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Implications of the Fraud Triangle for External Auditors

ANDREW HIGSON (LOUGHBOROUGH UNIVERSITY)

Co-author(s): Rasha Kassem (The British University in Egypt)

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Rasha Kassem

and

Andrew Higson

Rasha Kassem
Lecturer in Accounting,
Northampton Business School, The University of Northampton,
Park Campus, Boughton Green Road,
Northampton, Northamptonshire, NN2 7AL, UK.
Telephone: +44-1604-893326 Email: rasha.kassem@northampton.ac.uk

Dr. Andrew Higson
Lecturer in Accounting and Financial Management,
School of Business and Economics, Loughborough University,
Loughborough, Leicestershire, LE11 3TU, UK.
Telephone: +44-1509-223104 Email: a.w.higson@lboro.ac.uk
Web: <http://www.accounting-research.org.uk>

Implications of the Fraud Triangle for External Auditors

Abstract

In recent years the role of the external auditors in relation to the detection of fraud has come under scrutiny. In an effort to give guidance, the auditing standard-setters have employed the “fraud triangle” (which originated from Cressey’s work [1950]) setting out pressures, opportunity and rationalisation behind frauds. Traditionally, it could be said that external auditors have focussed on opportunity (i.e. through the assessment of internal controls). Since the mid-1990s auditors have looked at high level risks and so have been considering pressures on management. However, the third aspect of the fraud triangle, namely rationalisation, seems to have been ignored. The point is that two people may experience the same pressures and have the same opportunity to commit a fraud, but depending on how they rationalise the situation, one may commit it whilst the other may not. The under appreciation of this aspect of the fraud triangle may mean there is a weakness in the external auditors’ approach.

Introduction

The primary role in fraud detection rests with a company’s management. The external auditors are not guarantors of the accuracy or the reliability of financial statements but they are only responsible for giving a reasonable assurance that the financial statements are free from material misstatements whether caused by errors or fraud (AICPA in SAS No.1, 1997). However, Porter (1993) considered “litigation against auditors is a ramification of auditors failing to meet society’s expectations of them and such failure is serving to undermine confidence in auditors and the work they do” (p.66). Other researchers (Pincus, 1994, Palmrose (1987 as cited by Uddin and Gillet, 2002, and Golden et al., 2006, as cited by Reffett, 2010) also believed that fraudulent financial reporting is a critical problem for external auditors because of the possible legal liability for failure to detect false financial statements and because of the damage that might be caused to the reputation of the audit profession as a result of public dissatisfaction about undetected fraud.

In an effort to give guidance to external auditors, auditing standard-setters have utilised the fraud triangle (as originally formulated by Cressey [1950, 1952, 1954]) in their pronouncements. This paper examines the development of the fraud triangle and its adoption by the auditing standard-setters. It then goes on to explore the support for, and limitations of the fraud triangle. It then examines the implications of the fraud triangle for the external auditors.

The Origin and Significance of the Fraud Triangle

The concept of the fraud triangle was first developed by Donald Cressey, a criminologist, in 1950. His research was about what drives people to violate trust. He interviewed criminals over a period of 5 months whose behaviour met two criteria: (1) the person must have accepted a position of trust in good faith, and (2) he must have violated the trust. He found that three factors must be present for a person to violate trust and was able to conclude that:

“Trust violators violate trust when they conceive of themselves as having a financial problem which is non-shareable, have knowledge or awareness that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalisations

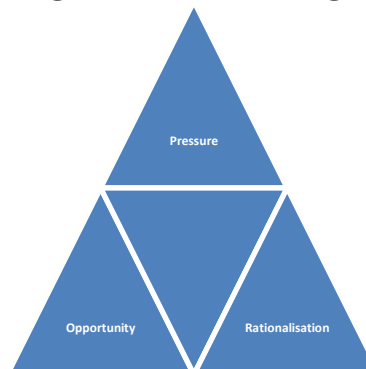
which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property” (1950, p.742).

Hence, the three factors were non-shareable financial problem, opportunity to commit the trust violation, and rationalisation by the trust violator. Cressey divided the non-sharable financial problems into six categories: difficulty in paying back debts, problems resulting from personal failure, business reversals (uncontrollable business failures such as inflation or recession), physical isolation (trust violator is isolated from people who can help him/her), status gaining (living beyond one’s means, and employer-employee relations (employer’s unfair treatment). He also mentioned that: “Persons become trust violators when they conceive of themselves as having incurred financial obligations which are considered as non-socially-sanctionable and which, consequently, must be satisfied by a private or secret means” (1950, p.741).

Cressey argued that perceived opportunity arises when the fraudster sees a way to use their position of trust to solve the financial problem, knowing they are unlikely to be caught. As for rationalisation, Cressey believed that most fraudsters are first-time offenders with no criminal record. They see themselves as ordinary, honest people who are caught in a bad situation. This lets them justify the crime to themselves in a way that makes it acceptable or justifiable. He found that: “In the interviews, many trust violators expressed the idea that they knew the behaviour to be illegal and wrong at all times and that they merely kidded themselves into thinking that it was not illegal” (1953, p. 741).

Over the years, Cressey’s hypothesis has become well known as “the fraud triangle” as illustrated in figure 1 below. The first side of the fraud triangle represents a pressure or motive to commit the fraudulent act, the second side represents a perceived opportunity, and the third side represents rationalisation (Wells, 2011).

