanes-Oxley (SOX) Act of 2002. The authors conducted an experiment to determine the influence of SOX on fraudulent financial reporting behavior. The results indicate that a prison sentence is effective, but is influenced by social, environmental, and demographic factors. The authors provided a critical evaluation of Sox's effectiveness at reducing fraud. The research is grounded in the criminal justice literature, and the researchers tested the

effectiveness of SOX based on how differing levels of potential jail time and internal controls shape the attitudes and perceptions of managers. The findings indicated that SOX creates minimal deterrence beyond the mechanisms in place prior to SOX.

Henry (2012) also studied the influence of regulations to minimize fraud. The author examined the nature of a capitalist economy and the concept of predation (the predatory nature of a monetary capitalist economy). Henry (2012) developed a framework for determining whether government regulation is effective in minimizing fraud. The author noted that the financialization of the economy leads to fraud becoming commonplace. The study highlighted the growing significance of money as the end objective of business, and that monetary profits are registered in the balance sheets of organizations. The findings indicated that the government can control, but not prevent fraudulent reporting in a predatory economy where organizations continue to search for monetary profit by any means. A benefit of this research is the application of economic theory to the concept of fraudulent reporting. A limitation is that the research does not consider the internal controls/governance mechanisms in place by organizations.

In contrast to the work of Henry (2012) regarding the influence of regulations, Robu (2015) provided an analysis of the relevance of IFRS adoption to confidence in financial statement information. The author studied a sample of 59 companies pre and post IFRS adoption. The results of the study indicated a slight increase in value relevance after adoption of IFRS. The methodology of the study included examining the influence of IFRS adoption on stock prices. The author studied the value of standardized reporting, and transparency as a solution to financial market confidence. One benefit of this study is

the determination of how quickly information is reflected in stock prices. Another benefit of the study is the indication that IFRS reporting increases transparency and accuracy of financial information. The limitations of the study include differences in results based on the business activity, and the study focused only on Romanian listed companies. This study is useful for understanding the value relevance of standardized reporting.

Anomaly Detection

Ahmed, Mahmood, and Islam (2015) provided a comparison of clustering-based anomaly detection techniques for detecting and preventing fraud. The work included a discussion of the lack of real-world data for testing fraud detection models. The authors also discussed the use of synthetic data to validate fraud detection techniques. The article provided an overview of past research related to clustering-based anomaly detection techniques, along with insights on the effectiveness of the techniques. Ahmed, Mahmood, and Islam (2015) described the various types of anomalies and the challenges associated with anomaly detection.

Vocal and Linguistic Detection

Throckmorton, Mayew, Venkatachalam, and Collins (2015) conducted a study to determine the predictive accuracy of a numeric model of fraud detection combined with vocal and linguistic models of fraud detection. The authors contend that a combined model is more effective than each model in isolation. Throckmorton, Mayew, Venkatachalam, and Collins (2015) hypothesized improved detection with a combined tool for fraud detection. The authors used a sample of audio from 1572 public company quarterly earnings conferences for financial, linguistic, and vocal cues. The sample was

cross-checked with instances of financial restatements due to irregularity. A total of 41 samples met the criteria of potential fraud, with the majority pertaining to revenue and sales.

Proactive Prevention

A lack of effective detection techniques spurs much of the research on financial fraud detection and prevention. Throckmorton, Mayew, Venkatachalam, and Collins (2015) proposed a model of fraud detection and prevention that combines factors of the numeric, vocal, and linguistic methods of fraud detection, to improve the effectiveness of detecting and preventing fraud. However, minimal research attention has been directed toward proactive detection and prevention of fraud. Ahmed, Mahmood, and Islam (2015) noted a scarcity of real-world data related to effective detection techniques of fraudulent behavior, while Throckmorton, Mayew, Venkatachalam, and Collins (2015) identified the need to define factors for the development of effective detection tools. Existing studies primarily focus on reactive measures and consequences of financial statement fraud. A qualitative, multiple-case study inquiry offers the opportunity to examine current practices for detecting and preventing fraud from a participant perspective.

Summary and Conclusions

To explore and understand relevant patterns and themes of financial statement fraud prevention, I reviewed the extant literature on financial statement fraud regarding motivation, intent, responsibility, recognition, and prevention of fraud. Most of the literature focused on the fraud triangle and the consequences of past fraud cases. In some

cases, the authors offered prevention and detection strategies based on indicators and variables associated with fraud detection.

The causes and consequences of fraud were the focus of some studies with a determination of the need for governance reform. Several authors focused their studies on the motivation and intent factors for committing fraud. A common recommendation of these studies is the need for more research related to proactive prevention of fraud. Another major theme in the literature is audit responsibility for detecting fraud and auditor perceptions of prevention measures. A major finding of the research was the lack of consensus on the role of auditors in detecting and preventing fraud, and a lack of related qualitative research.

A great deal of the literature focused on internal controls and corporate governance in relation to the audit process, including the need for a rigorous review of internal controls and a planned risk assessment as part of the audit process. Some researchers studied the ability of auditors to recognize fraud and determined that more training is required for auditors to determine the intent to commit fraud. One researcher found that auditors consider current fraud detection methods inadequate. Another researcher noted that proactive prevention requires adequate controls and an ethical corporate culture.

In addition to the focus on the audit process, many of the authors provided research on internal controls and corporate governance as it relates to corporate responsibility. Several researchers focused their studies on internal controls, while others focused on the ethics and behavior aspects of corporate culture. Still, other authors

studied the effects and influence of government regulations and legislation. A common determination is the increased potential for fraud when governance and corporate culture are poor. Many of the authors advanced fraud detection models and a few recommended prevention strategies.

Despite the abundance of literature related to financial statement fraud, there remains a gap in studies related to proactive prevention. Several authors expressed the need for proactive prevention and stronger corporate governance controls. This study filled this gap by focusing on the concept of risk management in understanding current practices for detecting and preventing fraudulent financial reporting in a corporate setting and understanding the auditors' perspective in discovering financial fraud. I explored current early detection and prevention methods from a participant perspective to better understand current policy related to fraudulent reporting and possible indicators of fraud. This study extended the knowledge in the discipline, allowing future research to potentially build upon current practices to create proactive models for detecting and preventing financial statement fraud. In addition, practitioners may be able to use this information to develop proactive risk management procedures for preventing fraud, and auditors may be able to develop guidelines for early detection of fraud and risk oversight.

The qualitative, multiple-case study approach was appropriate for gaining a deeper understanding of current policy and prevention measures in the corporate environment. This understanding may lead to advances in proactive prevention of financial statement fraud.

Chapter 3 provides an in-depth description of the research design and rationale, including the role of the researcher and the methodology for conducting the research. Issues of trustworthiness of the study and ethical procedures are also discussed.

Chapter 3: Research Method

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. This chapter of the dissertation is organized as follows: research design and rationale for the study, the role of the researcher in conducting the research, the methodology for participant selection, instrumentation for data collection, procedures, and a data analysis plan, and a discussion of the issues of trustworthiness of the study, and ethical procedures and concerns.

Research Design and Rationale

The research question for this study was as follows: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? A qualitative, multiple-case study design enabled access to participants' actual experiences and perspectives related to the specific business problem. I used the interview questions to address the research question. A review of archival documents and past fraud cases provided insight for the analysis of the data obtained through the interviewing process.

The concept of interest for this study was risk management. I examined how risk management helps in understanding current practices for detecting and preventing fraudulent financial reporting in a corporate setting and understanding the auditors' perspective in discovering financial fraud. The concept of risk management involves a system of internal controls and corporate governance that guide the oversight of financial statement preparation. The concept addresses aspects of loss prevention, which guided the study of proactively preventing fraud. In particular, the work of Snider (1990)

suggested the idea of a shift from short-term thinking to long-term thinking in the prevention of loss. Servaes, Tamayo, and Tufano (2009); and Snider (1990) both noted the need for clear objectives in risk management, while Lister (2007); Crockford (2005); and Mehr and Forbes (1973) determined that risk management requires an adaptive approach to cope with changes in the corporate environment. Lister (2007) is a proponent of proactive fraud risk assessment and determining risk based on the organizational environment. Maynard (1999), Mehr et al. (1973), and Servaes et al. (2009) suggested holistic risk management, encompassing a risk management culture that considers the complexity of modern corporations. Maynard (1999) also considered the auditors' role in risk management. A thorough review of the risk management literature was provided in Chapter 2. Drawing on these works in risk management provided the basis for understanding current practices and emerging trends in fraud prevention and risk management and led to ideas for proactive fraud prevention.

