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EFFECT OF PRESSURE ON FRAUD IN NIGERIAN DEPOSIT MONEY BANKS

Fasua Kayode Olushola

Nigerian College of Accountancy, Jos

Uwaleke Uche

Department of Banking and Finance, Nasarawa State University, Keffi

Abstract

The recent corporate collapses of large organizations including banks have raised questions about the efficacy of contemporary management and fraud prevention and detective mechanisms in investigating and identifying the cause of the failure. Therefore, the study investigates the effect of pressure on the fraudulent practices in the deposit money banks listed in Nigeria. The population of the study consists of all the 14 deposit money Banks listed in Nigeria (DMBs) as at December, 2015 which consist our sample size, multiple regression technique of data analysis were employed using multiple regression model, structured using longitudinal balanced panel data. The findings of the study revealed that external pressure and meeting financial target has a significant negative impact on the fraudulent practices in the deposit money banks listed in Nigeria, while managers' personal financial situation is having a significant positive influence on fraud in the deposit money banks listed in Nigeria, finally, financial stability is not in any way impacting on the fraudulent practices in the deposit money banks in Nigeria. The study therefore, recommended that, the management of listed Nigerian deposit money Banks should intensify effort by strengthening their internal control system, competent management, effective supervision. However, the managements are also advice to provide a serious punishment to the perpetrators of fraud as well as reporting cases of actual or suspected fraud to responsible commissions such as economic and financial crime commission

(EFCC) and to bring it to the notice of public which will deter their image, consequently discourage prospective perpetrators.

1.1 Introduction

Fraud is one of the most negative factors that disturb most societies; it had appeared in ancient times and has not disappeared to this day. In today's environment, dominated by democratic, high-tech and information technology, not only the number of the executed frauds has increased, but also their volume; there have also emerged new types of fraud, fraud-committing, and evasion techniques that have been completely unknown before (Abdul-Rasheed, Babaita & Tinusa 2012; Abdullahi 2011). As a consequence, individuals who commit fraud are constantly probing for new efficient, more sophisticated methods of deceit by systematically investigating the company's in-house and outdoor setting, accounting and internal control systems, by analyzing the company's financial condition and results of operation, and by evaluating a number of other factors. It should be noted that fraud causes damage not only to a particular company, but also to all parties involved – investors, suppliers, banks, and insurance companies etc.

The perpetrators of fraud in the banking industry usually perpetrate fraud due to serious pressure on them internally or externally without a significant financial compensation. External pressure from family, peer group, and friends are serious threat that may compel an employee to engage in financial malpractice. However, this is because this external pressure especially family pressure are those that cannot be transferable or share to anybody which may force the perpetrators to conceive of themselves as having incurred financial obligation which are considered non- socially sanctionable and which must be satisfied by a private or secret means (Cressey, 1950). Moreso, pressure from the employer either as a result of non-conducive working environment, poor salary scale, unbearable working hours, denial of break time, disregard to employee health condition are also core reasons that encourage a common employee especially low cadre employee to engage in financial forgeries. Thus, it may negatively affect the performance of the deposit money banks in Nigeria.

The magnitude of fraud cannot be known for sure, because much of it is undetected and not all that are detected were published. It is also a known fact that the banking system is not immune to fraudsters, not even the security system designed to protect it (Adewumi, 2007; Nwankwo, 2005). Fraud, which is literarily a conscious and deliberate action by perpetrators with the intention of altering the truth or fact for personal gain, is a veritable threat to the entire banking industry. It is indeed worrisome that while banks are constantly

Effect of Pressure on Fraud in Nigerian Deposit Money Banks

struggling with the demands of monetary authorities to recapitalize up to the stipulated minimum standards, fraudsters are always at work threatening and decimating their financial base. Again, more worrying is the rise in the number of employees involved in fraud, of which many succeeded, thus, encouraging many others to perpetrate fraud (Turner, Mock, & Srivastava 2003). This situation has been made possible because there are many factors or determinants that lead to or encourage fraud in any system including the banking system.

Again, it is a known fact that banks associated with high level of risk will usually have low or poor performance compared with firm or bank with low level of fraud occurrences which are expected to perform better. This is because fraud always have a negative effect to company's reputation, value, operation and it asset which will consequently affect it performance. The fraud triangle theory by Cressey (1950) believed that, there are basically three factors which drive individual employee to perpetrate fraud in an organization otherwise known as fraud determinant. According to the profounder pressure, opportunity and rationalizations are the drivers to fraud in an organization. However, this study is restricted pressure as a determinant of fraud in the Nigerian deposit money banks.