Figure 1: Fraud Triangle



Source: Wells, 2011

Cressey’s fraud theory has been widely supported and used by audit professionals and standards’ setters as a tool for detecting fraud. For instance, in 1987, the Commission of the Treadway Committee reviewed both alleged and proven instances of fraudulent financial reporting and issued a report that supports Cressey’s findings. Results revealed that:

“Fraudulent financial reporting usually occurs as the result of certain environmental, institutional, or individual forces and opportunities. These forces and opportunities add pressures and incentives that encourage individuals and companies to engage in fraudulent financial reporting and are present to some

degree in all companies. If the right, combustible mixture of forces and opportunities is present, financial reporting may occur” (1987, p.23).

SAS No. 99 supported Cressey’s fraud triangle by mentioning that:

“Three conditions generally are present when fraud occurs. First, management or other employees have an *incentive* or are under *pressure*, which provides a reason to commit fraud. Second, circumstances exist—for example, the absence of controls, ineffective controls, or the ability of management to override controls—that provide an *opportunity* for a fraud to be perpetrated. Third, those involved are able to *rationalize* committing a fraudulent act. Some individuals possess an *attitude*, character, or set of ethical values that allow them to knowingly and intentionally commit a dishonest act” (2002, AU316.06, Paragraph .07).

The standard also required the audit team members to discuss the susceptibility of the entity’s financial statements to material misstatement due to fraud, and urged them to consider both internal and external factors affecting the entity that might create pressures for management and others to commit fraud, provide the opportunity for fraud to be committed, and indicate an environment that enables management to rationalize committing fraud (2002, AU316.13, Paragraph 15).

In 2009, the International Auditing Standards Board issued a revised version of International Standard on Auditing 240 (ISA 240): *The Auditor’s Responsibilities Relating to Fraud in an Audit of Financial Statements* which stated that “Fraud, whether fraudulent financial reporting or misappropriation of assets, involves incentive or pressure to commit fraud, a perceived opportunity to do so and some rationalisation of the act” (Ref: Para. 3). The standard also provided examples for the three fraud risk factors. For example, Incentive or pressure to commit fraudulent financial reporting may exist when management is under pressure, from sources outside or inside the entity, to achieve an expected (and perhaps unrealistic) earnings target or financial outcome. A perceived opportunity to commit fraud may exist when the trust violator is in a position of trust or has knowledge of specific deficiencies in internal control. ISA 240 also required audit team members to discuss the susceptibility of the entity to fraud and urged them to consider external and internal factors affecting the entity that may create an incentive or pressure for management or others to commit fraud, provide the opportunity for fraud to be perpetrated, and indicate a culture or environment that enables management or others to rationalise committing fraud (A11).

So, it can be seen that the fraud triangle has had an impact on the pronouncements of the auditing standard-setters.

Academic Studies Examining the Fraud Triangle

A stream of research has developed supporting the use of fraud triangle in financial reporting fraud detection. Loebbecke and Willingham (1988, as cited by Loebbecke et al., 1989) developed a logical model that contains an underlying reasoning process designed to lead to an assessment of the likelihood of material management fraud. They considered the content of SAS 53 in terms of assessing the likelihood of management fraud and proposed a reorganisation of the SAS factors in terms of a conceptual model for making the assessment. They also tested the model against the contents of management fraud cases reported in the Securities and Exchange Commission (SEC) and Accounting and Auditing Enforcement Releases (AAERs). The model asserts that for fraud to occur there should be three important factors; motives to commit fraud, opportunity or weakness in the system that facilitates the fraud, and the fraudster must be of a character that would allow them to knowingly commit a

dishonest, criminal act without regret. The model asserts that if any of these conditions/factors was missing, it would be highly unlikely that management fraud has occurred or will likely occur. However, a weakness in this model is that the effect of incomplete information available to or obtained by the auditor is to reduce the assessed likelihood of fraud which will be a serious error in judgment especially if the auditor follows the model blindly. Another limitation is that the model was developed from and tested against only populations of cases of fraud and defalcation and was not applied to cases where no material irregularities exist.

In another research study by Bell and Carcello (2000) where they estimated a logistic regression model predicting the incidence of fraud, results showed support for the existence of fraud triangle conditions for a sample of financial fraud companies. Their results were consistent with Rezaee (2005) who analysed five alleged fraud cases and found support for the existence of all three of the fraud triangle conditions in fraud firms. Skousen and Wright (2006) examined an array of potential fraud risk factors using the examples cited in SAS No. 99 and relied on prior research in order to identify a comprehensive set of coexistent factors that are consistently linked to the incidence of financial reporting fraud. They developed fraud proxy variables representing various measures of pressure, opportunity, and rationalisation. They test these variables using a sample of fraud firms and a matched sample of no-fraud firms. They constructed a fraud prediction model using the identified fraud risk factors. Their model correctly classifies fraud and no-fraud firms approximately 69.77 percent of the time.