To explore the concept of interest in this study, I used the qualitative research tradition: I sought a deeper understanding of current practices for detecting and preventing financial statement fraud. I gained an understanding of the auditors' perspective in discovering fraud. The choice of method was dependent upon the questions and intent of the research. According to Byrne (2016), when the question involves describing a process, the researcher can use any of several qualitative tools to answer the question. Some of the available tools include document research and qualitative interviews with open-ended questions. Qualitative research is an inductive style using open-ended questions as a means of exploring and understanding the

participants' understanding of a problem. Quantitative research is a deductive style examining relationships among variables to test objective theories, and for generalizing the findings. According to Patton (2015), researchers cannot generalize from small sample sizes, but must collect rich information that may lead to future research. The quantitative method was not appropriate for this study as I focused on textual and narrative data related to the participants' perspectives and collected rich data for analysis.

I used a multiple-case study approach to explore the issue in a real-life setting, and to gain an in-depth understanding of the issue as it pertained to specific cases. The end result of the multiple-case study approach was to provide assertions or explanations, that are relevant for the intended audience, based on the analysis of the cases. Stake (2006) noted the importance of describing the case and its effects for the intended audience. I used a qualitative case study approach for my research, because it aligned with the use of a conceptual lens of risk management. The aim was to explore the research question about the strategies currently being used by public corporations to proactively detect and prevent financial statement fraud. I used a multiple-case study design because, according to Yin (2014), it is a rigorous method that increases the analytic benefits compared to a single case study design and may yield more powerful conclusions. Applying the risk management concept in a multiple-case study illustrated how discovered concepts can help auditors in the early detection and prevention of financial statement fraud.

A qualitative approach was appropriate since there is little knowledge or theory related to the gap in the literature (Minichiello & Kottler, 2010). The multiple-case study

design was appropriate for gaining a deeper understanding of the topic through in-depth data collection that is rich in information (Patton, 2015). The multiple-case study design allowed for determining emerging patterns and commonalities (Lewis-Beck, Bryman, & Futing Liao, 2004). It is an inductive process that begins with the data and ends with theory. This was appropriate for my research as I gained an in-depth understanding of financial fraud, from a management and auditor perspective, related to early detection and prevention of fraudulent reporting. Lewis-Beck, Bryman, and Futing Liao (2004) noted that case studies use theoretical sampling to replicate previous findings or extend emergent theory. Replicating previous findings aided in the understanding of emerging patterns in the study.

A single case study design was not appropriate as it may not have provided me with sufficient data for collection and analysis. In addition, according to Yin (2014) the single case study design is appropriate when examining critical or unusual cases. The proposed study did not include any critical or unusual cases. The multiple-case study design for this research was holistic, since there was a single unit of analysis for the study. An embedded design was not appropriate as the research question did not indicate any subunits for analysis. I collectively examined the data, through the risk management lens, as a means of exploring potential concepts for proactive early detection and prevention of financial statement fraud. The multiple-case study for this research included the managers and auditors of public corporations in the United States. I explored current fraud policies as the unit of analysis for the study and used the interview responses and written policies as the unit of measure for determining what strategies

public corporations currently use to proactively detect and prevent financial statement fraud.

The multiple cases for this study included five organizations selected for reviewing financial statements and procedures related to preparing the financial statements. The boundaries of this multiple-case study were limited to approximately 23 respondents, as necessary for reaching data saturation. Interview participants were limited to managers and auditors of public organizations. The scope of this multiple-case study was limited to the methods of detecting and preventing fraud in the context of the interview responses and organizational policies of the selected managers and auditors of public corporations. The time frame for this study was approximately 12 weeks, and the limit of approximately 23 respondents aided in staying within this time constraint. Yin (2014) noted that the scope of a multiple-case study should be such that additional information is of decreasing relevance. The boundaries and scope ensured data saturation for the study.

The qualitative data included 23 e-mail interviews with managers and auditors from public corporations operating in the United States. The number of corporations and participants was dependent upon reaching saturation for the data collection. In addition, the data included reviewing past cases of fraud and reviewing documents, such as current risk management procedures and notes to the financial statements, of five large public corporations. I used a purposive sampling strategy to ensure cases with relevant information. According to Stake (2006), the sample size for multiple-case studies is too small for random selection, and qualitative fieldwork requires a sample tailored to the

specific study, although case selection can be adjusted as the study progresses (Lewis-Beck, Bryman, & Futing Liao, 2004). For comparability, organizations for document review were chosen based on size and industry. In addition, multiple cases allowed me to conduct a comparative analysis to discover contrasts, commonalities, and patterns (Mills, Durepos, & Wiebe, 2010). Comparative analysis and replication provided me with robustness of findings (Yin, 2016). This was helpful in understanding the current procedures in place for detecting and preventing fraud. The use of multiple cases also increased the possibility of transferability. The data were analyzed using qualitative coding methods; the QSR NVivo 12 Plus software was used to determine themes and patterns in the collected data.

Role of the Researcher

In my role as an observer, I gathered and presented information from participants related to the focus of the study. I conducted interviews using electronic through Qualtrics to facilitate participation. I collected responses and remained adaptive to the ideas presented in the interview responses to adequately present these ideas in the analysis and research results of the study. I used a structured interview format to ensure comparability of responses for analysis and to avoid irrelevant data during the collection process.

I did not have any personal or professional relationships with participants as the interview questions were administered by Qualtrics through e-mail. As such, no power relationships existed between me and the participants. To avoid researcher biases, I remained open to contrary evidence (Yin, 2014). The conclusions of this study include

any contrary findings. I also avoided any personal opinions and preconceived notions when reviewing participant responses. During the research process, I adhered to standard ethical procedures, including obtaining full consent of the participants. I ensured confidentiality of the information from respondents and protection of identity of the participants. In addition, there was no conflict of interest between me and the participants, since the participants were not contacted directly.

Methodology

Participant Selection Logic

The population for this study included managers and auditors of public corporations. I used a purposive sampling strategy to select participants and organizations that provided rich information for the study, as well as access to internal and external auditors. A small sample size requires the use of a purposive sample tailored to the specific study (Stake, 2006). I targeted individuals with experience in preparing and auditing financial statements. The management participants were responsible for the preparation of the financial statements for the corporation. The auditors were selected based on internal and external auditing functions. The study included 23 participants, dependent upon reaching saturation of the collected data. Saturation was reached when the information from the respondents became redundant (Patton, 2015). A maximum of 23 participants provided a representative sample of respondents. According to Miles, Huberman, and Saldana (2014), a representative sample increases confidence in the analytic findings of a study.

Participants for the study were identified by Qualtrics to include approximately 23 managers and auditors of public corporations in the United States. The location selection was based on the feasibility of obtaining the required number of responses for saturation. Participants for the study were contacted via e-mail to obtain permission for interviews. Upon permission, I obtained signed consent forms from potential participants and presented the interview questions. The interviews took place via e-mail. Interviews were conducted until the data became redundant. Reaching saturation in data collection reduced the likelihood of misinterpretation (Stake, 2006). This was important for increasing confidence in the findings of the study.

Instrumentation

Data collection included an interview protocol. The interview protocol guided the interview and ensured that all questions and responses were relevant to the nature of the study. The written format of the e-mail responses allowed for accuracy during the coding and analysis phase of the research. In addition, it was necessary to elicit responses through e-mail due to the sensitive nature of the topic and the inability to secure community partners for face-to-face interviews. The source for the interview questions for data collection was the fraud prevention check-up published by the Association of Certified Fraud Examiners (ACFE, 2016).

Additional data collection included reviewing archived financial statements and procedures for accurate financial reporting and auditing at the selected sites. The management notes included with the annual financial reports provided insights into fraud prevention and detection specific to selected cases. In addition, the auditors' statements in

the financial statement report were helpful in providing confirmability of the participant responses. I also reviewed past fraud cases as part of the data collection process to enhance understanding of the data collected from the published data collection questions.

The interview questions were framed in a structured format to provide uniformity. The use of a semi-structured format for the interview questions was not appropriate since the interviews were conducted via e-mail. A traditional social science research interview involves using standardized questions to minimize interviewer effects, while remaining open to nondirective follow-up probes to expand on an answer (Patton, 2014). The structured format of interview questions allowed for obtaining responses that are free of interviewer bias and influence.

Published Data Collection Instruments

The interview questions for this study were from a published document that was developed by the ACFE in 2016 as a fraud prevention check-up for use by public corporations (see Appendix A). The questions were designed to determine the current fraud risk environment of the organization, the adequacy of controls, and proactive identification of fraud risks. The ACFE (2016) tool is used to identify gaps in the organization's fraud prevention processes. The tool is intended for use by internal, senior management, and others with extensive knowledge of the business operations. ACFE (2016) noted the importance of an objective outsider in reviewing fraud risks and prevention.

The ACFE (2016) document was appropriate for the current study as it addressed a range of areas related to fraud prevention, including oversight, management policy,

controls, and proactive detection. The questions elicited the lived experiences and perceptions of the participants for rich data collection. The only context- and culture-specific issue of the document was the requirement that participants be knowledgeable in the business environment and current risk processes, with extensive knowledge of the business operations.

