

Fraud Diamond: Detecting Fraudulent Behaviours in a Firm

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Abstracts

The aim of the study was to evaluate fraud diamond theory in relation to the fraudulent behaviour of fraudsters while at the same time, to ascertain the investigative role of the forensic accountants in fraudulent behaviours. The methodology of information search was exploratory. In the search for literature, it was observed that fraud diamond should be improved to enhance fraud investigation, prevention and detection. Based on this, it was proposed that the fraud elements of pressure, opportunity, rationalisation, capability and workplace condition be considered holistically with maintenance of strong rules and regulations with a zero tolerance to fraudulent behaviours in organisation and work place.

Keywords: fraud, fraud risk, fraud behaviour, fraud triangle and fraud diamond



1. Introduction

The devastating effect of fraudulent behaviour negatively affect the progress of the organisation such that the losses suffered retard all its operations and put them to a halt. According to Cullen and Wilcox (2010), fraudulent or unethical behaviours that result in violation of trust can be traced to the fraud factors, which were highlighted by Cressey (1950). According to him, fraudulent or unethical behaviours are non-shareable financial problem, technical skill and rationalisation. These factors were later referred to as pressure, opportunity, and rationalisation (Albrecht, Kranacher, & Albrecht, 2008). These elements are represented and explained in the fraud triangle theory (Tugas, 2012). These elements according to Cressey (1950) present the crux that makes fraudulent intents and intentions realistic: they consist of what is now termed fraud triangle (Association of Certified Fraud Examiners, 2014).

Wolfe and Hermanson (2004) have argued that the fraud triangle can be improved upon in order to enhance the prevention and detection of fraud by considering a fourth element known as capability, which led to the evolution of fraud diamond theory (Shelton, 2014). They further stated that traits and ability of the right person must be present for fraud to occur. Wolfe and Hermanson (2004), strengthened their argument by considering the elements of capability. Wolfe and Hermanson (2004), argued that the person's position, intelligence and creativity, ego, coerce, deceit and stress management constitute strong elements of the propensity to commit fraud. The person's position in the organization may furnish the ability to exploit an opportunity to commit fraud. Intelligence and creativity indicates the smartness of the fraudster to understand and exploit internal control weaknesses and utilise his authorized access to commit fraud (Gilmore & Johnson, 2013).

Most frauds are committed by intelligent, experienced, creative people, with in-depth knowledge of the company's controls and vulnerabilities (Rudewicz, 2011). Ego is the confidence that the fraud will not be detected and that he could easily talk himself out of trouble if caught. However, the degree of confidence affects the cost-benefit analysis of engaging in fraudulent behaviour (Hay, 2013). Most fraudsters coerce others to commit fraud (Omar, Mohamad, & Hesri, 2010). A fraudster with a persuasive personality can convince others into committing fraud. Fraudsters are deceitful, in other words they can lie effectively and consistently. To avoid being detected, fraudsters look at auditors, investors, and others right in the eye and lie convincingly. They keep track of all lies, so that the overall story remains consistent. Fraudsters ensure that stress is adequately managed. Committing fraud and managing the fraud in the long run can be extremely hectic because there is the risk of detection as well as the need to conceal the fraud on a daily basis (Hay, 2013).

This study evaluates the fraud diamond in order to add to the growing literature on fraud diamond theory and suggest further considerations that may be taken into account in order to advance from the fraud diamond theory. The remainder of this paper is divided into the following: section 2 dwells on concept of fraud, followed by section 3, which examines fraud triangle and fraud diamond, while section 4 dwells on the proposed fraud pentagon. This paper is concluded in section 5.



2. Concept of Fraud

Statement of Auditing Standards (SAS) (2012) issued by the Auditing Standard Board of the American Institute of Certified Public Accountants (AICPA), United States, defines fraud as an intentional act by a person or persons among management staff, individuals charged with governance, employees and third parties, involving the use of deception which results in a misstatement in financial statements that are the subject of audit. Wells (2011) was of the opinion that fraud is different from error; fraud is an intentional misstatement or omissions of amount or disclosures from an entity's accounting records or financial statements. Fraud is anything that connotes a false representation of material fact done by an individual to another party with an intent to mislead and induce the other party to accept and justifiably depend on the facts to his detriment.

