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EFFECT OF CONTROL ENVIRONMENT ON FRAUD REPORTING OF MANUFACTURING FIRMS IN KENYA

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Abstract: *The Fraud in manufacturing companies tends to deter the growth and development of the sector. Despite the adoption of various internal controls in the manufacturing sector, fraud in the sector is still evident. Manufacturing firms in Kenya have experienced cases of fraud, which include corruption, asset misappropriation and financial statements fraud. Therefore, the increasing cases of fraud in the manufacturing sector are worrying and hence it is important to understand the effect of internal control systems on fraud reporting. The general objective of the study was to establish the effect of internal control system on fraud cases of manufacturing firms within Nairobi County with a specific objective to examine the internal control system components of control environment. The study used descriptive survey design. The target population of the study was 308 manufacturing firms that are members of Kenya Association of Manufactures and are within Nairobi City County. Slovin's Formula was utilized in sample size determination and Stratified random sampling was used in the selection of 174 manufacturing firms form the target population. The study found that control environment has a positive and significant influence on fraud reporting in manufacturing firms in Kenya. It was established that although organizations have an audit and risk committee, the committee rarely consults from external auditors in matters concerning fraud suspicions.*

Keywords: *Audit and Risk Committee, Control Environment, Fraud Reporting, Internal Control Systems*

INTRODUCTION

Manufacturing in Kenya is gaining a high position in economy growth and development. Nevertheless, this growth and development can be reduced by the growing number of fraud cases in Kenya and more so to manufacturing firms. The effect of fraud cannot be over stressed. It does not only have overwhelming impact on the organizations but at the national economy as well. Certified Management' Accountant (CMA, 2009) states that fraud is a threat that affects the business growth and development. The Certified Fraud Examiners association body - ACFE in its 2018 Report to the Nation named - Occupational Fraud and Abuse, found that majority of organizations lose seven (7) percent of their annual earnings to fraud. The report also noted that manufacturing sector firms had the fourth most recorded fraudulent cases in terms of the frequency or occurrence.

The manufacturing firms came second in terms of monetary and financial losses compared to other twenty-two (22) other sectors. The ACFE report cited lack and absence of reliable and strong control system to be the main factor that leads to fraud. In manufacturing firms, internal controls are fundamental in guaranteeing smooth operations and activities in addition to accomplishment of the firms objectives that are consistent with the firm's relevant processes, policies, procedures, and laws. Consequently, it is fundamental that

manufacturing firms endeavor to ensure that strong control system is achieved. As per, Mawanda (2008), a good internal control system facilitates the firm to prevent frauds, abuses, errors and reduce wastage.

Control environment is an element that lays the foundation at which other COSO framework is laid on. It sets the tone and culture by management. It deals with aspects like ethical issues and integrity, management and philosophical style, commitments to competences, organizational structural, audit and risk committees and policies and procedures. Since the importance of internal controls mechanisms is to reduce fraud and enhance reporting, this framework provides discipline and structure COSO. (2013). Study has found that some control environment attributes like level of risk, tone-at-the-top, and control knowledge, visibly defined and conveyed are considerably related to the role of the ICS and fraud exposure within an organization (De Beelde & Sarens, 2006). PWC (2012) showed that, the control environment includes the management and governance functions. The awareness, attitudes, and actions of those responsible with governance and management regarding the entity's ICS and its significance in the entity. In case an organization pursues clear ethical values and integrity shown in a formal code of conduct, the internal control will take a bigger meaning.

The Committee of Sponsoring Organizations (COSO) in 1992 outlined those internal controls to be a process instituted by an organization's board or management to enable them to achieve their objectives regarding operational effectiveness and efficiency, reliability, and reliance in financial reporting, in addition to ensuring that their compliance with laws, regulations and policies (COSO 2012). According to COSO, internal control comprises of five interconnected elements, namely, control environment, control activities, risk assessment, information and communication and monitoring.