Procedures for Recruitment, Participation, and Data Collection

The guiding research question for this study was: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? To understand current fraud detection and prevention policies, data collection included in-depth interviews with managers and auditors of financial statements in public corporations using the questions from the ACFE Fraud Prevention Check-Up. Yin (2014) described the in-depth interview as a guided conversation where the interviewer follows a line of inquiry based on the case study protocol, while asking questions in an unbiased manner. This method of interviewing provided rich data for analysis. This is also appropriate when generalization is not a concern.

Data were collected from interviews, archived documents, previous studies, and past fraud cases to ensure rich data for analysis. I used Qualtrics to collect the interview data for the research. I collected all additional data. The frequency of interview data collection was based on the schedules and preferences of the participants. Interviews were scheduled for approximately one hour, but some were shorter based on the

respondents' willingness to provide information. It was important to honor the participants' original time commitment (Yin, 2014).

Data Analysis Plan

The structured interview questions were designed to explore the research question that formed the focus of this study. The data from the archived documents, previous studies, and past fraud cases aided in the understanding of current fraud detection and prevention policies. All data was hand coded, line-by-line, and entered into NVivo 12 Plus for analysis. Maxwell (2013) recommended taking notes while reading the interview transcripts as an additional form of data analysis. This allowed me to identify thought processes and insights related to the analysis of the data. Any discrepant information was rechecked for accuracy and acknowledgement of possible bias. Miles, Huberman, and Saldana (2014) cautioned that the researcher should verify the existence of any differences between discrepant cases and typical cases to potentially explain the reason for the discrepant case.

Issues of Trustworthiness

Credibility

Credibility of the study provides for the potential use of the findings by other researchers to expand on the research. I used triangulation by exploring multiple sources of data for credibility of the findings. The sources included current policies of the case organizations, archival documents, and past cases of fraud. Triangulation provided a rationale for using multiple sources of data as evidence and increased the overall quality of the case study (Yin, 2014). I examined multiple perspectives of current practices

through the interview responses received by e-mail and the notes to the financial statements for the selected organizations. Since all interviews were conducted via e-mail, it was not necessary to provide transcripts to participants to member check for accuracy. The procedures for credibility, as outlined above, provided accuracy and consistency of the study findings. Yin (2014) noted that case study findings may be more convincing when using several sources of evidence.

Transferability

The research findings are transferable by providing thick description of the protocols and processes used for this multiple-case study. Proper documentation of the multiple-case study research procedures increased transferability by allowing another researcher to conduct the same study and potentially arrive at the same conclusions (Yin, 2014). For future comparison, I provided my interview protocol for the study, along with the interview questions, as appendices to the dissertation. Document analysis and data gathering procedures were documented in detail to allow future researchers to replicate the process. I ensured that participant selection was varied to avoid bias that may occur from the use of similar participants at a single location.

Dependability

To establish dependability of the study, I used an explicit audit trail to minimize bias and maximize the accuracy of the data. Janesick (2011) suggested the use of an outside reader to check for discrepancies of the data and to enable a fresh point of view. I presented the data and findings of the study clear of personal bias. I also provided a description of the creation and use of any data collection instruments. The research

design for evaluation and analysis of the data was clearly described. I also ensured that personal bias did not interfere with the data collection and analysis by remaining open to thoughts and ideas presented by participants.

Confirmability

Confirmability requires that the researcher remain neutral and objective throughout the research process. Miles, Huberman, and Saldana (2014) indicated that the research should be relatively free of researcher bias, and that any bias that exists should be explicitly described. I ensured an expansive description of the procedures for the study to allow for replication by future researchers. Reflexivity involves the understanding and awareness of how the researcher's influence affects the participants' responses (Maxwell, 2013). I minimized researcher influence during the interview process by conducting the interviews via e-mail and using a tested data collection instrument free of leading questions. A well-documented description and reasoning for every aspect of the research process enhanced confirmability of the research findings.

Ethical Procedures

To ensure ethical compliance, I obtained written participant agreement to gain access to pertinent people and data for the research. I also completed an Institutional Review Board (IRB) application to gain permission and approval (IRB # 05-21-18-0530783) for the research, prior to collecting data for the project.

Participants were invited to be part of the study through an invitation letter (see Appendix B), and by obtaining a signed consent form to establish willingness to participate. The consent form included a statement regarding the participants' ability to

withdraw from the study at any time. In addition, participants were given the ability to contact me at any time regarding any concerns or issues related to the data collection process.

Participants that requested early withdrawal from the research project were given a thank you card for their time. I also assured them of the deletion and destruction of any data already collected. All sensitive data collected for the research project was password protected on my personal computer, and any hard copies of documents were locked in a secure file cabinet. All data will be destroyed after 5 years. Paper copies of data will be destroyed with a paper shredder, and digital data will be deleted using CBL data shredder software to eliminate the possibility of previously stored information from being retrieved from the computer hard drive.

Data collected for the study was kept confidential, and participants' identities were not captured. In addition, participant information was not discussed with any third parties. Access to the data for the research project was limited to the me. There were no conflicts of interest or power differentials existing for this study. There were no incentives offered by me for participation.

Summary

The research method, as outlined in this chapter, ensured that proper protocol was followed throughout the study. The research was conducted using a qualitative, multiple-case study design. I examined the data using a risk management concept to gain a deeper understanding of the case. I conducted structured interviews as the primary source of data for the study, along with reviewing archival documents, previous studies, and past fraud

cases to enhance understanding. Participant selection involved purposive sampling to ensure participants with rich information for the study. NVivo 12 Plus was used for the coding and analysis of the data.

I ensured ethical compliance by applying to the IRB for approval prior to collecting data and obtaining signed consent forms from participants prior to conducting interviews. The data and participant identities were kept confidential. I did not have any conflict of interest for this study.

Chapter 4 provides the results and findings from the data collection and analysis.

Chapter 4: Results

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. The central question for this study was as follows: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? This chapter of the dissertation is organized as follows: the setting for the study, the demographics of the participants in the study, the data collection procedures for the study, the data analysis procedures used for the study, evidence of trustworthiness of the study, and the results of the research and analysis.

Study Setting

Participants were invited to reply to the interview questions via e-mail at their own discretion. The invitation to participate included an invitation letter (Appendix B) explaining the purpose of the research and who was collecting the data. Qualtrics was used to identify participants matching the criteria of managers and auditors responsible for financial statement preparation and analysis. Qualtrics offered remuneration in the form of gift cards or airline miles to participants who successfully completed the entire interview. The remuneration influenced the willingness to participate but should not have any impact on the responses. I am unaware of any personal or organizational conditions that may have impacted or influenced the responses of the participants at the time the study was conducted. Qualtrics recruited participants for the study based on the designated specifications of being a manager or auditor responsible for preparing or

auditing the financial statements of a public corporation. No personal or specific organizational information was collected or recorded from the participants.

Demographics

Participants consisted of men and women from across the United States. Managers and auditors—those responsible for preparing or auditing the financial statements of a public organization—were purposefully selected. As part of my analysis, I selected five organizations for reviewing financial statements and procedures related to preparing the financial statements. The organizations were purposefully selected based on size and industry to ensure rich data and comparability. Three of the organizations were in the retail sales industry and two were in the banking industry. The choice of these two industries provided adequate representation for triangulating the data with the interview responses.

Data Collection

The data collection was conducted over a period of 2 weeks using Qualtrics Research Services. I received interview responses from 23 participants who were either managers or auditors responsible for preparing or auditing the financial statements of a public corporation. The participants responded to the questions from the ACFE Fraud Prevention Check-Up, which were administered by Qualtrics via e-mail. Each participant was screened to ensure she or he met the selection requirements of being a manager or auditor of financial statements.

Data from the selected case organizations were obtained through the United States Securities and Exchange Commission (SEC) EDGAR database for company filings. I

downloaded the management and audit notes to the financial statements for each organization. Additional information on the selected organizations was obtained through the organizations' websites and financial news websites. The data collected from these websites were used to help understand the interview responses and policies regarding the prevention and detection of financial statement fraud.

The data for the interview questions was collected from managers and auditors via e-mail over a period of 2 weeks. The average response time for completing the interview questions was 30–45 minutes based on information collected by Qualtrics. Two to three interview responses were received each day for approximately 10 days for a total of 23 responses to the interview questions. A total of 215 incomplete responses were received; they were not collected nor used in the analysis process.

The financial statement data and organizational procedures data was collected over a period of two weeks. The data was collected from the selected organizations' websites as well as the SEC EDGAR system. Additional information related to the selected case organizations was obtained from news websites such as Bloomberg.com and Money.cnn.com. The organizational data was used to assist in the analysis of the interview responses from the participants.