Chen and Elder (2007) empirically tested the relation between a set of fraud risk factors identified by Taiwan SAS No.43 and the likelihood of fraudulent financial reporting. TSAS No.43 requires auditors to evaluate the presence of fraud by assessing the three factors of the fraud triangle: Pressure, opportunity, and rationalisation. They developed proxy variables to measure each of these risk factors. They select their sample from the Taiwan Economic Journal Financial Restatements database for the period 1996-2006, and by using a matched sample of fraud firms and non-fraud firms they empirically examined whether the proxy variables for the three fraud risk factors are associated with higher likelihood of fraudulent financial reporting. Their results showed that all pressure proxy variables (analyst forecast errors (external pressure), negative cash flow from operations (financial distress and firm's performance), and percentage of directors' shareholdings pledged for loans and credits (personal financial need)) are associated with a higher likelihood of fraudulent financial reporting. They also found that only one proxy for opportunity (related party transactions) is associated with higher likelihood of fraudulent financial reporting. Also all proxy variables for rationalisation (higher frequency of earnings restatements, firms with external and internal auditors' switches) were found associated with higher likelihood of fraudulent financial reporting. Skousen et al. (2008) developed a model to empirically examine the effectiveness of the fraud risk factor framework adopted in SAS No.99 in detecting financial reporting fraud. They developed variables which serve as proxies for pressure, opportunity, and rationalisation. They tested these variables using a sample of fraud firms and a matched sample of firms with no fraud. Results showed that their model correctly classifies firms between 70 and 73 percent of the time. However, a weakness in their model is their inability to identify significant variables to serve as proxies for rationalisation.

Albrecht et al. (2008) wrote an article to discuss the basic nature of fraud, including the major accounting scandals of the last decade and also to discuss the role of auditors for detecting financial reporting fraud. They found that the main reasons behind the occurrence of large-

scale frauds, applying the three fraud triangle factors, are: First, incentives include: misplaced executive incentives, unrealistic Wall Street expectations, large amounts of debt, and executives' greed. Second, opportunities include; good economy was making many problems, selective interpretation of GAAP, and behaviour of CPA firms. Third, rationalisation, include: moral decay in society, and educators' failures to teach students ethics and fraud.

Emma et al (2009) conducted a survey study to determine the view of Nigerian accountants towards the impact of the fraud triangle on the audit process and its relationship with management's integrity. They also examined how effective modified audit procedures must be to reduce audit risk to traditionally acceptable levels when audit evidence implies fraud risk factors for incentives and opportunities both are present. A total of 130 questionnaires were administered to accountants and academics in public and private enterprises, but only 84 questionnaires were returned. Their results support the concept of the fraud triangle in that the three components and the relationships between these components are shown to have a substantial impact on audit risk. They also found that audit risk decrease as the evidence for management's integrity increase. Specifically, they found that at lower levels of incentives, a manager may exhibit very high integrity and may work to reduce such incentives. However, at high levels of incentives and opportunities, that same manager may decide that the incentives and opportunities are so compelling that the manager's integrity is compromised and the potential rewards are sought actively. Results also revealed that managers with low integrity may seek to create or increase existing incentives and opportunities. However, a major weakness in their study is that they did not mention what are the appropriate audit procedures to be used when fraud risk increases. In addition, the role and interaction of the fraud triangle in the audit process was not presented clearly.

Rezaee and Riley (2010) developed a model called 3CS model to explain the pressure, opportunities, and rationalisation for committing financial reporting fraud. The model consists of: Conditions (pressure and opportunity to commit fraud), corporate culture, and choice. Regarding conditions, they mentioned that financial reporting fraud will occur if and when the benefits to the fraudster(s) outweigh the associated costs. They believe that financial reporting fraud will occur especially in the following situations: economic pressure resulting from a continuous deterioration of earnings, a downturn in organisational performance, a continuous decline in industry performance, and a general economic recession. As for corporate culture, they believe management would be more reluctant to engage in financial reporting fraud when an effective corporate governance mechanism increases the probability of prevention and detection. In case of choice, they mentioned that when neither environmental pressure nor corporate culture is a significant influence, financial reporting fraud could occur simply as one of management's strategic tools or discretions motivated by aggressiveness, lack of moral principles, or misguided creativity or innovation. Thus under these circumstances, financial reporting fraud is a matter of choice, regardless of environmental pressure, need, or corporate culture. Albrecht et al. (2010) wrote a conceptual paper on the relationship between South Korean Chaebols and fraud. Chaebols refer to the four largest companies in South Korea which are Hyundai, Samsung, SK, and Daewoo. They were exploring the susceptibility of these companies to fraud using the fraud triangle as a basis for their analysis. Their results showed the opportunities, pressure, and rationalisation factors that could make these four companies susceptible to fraud.

Although the above research studies supported the use of fraud triangle and the interaction among its three sides (pressure/motive, opportunities, rationalisation), others (Wilks and

Zimbelman, 2004, Favere-Marchesi, 2009, Desai et al., 2010) argued that fraud is not necessarily be the result of the three fraud factors and that the absence of one fraud factor does not mean fraud is not there. They also believed it is important to decompose the three fraud risk factors because this will help external auditors focus more on cues that are normally overlooked when making an overall assessment of fraud risk and at the same time force them to revise audit plans and increase the extent of audit testing. Wilks and Zimbelman (2004) used experiment with 52 practicing audit managers to examine whether separately assessing attitude, pressure, and opportunity risks prior to assessing overall fraud risk increases auditors' sensitivity to opportunity and pressure cues when perceptions of management's attitude suggest low fraud risk. Their findings indicate that auditors who decompose fraud-risk assessments are more sensitive to opportunity and pressure cues when making their overall assessments than auditors who simply make an overall fraud risk assessment. However, this increased sensitivity appears only when those cues suggest low fraud risk. This decomposition will help auditors focus on cues that are normally overlooked when simply making an overall assessment of fraud risk. Their results were supported by another research study carried out by Favere-Marchesi (2009) where an experiment was conducted with 90 audit managers from two of the big 4 audit firms in offices around Canada and U.S. to examine whether decomposing the assessment of fraud can lead to an increased sensitivity in incentive and opportunity risks given both low and high risk settings. Their results showed that auditors who decompose fraud assessments are significantly more sensitive to variations in incentive and opportunity cues than auditors who only categorize fraud risk factors. This increased sensitivity is observed in both low and high risk settings. Findings also showed that this decomposition leads to a higher need to revise audit plans and increase the extent of audit testing than do auditors who make categorisation judgments alone.

