Assessing the Effect of Risk Assessment on Detection and Prevention of Fraud in Banking Sector in Kenya

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Authors’ contributions
This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

ABSTRACT
The banking sector in different parts of the world have challenges in detecting and preventing frauds due to weak controls. However, an effective system if well implemented an organization is capable of preventing and detecting fraudulent activities. The main purpose of this study was to evaluate the effect of internal control system on detection and prevention of frauds in banking sector in Kenya a case of Consolidated Bank of Kenya Ltd. This study was anchored under Attribution theory. The study adopted qualitative and quantitative methods, which assisted in collecting and analysing the data. This study also adopted a descriptive research design to investigate the study variables. Mean, percentages, frequencies and standard deviation were used in descriptive statistics analysis and inferential regression such as multiple regression and correlation were applied to analyse the relationship between the study variable and the significant of the variables respectively. The study targeted a population of 130 staff grouped in 4 subgroups. The outcomes of the research demonstrated that risk assessment had a positive and substantial link with fraud detection and prevention. According to the report, new techniques of improving fraud detection and prevention should be devised, and government rules should be reviewed. Additional study should be done using a cross-sectional research design that includes a questionnaire, an interview, and a secondary data schedule.
Keywords: banking sector; inferential regression; fraudulent financial reporting; Kenya.

1. INTRODUCTION

Fraudulent financial reporting may affect any financial institution. Fraud may enter a company's financial reporting system unnoticed and grow quietly, engaging more individuals and impacting more accounts to the point where the perpetrators have no idea how far the fraud has gone. As a result, fraud is an unavoidable danger in the corporate world. Fraud is a risk that has a detrimental effect on company development, according to Certified Management Accountant (CMA, 2009). According to a Price Waterhouse Coopers (PWC) economic report, fraud instances have climbed considerably. Approximately 90% of those who responded to the survey said that most firms had experienced some kind of fraud, and banks had lost over 1.7 billion dollars in only three months. The emergence of fraudulent activities was encouraged by the development of banks, which demanded the installation of complicated systems that allowed fraud to flourish (PWC, 2011).

Any organization must prioritize fraud detection and prevention to implement effective strategies and processes to prevent fraud-related activities (Bierstaker, Brody and Pacini, 2006). According to (PwC, 2012), these actions may consider management communications on fraud prevention and detection by first prioritizing fraud culture, with the firm exercising care in overall operational operations and payment systems.

Haat and Ali (2011) revealed that correct financial records should be scrutinised throughout the operation in most financial institutions in order to build a strong internal control for effective fraud prevention and detection. Most of the major frauds that occur in the banks are internally made by the staff due to the opportunities, loopholes in daily operation and pressure, (Creasey 2003). Therefore, banks are expected to train their staff on internal controls and to equip them with the knowledge on fraud detection and prevention hence loss reduction, [1]. The training will also enable the employees understand the importance of (KYC) Know Your Customer in order to protect the bank from fraud through early detection. The bank employees are expected to have all the information about their clients [2-5]. A successful component of a bank's management team, internal control serves as a basis for the safe functioning of a financial institution. Prior studies [6-8] on the origin of banking fraud highlighted the nature and dimensions of banking fraud as well as various means applicable towards its prevention and detection. Ultimately, their findings affirmed fraud as preventable, provided the regulators and managements constantly review and strengthens bank examination as well as internal control mechanism [9-11]. Many banks across the globe have suffered losses as a result of a shoddy internal control mechanism. International Monetary Fund (IMF, 2009) defines Internal Manage as the system put in place to control the actions of an organization at both the central and departmental levels. Internal Control is defined as follows: Internal controls govern an organization's efforts to achieve its objectives. The absence of adequate internal control often leads in the collapse of a company.

The new technology has led to advanced ways of fraudulent actions and therefore banks must have mechanisms in place on detection and prevention of fraud in case of any upcoming cases [12,13]. In order to stop these, it demands for crucial measures to control them from occurrence. Detection of fraud happens after fraud has been stopped and ineffective which comprises of identifying of the fraud immediately it has been committed (Bolton and Hand, 2002).

1.1 Statement of the problem

Fraud in the banking industry has become a main fear to all the banks across the world. Due to the increasing losses made by the banks most customers have developed fear and loss of confidence. Concerns have been raised concerning the impact of internal control methods on business financial performance in the current context, which has resulted in monetary catastrophe.