The data from the interview responses was recorded through electronic email responses and loaded and saved in a secure Qualtrics online account. The responses were then downloaded and saved on my personal computer with a secure password protection. The responses were then loaded into NVivo 12 Plus for coding and analysis. I hand coded each line of the data and created nodes for the categories and themes identified in the

data. I also used the auto-coding functionality of NVivo 12 Plus to compare my hand coded categories and themes with the system generated categories and themes. This comparison is further described in the analysis section of this chapter.

Organizational data were recorded by downloading the information from the websites to my personal computer. This data was loaded into NVivo 12 Plus to assist in the understanding and analysis of the interview response data. The organizational data included management and audit notes to the financial statements and procedural information from the organizations' financial statements and websites. All organizational information was publicly available. Relevant literature related to past cases of fraud was also loaded into NVivo 12 Plus to aid in the understanding and analysis of the interview responses. The relevant literature was obtained from the literature reviewed during the proposal process and stored in Zotero on my personal computer

The initial plan for data collection included conducting face-to-face, telephone, and e-mail interviews. After several months of trying to obtain consent for community partners to allow face-to-face interviews, I was unable to secure any community partners. The data collection plan changed to using Qualtrics Research Services to recruit participants for e-mail interviews. The participants were screened to match the demographic criteria of managers and auditors responsible for preparing or auditing the financial statements of public organizations.

The initial data collection plan also provided for selecting three to five organizations within a 50-mile radius of Birdsboro, Pennsylvania to facilitate conducting face-to-face interviews near my home. The actual data collection through Qualtrics

included participants from across the United States and a selection of five public organizations for reviewing financial statement documents and procedures. The organizations were selected based on size and industry for comparability.

An unusual circumstance encountered during data collection was the collection of five responses where the participant filled in random letters and symbols instead of answering the interview questions. These responses were filtered out and deleted by Qualtrics. The agreement with Qualtrics included receiving approximately 20 “quality” responses. Any participants who did not complete the interview questions in its entirety or who included “nonsense” typed responses were automatically excluded from the final recorded data.

Data Analysis

The data analysis was conducted using NVivo 12 Plus. I imported my interview data into NVivo 12 Plus for coding and analysis. My initial coding consisted of hand coding the data and creating categories which then became nodes in NVivo 12 Plus. I reviewed the interview responses and assigned those responses to a node or nodes as appropriate based on the response. I also used the automatic coding feature of NVivo 12 Plus and compared the categories to the nodes I created. In addition, I imported the financial statement notes of the five selected organizations as part of the analysis process. I also imported the relevant literature for risk management as part of my analysis.

The hand coding of the interview data resulted in several categories. As I coded the responses to these categories, several themes emerged. The most prominent themes from the hand coding were audit, control, dedicated committee, detection, monitoring and

oversight, policy, management, risk, and zero tolerance. Through comparison with the automatic coding in NVivo 12 Plus, I was able to narrow these categories and themes down to five major themes for analysis, which are described in detail below.

I used the automatic coding feature of NVivo 12 Plus for the responses to each interview question individually. I examined the nodes for each interview question and was able to determine themes that emerged across the seven interview questions. The five main themes that emerged were audit, fraud, risk, management, and policy. I compared these five main themes to the themes that emerged from the automatic coding of the literature and financial statement notes and found three main themes across the data. Those themes were fraud, risk, and management. One theme from the literature and financial statement notes that was not prominent in the interview responses was detection. This is probably a result of the interview questions being designed to elicit responses regarding the prevention of fraud.

Theme 1: Audit

The audit theme emerged from the interview responses in several ways. Some responses focused on the auditing of processes while others focused on an audit department or committee for detecting fraud. One participant noted, “the CFO and controller are responsible for implementation of controls to prevent fraud and report to the audit committee on a periodic basis”, while another participant stressed the importance of “making sure an extra outside audit committee is doing an audit every fiscal year.” Most of the respondents focused on the internal audit function with only one reference to external auditing.

The overarching aspect of the audit theme from the literature dealt with audit quality. Some additional areas of focus from the literature were the auditors' role in detecting fraud and the need for audit committees to oversee fraud detection and prevention. Previous research in the literature also focused on the adequacy of audits and the auditors' ability to detect fraud during an audit. In some of the literature references were made to specific cases of audit failures with potential explanations for those failures.

Theme 2: Fraud

The fraud theme emerged from the interview responses as the need to assess fraud risk and establish a committee for detecting and preventing fraud. For example, one participant wrote, "I think having a fraud committee in the office would also be helpful and act as a deterrent." Another respondent noted, "I think designating someone can help prevent fraud when they are designated to a committee for fraud prevention." Another participant stated, "There have been teams that have assembled to handle the fraud assessment and risks." The overall sentiment for this theme is the designation of a fraud prevention committee.

The focus on the fraud theme in the literature was varied. Fraud was discussed in the literature in terms of risk management, detection and prevention, the fraud triangle, behaviors that indicate potential fraud, and red flags when detecting fraud. In addition, responsibility for detecting, factors that lead to fraud, and incentive to commit fraud were discussed in many articles. Some articles also included a discussion of ethical standards in relation to fraud prevention.

Theme 3: Risk

The theme of risk emerged from the interview responses in a few different ways. One participant wrote, “risks of law suits from individuals, institutions and local, state and the federal government should be avoided and excessive risk taking is to be avoided.” In contrast, another response focused on the management of risk by writing, “we prepared a risk management matrix that inventories the risk, describes the level of the risk and the likelihood that the risk would have an adverse effect on the organization.” Other participants highlighted their organizations’ risk tolerance policy saying, “We are a near-zero risk organization and responsibility is top to bottom in our organization to ensure compliance.” The overall sentiment of the respondents was the need to avoid fraud related risk.

The focus in the literature related to the risk theme was primarily the assessment of risk. This includes determining risk factors and identifying audit risks. Some of the literature was focused on monitoring and managing risk. In addition, risk awareness was a major concern in the literature. The coding of the literature indicates that risk management is an important aspect in mitigating fraud.

Theme 4: Management

The management theme emerged from the interview responses primarily as the ability of management to commit fraud. One respondent noted, “at our senior management level the greatest risk of fraud would involve banking transactions.” Another respondent wrote, “in the company we have a code of ethics and the top management is linear, that is, there are no super bosses who can get out of the company's

policies.” The overall sentiment of the respondents was that managers are accountable for their actions and need to follow the rules of the organization.

The management focus in the literature pertained to the management of fraud as well as the ability of management to commit fraud. Management behaviors and ethics were also widely discussed in the literature, along with the motivations and incentives of managers to commit fraud. The management of risk was a primary focus in the literature as well, including risk management objectives and risk management policy. While the management of fraud involves preventive measures and accountability, there is very little mention of proactive measures in the interview responses or the literature.

Theme 5: Policy

The theme of policy emerged from the interview responses as procedures that are in place to detect and prevent fraud. For example, one respondent wrote, “we have an internal audit department, who follows our policies and makes sure everyone in the company is following them as well.” Another respondent noted, “Our company has a step protocol within the guidelines and policies established for each employee/employer as well as the company as a whole. No one individual has the final decision regarding fraud.” The general respondent sentiment regarding fraud policy related to guidelines in place to prevent fraud, as well as fraud reporting policies. A few respondents also mentioned that their companies have a zero-tolerance policy for fraud.

The focus on policy in the literature deals primarily with regulations and government legislation related to fraud prevention. The SOX legislation is mentioned extensively in the literature in relation to its influence on financial reporting behavior.

Several authors recommended standardized financial reporting as a means of reducing fraud. The overall sentiment in the literature is that regulations and legislation can control but not prevent fraudulent financial reporting.

Discrepant Cases

There were two discrepant interview cases included in the data analysis for the study. The first discrepant case was an interviewee that discussed detecting and preventing credit card fraud instead of financial statement fraud. The second discrepant case was an interviewee that discussed detecting and preventing fraud of medical caregivers. Despite the differences in the type of fraud discussed, I was able to incorporate the two respondents' comments related to current policy for the detection and prevention of fraud in the overall results of the study. For example, the interviewee that discussed fraud related to credit cards noted, "the CFO is the responsible party to coordinate all efforts, and reports to the board quarterly." The interviewee that discussed fraud related to medical caregivers wrote, "the accounting department performs quarterly audits of every single detail in every office."

Evidence of Trustworthiness

Credibility

Credibility of the study provides for the potential use of the findings by other researchers to expand on the research. I used triangulation by exploring multiple sources of data for credibility of the findings. Triangulation provided a rationale for using multiple sources of data as evidence and increased the overall quality of the case study (Yin, 2014). I examined multiple perspectives of current practices through the interview

responses received by e-mail, the current policies and the notes to the financial statements for the selected organizations, and past cases of fraud. I originally planned to use member checking of transcribed interviews to check for accuracy. Since all interviews were conducted via e-mail, it was not necessary to provide transcripts to participants to member check for accuracy. All responses were in written format. The procedures for credibility, as outlined above, provided accuracy and consistency of the study findings. Yin (2014) noted that case study findings may be more convincing when using several sources of evidence.

