Financial fraud in medical institutions and its effect on healthcare service delivery

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Keywords

Reported Fraud Cases;

Whistleblowing Policy;

Bank Deposit;

Management;

Fraud

Abstract

The current study investigated the impact of fraud on the performance of deposit money banks in China between the periods from past five years. In this study, bank deposit was specified as the dependent variable while the one-period lagged value of bank deposit, amount involved in reported fraud cases, amount lost to fraud and number of staffs involved in fraud cases were used as independent variables. The Generalized Method of Moments (GMM) estimator was employed to analyze the data. This study showed that the amounts involved in fraud cases, amount lost to fraud and number of staffs involved in fraud have a negative and significant influence on the deposit of banks in China. Meanwhile, the past value of bank deposit has a positive and significant relationship with deposit of banks in China. The significance of the past value of bank deposit justifies the introduction of dynamism to this study. It was recommended that bank management should not only strengthen their internal control system, but also utilize whistleblowing policy and other "speak-up" mechanisms, which have remained underused and underrated in the China financial sector, since greater dependence on the process-type fraud detection methods simply encourage complacency.

1. Introduction

Fraud, according to Fawcett& Provost (1997) arises when a person/organisation in position of trust and responsibility deliberately breaks the rules for personal or corporate gains at the expense of public interest. It is a global malaise that spares no institution and economy. Bank fraud on the other hand is the use of illegal means to obtain money and/or assets held or owned by financial institutions (Bolton& Hand, 2002). The increasing wave of fraud in financial institutions in recent years pose serious threats to the stability and survival of financial sector and banks in particular (Usman & Shah, 2013). Conyon et al., (2016) opined that fraud if not properly checked, might result in huge financial losses to banks and their customers, depletion of shareholders' funds and banks' capital base as well as loss of public confidence in banks. Also, the incidence of frauds and forgeries could, in extreme cases, lead to the closure of banks (Fatoki, 2015). Many of the distressed banks in China today had suffered a great deal from frauds and insider credit abuses (Conyon et al., 2016).

The China Deposit Insurance Corporation in its 2019 annual report and statement of accounts for the banking sector, stated that a total of 12,279 reported fraud cases for 2019 represented an increase of 15.71 per cent over the 10,612 recorded in 2018 (Conyon et al., 2016). Furthermore,

Conyon et al (2016) reported that the increase in the incidence of frauds and the relatively large amounts involved poses great challenges to the survival and viability of the financial institutions. The foregoing therefore makes it incumbent on stakeholders to declare an emergency on the malaise of fraud in the banking industry in China.

This study aims to examine the impact of fraud on bank performance in China. The significance of the study is borne out of the fact that the empirical results would shed light on how fraudulent activities of individuals and organizations (insiders and outsiders) affect bank performance and provide basis to make policy recommendations. However, the rest of this paper is sectioned as follows: Section two discusses on the review of related literatures. Section three presents the data issues and estimation technique, section four explores the analysis and discussion of result, while section five concludes and recommends policies.

2. Materials and Methods

2.1 Conceptual Literature of Fraud

The term "fraud" has its legal definition which varies from country to country (Akelola, 2012). For instance, in 1888 the U.S. Supreme Court inferred that fraud occurs when a defendant knowingly makes representation in regard to a material fact that is false and the complainant acts on this representation reasonably believing it to be true. In the UK, the Fraud Act (2006) defines fraud as being committed in three ways; by false representation, by failing to disclose information, and by abuse of position. Meanwhile as observed by the Federal Bureau of Investigation (FBI) in the United States, fraud is an illegal act which is characterized by deceit, concealment, or violation of trust and which does not necessarily depend upon the application or threat of physical force or violence. The FBI definition of fraud can be narrowed down to lying, stealing and cheating (Silverstone, Sheetz, Pedneaul & Rudewicz, 2012) which resonate with today's fraud schemes in banks that are technically sophisticated. In China, fraud is the act of obtaining the assets and/or properties of another party by false pretence. It is considered as a crime and also a civil law violation anywhere in the country. Fagbemi (1989) also defined fraud in the context of China law as the act of depriving a person dishonestly of something which is his or something to which he is or would or might but for the perpetration of deceitful act, be entitled. These definitions show the varying views about what constitutes fraud. Fraud can thus, be classified into three; Primary groups: fraud that has been exposed and is publicly known; fraud that has been discovered by organisations but not made public yet; and fraud that has not been detected (Silverstone & Davia, 2005). Only about 20% of fraud belongs in the group of exposed fraud. Reasons for these are: most fraud are discovered accidentally; independent auditors do not proactively audit to detect fraud; without internal audit, staff cannot audit to detect fraud proactively; most internal auditors do not have adequate training or experience to detect fraud proactively; and most internal controls are inadequate to prevent fraud (Silverstone & Davia, 2005; Wells, 2005; Albrecht, Albrecht, & Albrecht, 2004).