Moreover, in the world of business, fraud has more variant meanings; Fraud is an intentional deception, misappropriation of company's assets, and the manipulation or alteration of the company's financial data to the benefit of the perpetrators (Hall, 2011). Dandago (1997), argued that fraud is an intentional misrepresentation of financial information by one or more persons among management staff, employees or third parties. It is the use of criminal deception to obtain personal gain illegally (Gilmore & Johnson, 2013). It involves deliberate cheating, which aimed at gaining an undue advantage (Gbegi & Adebisi, 2013). The basic elements that must be present in fraud include: Prescribe representation, knowledge that the representation is false, reliance on the representation and damages suffered by the person relying on it (Tugas, 2012). The variants of fraud schemes are identified as:

2.1 Ponzi Schemes: The Securities and Exchange Commission of United States, (2013) defines Ponzi scheme as an investment fraud that attract investors by promising huge return on investment with little or no risk. A Ponzi scheme is an illegal business practice in which new investors' money are used to make payments to earlier investors (Association of Certified Fraud Examiners, 2015).

The fraudsters ensure that earlier investors' get there returns without hiccups, however, haven attracted large numbers of investors into the scheme and retained investors by using subsequent invested funds to pay the earlier-stage investors returns, the scheme subsequently wind up. More so, the Federal Bureau of Investigation, United States of America (2015) states that Ponzi schemes usually promise high financial returns or dividends which is never available to the investors. Ponzi scheme as an investment fraud is named after its originator known as Charles Ponzi of Boston, Massachusetts. In the early 1900s, Charles Ponzi launched a scheme that guaranteed investors a fifty (50) percent return on their investment in postal coupons. He was able to pay the initial investors, but, consequently, the scheme was dissolved when he was unable to pay later investors.

2.2 Pyramid Schemes: Pyramid scheme is an investment fraud where contributions are made in the scheme in anticipation of super-high returns. Consequently, the investors in the scheme turns into fraudsters who engage in recruiting others for an inducement known as recruitment commission. However, the money collected from newer investors of the scheme is paid to earlier investors in order to portray good image (Federal Bureau of Investigation, United



States of America, 2015).

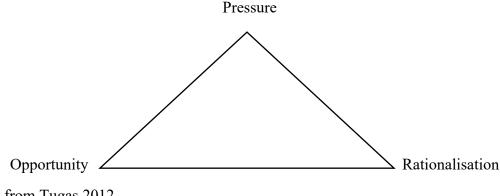
The Securities and Exchange Commission of United States (2013) submitted that the fraudsters in a pyramid scheme generate more revenue by recruiting new investors into the scheme. In a Pyramid scheme, the investors become the fraudsters and recruit other investors in return of a recruitment commission. This scheme involves the fraudsters promising an extra ordinary returns for engaging in nothing other than contributing money to the scheme and getting others to do same.

3. Fraud Triangle

Dr Donald Cressey who as student, was an intellectual acolyte to Sutherland at the University of Chicago. Cressey (1950) focused on embezzlement as a fraudulent behaviour that did not gain the attention of Sutherland's roster of white-collar crime. He refers to fraudulent behaviours as criminal violation of trust. He based his assumptions on the fact that trust violators are interested in achieving two conditions which include (i) to occupy a position trust in utmost good faith, (ii) the violation of the trust inherent in the position occupied. He advanced to find out if there was definable sequence that could lead to trust violation. He discovered that trust violation would occur when the three characteristics (Pressure, Opportunity and rationalisation) were present. This three step-process is known as the Fraud Triangle.

Albrecht, Hill, and Albrecht (2006) further argued that the fraud triangle elements are critical issues for the fraudster. They opined that the elements are interconnected like an unbroken chain in committing fraud. They further likened this fraud triangle to the elements of oxygen, fuel and heat. This view is supported by Ruankaew (2013), who describe the elements of the fraud triangle like fire that cannot ignite in the absence of anyone of the three elements. Fraudsters commit fraud; and according to Cressey (1950) some basic elements are required to commit fraud. These elements of fraud are described as pressure, opportunity, rationalisation and very recently, capacity. Capability as an element of fraud was introduced by Wolfe and Hermanson (2004) when they propounded the fraud diamond theory. The fraud diamond theory was developed to expand the fraud triangle theory and to make up for its deficiency. The major criticism of fraud triangle theory was the consideration of human emotions as it relates to fraud. Furthermore, the fraud triangle did not consider the chemical make-up & traits of every individual, the experience which differs from one individual to another and the fact that individual act differently in similar situations (Association of Certified Fraud Examiners, 2014). However, in order to strengthen fraud prevention, detection and investigation, Wolfe and Hermanson (2004) considered capability as the fourth element of fraud. The extension of Wolfe and Hermanson (2004) is further discussed in subsequent sub topic.