Transferability

The research findings are transferable by providing thick description of the protocols and processes used for this multiple-case study. Proper documentation of the multiple-case study research procedures increased transferability by allowing another researcher to conduct the same study and potentially arrive at the same conclusions (Yin, 2014). For future comparison, I provided my interview protocol for the study, along with the interview questions, as appendices to the dissertation. Document analysis and data gathering procedures were documented in detail to allow future researchers to replicate the process. I ensured that participant selection was varied to avoid bias that may occur from the use of similar participants at a single location.

Dependability

To establish dependability of the study, I used an explicit audit trail to minimize bias and maximize the accuracy of the data. Janesick (2011) suggested the use of an outside reader to check for discrepancies of the data and to enable a fresh point of view. I

presented the data and findings of the study clear of personal bias. I also provided a description of the creation and use of any data collection instruments. The research design for evaluation and analysis of the data was clearly described. I also ensured that personal bias did not interfere with the data collection and analysis by remaining open to thoughts and ideas presented by participants.

Confirmability

Confirmability requires that the researcher remain neutral and objective throughout the research process. Miles, Huberman, and Saldana (2014) indicated that the research should be relatively free of researcher bias, and that any bias that exists should be explicitly described. I ensured an expansive description of the procedures for the study to allow for replication by future researchers. Reflexivity involves the understanding and awareness of how the researcher's influence affects the participants' responses (Maxwell, 2013). I minimized researcher influence during the interview process by conducting the interviews via e-mail and using a tested data collection instrument free of leading questions. A well-documented description and reasoning for every aspect of the research process enhanced confirmability of the research findings.

Study Results

The central question for this study was: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? The findings of the research showed the various areas of focus related to the early detection and prevention of financial statement fraud. Five themes emerged during the data analysis phase of the research. The first theme to emerge was

related to the audit function and its relationship to detecting fraud. The second theme to emerge was fraud and the need to establish a fraud committee for the detection and prevention of financial statement fraud. The third theme to emerge was risk, as the management of fraud risk and the organizations' risk tolerance policies. The fourth theme to emerge was management, primarily the managers' accountability for accuracy in financial statement reporting as well as the managers' ability to commit fraud. The fifth theme to emerge was policy, as procedures that are in place for detecting and preventing fraud.

Theme 1: Audit

The audit theme emerged from the interview data as the need to review processes, the need for an internal audit committee, and the functions of internal and external auditing. The findings indicated the current strategies for preventing fraud include the regular auditing of processes and accounting numbers. For example, one respondent wrote, "these audits help ensure everyone is doing what they are supposed to within our company policies." Another respondent noted the importance of "making sure an extra outside audit committee is doing an audit every fiscal year." Many of the respondents commented on the current reporting structure and its importance in fraud detection. However, one respondent felt that "most items are oversight rather than fraud." This was inconsistent with the general responses from the participants.

The findings from the interview analyses of the audit theme are consistent with previous research from the literature. For example, Kulikova and Satdarova (2016) provided a study focused on the importance of internal controls for detecting fraud. The

authors suggested compliance control as an element for preventing fraud. This is similar to the respondents' comments on auditing processes for compliance with company policy. In addition, some of the literature referenced audit reporting structure and its effect on investor perceptions (James, 2003). This is similar to the respondents' comments related to current reporting structure and how it affects fraud prevention. For example, one respondent noted "the CFO and controller are responsible for implementation of controls to prevent fraud and report to the audit committee on a periodic basis", while another respondent commented, "our audit department has the overall authority to audit anyone at any time if they believe there is an issue." Overall, the current strategies noted by the participants are consistent with the need for audit controls for fraud detection.

Theme 2: Fraud

The fraud theme emerged from the interview data as the need to assess risk and establish a committee for the detection and prevention of fraud. The findings indicated the strategies for preventing fraud include the incorporation of risk management into current procedures. For example, one respondent claimed, "fraud risk management has been incorporated in all our domestic financial applications", while another respondent noted that procedures are "specifically designed to detect the potentially significant frauds identified in the organization's fraud risk assessment." Many of the respondents commented on the need for an internal committee to focus on fraud prevention. A few respondents mentioned tolerance within the organization and the criminal consequences of committing fraud. Only one participant mentioned "proactive" fraud prevention in the

context of “having more managers keep an eye on the parts that need more control.” While this is consistent with the theme of fraud detection and prevention, it is a clear indication that the majority of respondents are focused on the current detection and prevention procedures rather than the proactive prevention of fraud.

The findings from the interview analyses of the fraud theme differ somewhat from the previous research in the literature. The focus of the fraud theme from the literature is primarily on the incentive to commit fraud and the methods to detect fraud. Many of the authors focused on presenting and testing methods of detecting fraud in the financial statements, while others focused on the fraud triangle to understand the motivations for committing fraud. For example, Song, Hu, Du, and Sheng (2014) presented a hybrid machine learning method of assessing financial statement fraud risk while Srivastava, Mock, and Gao, L. (2011) developed a fraud risk model based on the fraud triangle factors. There is a consensus between the interview responses and the literature related to the need to assess fraud risk. However, the literature focuses on the detection of fraud while the interview responses focused on fraud risk management and prevention. The current strategies noted by the respondents are consistent with the trend to prevent fraud post SOX.

Theme 3: Risk

The risk theme emerged from the interview data as the management and assessment of risk and the legal risks associated with committing fraud. In addition, some participants mentioned their organization’s policy on risk tolerance and the need to avoid fraud risk. The findings indicated the strategies for preventing fraud include risk

assessment and management, and a top-down culture of fraud risk responsibility. For example, one participant wrote, “we prepared a risk management matrix that inventories the risk, describes the level of the risk and the likelihood that the risk would have an adverse effect on the organization”, while another respondent noted, “responsibility is top to bottom in our organization to ensure compliance.” One respondent felt that avoiding risk is important because and fraud “is and can be considered a catastrophic risk.” While this sentiment was not consistent throughout the interviews, the sentiment of risk avoidance was apparent in many of the interview responses.

The participant views on risk management and assessment are consistent with the literature. There were several models of risk assessment presented in the literature including one author that stressed the need for a model that is proactive as well as reactive to assessing fraud risk (Lister, 2007). In fact, Chinniah (2015) highlighted the need for a risk management program to prevent and detect fraud. However, a study by Servaes, Tamayo, and Tufano (2009) determined that less than half of the organizations included a risk analysis program in their strategic planning process. Risk tolerance was not prominent in the literature, although one study noted the importance of a risk awareness culture (Servaes, Tamayo, & Tufano, 2009). The current strategies discussed by the interview participants are consistent with the trends related to past fraud crises and the importance of risk management found in the literature.

Theme 4: Management

The management theme emerged from the interview data as the managements’ ability to commit fraud, accountability of management, and management structure. The

findings indicated the strategies for preventing fraud include the ability of anyone in the organization to report fraud. For example, one respondent wrote, “anyone in department meetings can expose fraud or refuse to do something indeterminate.” In addition, many respondents commented on management accountability for preventing fraud. One participant noted, “Company management has done a good job of encouraging sustainable and responsible activity that reduces the chance of fraud happening.” Most of the participants noted the importance of management structure for preventing fraud. For example, one respondent wrote “top management is linear, that is, there are no super bosses who can get out of the company's policies.” One respondent mentioned the potential ability of management to commit fraud through banking transactions, which is inconsistent with the topic of financial statement fraud but does follow the theme of management and ability to commit fraud.

The participant views from the management theme are somewhat consistent with the literature. While the participants focused on managements’ ability to commit fraud, the literature focus was on managements’ motivation to commit fraud. For example, Hollow (2014) studied the motivation of bank managers to commit fraud, while Chinniah (2015) provided some of the reasons and incentives to commit fraud. A great deal of the literature also focused on management behaviors that signify potential fraud. For example, Rockness and Rockness (2005) explored the question of government legislation versus the corporate culture for ethical behavior. Some of the literature provided insights on the benefits of risk management and the use of a risk manager for preventing fraud. For example, Dionne (2013) noted the creation of a risk manager role in the 1990’s. The

current strategies discussed by the respondents are consistent with the need for preventing fraud and managements' role in detecting and preventing fraud.

Theme 5: Policy

The policy theme emerged from the interview data as procedures and guidelines in place to prevent fraud, fraud reporting policy, and zero tolerance policy. The findings indicated the strategies for preventing fraud include the use of an internal audit committee to ensure policies are followed and a policy of regular audits to prevent fraud. For example, one respondent commented, "These audits help ensure everyone is doing what they are supposed to within our company policies." Another respondent noted, "to prevent fraud it is ALWAYS a dual control process." In addition, many participants discussed policies for individuals as well as the company as a whole. The fraud reporting and zero tolerance policies were prevalent in many of the interview responses. For example, one participant wrote, "The result [of fraud] is immediate dismissal and a police report with possible charges." Another respondent commented that fraud reporting "should be an ongoing process and to report fraud without the fear of being disciplined." Many of the participants noted a zero-tolerance policy within their organizations. One respondent mentioned an inability to completely monitor activity where a sales team operates independently of the company structure. This situation is unique from the rest of the cases in the study and was not considered in the final results of the study.