Types of Fraud

In Wanjohi (2014), fraud was classified in various ways using different parameters such as management fraud which are often committed by management staff viz; general manager, managing directors and the victims of such fraud are investors, creditors and tax authorities. It is done via financial statement through creative accounting. There is also the employee fraud/non-management type of fraud, which is primarily committed by the employees of the banks (Adeyemo, 2012; Tchankova, 2002). Employee fraud is mainly characterized by cash theft from bank tills, forgeries of customers signatures with the intention of withdrawing monies from the customers'

accounts, opening and operating fictitious accounts and illegal transfer of funds to other accounts (Tchankova, 2002; Conyon et al., 2016; Adeyemo, 2012). There is also third-party fraud often committed by customers and non-customers of banks which may include; cheque fraud, kitting, misrepresentation and impersonation, counterfeit securities, money transfer fraud, clearing

fraud, letter of credit fraud and card fraud. Bank frauds can be classified into three, that is: by flow, by victims and by act (Idowu, 2009). This can be explained further as: (1) Flow Frauds: This is described by the frequency and the value involved in the fraud. They are of two types; Smash and Grab which are frauds not frequently committed, but are high in value over a short period of time and Drip which are often large in number, small in value and repetitive over a long period. Victims Frauds: This is classified based on the people affected by loss from fraud. It is also of two types; against the company (bank) where the bank is the victim of any loss incurred through the fraud and against outsiders where the victim of the fraud is an outsider to the company or bank, that is, bank customers. (2) Act of Frauds: This is the action that takes place in cases of fraud, that is the people involved in the act and the methods or forms by which these people perpetrate fraud. The perpetrators could either be the bank's employees, executive management staff, armed robbers, or theft by outsiders perhaps in collusion with insiders.

Fraud in the China Financial Institutions

From the fraudsters' perspective, it is imperative to take account of motivation of potential offenders, the rationality of prospective crimes, opportunities to commit crimes, suitability of targets for fraud, technical ability of the fraudster, the possibility of fraud discovery and carrying out, expectations and consequences (Chartered Institute of Management Accountants) (CIMA, 2009).

Kingsley (2012) revealed that institutional factors that lead to fraud may include but are not limited to weak accounting system or weak control systems, inadequate supervision of subordinates, disregard for Know Your Customer rule, poor information technology and data base management, hapless personnel policies, poor salaries, general frustration occasioned by management unfulfilled promises, failure to engage in regular call over, employees refusal to abide with laid down procedures without any penalty, banks reluctance to report fraud due to the perceived negative publicity, banking experience of staff and inadequate infrastructure that may include poor communication systems result to a build-up of unbalanced posting, inadequate training, poor book keeping and genetic traits like kleptomaniac who pathologically steals for fun.

Social factors are those that can be attributed to the immediate and remote environment which may include penchant to get rich quick, slow legal process, poverty, job insecurity, peer group pressure, societal expectations, financial burden on individuals, stiff competition in the banking industry may see banks engaging in fraud to meter up in terms of liquidity and profitability (Adeyemo, 2012).

Prevention and Control of Fraud in China Financial Institutions

Fraud risk is a contributor to operational risks of a business. Operational risks refer to the events in a transaction or process that put the assets of the business at risk. Some of the risks considered as operational risks include: incorrect and intentional false accounting, theft of assets or misappropriation of assets. Most banks focus on a limited number of risks commonly of third party thefts but it is important to classify risks to possible type of offence and the potential perpetrators (Gates & Jacob, 2009).