Adapted from Tugas 2012.

Figure 1. Fraud Triangle

4. Fraud Diamond

The framework of fraud diamond theory was developed by Wolfe and Hermanson (2004), it was an extension of Cressey's (1950) fraud triangle. Wolfe and Hermanson (2004), based their assumptions on the need for the right person to be present in order to turn the opportunity of fraud into reality. They stated, however, that the right person must possess the personal traits, character, and ability. They explained that fraud triangle could be advanced to improve both fraud prevention and detection by considering the fourth element in addition to the elements of fraud triangle, known as "Capability". They stressed further, that, in order to address pressure, opportunity and rationalisation, the individual capability is important. Capability is the traits and ability of the right person to commit fraud and it plays a major role in the actual execution of fraud even with the presence of the other three elements.

Most multibillion dollar frauds would not occur if the right person with the right capabilities were not available (Omar, Mohamad, & Hesri, 2010). Also, it is argued by Ruankaew (2013), that opportunity paves way to fraud while pressure and rationalisation bring the person towards it. Furthermore, it is believed that any fraudster must have the traits and ability to recognise the openings created by opportunity and commit fraud (Shelton, 2014). To this end, the fundamental question is, who could turn opportunity for fraud into reality? A fraudster's thought process can be determined by employing the four elements of fraud diamond theory. The fundamental contribution made by the four elements in fraud diamond is that, the traits and ability to commit fraud are vividly and absolutely considered in the assessment of fraudulent behaviour. Fraud diamond transcends beyond viewing fraud opportunity broadly in terms of situational factors, as it has been the practice under current and past auditing standards (Wolfe & Hermanson, 2004). The components of fraud diamond include: perceived pressure, perceived opportunity, rationalisation and capability.

4.1 Pressure

Pressure is the incentive or motivation of the individual to commit fraud and it is usually made up of financial burden (Cressey, 1950). Basically motivation begins with the strong



desire to achieve the fundamental necessities which include food, shelter, recognition, financial means, etc (Albrecht, Kranacher, & Albrecht, 2008). The bid to fulfil these desires leads to fraudulent behaviours which the individual believes to be the means by which these needs can be fulfil (Amara, Ben amar, & Jarboui, 2013). However, the motivation or pressure experienced in financial statement fraud is often associated with the anticipated negative output of reporting the firm's true financial performance (Albrecht, Holland, Malaguen o, Dolan, & Tzafrir, 2014). Cressey (1950), emphasised that pressure is the non-shareable financial problem that exist when an individual believes or convinces himself that the financial problem cannot be resolve by seeking assistance from other persons, either due to the phobia of losing their status or forfeiting their self-esteem (Clinard, 1954). Perceived pressure is the motivation of the person to commit fraud, which is usually likened to financial burden (Shelton, 2014).

Pressure is not real and when fraudsters believe that they are pressured, this mind-set can motivate them to commit fraud. Therefore, perceived pressure is the product or the outcome of non-shareable financial challenges. More so, financial pressure affects employees' motivation and it is referred to as the most popular form of pressure and has influenced about 95% of all fraud cases (Albrecht, Hill, & Albrecht, 2006). Omar, Mohamad and Hesri (2010) were of the view that pressure involves a situation whereby the potential fraudster is confronted with financial or personal or work related problems and went further to opt for short-term panacea to their problems, which fraudulent and unethical activity is one of the possible options or alternatives to provide solution.

The Statement of Auditing Standards (SAS) (2012) issued by the Auditing Standard Board of the American Institute of Certified Public Accountants (AICPA), United States, spells out that an individual may have the pressure to misappropriate the assets of an employer because of greed, living beyond his means or having huge personal debts. Pressure on the individual is the motivation that leads to unethical or fraudulent behaviours. However, fraudsters are faced with different forms of pressures to commit fraud (Cullen & Wilcox, 2010). Some indicators of pressure are greed, large expenses or personal debt, living beyond one's means, personal financial losses, gambling or drug habits and inability to meet financial projections (Ruankaew, 2013).