The findings from the interview analyses of the policy theme are somewhat inconsistent with previous research in the literature. For example, the literature included discussions regarding fraud prevention policy, but the findings of Henry (2012) indicated

that government regulations can control but not prevent fraudulent reporting. The interview participants did not discuss government regulations but instead focused on corporate policy. In addition, the focus in the literature was on financial reporting policies rather than fraud reporting policies. For example, Ugrin and Odom (2010) conducted an experiment to determine the influence of SOX on fraudulent financial reporting behavior, while Robu (2015) studied the value of standardized reporting. There was also no mention in the financial fraud literature of zero-tolerance policies. Despite a lack of interview responses related to government regulations, the current strategies are consistent with the need for anti-fraud policy in organizations.

Summary

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. The central question for this study was: What strategies are currently being used by managers and auditors of public corporations to proactively detect and prevent financial statement fraud? The interview data was collected using Qualtrics and participants were recruited based upon the predetermined demographic criteria of being a manager or auditor of corporate financial statements. The collected data was coded and analyzed using NVivo 12 Plus qualitative data analysis software. Five themes emerged from the data analysis. Those themes were audit, fraud, risk, management, and policy. Discrepant cases were discussed. Evidence of trustworthiness was provided, including credibility, transferability, dependability, and confirmability.

The study findings included several current strategies that organizations use to detect and prevent financial statement fraud. The recurring strategies from the interview data included conducting regular audits, incorporating risk management in current procedures, regular assessment and management of risk, incorporating a top-down culture of responsibility, regular fraud reporting and accountability, an internal audit committee to monitor policy, and a zero tolerance for fraud. Many of these strategies were consistent with the literature that was reviewed in Chapter 2. Chapter 5 provides an interpretation of the findings as well as recommendations for future research and implications for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. Increased instances of financial statement fraud signified the need for understanding current policy related to fraudulent reporting and possible indicators of fraud. The study involved examining recent financial fraud scandals along with interviews, documents, and past research. I explored the problem from a participant perspective, using myself as the key instrument in data collection and analysis.

A qualitative, multiple-case study inquiry offered the opportunity to examine current practices for detecting and preventing fraud from a participant perspective. Examining methods of detection and prevention using a qualitative approach and involving practitioners provided (a) a better understanding of current practices for detecting and preventing fraud in a corporate setting as well as (b) an understanding of the auditors' perspective in discovering financial fraud. With this understanding, researchers can build upon current practices to create proactive models for detecting and preventing financial statement fraud. Practitioners can develop proactive risk management procedures for preventing fraud and auditors can develop guidelines for early detection of fraud and risk oversight. The implications for social change included the increased ability to trust financial statement reporting in the future and improved corporate reputations.

The key findings of the research were spread across the five themes that emerged during data analysis.

- The key findings for the *audit theme* were consistent with the existing literature. The findings included strategies related to compliance with company policy and the effect of reporting structure on preventing fraud. These strategies were consistent with the need for audit controls to detect fraud.
- The key findings for the *fraud theme* differed from the existing literature. The findings, despite a consensus about assessing fraud risk, included a focus on fraud risk management and prevention rather than fraud detection. The strategies discussed were consistent with the post SOX trend to prevent fraud.
- The key findings for the *risk theme* were consistent with the existing literature. The findings included strategies related to the importance of risk management and assessment and the need for risk tolerance and awareness of risk. The strategies were consistent with the post-fraud crises trend to prevent fraud and manage risk.
- The key findings for the *management theme* were somewhat consistent with the existing literature. While there was consensus related to financial fraud perpetration by management, the interviewees' focus was primarily on management's ability to commit fraud rather than the motivations and behaviors that predict management fraud. The strategies were consistent with the need for management involvement in fraud prevention.
- The key findings for the *policy theme* were somewhat inconsistent with the existing literature. The findings included a focus on corporate policy rather

than government regulations for preventing fraud. Another difference was the focus on fraud reporting policy rather than financial reporting policy. The strategies were consistent with the need for organizational anti-fraud policies.

This chapter of the dissertation is organized as follows: interpretation of the findings, limitations of the study, recommendations, and implications for positive social change.

Interpretation of the Findings

The study findings were consistent with the existing literature. The main difference was the interviewees' focus, or lens, for viewing the issues and strategies related to the early detection and prevention of financial statement fraud. The study findings showed that the participants' ideas were focused on the prevention of fraud rather than the detection of fraud, including management's role in preventing fraud. The main difference from the study findings involved organizational policy. The interviewees' focused on the organizational policies regarding fraud reporting rather than the financial reporting policies. The following is an interpretation of the findings for each theme.

Theme 1: Audit

The findings of the data for the audit theme confirm the existing knowledge from the literature regarding audit control and auditor responsibility for fraud detection and prevention. The interview data showed that current strategies for fraud prevention include auditor responsibility for implementing controls, having an internal audit department with authority for implementing controls, the use of audit as a control mechanism and setting fraud prevention policies, and annual external audits to prevent fraud. These strategies are

consistent with the existing literature. For example, Hamilton (2016) noted the importance of the audit committee and the need for quality audits and training. Kostova (2013) highlighted the need to adjust audit procedures to match changing trends, and Eutsler, Nickell, and Robb (2016) studied auditor judgment in relation to improved audit quality. One study noted the auditors' role in detecting fraud (Albrecht & Hoopes, 2014) while another study focused on the failure of audit responsibility (Wilson & Key, 2013). In addition, the works of Glover, Prawitt, and Drake (2015) and Gray and Debreceeny (2014) indicated a need for standardization to improve audit quality and tools for detection.

In the context of the risk management concept, these findings indicate the importance of auditors having the ability to recommend controls and policies that may reduce risk and prevent fraud. According to Ovidiu-Constantin, Alin-Constantin, and Madalina (2010), risk management leads to higher trust and lower audit risk. In addition, Power (2013) suggested that the emphasis of risk management should be to prevent fraud not just respond to fraud and recommended internal control and audit to achieve this emphasis. The findings related to audit control were consistent with the risk management literature.

Theme 2: Fraud

The findings of the data for the fraud theme extend the existing knowledge from the literature regarding fraud risk assessment. The interview data showed a current focus on the prevention of fraud, having an internal fraud committee as a deterrent, the need for fraud risk management and assessment, having designated fraud prevention employees,

implementing standard practices as fraud prevention, performing regular reviews of fraud risk, and communicating a culture of zero tolerance for fraud. These strategies are inconsistent with the existing literature. For example, the literature indicated a strong focus on fraud detection in response to previous instances of fraud. Eutsler, Nickell, and Robb (2016) reviewed alleged fraud cases and the repercussions of committing fraud, Albrecht and Hoopes (2014) discussed the expectations of detecting fraud, and Gray and Debreceeny (2014) presented data mining techniques for detection fraud. Additional ideas from the literature included the use of financial ratios for detecting fraud (Kanapickienė & Grundienė, 2015) and the use of data analytics for fraud detection (Perols, Bowen, Zimmermann, & Samba, 2017). There was also a focus in the literature on the motives and ability to commit fraud. For example, Hollow (2014) provided an understanding of the motives to commit fraud while Ang, Jiang, and Wu (2016) studied the effect of laws and regulations on the ability to commit fraud. In addition, Simha and Satyanarayan (2016) considered the role of technology in the ability to commit and detect fraud. The findings from the data indicate a need for additional research related to the prevention of financial statement fraud, such as the research by Dimitrijevic, Milovanovic, and Stancic (2015) which suggested internal control as a method of fraud prevention.

In the context of the risk management concept, these findings indicate the change in importance from fraud detection to fraud prevention. Some of the current strategies in use for fraud prevention include a dedicated fraud prevention committee, a top-down culture of zero tolerance, and regular reviews of fraud prevention policies and procedures. Chinniah (2015) noted the importance of having a fraud management

program in place in organizations for risk management, Power (2013) suggested risk management to prevent fraud, and Shapiro (2014) recommended internal control as risk management for fraud. While the findings from the data were not consistent with the existing fraud literature, the findings were consistent with the ideas related to risk management.

Theme 3: Risk

The findings of the data for the risk theme confirm the existing knowledge from the literature regarding the need to manage and assess risk as well as the ideas related to risk tolerance and awareness. The interview data showed a propensity to learn from past mistakes, a continuing need for risk analysis, and implementation of a strong risk tolerance policy. This is similar to the findings in the existing literature. For example, Eutsler, Nickell, and Robb (2016) discussed auditor awareness of risk, and Song, Hu, Du, and Sheng (2014) presented a machine learning method of assessing risk. Bagdoyan (2016) also highlighted the importance of assessing risk. This suggests that current strategies are on track with the need for analyzing the risk of fraud in the organization and the financial statements.