Desai et al. (2010) also found that not all of the three elements of the fraud triangle are necessary to induce opportunistic managerial behaviour. Ramos (2003) added that failure to observe one of the elements of the fraud triangle does not guarantee an absence of fraud. SAS No.99 mentioned that:

“In identifying the risk of material misstatements, the auditor should not assume that all three conditions must be observed or evident before concluding that there are identified risks. Although the risk of material misstatement due to fraud may be greatest when all three fraud conditions are observed or evident, the auditor cannot assume that the inability to observe one or two of these conditions means there is no risk of material misstatement due to fraud.” (2002, Paragraph .35)

On the other hand, other researchers (Woefel and Woefel, 1987; Davies, 2000; Coenen, 2008; Hasnan et al., 2008; Ramamoorti et al., 2009; Wells, 2001; Glover and Aono, 1995; Pedneault, 2004; Albrecht et al., 2006; Grazioli et al., 2006; Hogan et al., 2008; Suyanto, 2009; Ramamoorti, 2008; Higson, 2011) argued that the three risk factors are not equally important and that pressure/motive is the key driver of fraudulent acts. For instance, Woefel and Woefel (1987) mentioned that:

“Understanding the psychology and motivation of the fraud perpetrator would enhance the methodology of fraud detection and deterrence. Before the deterrence and detection of fraud, external auditors should understand that perpetrators could be motivated or forced into committing fraud, perpetrators would be encouraged to commit fraud when there is an opportunity to do so without being caught, and when perpetrators lacked the personality traits such as integrity and honesty.” (p.7)

This was also supported by Reinstein et al. (1998), Davies (2000), Coenen (2008), Hasnan et al. (2008), and Ramamoorti et al. (2009) who argued that pressure/motive is the main cause

of fraud and understanding it is a key to detecting fraud. Wells (2001, p.1) added that “the most common reason employees committed fraud had little to do with opportunity, but more with motivation”. Kliegman (1994, p.3) stated that “The essence of a successful auditor is to understand the motivations of the people involved in each function, from the highest to the lowest” (as cited by Reinstein et al., 1998). Lister (2007, p.63) mentioned that “to stop fraud, one has to know what causes it”.

Becker, an economist, developed the economic theory of crime in 1968. According to Becker a criminal or fraudster will weigh the benefits and costs of the criminal/fraudulent act and if the benefits exceed the cost, he (she) will most probably commit the crime. The benefits of committing the crime could be the pressure that the fraudster is facing and the cost could be the punishment that the fraudster might face if he was caught. Thus, Becker’s economic theory focused on one factor of the fraud triangle, which is the pressure or motive to commit fraud. Glover and Aono (1995) found that understanding corporate culture (including management’s motives) and industry traits are crucial for fraud detection because those two factors have significant influence on the likelihood for fraud to occur. SAS No.99 mentioned that:

“However, even otherwise honest individuals can commit fraud in an environment that imposes sufficient pressure on them. The greater the incentive or pressure, the more likely an individual will be able to rationalize the acceptability of committing fraud” (2002, AU316.06, Paragraph .07).

Pedneault (2004) suggested a three-part formula to include in any audit plan focusing on fraud detection: (1) identify motivations/incentives for executives to commit fraud, (2) determine how managers might commit financial reporting fraud if the motivation is there, (3) design audit procedures to actively detect fraud and respond to the risk factors. Albrecht et al. (2006) argued that fraudulent financial reporting is rarely detected by analysing the financial statements alone, rather it is usually detected when the information in the financial statements is compared with the context in which management is operating and being motivated. He also noted that gaining an understanding of management and what motivates it is at least important as understanding the financial statements, and he suggested that three aspects should be investigated by external auditors: management’s background, management’s motivations, and management’s influence in making decisions for the organisation.

Grazioli, et al. (2006) developed an approach that integrates the reasons why auditors succeed at detecting financial reporting fraud with the reasons why they fail to do so. They tested the theory by using a computer model that applies the detection tactics to a set of real financial statements and they run the model on four real fraud cases. The model reached a correct opinion in each of the six cases and correctly identified 85 percent of the manipulated cues in the cases. The results of their empirical studies revealed that successful auditors need to possess both deep knowledge of deception as well as technical knowledge of accounting and auditing, which requires deep thinking and understanding of management’s motives and possible malicious actions. Hogan et al (2008) summarised relevant academic research findings to contribute to the PCAOB project on financial reporting fraud and to offer insights and conclusions relevant to academics, standard setters, and practitioners. They discussed research related to the fraud triangle and research related to the procedures and abilities of auditors to detect fraud. They found that the use of checklists identifying the existence or absence of pressures/motives and opportunities for clients to commit financial reporting fraud would be helpful to auditors. Suyanto (2009) found that the likelihood of fraudulent financial statements is easier to be observed using fraud risk factor proxies for pressure (net profit/total

assets) and opportunity rather than rationalisation. Besides, in a survey study by PricewaterhouseCoopers (PwC) (2010) to investigate the root causes and the way in which they affect organisations worldwide where about 177 senior representatives of government/state-owned enterprises in 35 countries across the globe from Argentina to South Africa completed a web-based survey, results showed that 71% of respondents attributed greater risk of fraud to increased incentives or pressures.