1. Fraud Reporting

The word ‘fraud’ commonly involves activities such as embezzlement, theft, conspiracy, corruption, money laundering, and extortion and bribery. Fraud and economic crime rates remain at record highs, impacting more companies in more diverse ways than ever before. Establishing effective reporting mechanisms is one of the key elements of a fraud prevention strategies and can have a positive impact on fraud detection and reporting (CIMA 2006). Since many employees are hesitant to report incidents to their employers, consider setting up an anonymous reporting system. Employees can report fraudulent activity through a website keeping their identity safe or by using a tip hotline. The Better Practice Guide prepared by KPMG (2012) and the Australian National Audit Office recognized fraud detection techniques to be the central line of defense and offer the most cost-effective methods of controlling fraud within an organization. These methods comprise ethical organizational culture, high staff awareness on fraud regarding customers and vendors and more so to efficient internal control system that enable constant vendor checks, data mining and analysis and external and internal reporting mechanisms such as web-based reporting, hotlines and whistleblowing mechanisms and any other internal reporting channels. As per L. Pesch and J.S. Davis (2012), fraud detection and reporting techniques instituted in different organizations should depend on the trait of the organization.

PWC (2012), firms should be position need to be able to detect and report these cases. Fraud detection currently is not just a good business exercise but should be a necessity. Most enterprises face several risks, each of which is enormous and possibly destructive. Fraud detection calls for measures to stop fraud from occurring in the first place (Bolton and Hand, 2002). Prevention is the utmost proactive and practical fraud aggressive control. Without precise and detailed fraud data and investigation, firms are not able to assess where and why they are at risk of fraud. The 2018 ACFE report notes that, the fraud detection techniques include carrying out an employee anti-fraud, increasing the perception of detection, enforcement of mandatory

vacations and job rotation, use of proactive audit procedures, having management oversight (be observant) and proper reporting programs and mechanisms and instituting proper tone at the top are main ways that enhances fraud reporting.

According to ISA 315, if an auditor recognizes a fraud, they should convey the finding on a timely basis to the appropriate level of management (i.e., those with the primary responsibility for prevention and detection of fraud). If the alleged fraud involves management, the auditor shall inform such matters to those responsible with governance and if the auditor has suspicions about the integrity of those responsible with governance, they should strive for legal advice concerning a proper course of action.

2. Manufacturing Firms in Kenya

The manufacturers via the Kenya Industrial Transformation Program (KITP) propose to raise the influence of manufacturing companies from 9.2% to 15% by year 2022. Other government plans like The Kenya Vision 2030 and the Big 4 Agenda have all been planned by the Government to improve the growth and development of the manufacturing sector. The Big 4 Agenda hopes to grow the GDP to 15% by year 2022. Manufacturing firm's contribution to GDP has festered at about 10% and remained at 9.2% in year 2016 (KNBS, 2017). Consequently, the Kenyan government like other emerging nations has put a lot of investment on industrialization and manufacturing sector growth. The sector importance's being largely on financial improvement of the citizens. Manufacturing does this by fortifying and proceeding with high beneficial advancement, boosting business; open for semi-skilled work and building the country. There are few countries if at all that have been able to industrialize without the manufacturing sector. Manufacturing companies in Kenya have a wide extent of goals. The critical ones being a quick improvement to fulfill basic needs, the improvement of the economy, course of action of business and expanding of the economy and an upgraded mechanical and innovative base.

3. Statement of the Problem

No business is immune from fraud. Cases of fraud and misappropriation of resources and funds is creating anxiety, fear, and a loss of confidence in the minds of investors. At the heart of fraud prevention and detection is internal controls . Organizations that institute internal controls should ensure they are working in an effective manner as this is the only way they can detect and prevent fraudulent activities (Origa, 2015). Efficient and effective internal controls safeguard the safety of assets. Internal controls play a major role in ensuring that assets safety is not compromised, avoiding misuse or misappropriation of the firm's assets, and detecting and safeguarding against possible fraudulent activities (Kakucha, 2009).