The banking industry in Kenya is facing lots of challenges due to the increasing changes in technology. The fraudsters are working tirelessly to ensure that they are able to steal funds from the banks. Despite the fact that the banks have instituted internal control system in their operations, the banks have continuously made losses of either the banks or their customers [14-16]. The Kenyan banks fraudulent financial reporting indicated that, due to weak internal control there were Banks which were considered to be operational unfit, example is Chase bank which had non-performing loans leading to
losses and as a result CBK made it be under receivership. These increasing cases of fraud endangering the profitability and continuity of banks (Wainaina, 2011). The year 2018 consolidated bank of Kenya registered a profit of shs 531,199,000 after tax and on December 31 2019 they registered a profit of shs 518,292,000 after taxation (consolidated bank Audited report, 2019). The year that ended December 31 2020 the bank registered a loss of kshs 15,304,000. Most of these financial failures are attributes of internal control failures and poor management resulted to corporate problems. Banking sector is considered to be one of the most leading business that brings economic growth in the world and therefore, there is urgent need in resolving the barrier to this success.

1.2 Purpose of the Study

The purpose of this study was to assess the effect of risk assessment on detection and prevention of fraud in banking sector in Kenya. The study focused on consolidated bank of Kenya Ltd.

1.3 Significance of the Study

It is expected that the findings of the study will have implications for policy, practice, and the creation of new theoretical frameworks. Policy and practice implications of the findings of the study are expected to assist management and employees in establishing and maintaining an environment throughout the bank that fosters a positive and supportive attitude toward internal control, reliable management, operating personnel for implementing internal control, and internal audit for determining whether or not internal control has been implemented effectively and efficiently [17-19].

The results of the research may be used by the government, via the Central Bank of Kenya, to develop policies on risk management and internal control systems.

The results will fill a gap in the literature that had previously existed. Researchers, students, and other academics who are interested in the areas of internal controls, fraud control, and prevention may benefit from the findings of this study.

1.4 Scope of the Study

The scope of the research confined itself to assessment of the effect of risk assessment on detection and prevention of fraud in banking sector in Kenya. Specifically on consolidated bank of Kenya targeting five branches in Nairobi County inclusive of its Head office situated at Koinange Street. The study target population consisted of one hundred and thirty staff. The researcher used questionnaire to obtain data from the staff in their respective branches since concentration on one bank maked it easier in achieving of the objective of the study and receiving of accurate responses. The study was done in a duration of two months upon obtaining the required clearance from the relevant authorities.

2. THEORETICAL LITERATURE

2.1 Attribution Theory

Attribution theory was first introduced by Heider (1955), which describes how an organization obtain and utilize the information to organizing and regulating their social environment. It assesses on how and why organization intellectually link with information received on performance report that assist in making expected and adjustable research decisions. This theory explains the conflicts that supervisors and junior staff may be experienced that attributes to the discussed behaviours [20-24]. It explores the interpretation of events and behaviours relating to the causes of events and behaviours. Schroth and Shah (2000), studied social environment on behaviour and events by use of information on communal environment. Wilks and Zimbelman (2004), stated that the case refers to external or internal attribution. Reffett (2007), stated that a number of persons incline to attribute obligation towards the individual who must have behaved otherwise in a given circumstances according to the evaluators. The accountability is attributed by the evaluators for the result of a condition when they believe similar individuals would have operated likewise [25-29].

Historically, when an observation is unfavorable, individuals have been driven to attribute others' performance to dispositional tendencies and to attribute their own behavior to situational conditions, according to the literature on motivation. The auditors' failure to see internal control over revenue generation as a character proneness may be characterized as carelessness (Wilks and Zimbelman, 2004; Schroth and Shah, 2000). Reffett's 2007, in case of identification of fraud incident as a fraud risk...
and the auditors failed to detect fraud this then meant that they (auditors) are more likely to be responsible. (Bonner et al. 1998), stated that if there were misappropriation that will affect the revenue growth which assessors consider that it could have been noted by the auditors earlier enough, and was never effect then charges would have been made against the auditors. Dimitrijevic et al. (2015) underline the significance of ensuring the assessment of the quality of internal control in companies as the main role of internal auditors. They stated that its critical when an organization lacks internal audit and that several control processes are utilized to safeguard an effective ICS. Attribution theory therefore, advocates on the value of the firms internal control since auditors are anticipated to familiarize themselves with internal control in place, design, implementation and testing of the internal control in place [30-31].