In addition, understanding management's motives turned out to be one of the important factors in applying professional scepticism as mentioned by Hurtt, et al. (2002) and Shaub and Lawrence (2004), as cited in the Public Oversight Board (2010), who studied how scepticism was treated in early philosophical writings and in other relevant disciplines. Their results came up with four behaviours expected of sceptics, among them was a thorough understanding of people's motivation/behaviour, and they regarded understanding peoples' motivation and behaviour as a fundamental requirement in scepticism. However, Higson (2011) believed that maintaining professional scepticism is not enough for auditors to detect fraud. He recommended auditors to apply critical thinking to external auditing rather than scepticism and he sees the only way to do this is by understanding management's motives behind fraud and viewing external auditing in terms of the audit of management's motivations. Ramamoorti (2008) mentioned that "since crimes are committed by human beings, understanding the motivations as well as why and how the white collar crime was committed is crucial" (page 522).

ISA No.240 also emphasised the importance of considering pressure:

"Fraudulent financial reporting can be caused by the efforts of management to manage earnings in order to deceive financial statement users by influencing their perceptions as to the entity's performance and profitability. Such earnings management may start out with small actions or inappropriate adjustment of assumptions and changes in judgments by management. Pressures and incentives may lead these actions to increase to the extent that they result in fraudulent financial reporting. Such a situation could occur when, due to pressures to meet market expectations or a desire to maximize compensation based on performance, management intentionally takes positions that lead to fraudulent financial reporting by materially misstating the financial statements. In some entities, management may be motivated to reduce earnings by a material amount to minimize tax or to inflate earnings to secure bank financing" (2009, A2)

However, few research studies focused on rationalisation. Ajzen (1991) developed the "Theory of Planned Behavior" or what is known as TPB. His theory claims that there are three determinants of a person's intentions, which then determine a person's actual behaviour. First, there is a person's attitude toward the behaviour, second a subjective norm which refers to the social pressure a person feels from important others to perform or refrain from performing the behaviour, and third there is the actor's perceived behavioural control which is a measure of the person's ability to perform the behaviour based on their past experience, competence, and any expected obstacles they may face. Thus his theory extended the third side of the fraud triangle, which is rationalisation. In contrast, Uddin (2000) examined the Socio-Environmental, cognitive and personality characteristics that influence a CFO's intention to report fraudulently in the financial statements. She also examined the predictive value of SAS No.82 fraud risk factors, as well as other variables theoretically linked to fraudulent reporting. A mail survey was used to collect data from CFOs of publicly traded US corporations and the model is tested using structural equation modelling. Results revealed that individual attitudes towards fraudulent reporting on financial statements, and the size of the company, affect intention to commit fraud. However, neither individual subjective norms for fraudulent reporting nor compensation structure affect intentions to

report fraudulently on financial statements, which was inconsistent with the theory of planned behaviour developed by Ajzen (1991) which claims that attitude toward the behaviour, subjective norms, and actor's behavioural control determines a person's intentions to commit fraudulent acts. Reimers (2005) applied the theory of planned behaviour to corporate managers' propensity to commit fraud in financial reporting decisions. They found that both changes in attitude and subjective norm were related to changes in managers' behaviour. Their research suggested that an emphasis on ethical decision making from top managers could reduce fraudulent financial reporting decisions.

Cohen et al (2010) used evidence from the press articles covering 39 corporate fraud cases that went public during the period 1992-2005 to examine the role of managers' behaviour in the commitment of the fraud. They integrated the fraud triangle and the theory of planned behaviour (TPB) to gain a better understanding of fraud cases. The results of their study revealed that personality traits appear to be a major fraud risk factor. Their analysis was further validated through a quantitative analysis of key words which confirmed that key words associated with the attitudes/rationalisation component of the integrated theory were predominately found in fraud firms as opposed to a sample of control firms. The results indicated that auditors should evaluate the ethics of management through the components of the theory of planned behaviour: the assessment of attitude, subjective norms, perceived behavioural control and moral obligation. Their results also confirmed that attitudes/rationalisation appear to be a key risk factor for corporate frauds and that the fraud triangle, integrated with the theory of planned behaviour, is a useful framework for analysing unethical behaviour by managers that are associated with corporate fraud. However, a major weakness in their study is that they depended on press articles which are known to be biased and unreliable. Murphy (2008) conducted an experimental study to examine whether rationalisation is associated with fraudulent financial reporting in situations in which the opportunity and motivation to misreport exist and are held constant. Findings supported the validity of the third side of the fraud triangle (rationalisation) and indicated that interventions aimed at rationalisation can reduce the likelihood of misreporting. Murphy and Dacin (2011) developed a framework that identifies three psychological pathways to fraud. They aimed at increasing the understanding of the psychology of committing fraud. Their framework depended on the fraud triangle and built on it by expanding the rationalisation side to include three psychological pathways: lack of awareness, intuition coupled with rationalisation, and reasoning.