4.2 Opportunity

Opportunity for a fraudster provides the avenue for fraud according to Ruankaew (2013), opportunity is created by the systems weaknesses, thus, paving ways for the individual to execute fraud. He further argued that opportunity is a product of weak internal control and accounting systems. He added that, fraudsters perceive the existence of opportunity to commit fraud and the absence of stringent penalties, consequently, they execute fraudulent behaviours. Opportunity involves the act of perceiving that there are fraud techniques not detectable; however, a fraudster that perceives an opportunity to commit fraud senses that it would be unlikely that any wrongdoing could be proven. Unethical actions are considered possible by an individual who perceives an opportunity to commit fraud. Eventually, boards of directors strive to mitigate the management and employees' perception of opportunity by



implementing sound accounting and internal control systems that prevent and detect fraud (Albrecht et al, 2014).

The Statement of Auditing Standards (SAS) (2012) issued by the Auditing Standard Board of the American Institute of Certified Public Accountants (AICPA), United States, advanced that perceived opportunity to commit fraud exists when an individual believes that the internal control can be overridden and perhaps, the individual occupies a position of trust or has knowledge of a specific deficiency in the internal control system. A perceived opportunity is not real; however, the fraudster believes that there is an existing opportunity to commit fraud. The lesser the chances of getting caught, the more likely that fraud will occur (Ruankaew, 2013).

Sauser (2007), presents opportunity related factors to include (i) conviction that no one considers fraudulent behaviours as a grievous offence, (ii) the assumption that the company is not aware that fraud is being committed, (iii) the mind that no one cares about fraud risk, and (iv) the presumption that no frequent check of employees for violation of the organisation's policies. Omar, Mohamad and Hesri (2010) describe perceived opportunity as the potent trust that is placed on the individual who turns out to be fraudster. The concept of perceived opportunity connotes that fraudsters will cash in on the prevailing circumstances available or open to them. Kelly and Hartley, (2010) enumerate the indicators of a perceived opportunity as weak internal controls, powerless internal audit, auditor complacency, among others.

4.3 Rationalisation

Rationalisation has been described as the justification that unethical behaviour is anything other than fraudulent activity (Ruankaew, 2013). This is true for fraud and why fraud is committed. Fraudsters formulate some forms of morally acceptable justifications before engaging in a fraudulent behaviour. Such thought processes are the justifications or rationalisations. Shelton, (2014) reasons that a potential fraudster justifies the notion of fraud, justifies it before yielding to it. The Statement of Auditing Standards (SAS) (2012) issued by the Auditing Standard Board of the American Institute of Certified Public Accountants (AICPA), United States, states that an individual may be able to rationalise executing a fraudulent act. Moreover, fraudsters possess an attitude, character, and ethical values that make them commit fraud deliberately and willingly.

Besides, some hitherto honest individuals can commit fraud in an environment or situations that imposes sufficient pressure on them (Ernst & Young, 2013). Therefore, where the individual cannot justify any unethical actions he is not courageous enough to engage in fraudulent behaviour. Rationalisations of fraudulent acts may include (i) light borrowing that the organisation can afford to let go, (ii) it is in the best interest of the company, shareholders, or employees, (iii) everybody is doing it, (iv) it will only be within a short-term, (v) this is our only option and (vi) it is of interest however to know and note that rationalisation cannot be easily observed, among others. Consequently, such rationalisation are targeted at reducing the perception of unethicality. (Albrecht et al., 2014).



4.4 Capability

The introduction of the concept of capability brought an advanced approach to fraud triangle. Wolfe and Hermanson (2004) advanced the concept of fraud triangle and argued that the elements in fraud triangle cannot explain the tendency to commit fraud alone. They submitted that fraud diamond framework with the inclusion of capability to the fraud triangle elements which change the whole page in the urge to commit fraud. Gilmore and Johnson (2013) were of the opinion that capability is one's personal traits, abilities and character. They added that, in the presence of opportunity, pressure/incentive, and rationalization, there is need to consider the additional attribute regarding an individual's mental attitudes towards committing fraud. In their submission, capability connotes the act of delving into the mind of the individual and to ascertain a person's thought processes, attitudes and character. However, this is a very subjective aspect and most auditors have limited experience in this regard. Omar, Mohamad and Hesri (2010) emphasised that it will be easier to perpetrate fraud if the fraudsters are confident, can coerce, and has the authority or power to make direct or influence decisions. Rudewicz (2011) states that an individual's personality traits and capability have a direct impact on the probability of fraud.

Wolfe and Hermanson (2004) identified six (6) essentials of personal capability which referred to as Stress, Position, Intelligence and Creativity, Coerce, Ego and Deceit. In the real sense, individual capability can be viewed as an element that spices up the act of committing fraud, because it requires the right person to be in place to understand and exploit it.