Furthermore, the major objective of every corporate enterprises especially banks is to maximize profit and minimize losses by efficient and effective internal and external checks. Financial institutions in Nigeria especially the Nigerian deposit money banks are the most common institutions in which currencies and currency equivalent exchange hands or transact daily. Thus, this daily movement of cash and cash equivalent in the Nigerian deposit money banks attract the fraudsters to use any available mechanisms at their disposal to penetrate the system. Hence despite the existence of all the internal checks (internal control system), external (External auditors) and regulators (Nigerian deposit insurance corporation, central bank of Nigeria, Asset management company of Nigeria, Economic and financial crime commission etc) who are there to ensure that shareholders wealth is safe from any undue malpractices by the common employee or the middle level management or even by the top management. Despite the existence of all this indoor and outdoor mechanisms still the perpetrators of financial malpractices were braking the system such as the case of Oceanic Bank plc, Intercontinental Bank Plc, First inland Bank among others were financial fraud was perpetrated and lead to decrease performance and the value of their share price. Thus, it is as a result of the foregoing that fraud triangle approach was profound by Cressey (1950) to investigate the determinants of fraud which he argued pressure is the main driver. Pressure incentive results from a perceived pressure on managers or employees to commit fraud. A firm may hold incentives to manipulate earnings, when any of the following four conditions occurs. First, financial stability is

threatened by economy and industry. Second, management is pressured for meeting expectations of third parties. Third, management or directors' personal financial situation is intimidated by the entity's financial performance and finally the ability of managers to meet financial targets.

In addition, Thanasak (2013), Peterson and Buckhoff (2004), Rezaee, Crumbley and Elmore (2004) and Bierstaker, Brody and Pacini (2006) were all of the view that fraud triangle theory of Cressey (1950) affect performance most were as Wolfe and Hermanson (2004), Normah and Hesri (2010), Florenz (2012), Gbegi and Adebisi (2013) are of the contrary view that fraud triangle theory is not enough to determine fraud levels Thus, to the best of the researchers' knowledge no local study so far that examine the determinant of fraud in the deposit money banks listed in Nigeria using pressure approach. Consequently, this study is set to fill the gap by investigating the effect of pressure as one of the fraud risk factor as provided by Statement of Auditing Standard on the fraud in the Nigerian Deposit Money Banks.

1.2 Objectives of the Study

- i. To examine the concession effect of financial stability on the fraud of deposit money bank listed in Nigeria.
- ii. To investigate the influence of external pressure on the fraud of listed deposit money banks in Nigeria
- iii. To determine the impact of managers personal financial situation on the fraud of deposit money banks listed in Nigeria
- iv. To investigate the effect of meeting financial target on the fraud of deposit money banks listed in Nigeria.

1.3 Hypotheses of the Study

Base on the objectives, the following hypotheses were formulated:

- H0₁: Financial stability has no significant impact on the fraud of deposit money banks listed in Nigeria.
- H0₂: External pressure has no significant impact on the fraud of deposit money banks listed in Nigeria.
- H0₃: Managers personal financial situation has no significant impact on the fraud of deposit money banks listed in Nigeria.
- H0₄: Meeting financial situation has no significance influence on the fraud of deposit money banks listed in Nigeria.

Consequently, stakeholders, shareholders, the management of Nigerian deposit money banks, Nigerian deposit insurance corporations, central bank of Nigeria

stand to benefit tremendously from the outcome of this research. The remaining parts of the paper cover four sections- section two contains theory and evidence where arguments are presented and previous literatures are reviewed, methodology is discussed in section three. In addition, results, policy implications and conclusion are presented in section four and five respectively.

2.1 Theory and Evidence

Fraud is a universal issue which is not peculiar to Nigeria. As a result of its negative impact on Bank financial performance researchers' over the world put so much effort to examine the level of its impact on financial performance. Kanu & Okorofor (2013) tested the attributes of the theory of diffusion of innovation empirically, using automated teller machines (ATMs) as the target innovation. The study found that attitudinal dispositions significantly influence the use of ATM in any bank and thereby affecting the performance of the bank. In a study by Adewunmi (2007) explain that bank fraud happens as a result of lapses in the socio-economic and misplacement of societal values, the unquestioning attitude of society towards the sources of wealth, the rising societal expectations from bank staff and the subsequent desire of the staff to differentiate his life style among his peers in the society are also the contributing factors to fraud. In addition the level of job involvement has function of three factors: motivation, identification and feeling of pride that people achieve in their job (Akindele, 2011). Greediness and arrogance plays an important role to staff at a specific cadre to engage in financial malpractices (Okezie 2012).