One of the sectors that have been experiencing different types of fraud is the manufacturing sector. Muhunyo and Jagongo (2018) indicate that 48.4% of the manufacturing firms in Kenya have experienced cases of fraud, which include corruption, asset misappropriation and financial statements fraud. For manufacturers, the most common fraud schemes include corruption (50%), billing schemes (23%), theft of non-cash assets, such as inventory or fixed assets, (23%), and inflated expense reimbursements (20%). Okoye and Ndah (2019) also observed that the manufacturing sector is characterized by poor ethical practices, integrity issues and management policies (control environment), absence of proper evaluation instruments of procedures and policies (monitoring), poor and weak risk assessment and lack proper ways of receiving, spreading, and acting on information (information/communication). The increasing cases of fraud in the manufacturing sector are worrying and hence it is important to understand the effect of internal controls on fraud reporting.

It is for this gap that this study seeks to respond to the research question; what is the effect of internal control system on fraud reporting among manufacturing firms in Kenya?

4. Research Objectives

The general objective of the study was to determine the effect of internal control systems on fraud reporting of manufacturing firms in Kenya with a specific objective to: establish the effect of control environment on fraud reporting of manufacturing firms in Kenya.

RESEARCH METHODOLOGY

The study used descriptive survey design. The target population of the study was 308 manufacturing firms that are members of Kenya Association of Manufactures and are within Nairobi City County. Slovin's Formula was utilized in sample size determination and Stratified random sampling was used in the selection of 174 manufacturing firms form the target population. The study used semi-structured questionnaires in the collection of primary data. Before the main data collection, a pilot test was conducted to assess the validity and reliability of the research instrument. Thematic analysis was used to analyze qualitative data and the outcomes provided in prose form for ease of understanding. Descriptive and inferential statistics with the assistance of statistical package for social sciences (SPSS version 22) were used to analyse quantitative data. Descriptive statistics included mean, frequency distribution, standard deviation and percentages. Inferential statistics included correlation and multivariate regression analysis. The results were presented in tables and figures.

RESEARCH FINDINGS AND DISCUSSIONS

5. Control Environment and Fraud Reporting

The respondents were requested to indicate their level of agreement on various statements relating to control environment and fraud reporting in manufacturing firms in Kenya. A 5-point Likert scale was used where by 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized not sure, 4 symbolized agree and 5 symbolized strongly agree. The results were depicted in Table 1 below.

Table 1: Control Environment and Fraud Reporting

Statement	Mean	Std. Deviation
Our organization has an audit and risk committee that consults the external auditors in matters concerning fraud suspicions	3.208	0.621
Fraudulent cases among the employee can lead to lose of job and employees are tasked to report any suspicion	3.896	0.029
In our organization the management demonstrates pledge to integrity and ethical values and zero tolerance to fraud	2.208	1.096
The board of directors in our organization establishes a suitable tone and genuine expectations on management to implement an anti-fraud philosophy	2.792	0.714

Our organization has formalized fraud policies and procedures for all operations	3.861	0.186
Our organization has designed structures, authorities, and responsibilities to ensure smooth functioning and fraud reporting	2.417	1.093
Our organization has established clear responsibility and authority lines to guarantee compliance with the policies and procedures	1.993	0.215

The results showed that the respondents were not sure whether their organization has an audit and risk committee that consults the external auditors in matters concerning fraud suspicions. This is shown by a mean of 3.208 (std. dv = 0.621). However, the participants agreed that their organization has formalized policies and procedures for all operations. This is supported by a mean of 3.861 (std. dv = 0.186). As shown by a mean of 3.896 (std. dv = 0.029), the participants agreed that fraudulent cases among the employee can lead to lose of job. Beasley (1996) and Felo (2003) indicated that audit and risk committee is essential for proper prevention of fraudulent activities in any organization.