Stress: Stress has been described as the challenges encountered or engaged in processes involved in committing fraud (Wolfe & Hermanson, 2004). In operationalising stress, it is expected that fraudsters must first consider how to manage the stress in order not to get the members of the team frustrated in the process. There is a feeling of stress and guilt while committing unethical and fraudulent behaviour which might pose some challenges (Gilmore & Johnson, 2013). However, Rudewicz (2011) opined that the individual must be able to control and manage stress, as committing and concealing fraud could be extremely stressful. Effective stress management is a function of other variables of the individual's capability which include position, ego, intelligence and creativity, deceit and coerce (Gbegi & Adebisi, 2013). Unfortunately, managing stress is better said than done whether a fraudster or not. That is why a fraudster gets caught some day.

Position: Wolfe and Hermanson (2004) have argued that the person's position within the organization may provide the ability to exploit an opportunity for fraud not available to others. For instance, a divisional managers have the positional authority to influence when contracts or deals take effect, thus affecting the timing of revenue or expense recognition. In addition, it is argued, (Omar, Mohamad and Hesri, 2010) that performing a function repeatedly, the capability to commit fraud increases as the knowledge of the function's processes and controls expands over time; and as the learning curve. Where the right person occupies a position of authority, he has more influence over certain situations and could also exercise authority that enables him manage stress effectively. Position of authority confers on one some influence over particular situations or the environment (Rudewicz, 2011). This is



because one's sense of responsibility will have a significant impact on one's behaviour (Gilmore & Johnson, 2013). However, mere position of authority is not sufficient when the internal control processes are relatively strong except the position of authority is diluted or weakened. Collusion at the top and over-ride of control could lead to fraudulent intent.

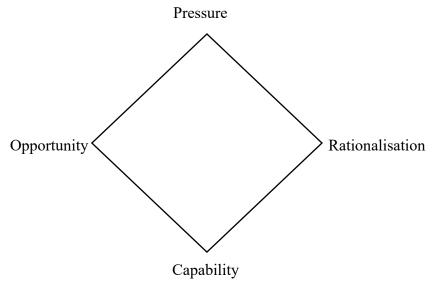
Intelligence and Creativity: Traits and ability could enhance the fraudster's attitude to commit fraud (Wolfe & Hermanson, 2004). Intelligence and creativity involve talents which reside in the individual to facilitate the smooth exhibition of fraudulent behaviour. A sense of skill and talent will make committing fraud easier to engage in (Gilmore & Johnson, 2013). The fraudster is smart enough to understand and exploit the opportunities emanating from internal control weaknesses and the fraudster uses his position or authority to access the greatest advantage (Rudewicz, 2011).

Coercion: The ability to coerce is a quality which an individual possesses in an attempt to commit fraud. Coercion attribute can be incredibly difficult to detect where there are no water-tight internal controls in place. However, coercion among individuals can override some internal control (Shelton, 2014). Wolfe and Hermanson (2004) explained that the individual must be able to coerce others into the fraudulent behaviour of committing fraud. A fraudster persuades and compels others to commit and conceal fraud. Rudewicz (2011) was of the view that an individual with persuasive personality traits can successfully convince others to go ahead with the fraud or look elsewhere (Gilmore & Johnson, 2013).

Ego: Ego involves the degree of confidence developed by the fraudster while in thought of fraud. Usually, a fraudster has a strong ego and exercises great degree of confidence that he cannot be detected (Wolfe & Hermanson, 2004). Furthermore, ego presupposes the ability of the fraudster to rig himself out if caught; this means that he could defend himself (Shelton 2014). Consequently, such confidence and arrogance can affect the individual's cost-benefit analysis of engaging in fraudulent and unethical behaviour. But a more confident person, estimates the cost of fraud to be lower. Rudewicz (2011) opined that the common personality type involves someone who is determined to make it in life at all cost, self-absorbed, and exhibits self-confidence. A large ego tends to convince an individual of the impossibility of being caught in the act of committing fraud or in the process of getting the fraud (Gilmore & Johnson, 2013).

Deceit: It is debated, if a consistent lying person increases the tendency towards fraud, he looks at the auditors, investors, and others right in the eyes and lie convincingly in order to avoid being caught or detected (Wolfe & Hermanson, 2011). Rudewicz (2011) explained that the fraudster must keep track with the overall story. Most persons are well equipped to defend themselves convincingly than others are. Viewing from a mental perspective, these individuals are more capable of committing fraud (Gilmore & Johnson, 2013). The fraud diamond encapsulated above can be expressed below dramatically.