Adeyemo (2012) noted that to reduce cases of fraud while enhancing the fraud detection and prevention strategies, businesses must have internal control systems embedded in their operational

framework. Fraud in the banking sector and in deed in all businesses can be reduced if all control devices built into the system are implemented, enhanced and respected. Banks incur substantial operating costs by refunding customers' monetary losses (Gates & Jacob, 2009), while bank customers experience considerable time and emotional losses. They have to detect the fraudulent transactions, communicate them to their bank, initiate the blocking and re-issuance or re-opening of a card or account, and dispute the reimbursement of their monetary losses. It is therefore in a bank's self-interest to put in place, measures to prevent fraud or detect it as soon as it happens.

An anti-fraud strategy includes elements of prevention, detection, deterrence and response. Business must develop concise and clear strategic responses towards fraud. This will include effective communication on the seriousness of fraud and the probable punitive measures taken due to fraud in the business (Wanjohi, 2014).

2.2 Theoretical Review

There are vast number of theories on fraud as put forward by Comer (1985) which explains frauds from various angles. These theories are discussed below as follows.

The Theory of Fraud Triangle

The classical theory of fraud triangle was developed by Donald Cressey in 1973. According to Cressey (1973), fraud is likely to occur if a combination of these three factors exist, that is Pressure (Motivation), Opportunity and rationalization. Trusted persons become trust violators when they conceive themselves as having a financial problem which is non-shareable, and are aware 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 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.

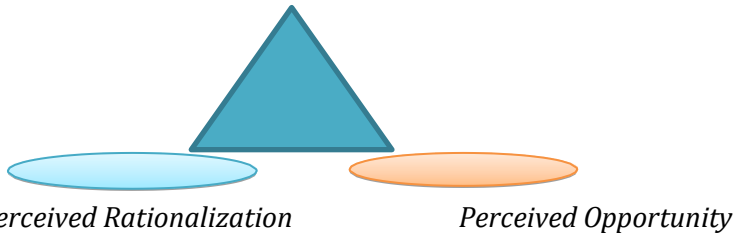

Figure 1: The Fraud Triangle (Cressey, 1973)

Job Dissatisfaction Theory

Robert Hoppock developed the job dissatisfaction theory in 1935. Hollinger and Clarke (1983) affirmed that dissatisfaction motivates employees to commit fraud. When employees perceive that their jobs or working conditions are unfair, they are more likely to justify and commit fraud (Wells, 2005). However, this theory is difficult to prove due to the relative lack of information regarding employee theft in general; while it can be studied in its particulars, it is difficult to identify in general due to lack of reliable and widespread information about employee theft (Mustaie & Tewksbury, 2002). Furthermore, this model suffers from the same issues regarding motivation and rationalization as the Fraud Triangle theory.

The Fraud Scale

Albrecht, Howe and Romney (1984) also developed a fraud theory known as the "Fraud Scale" in the 1980s' that shared some of the fraud elements used by Cressey (1973) in explaining criminal

behaviour. Their theory suggests that three factors contribute to fraud: a situational pressure, a perceived opportunity to conceal the fraud; and, the level of the employees' personal integrity. The situational pressures are described as the immediate problems individuals experience within their environment. Opportunities to commit fraud may be created by individuals or by deficient or missing internal controls. Personal integrity refers to the personal code of ethical behaviour each person adopts.

Theory of Concealment

This theory is an embodiment of the classical Fraud Triangle Theory of Donald Cressey in 1973. It is otherwise called the "Elements of Fraud". Concealment is an essential ingredient of most systematic fraud (Owolabi, 2010). According to Owolabi (2010) concealment can be defined as a manipulation of an accounting record or misrepresentation of a physical, personal or commercial reality. The theory explains the fact that the culprits deliberately introduce confusion during or after the act to assist in its omission. Greed motivates this type of fraud to exploit any opportunities available. Self-preservation is crucial when it comes to concealment. The culprit usually tries to hide the loss and the evidence which iCDICates that he is responsible for it. He (the culprit) will strive to conceal the fraud in the best way available to him and may adopt optimum concealment course.

Theory of Deviations

The Theory of Deviations as developed by Michael Comer in 1985 explains that fraud portrays a deviant behaviour and the culprits often conceal their dishonesty as plausible breaches of rules. It is a variance from a normal procedure. More often than not, the culprits are limited to the available opportunities and also concentrate on ways to conceal their guilt. Generally deviations from the accepted procedures are the first symptoms of fraud.