3. EMPIRICAL LITERATURE

3.1 Risk Assessment on Detection and Prevention of Fraud

Risk is the likelihood that an organization is incapable of achieving its goals due to several events and actions. Risk assessment comprises of determining and analysing significant risks which constructs the centre for shaping ways of managing risks. It is classified into two categories which according to (Internal Control - Integrated Framework, 2013) internal risk occurs as a result of day to day transactions from accounting and financials, investment activities and nature of business operations while external risk is from interest rates or inflation, regulations environment and accounting practices (Ramos, 2006). The system consists of risk identification, construction of internal control systems (ICS) and countermeasures to mitigate claimed hazards, and development of an internal audit process for evaluating the efficiency and effectiveness of internal controls (Allen and Tommasi, 1997). It consists of independent internal auditors who serve as a safeguard to monitor management choices, actions, and program implementation.

It is vital for the organizations to accept certain levels of risks since it is not possible to eliminate risk but to reduce it and therefore it is of essence for an organization to plan and organize activities. (Internal Control - Integrated Framework, 2013). (Qiao, 2007) stated that, the societies interest is taken care through eliminating high cost by use of the risk assessment; example is the taxpayers' money in public organization.

In accordance with Moeller (2007), the COSO model comprises four stages for risk assessment, which are as follows: identification of hazards, estimate of their importance, assessment of the probability and frequency of occurrence, and consideration of whether countermeasures should be developed. The process of identifying risks is mostly comprised of participating in brainstorming sessions by bringing together teams from different levels to explore the risks that are present in the business. Marshall and colleagues (2006) define the risk assessment part as being split into three sections: event identification, risk assessment, and risk response.

Palermo (2014) highlighted that a top down-bottom up approach is also required to furnish the organization with variety information on risk assessment. Carpenter (2007), commented that brainstorming session helps in bringing up new and quality ideas which were not there previously.

Frazier et al. (1996), indicated that control operations consist of range of activities which includes performance assessment, communication handling, and physical control on assets, records and segregation of duties. A business objective must be clear before evaluating the risks and determine what risk are connected to them and how it must be achieved (COSO 1994). To set the objective is not an element in the structure but a requirement to the process and are part of company's strategic plan. Once the company's goals are clearly defined, it becomes feasible to identify the key success factors that are required to achieve those objectives. Critical success factors are components and actions that are required to achieve the company's objectives.

Within the context of medieval and contemporary Britain, Jones (2008) looked at internal controls, accountability, and corporate governance. The factors included the control environment, risk assessment, information and communication, monitoring and control activities, and other related elements of control. His investigation of medieval internal controls, which were employed in the twelfth century royal exchequer and other medieval organizations, was based on the concept of internal controls. The majority of internal restrictions, he said, were existent in
Fig. 1. Conceptual Framework

![Diagram showing the conceptual framework with independent variables on the left and dependent variables on the right.]

medieval England at the time of his speech. In medieval times, the most important components of internal control were stewardship and personal responsibility [32,33].

The study ascertained firms are involved in an accounting scandal if it lacked factors such as the firms increased growth rate, transact in earnings managing practices, audit committees constituted of few directors and overstretched external directors. However, the firms have lesser likelihood of engaging in accounting scandals but have audit committee with more directors. Therefore, strong internal controls and good ethics in an organization are the key factors that help in controlling accounting scandals Crutchley et al. (2007).

4. METHODOLOGY

4.1 Research Design

Research design is the framework that provides means which the researcher applies in investigating or gathering information in solving a problem. The study adopted a descriptive research design as it sought to describe and establish the effect of independent variables on the dependent variable. The descriptive design also allows a researcher to assess the study variables by asking questions to the respondents and then evaluating their impacts (O’Connor, 2011). According to Orodho (2011), descriptive design gathers information that provides approaches of fixing the topic under research. The study employed both qualitative and quantitative approaches.

4.2 Location of the Study

This study was carried out at consolidated bank headquarters Nairobi, Nairobi County, Kenya.

4.3 Target Population

According to Frankel and Warren-4, target population means the complete group of individuals who have a common characteristic that the researcher is concerned with in order to complete the study. The study targeted a population of 130 staff working in various department in the bank head office. The respondents were categorized in to 4 groups namely; Operations Department, Human Resource, ICT Department and Audit Department. These departments are priority for Consolidated Bank since they influence the banks performance and they consist of 130 employees. From Operation Department 62 staff, HR (Human Resource) Department 24, ICT Department 18 and Audit Department 26 staff.