As for opportunity, elements of corporate governance and its relationship to financial reporting fraud have been studied. For instance, Dechow et al (1996) found that weak governance structure provides the opportunity for firms to engage in illegal earnings management. Beasley (1996, as cited in Dunn, 1999) studied the importance of governance structures in preventing fraudulent financial reporting, where they matched 75 firms that issued fraudulent financial reporting in the period 1983-1991 with 75 no-fraud firms in the same period. He found that the likelihood of fraudulent reporting decreases when there are more non-management directors on the board, the longer the tenure of the outside directors on the board, and the larger their ownership interest in the firm.

Dunn (2004) used a matched sample of 103 firms that were convicted of issuing financial statements in the period from 1992-1996. His paper focused on how insiders exercise control over both the top management team and the board of directors, and how this concentration of power in the hands of insiders contributes to fraudulent financial reporting. He used two databases to collect study data: Accounting and Auditing Enforcement Release (AAER) for

the period from 1992 to 1996 and the Lexis/Nexis system. The 103 fraud firms were then matched with 103 non-fraud firms. The results showed that financial statements fraud is more likely to occur when there is a concentration of power in the hands of insiders where they regulate the flow of information needed to make decisions and also control the board through ownership interest. Consistently, Johnson et al. (2008) used a sample of 87 fraud firms extracted from the Accounting and Auditing Enforcement Releases (AAERs) for the period from 1991 to 2005. They compared the financial incentives from stock and option holdings and operating performance measures in fraud firms to similar incentives in non-fraud firms. Results suggested that fraud firms are high growth firms and have more insiders on their audit committees which imply a lower likelihood of fraud detection and thus lower expected costs of committing fraud. Hasnan et al (2008) used a matched sample of 47 fraud firms convicted of issuing fraudulent financial reporting during the period from 1996 to 2006 to examine factors involved in fraudulent financial reporting, and found that firms involved in fraudulent financial reporting have significantly poor corporate governance structures.

Rezaee (2005) analysed ten real fraud cases in companies such as Aurora Foods, Cendant Corporation, Enron, Global Crossing, and WorldCom to determine the factors for fraud in these companies. They found that five interactive factors explain and justify the occurrences of financial statement frauds in these companies. These factors were abbreviated as CRIME and stands for Cooks, Recipes, Incentives, Monitoring, and End results. He found that lack of responsible corporate governance was one of the factors causing financial reporting fraud. Owens- Jackson et al (2009) examined the association between audit committee characteristics and the quality of financial reporting. They examined the Accounting and Auditing Enforcement Releases (AAERs) on firms cited for accounting fraud, and then matched each company with a company that had no indicators of fraud or financial restatements. They found that the likelihood of fraudulent financial reporting is negatively related to audit committee independence and number of audit committee meetings. In contrast, Beasley et al (2010) conducted a study sponsored by the Committee of Sponsored Organisations of the Treadway Commission to provide a comprehensive analysis of fraudulent financial reporting occurrences investigated by the U.S. Securities and Exchange Commission between January 1998 and December 2007. They found no statistical significant differences in the composition of boards between fraud and no-fraud firms. They also found no difference in audit committee characteristics between fraud and no-fraud firms. They concluded that there is little evidence that these characteristics are associated with the occurrence of fraudulent financial reporting.

Cressey (1954) mentioned that “motives are not inner, biological mainsprings of action but linguistic constructs which organize acts in particular situations, the use of which can be examined empirically” (page 33). Lister (2007, p.63) defined the pressure/motive to commit fraud as “the source of heat for the fire” but he believed the presence of these pressures in someone’s life does not mean he or she will commit fraud. He also argued that there are three types of motivation or pressure: Personal pressure to pay for lifestyle, employment pressure from continuous compensation structures, or management’s financial interest, and external pressure such as threats to the business financial stability, financier covenants, and market expectations. This was supported by Vona (2008) who mentioned that motive to commit fraud is often associated with personal pressures or corporate pressures on the individual. Lister saw opportunity, which is the second side of the fraud triangle, as “the fuel that keeps the fire going” and he believed even if a person has a motive, he or she cannot perpetrate a fraud without being given an opportunity. He also gave some examples of opportunities that can lead to fraud like high turnover of management in key roles, lack of segregation of duties,


and complex transactions or organisational structures. As for rationalisation, Lister defined it as “the oxygen that keeps the fire burning”. He mentioned that although auditors may not be able to assess the personal value systems of each individual in the organisation, they can assess the corporate culture.

Vona (2008) argued that a person’s position in the organisation contributes to the opportunity to commit fraud and there is a direct correlation between opportunity to commit fraud and the ability to conceal the fraud. This holds an important implication for external auditors because by understanding the opportunity for fraud, auditors will identify which fraud schemes an individual can commit, and how fraud risks occur when the controls do not operate as intended by management. On the other hand, Albrecht, et al. (2008, 2010) classified pressure/motives as either financial or non-financial motives. They mentioned that examples of perceived financial pressures could be personal financial losses, falling sales, inability to compete with other companies, greed, living beyond one’s means, personal debt, poor credit, the need to meet short-term credit crises, inability to meet financial forecasts, and unexpected financial needs. They also gave examples of non-financial pressure, such as; the need to report results better than actual performance, frustration with work, or even a challenge to beat the system. They believed opportunity is also important because even with very strong perceived pressures, executives who believe they will be caught and punished rarely commit fraud. They provided some examples of perceived opportunities like; a weak board of directors, a lack of or circumvention of controls that prevent/detect fraudulent behaviour, failure to discipline fraud perpetrators, lack of access to information, and the lack of an audit trail. They also mentioned some examples of rationalisations that executives can use to commit fraud, like; “we need to keep the stock price high”, “all companies use aggressive accounting practices”, or “it is for the good of the company”.