Cultural Transmission Theory

Shaw and Mckay in 1972 propounded the Cultural Transmission Theory which is similar to the Differential Association Theory put forward by Edwin Sutherland in 1949, where he suggested that criminal behaviour is learned. However, it differs from the Differential Association theory in that it presupposes the existence of a specific criminal culture, which is associated with people living in a specific area or within a specific ethnic group (Costello, 1997). The Cultural Transmission Theory assumes that criminals have been transmitted into a culture of crime by being socialized to accept specific values that condone crime. Therefore implying that fraudulent behaviour in accounting is learned. These sociological theories of crime emerged in the early 20th Century in order to explain the emergence of criminal groups in specific regions of a city, ethnic group, or class (Costello, 1997). However, this theory is much criticized due to its assumptions.

2.3 Data Issues And Estimation Technique

In conducting this study, secondary data sourced from the annual report of China Deposit Insurance Commission (CDIC) and the CBC statistical bulletin was used. The data were log-linearized, this was done to bring the data to the same base, hence making results interpretation easy. The generalized method of moments (GMM) which was employed in this study will help to overcome the problems of simultaneity bias and endogeneity which is inherent in the series. The data employed for the period spans from 2014 through 2019. The analysis was conducted using the E-Views 9 statistical package.

Model Specification

The objective of the study is to investigate the impact of fraud on the performance of Deposit Money Banks in China from 2015 to 2019. Hence, the model for this study is a slight modification of the one found in Ikpefan (2006), and can be stated as: $BD_t = \beta_0 + \beta_1 ARFC_t + \beta_2 ALF_t + \beta_3 NSIF_t + \mu_t$ (1). In equation 1 above, we modelled bank deposit as a function of amount involved in reported fraud cases, amount lost to fraud and number of staffs involved in fraud cases. By introducing dynamism to the model in equation 1 above, we predict that the previous bank deposit can determine present bank deposit. Therefore, equation (1) transformed into a dynamic model is expressed as: $BD_t = \beta_0 + \alpha BD_{t-1} + \beta_2 ARFC_t + \beta_3 ALF_t + \beta_4 NSIF_t + \mu_t$ (2).

In model 2 above, BD represents contemporaneous bank deposit; BDt-1 is the lagged value of bank deposit by one-period, ARFC is the amount involved in reported fraud cases, ALF is the amount loss to fraud and NSIF is the number of staffs involved in fraud. This study model is built on the a priori expectation that there is an inverse relationship between the dependent variable and all the independent variables, except the one-period lagged bank deposit. Due to the dynamic nature of this study, we employ the GMM estimation technique to investigate the relationship among the dependent variable and independent variables.

3. Result and Discussion

This segment of the study discusses on the analysis and result. The Generalized Method of Moments was conducted using E-Views 9. The following Table 1, shows the summary statistics of the raw data on bank deposit (BD), the one-period lagged value of bank deposit (BD_{t-1}), the amount involved in reported fraud cases (ARFC), amount loss to fraud (ALF), and the number of staffs involved in fraud (NSIF).

Table 1: Summary Statistics

Statistic	BD	BD(-1)	ARFC	ALF	NSIF
Mean	13.25000	13.00000	8.951679	7.463353	5.809689
Median	13.50000	13.00000	9.178851	7.518613	5.906315
Maximum	15.00000	15.00000	10.88787	9.772410	6.486161
Minimum	11.00000	11.00000	6.918695	5.429346	4.442651
Std. Dev.	1.341641	1.366260	1.079712	1.316722	0.619901
Skewness	-0.299367	-0.161985	-0.060578	0.070921	-1.000405
Kurtosis	1.938272	1.795918	2.524660	2.106731	3.008253
Jarque-Bera (JB)	0.990499	1.036513	0.160418	0.545366	2.668874
JB p-value	0.609419	0.595558	0.922923	0.761334	0.263306
Sum	212.0000	208.0000	143.2269	119.4136	92.95503
Sum Sq. Dev.	27.00000	28.00000	17.48665	26.00635	5.764154
Observations	16	16	16	16	16

Source: Authors' Analysis (2018)

In Table 1, it can be deduced that all the variables except (ALF) are negatively skewed. Also, all the variables except NSIF have a thin-tailed (platykurtic) distribution. This implies that only NSIF has a Kurtosis statistic that is a little greater than 3, hence NSIF has a mesokurtic (moderately-tailed) distribution. The Jarque-Bera statistic indicates that all the series have normal distribution.