From the results, the respondents were not sure whether the board of directors in their organization establishes a suitable tone and genuine expectations on management to implement an anti-fraud philosophy. This is shown by a mean of 2.792(std. dv = 0.714). As shown by a mean of 2.417(std. dv = 1.093) the participants were not sure whether the organization has designed structures, authorities, and responsibilities to ensure smooth functioning. Saren and Beelde (2008) argued that proper coordination between internal auditors and external auditors facilitates fraud reporting in an organization.

The respondents disagreed with the statement indicating that the organization has established clear responsibility and authority lines to guarantee compliance with the policies and procedures. This is shown by a mean of 1.993 (std. dv = 0.215). Further the respondents also disagreed with the statement indicating that the organization management demonstrates pledge to integrity and ethical values, as shown by a mean of 2.208(std. dv = 1.096). Olumbe (2012) indicates that fraud reporting in an organization calls for adoption of integrity and ethical values in the company.

The respondents were told to state in their own view how else control environment influences fraud reporting in manufacturing companies in Kenya. From the findings, the respondents indicated that some control environment attributes like level of risk, tone-at-the-top, and control knowledge, visibly defined and conveyed are considerably related to the role of the internal control systems and fraud exposure within an organization. However, some revealed that control environment has no significant effect toward fraud reporting. The respondents indicated that control environment is related to financial performance. These results are in line with findings of Abu-Musa (2004) who found that control environment indicated by organization policies and procedures influence the financial performance of the organization.

The respondents stated that the board of directors and the senior management in their organizations determine the tone at the top regarding the importance of internal control including required standards of conduct. In addition, the participants showed that the board of directors and executive management of the organizations determine the company culture and attitude concerning the importance of keeping controls and set the expectations of standards of conduct within the organization. These findings agree with Saren and Beelde

(2008) findings that the top including the senior management and the board of directors provide the way in which internal controls are to be used and their importance to the firm.

The study found that to help assure that the company maintains a good business reputation, many business managers concerned about public relations will develop and promote a set of suitable ethical values for staff within the company to keep in mind when doing business with the customers. Organizational structure is considered as the viewing glass or perspective through which individuals see their organization and its environment. These results concur with Hao, Kasper, and Muehlbacher (2012) findings that organizational structure is important in improving organizational performance.

6. Test for Normality

Shapiro-Wilk test was used to test the normality of data. Null hypothesis in Shapiro–Wilk test indicate that variables data are obtained from a normally distributed population. Therefore, the p-value should be greater than the significant level of 0.05. The results for normality in this study are as shown in Table 2.

Table 2: Tests of Normality

	Statistic	**df**	**Sig.**
Control Environment	.969	144	.061
Fraud Reporting	.979	144	.079

According to the findings, as shown in Table 2 the respective p-values were: control environment (p-value=0.061) and fraud reporting (p-value=0.079). All the p-values are above the predetermined p-value significance threshold of 0.05 and therefore we do not reject the null hypothesis that the sample data were obtained from a normally distributed population. This implies that the data for all the variables were normally distributed.

7. Linearity Test

One of the other assumptions in regression analysis is that the predictor (independent) variables and predicted (dependent) variable relationships are linear in nature. Linear relationship tends to exist when the values of the dependent variable(Y) and the values of the independent variables (X) are apparently in a straight line when plotted on a graph. The line could be in a negative or positive slope.