Consistent with Albrecht et al, Murdock (2008) classified pressure/motives to commit fraud as financial pressure or non-financial pressure, but they added a third category of motives/pressure which is political or social pressure. He mentioned that non-financial pressure can be derived from a lack of personal discipline or other weaknesses such as gambling habit, drug addiction. While, political and social pressure occurs when people feel they cannot appear to fail due to their status or reputation. Rae and Subramaniam (2008) saw pressure relates to employees motivation to commit fraud as a result of greed or personal financial pressure, and opportunity refers to a weakness in the system where the employee has the power or ability to exploit, making fraud possible, while rationalisation is a justification of fraudulent behaviour as a result of an employee’s lack of personal integrity, or other moral reasoning.

It can be noticed from the various definitions of the fraud triangle factors that motives/pressures were classified differently. Some researchers classified them as personal, corporate, or external pressure (political or social), while others classified them as financial and non-financial pressures. However, both classifications could some-how be related. For instance, personal pressure can come from both financial and non-financial pressure. A personal financial pressure in this case could be gambling addiction or a sudden financial need, while a personal non-financial pressure can be lack of personal discipline or greed. By the same token, corporate pressure and external pressure can also come from either financial or non-financial pressure. This indicates that motives could be broadly classified as financial or non-financial motives. Figure 2 below shows this link.

Figure 2: Classifications of Pressure/Motive



Personal Pressure	<ul style="list-style-type: none">• Financial: Gambling addiction, sudden financial problem, paying for life style• Non-Financial: Lack of personal discipline, greed
Corporate/Employment Pressure	<ul style="list-style-type: none">• Financial: Continuous compensation structure, management financial interest, low salaries• Non-Financial: Unfair treatment, fear to lose the job, frustration with work, or a challenge to beat the system
External Pressure	<ul style="list-style-type: none">• Financial: Threats to business financial stability, market expectations• Non-Financial: Ego, Image, or reputation, social pressure

Source: Kassem and Higson, 2012, p.193

Criticisms of the Profession's Approach

Although Cressey's fraud triangle has been supported by audit regulators, critics (Albrecht et al. 1984; Ramamoorti, 2008; Emma et al, 2009; Omar and Din, 2010) argued that the model alone is an inadequate tool for deterring, preventing, and detecting fraud, and they introduced alternative fraud models. For instance, Albrecht et al (1984) introduced the "Fraud Scale Model" as an alternative for the fraud triangle model. The fraud scale includes personal integrity instead of rationalisation because it is more observable through observing both a person's decisions as well as the decision making process. This could give external auditors an idea about that person's commitment to ethical decision making and in turn this can help in assessing integrity and thus the likelihood of that person committing fraud. They defined personal integrity as "the personal code of ethical behaviour each person adopts" (1984, p.18). This was consistent with Carpenter and Reimers (2005) who applied the theory of planned behaviour to corporate managers' propensity to commit fraud in financial reporting decisions. Their research suggested that an emphasis on ethical decision making from top managers could reduce fraudulent financial reporting decisions. SAS No.99 mentioned that "observing that individuals have the requisite attitude to commit fraud, or identifying factors that indicate a likelihood that management or other employees will rationalize committing a fraud, is difficult at best" (2002, para.35).

Dorminey, et al. (2010) also argued that the fraud triangle model cannot solve the fraud problem alone because two sides of the fraud triangle, pressure and rationalisation, cannot be easily observed. Emma et al (2009) found that audit risk decrease as the evidence for management's integrity increase. Their results also revealed that managers with low integrity may seek to create or increase existing incentives and opportunities. Their findings indicate that the evaluation of management integrity is a critical part of developing an opinion as to the fairness of presentation of financial statements.

Wolfe and Hermanson (2004) introduced another model which is called the "Fraud Diamond Model". This model adds a fourth side to the fraud triangle which includes fraudster's capabilities. They believed many frauds would not have occurred without the right person with the right capabilities implementing the details of the fraud. They also suggested four observable traits for committing fraud; (1) Authoritative position or function within the organisation, (2) capacity to understand and exploit accounting systems and internal control weaknesses, (3) confidence that she/he will not be detected or if caught she/he will get out of it easily, and (4) capability to deal with the stress created within an otherwise good person when he/she commits bad acts. Their model was supported by Omar and Din (2010) who used the fraud diamond model to identify what fraud risk indicators are considered as