<table>
<thead>
<tr>
<th>Description</th>
<th>Target population</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Department</td>
<td>62</td>
<td>48</td>
</tr>
<tr>
<td>Human Resource</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>ICT Department</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Audit Department</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>130</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: HRM Consolidated Bank Ltd 2021
4.4 Sampling Procedures and Technique

The study used stratified sampling and simple random to get optimum and reasonable information since it was guaranteed each participant in the group equal chance of responding.

4.5 Sample Size

The sample size is a deterministic component of a statistical population whose attributes are investigated to get universal information reflective of the whole universe. It permits conclusions to be drawn that are generalized to the population of interest (Sekaran & Bougie, 2011). Sample selection may be made in various ways, each with its own cost, energy, and knowledge requirements. The sample’s superiority is determined by whether it accurately reflects the population in terms of the variables studied (Zikmund et al., 2010). The sample size was determined by using Yamane’s (1967) formula, which was also utilized by Ngigi and Kawira (2015).

\[
n = \frac{N}{1+N(e)^2}
\]

Where:

- \( n \) = required sample size
- \( e \) = level of significance taken to be 0.05
- \( N \) = the population size
- \( 1 \) = constant

Hence

\[
n = \frac{130}{1+130(0.05)^2}
\]

= 93 respondents

Stratified as shown below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Resource</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT Department</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Audit Department</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher 2022

4.6 Construction of Research Instrument

Questionnaires were utilized to obtain primary data for the research. Questionnaires were employed since they are simple to administer and assess time and money efficient. Open-ended questions were favored since they provided complete information (Kombo & Tromp, 2009).

5. RESULTS AND DISCUSSION

5.1 Data Analysis Technique and Procedure

Themes generated from open-ended questions, were examined before being statistically coded and analyzed. To ensure that the quantitative data collected is complete, it was essential to check the data before it is coded and entered into the cleaning analysis program. The descriptive statistics and inferential analysis of quantitative data were carried out with the help of the Statistical Package for the Social Sciences (SPSS) version 24 software package. Descriptive analysis was used to offer brief summaries of the sample data as well as quantitative descriptions in an easily consumable manner. The descriptive analysis which included frequencies, percentages, means, and standard deviations (Mugenda & Mugenda, 2014).

5.2 Response Rate

The target population of the research study was 130 respondents from the consolidated bank Head office in Nairobi, who were drawn from Operations Department, Human Resource, ICT Department and Audit Department. The researcher issued out 93 questionnaires and Eighty three questionnaires were received duly filled translating to 89.2% response rate. According to Nulty et al. (2018), the study's response rate is dependent on the data used, however a response rate of 60% or more is preferred. As a result, the study response rate was deemed desirable.

5.3 Descriptive Statistics

The study’s objective was to see how risk assessment affected Kenya’s banking sector’s ability to identify and prevent fraud. The research concentrated on this topic in this part; continuous risk assessment, regular updates, monitoring risk management activities, setting realistic expectation and basic understanding of fraud. The results of descriptive statistics are shown in Table 3.
Table 3. Means and standard deviations for risk assessment

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous assessment of risk helps in early detection and prevention of frauds</td>
<td>83</td>
<td>4.69</td>
<td>0.487</td>
</tr>
<tr>
<td>Regular updating of any risks on operational activities in the bank help in prevention of frauds</td>
<td>83</td>
<td>4.64</td>
<td>0.530</td>
</tr>
<tr>
<td>Board of directors supervise the firms fraud risk management operations and as a consequence substantially prevent and identify fraud</td>
<td>83</td>
<td>4.42</td>
<td>0.698</td>
</tr>
<tr>
<td>Board of directors establish an appropriate tone and realistic expectations on management to implement an anti-fraud culture</td>
<td>83</td>
<td>4.49</td>
<td>0.474</td>
</tr>
<tr>
<td>Audit committee participate in transparent and open dialogue with external auditors regarding possible fraud</td>
<td>83</td>
<td>4.16</td>
<td>0.469</td>
</tr>
<tr>
<td>Staff employees have basic awareness of fraud and aware of the warning flags</td>
<td>83</td>
<td>4.27</td>
<td>0.499</td>
</tr>
<tr>
<td>Valid N (LISTWISE)</td>
<td>83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Mean and Standard deviation</td>
<td>83</td>
<td>4.445</td>
<td>0.5262</td>
</tr>
</tbody>
</table>

Sources: Researcher (2022)