Table 2: Generalized Method of Moments (GMM) Result Dependent Variable: BD

Variables	**Coefficient**	**Standard Error**	**T-statistic**	***p*-value**
BD(-1)	1.174666	0.004884	240.4983	0.0000*
ARFC	-0.047908	0.010347	-4.630211	0.0004*
ALF	-0.366584	0.051911	-7.061836	0.0000*
NSIF	-2016.009	451.4523	-4.465607	0.0005*
C	980627.4	222141.3	4.414431	0.0006*
J-statistic (p value) =3.802004 (0.874531) Instrument rank =13				

Source: *Authors' analysis (2018)*
Note: ** signifies the rejection of null hypothesis of statistical significance of series at 1%*

Table 2, revealed that a strong positive relationship exist between BD and its lagged variable. This implies that 1 unit increase in the past value of BD increases the present value of BD by 1.17 units. Conversely, the amount involved in reported fraud cases (ARFC) is inversely but significantly related to bank deposit, implying that 1 unit increase in ARFC brings down the value of BD by 0.05 units. Similarly, the amount loss to fraud (ALF) has a significant negative relationship with bank deposit, hence, 1 unit increase in the amount loss to fraud reduces the level of bank deposit. Finally, the number of staffs involved in fraud (NSIF) is negatively and significantly related to bank deposit. This implies that 1 unit increase in NSIF will reduce bank deposit by 2016 units. The Hansen J-statistic is 3.802004 with a corresponding p-value of greater than 0.1 indicates that the null hypothesis of valid over-identifying restrictions for the instruments is not rejected at one percent level of significance, thus giving this study the confidence that the 13 instrumental variables used are valid, not over-identified and lead to consistent estimates.

Implication of The Findings

The negative relationships of bank deposit with the amount involved in reported fraud cases, the amount loss to fraud, the amount loss to fraud and the number of staffs involved in fraud can be explained as follows: The past value of bank deposit goes a long way in attracting more deposits, and this is only possible when the liquidity of a bank is not at stake, hence the depositors'

ability to withdraw at any point, the whole or part of amount in their bank accounts, will boost the level of confidence in the bank, thus creating more avenue for customers' deposit. The magnitude of the loss arising from bank frauds which has been on the increase, as a result of the unethical habit of granting unauthorized loans and overdraft and/or fraudulent withdrawals of customers' fund, has a negative consequence of assuaging depositors' confidence, thereby reducing the total deposit of banks. Also, the higher the amount involved in fraud cases, the lower the amount available in the bank's till/vault. The increasing incidence and value fraud perpetrated by the staffs and/or management of a bank can lead to the failure of the bank. The number and/or hierarchy of staffs involved in fraudulent practices, such as improper asset valuation and fund diversion depletes depositors' and shareholder's funds.

4. Conclusion and Recommendation

This study investigated the impact of fraud on the performance of banks in China between 2014 and 2019. The data used for the study were sourced from the secondary source most especially the China Deposit Insurance Corporation and the Central Bank of China statistical bulletins. This study used bank deposit as the dependent variable while the past value of bank deposit, amount involved in reported fraud cases, amount lost to fraud, number of staffs involved in fraud were used as independent variables. It was revealed that the amounts involved in fraud cases, those lost to fraud and the number of staffs involved in fraud have negative relationships with deposit of banks in China. Meanwhile, the one-period lagged value of bank deposit has a positive relationship with deposit of banks in China. Hence, this study recommends that bank management should strengthen their internal control system and more specifically ensuring thorough scrutiny of personal character before employing them. This is due to the fact that most fraud cases in banks are often spearheaded by staffs. In addition, monitoring transactions involving huge amounts through Bank Verification Number and Central Bank of China whistleblowing policy would also be a good measure to checkmate frauds. This whistleblowing policy and other "speak-up" mechanisms have remained underused and underrated in the Chinese financial sector; hence greater dependence on the process-type fraud detection methods may continue to encourage complacency.

Acknowledgements
The authors would like to thank all colleagues for assisting the author in writing this manuscript, especially for those who have helped us in collecting data.

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