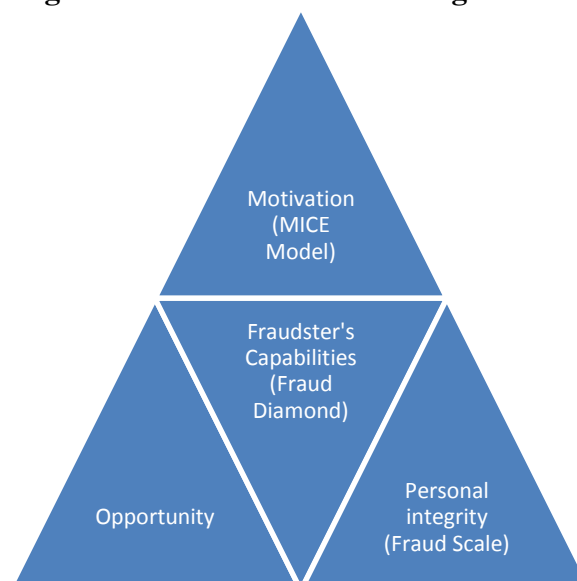
important and whether they are used by companies to prevent or detect financial fraud. They used a mail survey that was distributed to 200 external auditors, 200 internal auditors, and 200 governmental auditors in Malaysia. However they got only 135 responses. Results revealed that both internal auditors and governmental auditors perceived the opportunity side of the diamond model to be the most important fraud risk indicator, while external auditors perceived the fraudster's capability side to be the most important fraud risk indicator.

Another model called "MICE" was suggested by Kranacher, et al. in 2010. In this model they suggested that motivation of fraud perpetrators, which is one of the sides in the fraud triangle, may be more appropriately expanded and identified with the acronym: MICE that stands for: Money, ideology, coercion, and ego. Ideological motivators justify the means where they can steal money or participate in a fraud act to achieve some perceived greater good that is consistent with their beliefs (ideology). Coercion occurs when individuals may be unwillingly pulled into a fraud scheme, but those individuals can turn into whistleblowers. Ego can also be a motive for fraud, where sometimes people don't like to lose their reputation or position of power in front of their society or families. This social pressure can be a motive to commit fraudulent act just to keep their ego. This was also supported by Ramamoorti (2008) who argued that:

"Although the fraud triangle is a powerful conceptual tool, there are other factors such as the basic greed and acquisitiveness, a "revenge motive" to make organisation pay for perceived inequities, or a "catch me if you can" attitude that some white collar criminals exhibit, and these personality characteristics do not easily fit within the fraud triangle framework." (p.526)

However, although there are weaknesses in the fraud triangle, it is still the base for understanding the reasons behind fraud. Hence, external auditors should regard the alternative fraud models as an extension to Cressey's fraud triangle model and that all of them should be integrated in one model that the current study calls "the new fraud model". This model includes the expanded motivation side (that is every possible financial and non-financial motive), opportunity side, fraudster's capabilities side, and personal integrity instead of rationalization side. The new fraud model is illustrated in figure 3 below.

Figure 3: The New Fraud Triangle Model



Source: Kassem and Higson, 2012, p.194

There have been arguments that external auditors and audit regulators spend much time looking at opportunity through the assessment of internal controls, increasingly recognising the importance of management's motivations through the business risk approach, and probably do not spend much time on rationale of management or management integrity. For instance, Higson (2003, p.100) mentioned that risk-based auditing dominated auditors' approaches during the first half of the 1990s. The business risk approach moved the auditor's focus away from the details of the entries in the accounting system to the people who manage the business. Some auditors are placing considerably greater emphasis on high-level risk, concentrating much more on management's control system. Albrecht et al (2008) mentioned that the professional audit standards go a long way in addressing perceived opportunities by strengthening the roles of external auditors, audit committees, and board of directors. However, none of the new standards or rules has addressed perceived pressures or rationalisation. Zahra et al. (2005) noted that there are serious gaps in research about understanding management fraud, especially when it comes to what motivates certain successful senior managers to engage in financial reporting fraud.

To sum up, reviewing prior literature showed inconsistencies in the results of some research studies into financial motives and non-financial motives. Mixed results were found regarding whether management's incentives and equity based compensation can motivate management to commit financial reporting fraud. Also the relationship between competition as a non-financial motive and financial reporting fraud is debatable. It can also be concluded that few studies have linked the types of financial reporting fraud to the motives that drive management to commit these fraud types and even only two types of financial reporting fraud (Improper disclosure and improper revenue) were tested in these studies. Besides, no study mentioned the implications of management's motives for external auditors and how external auditors should respond to them. This indicates that more research studies are still needed into management's motives to fill these gaps in the literature. Traditionally, it could be said that external auditors have focussed on opportunity (i.e. through the assessment of internal controls). Since the mid-1990s auditors have looked at high level risks and so have been considering pressures on management. However, the third aspect of the fraud triangle, namely rationalisation, seems to have been ignored. The point is that two people may experience the same pressures and have the same opportunity to commit a fraud, but depending on how they rationalise the situation, one may commit it whilst the other may not. The under appreciation of this aspect of the fraud triangle may mean there is a weakness in the external auditors' approach.

Conclusion

This paper has shown the significance of considering the fraud triangle and the other fraud models in financial reporting fraud detection, and the importance of considering the interaction among pressure, opportunity, and rationalisation. However, external auditors have also to keep in mind that the absence of one fraud risk factor does not mean the absence of fraud, and that decomposition of fraud risk factors helps external auditors to focus more on cues that are normally overlooked when making an overall assessment of fraud risk and at the same time force them to revise audit plans and increase the extent of audit testing. Research studies in this section also showed that the three risk factors do not have the same significance. Some of them argued that motives/pressure is the key driver of fraudulent behaviour, while others believe it is more important to consider rationalisation or more specifically management integrity.

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