In the context of the risk management concept, these findings indicate that current strategies include managing risk through continued analysis and the implementation of a dedicated team for monitoring and analyzing risk. Dionne (2013) provided the history of risk management, including advancements such as the creation of a risk manager position in organizations. The current strategies are in line with this advancement. Spikin (2013) expressed the need for an enterprise risk management approach. In addition, Chinniah

(2015) and Hess and Cottrell (2016) highlighted the need for a fraud management program in organizations. The current strategies from the interview data indicate that organizations are on the right track for managing fraud risk based on the existing risk management literature.

Theme 4: Management

The findings of the data for the management theme extend the existing knowledge of the literature regarding managements' role in detecting and preventing fraud as well as committing fraud. The interview data showed a focus on management's ability to commit fraud rather than the motives for committing fraud. This indicates the need for additional research on the ability to commit fraud. The interview data also included managements' responsibility for sustainable activities in the organization as well as providing a top-down ethical culture. The focus from the literature is primarily on the motives of committing fraud. The works of Hollow (2014) and Dilla, Harrison, Mennecke, and Janvrin (2013) are examples of this focus, while Johnson, Kuhn, Apostolou, and Hassell (2013) focused on management attitude as an indicator of fraud risk. However, one article did focus on the effectiveness of ethical standards (Chinniah, 2015), which is in line with the current strategies from the interview data related to creating an ethical culture in the organization.

In the context of the risk management concept, these findings indicate the increased need for management responsibility to prevent fraud as well as the need to create an ethical environment in the organization. Spikin (2013) expressed the need for proactive risk management and suggested best practices, which signifies that current

strategies for management responsibility are going in the right direction. However, the primary focus of the literature is on the motives and behaviors that lead to fraud. The results of this study indicate that researchers should focus on managements' responsibility to prevent fraud and foster an ethical culture in the organization.

Theme 5: Policy

The findings of the data for the policy theme extend the existing knowledge of the literature regarding policy focus. The interview data showed a current focus on corporate policy in addition to current government regulations. The analysis of the data also showed a focus the fraud reporting policy of the organizations in addition to the financial statement reporting policies. Many of the interviewees mentioned a zero-tolerance policy in their organization and expressed the need for an ongoing process of policy review to stay current with changing trends. The literature provided a focus on government policies and regulations resulting from past fraud crises. For example, Robu (2015) suggested a standardized reporting policy, while Ang, Jiang, and Wu (2016) determined that respect for the laws and policies affects the propensity to commit fraud. However, Henry (2012) indicated that government policy can control fraud but not prevent fraud. The data analysis indicated that researchers need to include a focus on corporate policy in addition to government policy related to fraud prevention.

In the context of the risk management concept, these findings indicate that current strategies include managing risk through corporate policies and continuous review of those policies to consider changing trends. In fact, Dionne (2013) highlighted the changes in risk management policies historically and the inclusion of corporate finance in those

policies. However, the primary focus in the literature is related to government policies for risk management. The data analysis suggested a need for future focus on corporate risk management policies to meet changing trends.

Limitations of the Study

There are a few challenges associated with the multiple-case study methodology. One challenge is identifying cases as worthy of study. I used a purposive sampling strategy to ensure the selection of cases with relevant information. Lewis-Beck, Bryman, and Futing Liao (2004) noted that case selection can be adjusted as the study progresses. Another challenge is the ability of the researcher to set boundaries and time constraints to control the amount of data collection. I limited the study to five cases to control the boundary and time constraints of the study. I also limited the collection of interview data to 23 participants to control the time constraints of the study. This study was limited in the transferability of information due to the use of a few participants. I increased the potential for transferability of information by identifying organizations that do not exhibit a unique business situation. The study was also limited by an inability to conduct face-to-face interviews with follow-up questions. Future studies would benefit from a semi-structured interview format to provide additional depth of information.

A potential bias that could have influenced the outcome of the study is the information being from internal organizational participants. One way I addressed this bias was to ensure anonymity by using electronic interview responses that did not identify the participants organization. Another way I addressed this bias was through triangulation of

the data with the management notes to the financial statements of the five selected organizations.

Recommendations

The data analysis and findings indicated several possible areas for future research. The findings for the audit theme are consistent with the existing literature related to the need for audit control. However, there is a strong indication in the interview data that future research should focus on the internal audit function and the internal auditors' responsibility for preventing fraud. Future research should also include the internal audit committees' level of authority for setting the controls and policies of the organization, and how that affects fraud prevention in the organization. Future research should also focus on the proactive prevention of fraud through the internal audit team.

The findings for the fraud theme extended the existing knowledge of the literature by exhibiting a focus on the prevention of fraud rather than the detection of fraud. This indicates that future research is needed for proactive strategies of fraud prevention. The current focus in the literature is on fraud detection in response to previous fraud scandals. The interview data indicated that current strategies are focused on the prevention of fraud as well as the detection of fraud. Future research should include testing of the proactive strategies that are currently in use by organizations to determine the effectiveness of those strategies.

The findings for the risk theme confirmed the existing knowledge from the literature regarding the need to manage and assess risk. There was a consensus across the participant data regarding risk tolerance and awareness. This indicates the potential need

for research related to the effects of risk tolerance and awareness on the proactive prevention of fraud. The current focus in the literature is on the assessment of risk and methods of assessing risk. Future research should include testing of risk awareness and its effect on the proactive prevention of fraud.

The findings for the management theme extended the existing knowledge of the literature regarding managements' role in detecting and preventing fraud. The interview data indicated a current focus on managements' responsibility for sustainable activity and creating an ethical culture in the organization. The focus of the existing literature is on the motives and behaviors that signal potential fraud. Future research should focus on the effectiveness of management initiatives for the proactive prevention of financial statement fraud.

The findings for the policy theme extended the existing knowledge from the literature regarding the type of policy focus. The interview data indicated a focus on corporate policy and fraud reporting policy, while the existing literature provided a focus on government policy and financial statement reporting policy. The interview data suggests the need for future research to focus on corporate policies. In particular, future research should test the effectiveness of corporate policies for proactively preventing financial statement fraud.

Implications for Positive Social Change

The purpose of this qualitative, multiple-case study was to explore current early detection and prevention methods in financial statement fraud. Increased instances of financial statement fraud signified the need for understanding current policy related to

fraudulent reporting and possible indicators of fraud. The study used a qualitative, multiple-case study approach. It involved examining recent financial fraud scandals, in addition to using interviews, documents, and past research as data. I explored the problem from a participant perspective, using the researcher as the key instrument in data collection and analysis.

A qualitative, multiple-case study inquiry offered the opportunity to examine current practices for detecting and preventing fraud from a participant perspective. Examining methods of detection and prevention, using a qualitative approach and involving practitioners, provided a better understanding of current practices for detecting and preventing fraud in a corporate setting, as well as an understanding of the auditors' perspective in discovering financial fraud. With this understanding, researchers can build upon current practices to create proactive models for detecting and preventing financial statement fraud. Practitioners can develop proactive risk management procedures for preventing fraud, and auditors can develop guidelines for early detection of fraud and risk oversight. The implications for social change included improved ability to trust financial statement reporting in the future and improved corporate reputations.

Researchers can build upon current practices to create proactive models for detecting and preventing financial statement fraud by following the recommendations in the previous section. This may impact positive social change by testing new theories and models related to the proactive prevention of financial statement fraud. Practitioners may be able to use these new models and research to develop risk management procedures for preventing fraud in a vastly changing business environment. This may impact positive

social change by implementing procedures that may proactively prevent fraud rather than just detecting fraud after it happens. In addition, auditors may be able to develop guidelines for the early detection and prevention of fraud based on the new research theories and methods for proactive prevention of fraud. This may impact positive social change by allowing internal auditors to design processes to prevent fraud from occurring in financial statement reporting. The implication for positive social change for all stakeholders of the organization includes the increased ability to trust financial statement reporting in the future. In addition, the implication for positive social change for organizations includes improved corporate reputations due to the proactive prevention of fraud rather than the reactive detection of fraud.

The methodological implications of this study included the needed depth of a qualitative study to add to the existing literature. A large portion of the existing literature focused on quantitative testing the methods for detecting financial statement fraud. Minimal research attention has been directed toward proactive detection and prevention of fraud (Edge & Falcone Sampaio, 2009). Ahmed, Mahmood, and Islam (2016) noted a scarcity of real-world data related to effective detection techniques of fraudulent behavior, while Throckmorton, Mayew, Venkatachalam, and Collins (2015) identified the need to define factors for the development of effective detection tools. Existing studies primarily focus on reactive measures and consequences of financial statement fraud. This study was necessary to advance the knowledge on proactive fraud prevention, and to focus on risk management strategies available to prevent future occurrences of

fraud by using qualitative interviews for an in-depth look at current strategies used by real organizations.