Adapted from Tugas, 2012.

Figure 2. Fraud Diamond

5. Weaknesses of Fraud Diamond

From the above it is observed that the elements in fraud diamond are internal to the organisation and they relate to the employees and management, however, it fails to consider the external factor which involves the external regulatory influence. Gbegi and Adebisi (2013) have argued that the fraud diamond model alone is an inadequate technique for investigating, deterring, preventing and detecting fraud. They based their reasons on the fact that the two sides of fraud diamond (pressure and rationalization) are difficult to observe, and some important variables like national value system and corporate governance are ignored.

Association of Certified Fraud Examiners (ACFE) (2014) in their document titled "Fighting Fraud in Government", stated that fraud diamond applies to most trust violators, however, it does not apply to predatory employees who are seen as individuals that go into jobs with a predetermined mind set of stealing from their employers. Furthermore, fraud diamond considered rationalization as a necessity for every fraud the fraudster commits. However, rationalizations is jettison by the fraudster after the initial fraudulent behaviour. Most frauds are not one-off events and they usually start as small thefts, system mistake that yields financial benefit, or misstatements and gradually increase in size and frequency. However, as the perpetrator repeats the fraudulent behaviour in different dimensions at interval, in the long run there will be no need for justification or rationalisation. In addition, the workplace condition and job dissatisfaction also make some employees to develop fraudulent behaviours. The fourth element considered by Wolfe and Hermanson (2004) did not consider the reaction of the fraudster to the workplace condition where the fraud is being perpetrated. In the workplace environment the fraudster reacts quickly and positively in order to be able to convince the management and conceal his fraudulent behaviour from being uncovered.



Capability is subjective and it involves studying the mind of the individual in an attempt to ascertain the individual's thought processes, character and attitude. The experiences of the forensic accountants are limited as regards identifying the personal traits, attitude and character in committing fraud. The search for information has revealed that most firms providing forensic services have excluded capability in their analysis of the occurrence of fraudulent behaviours. However, in recent time, experts in fraudulent behaviour analytical software are found to be contented with the fraud triangle (the status quo). Consequently, ignoring capability did not seem to have posed any problem to the efficacy of fraudulent behaviour analysis.

The capability element advanced in the fraud diamond corroborated the other elements of the fraud triangle to extensively dwell on the human emotions as relates to fraud. The fraud diamond as aforementioned introduced the individual capability element which overlapped other elements of fraud and deals only with the ability and traits of the individual to commit fraud. However, Wolfe and Hermanson (2004) did not provide the assessment methods that is appropriately applicable for measuring capability in the organisations. Fraud diamond restricted the elements of capability to function, brains, coerce skills, confidence, effective lying and stress impunity and they relate to the individual mentality and attitude towards committing fraud. The facts that employers can reduce the conditions that possibly lead to pressure, opportunity, and pro fraud rationalisation were not considered by capability.

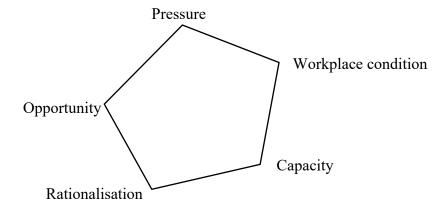
However, it was observed that these elements of capability relate to fraud within the organisation leaving out the other aspect of fraud against the organisations. Furthermore, the elements of capability did not relate to all types of fraud and the extent to which capability diagnose fraudulent behaviours cannot be sufficiently ascertained.

Capability focused exclusively on the human emotions of the individual as it relates to fraud, and, however, it undermined the responsibilities of the employers, who are charged with the control of the workplace condition which is imperative. Fraud diamond, did not consider the possible occurrence of fraudulent behaviours from the workplace condition as a result of poor implementation of organisational policies, poor publicity and implementation appropriate sanctions on fraudulent or unethical behaviours. Hollinger and Clark (1983) submitted that fraud investigation, prevention, and detection require that management pay attention to workplace conditions. Hamilton & Gabriel (2012) was of the view that the workplace condition can employ whistle blowing as a fraud prevention and detection techniques. Whistle blowing is the exposure of fraudulent behaviours in the workplace condition to management who are responsible to take appropriate actions. An effective organisational ethical guideline in the workplace will provide the background for preventing, detecting, and deterring criminal and fraudulent behaviours. In other words, an entity's ethical discipline of members of staffs, customers, vendors, and third parties will serve as a deterrence to others in the workplace. A workplace condition where the right decision is made is created by a strong organisational ethical program. Based on the above weakness of the fraud diamond the study proposed a fraud pentagon, which consider workplace condition/work environment as a fraud element.