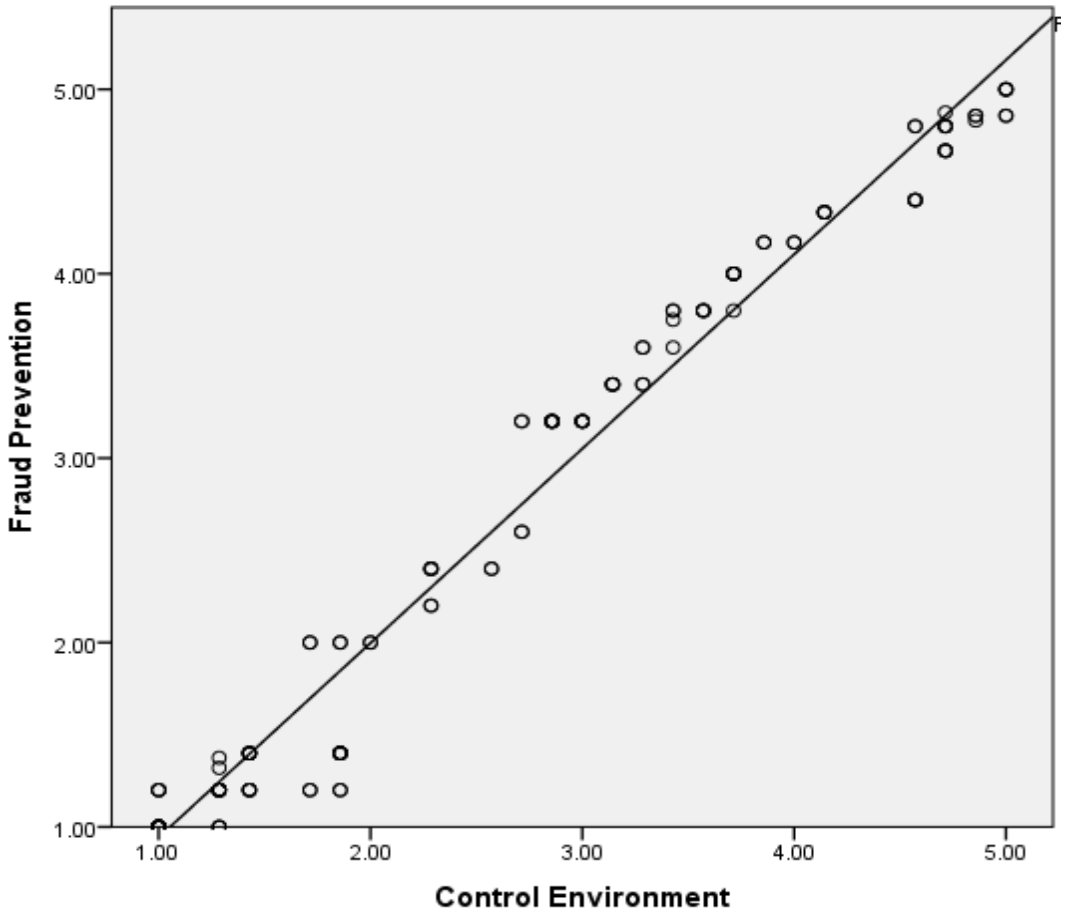

Figure 1: Scatter plot for Control Environment and Fraud Reporting

As shown in Figure 1, control environment has positive linear relationship with fraud reporting in manufacturing firms in Kenya. The findings imply that an improvement in control environment leads to an increase in fraud reporting in manufacturing firms in Kenya. The findings agree with Zakaria, Nawawi, and Salin, (2016) findings that control environment significantly influence on reporting.

8. Multi-collinearity Test

Multi-collinearity is used to determine the probability that independent variables (which are equal or greater than 2) in a multivariate regression model are highly or significantly correlated. This would mean that one variable can be predicted from the other in case the correlations among the independent variables are quite strong; the standard error of the coefficients tends to increase thus leading to undesirable events. The study adopted the use of Variance Inflation Factor (VIF) to measure the level of correlation among the variables. The general principle is that VIF which is greater than ten (10) tend to warrant further investigation.

Table 3: Collinearity Statistics

	Tolerance	**VIF**
Control Environment	0.760	1.316

The VIF, as shown in Table 3, indicates that multicollinearity was absent among the independent variable, since the VIF values were below 2 which is the acceptable threshold below which indicates absence of multicollinearity. This implies that the independent variable is not highly correlated among themselves.

9. Correlation Results

The study established the relationship between independent variables of the study and dependent variable. Consequently, a correlation coefficient matrix to assess relationship between study variables (independent variables) themselves is also indicated. The results are as shown in table 5.