The recommendations for practice include a continued focus on prevention of financial statement fraud. The current practices mentioned by the participants indicated a shift in thinking from detecting fraud to preventing fraud. Practitioners should continue to update policies and procedures related to the early detection and prevention of fraud to match rapidly changing trends. Management should also continue to foster the top-down ethical culture of proactively preventing fraud and communicate the zero-tolerance policy at all levels of the organization.

Conclusion

This study provided a needed qualitative look at the current strategies for preventing financial statement fraud in organizations. The qualitative interview data allowed for in-depth knowledge of the current practices used by organizations to prevent fraud. The participants noted a preventative focus on fraud rather than the reactive focus seen in the existing literature. This indicated that current practitioners are moving beyond the era of reactive measures born from the past fraud crises and are working toward improved financial statement quality and trust. The results of this study signified the need for future research regarding the proactive prevention of financial statement fraud to ensure that future fraud crises do not occur. Increased fraud prevention research may eliminate the need for fraud detection research and reduce the likelihood of future fraud events.

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Appendix A: ACFE Fraud Prevention Check-Up

1. Fraud risk oversight
 - To what extent has the organization established a process for oversight of fraud risks by the board of directors or others charged with governance (e.g., an audit committee)?
2. Fraud risk ownership
 - To what extent has the organization created “ownership” of fraud risks by identifying a member of senior management as having responsibility for managing all fraud risks within the organization and by explicitly communicating to business unit managers that they are responsible for managing fraud risks within their area?
3. Fraud risk assessment
 - To what extent has the organization implemented an ongoing process for regular identification of the significant fraud risks to which it is exposed?
4. Fraud risk tolerance and risk management policy
 - To what extent has the organization identified and had approved by the board of directors its tolerance for different types of fraud risks? For example, some fraud risks may constitute a tolerable cost of doing business, while others may pose a catastrophic risk of financial or reputational damage.
 - To what extent has the organization identified and had approved by the board of directors a policy on how it will manage its fraud risks? Such a policy should identify the risk owner responsible for managing fraud risks, what risks will be rejected (e.g., by declining certain business opportunities), what risks will be transferred to others

through insurance or by contract, and what steps will be taken to manage the fraud risks that are retained.

5. Process-level anti-fraud controls / reengineering

- To what extent has the organization implemented measures to eliminate or reduce through process reengineering each of the significant fraud risks identified in its risk assessment? Basic controls include segregation of duties relating to authorization, custody of assets, and recording or reporting of transactions. In some cases, it may be more cost-effective to reengineer business processes to reduce fraud risks rather than layer on additional controls over existing processes. For example, some fraud risks relating to receipt of funds can be eliminated or greatly reduced by centralizing that function or outsourcing it to a bank's lockbox processing facility, where stronger controls can be more affordable.
- To what extent has the organization implemented measures at the process level designed to prevent, deter, and detect each of the significant fraud risks identified in its risk assessment? For example, the risk of sales representatives falsifying sales to earn sales commissions can be reduced through effective monitoring by their sales manager, with approval required for sales above a certain threshold.

6. Environment-level anti-fraud controls

Major frauds usually involve senior members of management who are able to override process-level controls through their high level of authority. Preventing major frauds therefore requires a strong emphasis on creating a workplace environment that promotes ethical behavior, deters wrongdoing, and encourages all employees to communicate any

known or suspected wrongdoing to the appropriate person. Senior managers may be unable to perpetrate certain fraud schemes if employees decline to aid and abet them in committing a crime. Although “soft” controls to promote appropriate workplace behavior are more difficult to implement and evaluate than traditional “hard” controls, they appear to be the best defense against fraud involving senior management.

- To what extent has the organization implemented a process to promote ethical behavior, deter wrongdoing, and facilitate two-way communication on difficult issues? Such a process typically includes:
 - o Having a senior member of management who is responsible for the organization’s processes to promote ethical behavior, deter wrongdoing, and communicate appropriately on difficult issues. In large public companies, this may be a full-time position, such as ethics officer or compliance officer. In smaller companies, this will be an additional responsibility held by an existing member of management.
 - o A code of conduct for employees at all levels, based on the company’s core values, which gives clear guidance on what behavior and actions are permitted and which ones are prohibited. The code should identify how employees should seek additional advice when faced with uncertain ethical decisions and how they should communicate concerns about known or potential wrongdoing.
 - o Training for all personnel upon hiring, and regularly thereafter, concerning the code of conduct, seeking advice, and communicating potential wrongdoing.

- Communication systems to enable employees to seek advice where necessary prior to making difficult ethical decisions and to express concern about known or potential wrongdoing. Advice systems may include an ethics or compliance telephone help line or email to an ethics or compliance office/officer. The same or similar systems may be used to enable employees (and sometimes vendors, customers and others) to communicate concerns about known or potential wrongdoing. Provision should be made to enable such communications to be made anonymously, though strenuous efforts should be made to create an environment in which callers feel sufficiently confident to express their concerns openly. Open communication makes it easier to resolve the issues raised but protecting callers from retribution is an important concern.
- A process for promptly investigating (where appropriate) and resolving expressions of concern regarding known or potential wrongdoing, then communicating the resolution to those who expressed the concern. The organization should have a plan that sets out what actions will be taken, and by whom, to investigate and resolve different types of concerns. Some issues will be best addressed by human resources personnel, some by general counsel, some by internal auditors, and some may require investigation by fraud specialists. Having a prearranged plan will greatly speed and ease the response and will ensure appropriate persons are notified where potentially significant issues are involved (e.g., legal counsel, board of directors, audit committee, independent auditors, regulators, etc.).

- Monitoring of compliance with the code of conduct and participation in related training. Monitoring may include requiring at least annual confirmation of compliance and auditing of such confirmations to test their completeness and accuracy.
 - Regular measurement of the extent to which the organization's ethics/compliance and fraud prevention goals are being achieved. Such measurement typically includes surveys of a statistically meaningful sample of employees. Surveys of employees' attitudes towards the company's ethics/compliance activities and the extent to which employees believe management acts in accordance with the code of conduct provide invaluable insight into how well those components are functioning.
 - Incorporation of ethics/compliance and fraud prevention goals into the performance measures against which managers are evaluated and which are used to determine performance-related compensation.
7. Proactive fraud detection
- To what extent has the organization established a process to detect, investigate, and resolve potentially significant fraud? Such a process should typically include proactive fraud detection tests that are specifically designed to detect the potentially significant frauds identified in the organization's fraud risk assessment. Other measures can include audit "hooks" embedded in transaction processing systems that can flag suspicious transactions for investigation and/or approval prior to completion of processing. Leading-edge fraud detection methods include computerized email

monitoring (where legally permitted) to identify use of certain phrases that might indicate planned or ongoing wrongdoing.

Appendix B: Invitation Letter

Letter to Interviewing Participants

Dear (Participant):

As a manager or auditor of a public corporation, you have made immeasurable contributions to maintaining corporate management and auditing integrity in the United States. Your important story may be unknown about your experiences and the lessons you have learned as you have inspired other managers and professionals to pursue senior leadership roles and become successful in their chosen endeavors.

I am Marcia Schillermann and currently a doctoral candidate at Walden University. The purpose of my dissertation research is to explore current early detection and prevention methods in financial statement fraud in an effort to help define or determine risk management strategies to minimize financial fraud in corporations. The research will include corporate managers and auditing practitioners in Pennsylvania and New York. This letter is to request your voluntary participation in my dissertation research. As stated in the consent form, you have been invited to participate in this study because your experiences could contribute to determining appropriate measures to facilitate early detection and prevention of financial statement fraud in corporations in the United States and beyond. After reading the consent form, if you agree to participate in the study, please sign the consent form and email it to Marcia.Schillermann@waldenu.edu within five (5) days of receipt. Only then, may you start to respond to the screening questions in approximately 45 minutes and to email the typed responses to Marcia.Schillermann@waldenu.edu. The Sample Interview Guide

with open-ended questions will serve as a tentative outline for you to follow in collecting information that only you can provide based on your experiences, insights, and observations. I understand that your time is extremely valuable and will also protect and safeguard your identity through the use of pseudonyms. Should you decide to take part in the study, your participation would constitute a valuable contribution to the enhancement and development of corporate management in the United States. The plan is to conduct the interviews via email. After transcribing the interview, a copy of the transcribed data will be sent to you for your review and feedback. If you find the transcripts do not reflect accurately on what you perceive, I will work with you to resolve those inaccuracies. You can email me at Marcia.Schillermann@waldenu.edu, or call me at (610) 763-5383. If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate of Walden University at 1-800-925-3368, extension 312-1210.

Sincerely,

Marcia Schillermann

PhD Candidate-Higher Education

Walden University

Marcia.Schillermann@waldenu.edu