5.1 Fraud Pentagon

This study suggest that workplace environment and provision of social and welfare schemes could expand the variables in the fraud triangle in an attempt to commit fraud by the individual. The variables of pressure, opportunity, rationalisation and capability are good enough for an individual to commit fraud. The ensuring fraud diamond have been expanded to consider the workplace environment in terms of policies and sanctions for infractions that may be in place; where the policies for sanctions are hardly implemented and political solutions are found to financial crimes of sizeable magnitude or the settlement out of court syndrome is the norm rather than the exception, people will be motivated to commit fraud. Besides, where those who are in the workplace are not provided for through social and welfare schemes organisation or country-wide, people who have all the element in the fraud diamond will be more incentivised. But where there are social and welfare schemes to cater for the future, besides, having fraudulents' punished severely in line with clear policies and commensurate sanctions in place, the tendency towards frauds as encapsulated in the fraud diamond will be reduced.



Source: Author's Synthesis, 2022.

Figure 3. Fraud Pentagon

6. Conclusion

The study x-rays fraud diamond theory in an in-depth manner and proposes a fraud pentagon. The proposed fraud pentagon provides another perspective to viewing fraud risk and considering the fraudulent behaviour of the fraudster in the workplace condition. In the fraud pentagonal framework, the workplace condition, including the presence or otherwise of social and welfare scheme should be viewed in a holistic perspective to understand fraudulent intent or behaviour. An in-depth understanding of the fraud pentagon will provide adequate measure against the individual who exhibits fraudulent or criminal tendencies. It is however hoped that future studies will extend this study by appealing to empirical evidence on fraud diamond (or fraud pentagon). This will provide some empirical insights on the elements exhibited by fraudsters in order to provide for fraud prevention, detection, and response techniques to manage fraud risk.



References

- Albrecht, C., Holland, D., Malaguen o, R., Dolan, S., & Tzafrir, S. (2014). The role of power in financial statement fraud schemes. *Springer Science and Business Media Dordrecht*, 1-11.
- Albrecht, C., Kranacher, M. J., & Albrecht, S. (2008). Asset misappropriation research. *White paper for the Institute for Fraud Prevention*, 1-22. Retrieved from http://www.theifp.org/researchgrants/IFP-whitepaper_5.pdf
- Albrecht, W. S., Hill, N. C., & Albrecht, C. C. (2006). The ethics development model applied to declining ethics in accounting. *Australian Accounting Review*, 16(1), 30-40. https://doi.org/10.1111/j.1835-2561.2006.tb00323.x
- Amara, I., Ben amar, A., & Jarboui, A. (2013). Detection of fraud in financial statements: french companies as a case study. *International Journal of Academic Research in Business and Social Sciences*, 3(5), 456-472. https://doi.org/10.6007/IJARAFMS/v3-i3/34
- Association of Certified Fraud Examiners (ACFE) (2014). Fighting fraud in the government.

 Retrieved from http://www.acfe.com/uploadedFiles/Shared_Content/Products/Self-Study_CPE/Fighting %20Fraud Chapter.pdf
- Association of Certified Fraud Examiners, (2015). Ponzi scheme. *Fraud resources*. Retrieved from http://www.acfe.com/ponzi-schemes.aspx
- Association of Certified Fraud Examiners, United States. (2014). *Managing the business risk of Fraud: A Practical Guide*. Retrieved from https://www.acfe.com/uploadedFiles/ACFE_Website/Content/documents/managing-business-risk.pdf
- Audit Standard Board (ASB) of United States, (2012). Statement of Auditing Standard (SAS) 122. *Consideration of fraud in a Financial Statement Audit*. Retrieved from http://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-C-0 0240.pdf
- Clinard, M. B. (1954). Reviewed work: Other peoples' money: A study in the social psychology of embezzlement. *American Sociological Review*, 19, 362-363. https://doi.org/10.2307/2087778
- Cressey, R. D. (1950). *Other peoples' money: A study in a social psychology of embezzlement,* Glenco, IL, Freepress.
- Cullen, F. T & Wilcox, P. (2010). *Encyclopedia of criminological theory*. SAGE Publications, Inc. Thousand Oaks. https://doi.org/10.4135/9781412959193
- Dandago, K. I. (1997). Fraud detection and control at local government level. *Journal of the National Association of Accountants of Nigeria, (*7), 4.