The results show that the control environment and fraud reporting positively and significantly correlates as shown by a correlation coefficient value of 0.217 and a p-value of 0.007. This implies that enhancing control environment positively contributes to increased fraud reporting amongst the manufacturing firms. The findings concur with Zakaria, Nawawi, and Salin, (2016) who found that some control environment attributes like level of risk, tone-at-the-top, and control knowledge, visibly defined and conveyed are considerably related to the role of the ICS and fraud exposure within an organization.

Table 4: Correlation Analysis

		Control Environment	**Fraud Reporting**
Control Environment	Pearson Correlation	1	
	Sig. (2-tailed)		
Fraud Reporting	Pearson Correlation	.217*	1
	Sig. (2-tailed)	0.007	
	N	144	144

Inferential statistics use continuous data and not categorical data. Likert scale comprises of categorical data (ordinal) and hence cannot be used in conducting inferential statistics such as correlation analysis and regression analysis that demand the use of continuous data. To obtain continuous data, averages of responses (in the Likert questions) in each of the variables were obtained.

10. Regression Analysis

Multivariate regression analysis was used in determining the association between the dependent (fraud reporting in manufacturing firms in Kenya) and independent variables (control environment, risk assessment, control activities, information & communication, and monitoring).

The multivariate regression model was as follows:

$Y = \beta_0 + \beta_1 X_1 + \varepsilon$

Where, Y = is the dependent variable (fraud reporting in manufacturing firms in Kenya), β_0 = Constant Term; β_1 = regression coefficients; X_1= control environment and ε = error term.

Table 5: Regression Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	0.116	0.050		2.320	0.024
Control Environment	0.277	0.115	0.260	2.409	0.018

The regression equation was.

Fraud Reporting =0.116 +0.277 (Control Environment)

The results revealed that control environment has a positive and significant influence on fraud reporting in manufacturing firms in Kenya (β_1=0.277, p value= 0.018). The association was significant because the significant level (0.05) was greater than the p value (0.018). This implies that control environment leads to an improvement in fraud reporting in manufacturing firms in Kenya. The findings agree with De Beelde and Sarens, (2006) findings that control environment has a positive and significant influence on fraud reporting.

SUMMARY AND CONCLUSION

The study found that control environment has a positive and significant influence on fraud reporting in manufacturing firms in Kenya. It was established that although organizations have an audit and risk committee, the committee rarely consults from external auditors in matters concerning fraud suspicions. The study established that not all employees engaging in fraudulent activities are sacked from the organization. The study also found that the management does not always demonstrate pledge to integrity and ethical values. In addition, the study found the organization has formalized policies and procedures for all operations Nevertheless, the findings established that the organization has not established clear responsibility and authority lines to guarantee compliance with the policies and procedures.

The study found that the board of directors and senior management in their manufacturing firms establish the tone at the top regarding the importance of internal control including expected standards of conduct. In addition, the board of directors and executive management of manufacturing firms establish the company culture and attitude regarding the importance of maintaining controls and set the expectations of standards of conduct within the organization. The study also revealed that to help assure that the company maintains a good business reputation, many business managers concerned about public relations will develop and promote a set of suitable ethical values for staff within the company to keep in mind when doing business with the customers. Organizational structure is considered as the viewing glass or perspective through which individuals see their organization and its environment.

The study concludes that control environment has a positive and significant influence on fraud reporting in manufacturing firms in Kenya. The study also found that the management does not always demonstrate pledge to integrity and ethical values. Further, the findings established that the organization has not established clear responsibility and authority lines to guarantee compliance with the policies and procedures.

The study found that control environment has an effect on fraud reporting in manufacturing firms. The study therefore recommends that the management of manufacturing firms should develop policies and procedures for operations in order to improve fraud reporting. In addition, the study found that that manufacturing firms have not established clear responsibility and authority lines to guarantee compliance with the policies and procedures. This study therefore recommends that the top management in the manufacturing firms should put into place proper lines of authority as well as proper duty allocation hence making each employee responsible of their own actions.

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