Table 3 shows that the respondents agree with the attributes of risk assessments provided in the consolidated bank of Kenya's detection and prevention of fraud (composite mean = 4.445, standard deviation = 0.5262). The low standard deviation and composite mean computed suggest that respondents agreed that the criteria used to quantify risk assessment successfully identify fraud and prevent fraud. The standard deviation was modest, showing that the replies were not distinct. Specific data suggest that the respondents highly agree that Continuous evaluation of risk assists in early identification and prevention of frauds (mean = 4.69, standard deviation = 0.487). The respondents strongly agree that regular updating of any risks on operational activities in the bank help in detection and prevention of frauds (mean = 4.64, standard deviation = 0.530) and that Board of directors set an appropriate tone and realistic expectations on management to enforce an anti-fraud culture (mean = 4.49, standard deviation = 0.474).

Further findings reveal that the respondents agreed that board of directors monitor the companies fraud risk management activities and as a consequence considerably prevent and identify fraud (mean = 4.42, standard deviation = 0.698). Study results have shown that the respondents agreed that Staff members have basic understanding of fraud and aware of the red flags (mean = 4.27, standard deviation = 0.499) and that Audit committee engage in candid and open conversation with external auditors about suspected fraud (mean = 4.16, standard deviation = 0.469).

Respondents agreed that the measures used to gauge risk assessment were successful in fraud detection and prevention, according to the composite mean (mean = 4.445). All parameters had a minimal standard deviation (M = 0.5262), indicating that the respondents' replies did not vary much. These findings are consistent with those of Mwichigi and Atheru (2019), who found that banks registered on the Nairobi Securities Exchange (NSE) had extremely good internal processes for analyzing credit risks on borrowers before extending credit. This excellent grade of the risk assessment criteria might be attributed to the adequate and effective processes in place for detecting possible danger. This could also be due to the fact that the respondents, who are responsible for safeguarding the shareholders' assets at the bank level, want to reassure customers, potential and current investors that their savings and investments are risk-free in order to boost customer confidence and attract more customers and investors.

6. SUMMARY OF FINDINGS

The objective of the research was to analyze the influence of risk assessment on identification and prevention of fraud in banking industry in Kenya. When it comes to fraud detection and prevention, Kenya's consolidated bank's respondents seem to agree with risk assessment characteristics presented (composite mean = 4.445, standard deviation = 0.5262). Participants strongly agreed (mean = 4.69, standard deviation = 0.487) that continuous risk assessment aids in the early detection and prevention of fraud. They also
agreed (mean = 4.16, standard deviation = 0.469) that the audit committee should engage in candid and open communication with external auditors about suspicions of fraud in the bank. Although not statistically significant, a correlation between risk assessment and fraud detection and prevention was discovered by correlation analysis ($r = 0.258$, $p = 0.099$). As shown by the regression model, there is a 16.4 percent improvement in fraud detection and prevention in Kenya’s banking industry for every one percentage point increase in risk assessment.

7. CONCLUSION

The objective of the study was to assess the effect of risk assessment on detection and prevention of fraud in banking sector in Kenya. Channel of communication, information sharing, communication reporting, staff training, and successful communication were the metrics utilized to assess information and communication. Respondents strongly agreed that the metrics used to quantify information and communication were successful in fraud detection and prevention, according to the descriptive data. According to respondents, these evaluations may be linked to their perception that the systems in place are effective. The responses may have used cutting-edge technology to promote speedier information transmission, secure communication, and information sharing. The findings of the correlation analysis test revealed that information and communication had a statistically significant beneficial impact on fraud detection and prevention. As a result, it was established that the Bank’s information and communication processes were functioning effectively and had a major impact on fraud detection and prevention in Kenya’s banking industry.

8. RECOMMENDATIONS

According to the findings of the research, risk assessment has a substantial impact on fraud detection and prevention. It is advised that businesses participate in continuous risk assessment, frequent risk updating, and staff training on fraud detection and red flags. Any symptom of fraud will be detected early enough by the analysts to be halted before the actual fraud occurs. Internal auditors should have an open dialogue with external auditors about all aspects of potential fraud.

8.1 Suggestions for Further Study

The study focused only on banks, and the results revealed that two ICS components (information and communication, as well as monitoring and evaluation) had a detrimental impact on fraud detection and prevention in Kenya's banking industry. Further research on various control and protection mechanisms that may be employed in fraud prevention in the banking industry is recommended by the study. To determine the efficiency of ICS and fraud prevention in other areas of the economy, further study should be conducted.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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