- Deloitte Development LLC, (2008). Managing the business risk of fraud: New guidance for a new risk environment. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/in/Documents/risk/Corporate%20Gover nance/Audit%20Committee/in-gc-managing-the-business-risk-of-fraud-noexp.pdf
- Ernst & Young (2013). Growing beyond: a place for integrity. 12th global fraud survey, 1-36.
- Federal Bureau of Investigation, United States of America. (2015). *Common fraud schemes*. Retrieved from https://www.fbi.gov/scams-safety/fraud
- Gbegi, D. O., & Adebisi, J. F. (2013). The new fraud diamond model: How can it help forensic accountants in fraud investigation in Nigeria. *European Journal of Accounting Auditing and Fiancé Research*, 1(4), 129-138.
- Gilmore, B. J., & Johnson, R. (2013). The fraud diamond vs. fraud triangle analytics: evaluating capability as a modification for auditing unstructured enterprise data. Retrieved from http://www.sedsi.org/2013_Conference/proc/proc/P121012004.pdf
- Gong, J., McAfee P. R., & Williams M. (2011). Fraud cycles. *Munich Personal RePEc Archive*, 28934(17), 1-28. https://doi.org/10.2139/ssrn.1762583
- Hall, J. A. (2011). *Accounting information systems*. Cengage Learning. United States. Retrieved from http://www.cengagebrain.com.au/content/9781133925453.pdf.
- Hamilton, D. I., & Gabriel, J. M. O. (2012). Dimensions of fraud in Nigeria quoted firms. American Journal of Social and Management Sciences, 3(3), 112-120. https://doi.org/10.5251/ajsms.2012.3.3.112.120
- Hay, L. (2014). *The changing profile of fraud*. Retrieved from The Ohio Society of CPAs website http://www.ohiocpa.com/utilities/displaynewsitem/2014/02/28/the-changing-profile-of-fr and
- Hollinger, R. D., & Clark, J. P. (1983). *Theft by employees*. Lexington, MA: Lexington Books
- Kelly, P., & Hartley, C. A. (2010). Casino gambling and workplace fraud: A cautionary tale for managers. *Management Research Review*, 33(3), 224-239. https://doi.org/10.1108/01409171011030381
- KPMG Forensic, (2006). Fraud risk management: Developing a strategy for prevention, detection and response. Retrieve from www.kpmg.com/CN/en/.../Fraud-Risk-Management-O-200610.pdf
- Omar, N. B., Mohamad, D., & Hesri, F. (2010). Fraud diamond risk indicator: An assessment of its importance and usage. *Science and Social Research*, 607-612. https://doi.org/10.1109/CSSR.2010.5773853
- Ruankaew, T. (2013). The fraud factors. *International Journal of Management and Administrative Sciences*, 2(2), 1-5. Retrieve from www.ijmas.org

- Rudewicz, J. D. F. (2011). The fraud diamond: Use of investigative due diligence to identify the capability element of fraud. *Turnaround Management Association*, 4(1), 1-13.
- Sauser, W. (2007). Employee theft: Who, how, why, and what can be done. S.A.M. Advanced Management Journal, 72(3), 13-25. Retrieved from http://search.proquest.com/
- Securities and Exchange Commission, United States of America (2013). *Ponzi scheme* Retrieved from http://www.sec.gov/answers/ponzi.htm
- Shelton, A. M. (2014). Analysis of capabilities attributed to the fraud diamond. *Undergraduate Honors Theses*. Paper 213. Retrieved from http://dc.etsu.edu/honors/213.
- Tugas. F. C. (2012). Exploring a new element of fraud: A Study on selected financial accounting fraud cases in the world. *American International Journal of Contemporary Research*, 2(6), 112-121.
- Wells, J.T. (2011). *Corporate fraud handbook: Prevention and detection*. Hoboken, New jersey: John Wiley & Sons Inc.
- Wolfe, D. T. & Hermanson, R. D. (2004). The Fraud Diamond: Considering the four elements of fraud. *The CPA Journal*, 1-5. https://doi.org/10.1016/S1361-3723(04)00051-X

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