In a study carried out by Otusanya (2009) on the role of Bank CEOs in the perpetration of corporate executive frauds in the Nigerian banking sector. The study found that recent banking crises in Nigeria have exposed the activities of bank executives in corruption and fraudulent practices using institutional anomie theory called American dream theory, whereby the pursuit of monetary success has come to dominate the society. Idowu (2009) conducted a research on the means of minimizing the incidence of fraud in the Nigerian banking industry. Findings of the study revealed that, so many factors contributed to the incidence of frauds in banks amongst which are poor management of policies and procedures, inadequate working conditions, bank staff staying longer on a particular job and staff feeling frustrated as a result of poor remunerations.

Pressure in this regard refers to the factors that lead to unethical behavior of financial irregularities. Every fraud perpetrator faces some pressure to commit unethical behavior (Abdullahi & Mansor, 2015a). These pressures can either be financial or non-financial pressures. Albrecht et al. (2006) pointed out that, were a staff is of the belief that they were pressurized, this belief could lead to fraud.

Pressure can exist in various ways, especially in non-sharable financial need. Financial pressure is recognized as the most common factor that lead an entity to engage in an evil action. Specifically, about 95% of all fraud cases have been perpetrated due to the fraudster's financial pressures (Albrecht et al., 2006). However, Lister (2007) stated that pressure is a significant factor to commit fraud. He determines three types of pressure which are personal, employment stress, and external pressure. Vona (2008) further examines personal and corporate forces as motivations' proxies for fraud commitment. Examples of pressure include greed, living beyond one's means, large expenses or personal debt, family financial problem or health, drug addiction and gambling (Lister 2007). In a study conducted by Murdock (2008) he argued that pressure could be related to financial, non-financial, political and social. Political and social pressure occurs in a situation whereby a person feels and believes that they cannot afford to fail due to their status or reputation. According to Rae and Subramanian (2008) pressure relates to employees' motivation to commit fraud because of greed or personal financial pressure. Along the same line, Vona (2008) and Rasha & Andrew (2012) believed that personal and corporate pressures are the key motive to commit fraud. The interaction of the elements above causes an individual to commit fraud (Rosefield, 1988; Vona, 2008; Okezie, 2012 and Rasha and Andrew, 2012). Chen and Elder (2007) recognized six basic categories for pressure as a transgression of obligations, personal problems, corporate inversion, position achievement and relationship between employees. Albrecht *et al.* (2008) categorized pressure in four groups including economic. Hooper and Pornelli (2010) opine that pressure can be a positive or negative force to performance.

The incentive to misstate earnings can arise due to pressure to meet analysts' forecasts, compensation and incentive structures, the need for external financing, or poor performance. Dechow et al. (1996), using a sample of 92 firms subject to accounting enforcement releases during the period 1982–1992, find that an important motivation to manipulate earnings is the desire to attract external financing at low cost.

Erickson et al. (2006) investigate whether executive equity incentives are associated with accounting fraud. They examine a sample of firms accused of fraud during the 1996–2003 period and do not find any relation between equity incentives and the likelihood of the firm reporting fraudulent financial information. In contrast, Efendi et al. (2007), using a sample of firms that restated their financial statements, find the likelihood of a misstated financial statement increases when the CEO has a sizable amount of stock options “in-the-money.” They also find that misstatements are more likely for firms constrained by debt

covenants, firms raising new debt or equity capital, or firms that have a CEO who serves as the chairman of the board.

Burns and Kedia (2006) also documented that stock options are associated with stronger incentives to misreport because options make CEO wealth a convex function of stock price. Beneish (1999a) finds that, for a group of firms subject to accounting enforcement actions by the SEC, managers are more likely to sell equity holdings and exercise stock appreciation rights in periods when earnings are inflated, suggesting insider trading behavior may be informative about earnings overstatements. Summers and Sweeney (1998) find similar result for the relationship between insider trading and fraud. More recently, there is evidence that hundreds of firms were involved in intentional backdating of stock options (Lie 2005), which again provides evidence that stock option compensation provides incentives for fraudulent behavior. A Glass Lewis and Co. (2005) report states that about half of the companies implicated in backdating their stock options have restated their financial statements. With regard to poorly performing firms,

Rosner (2003) examined whether failing firms are more likely to engage in income-increasing manipulation, and whether auditors detect the overstatements in firms they perceive to be failing. Her findings suggest that the behavior of failing firms that do not appear distressed on the basis of accrual data, but nonetheless show significant decreased cash flows, is consistent with material earnings overstatements in non-going-concern years that are followed by overstatement reversals in going-concern years. The accrual behavior of these firms resembles that of firms sanctioned by the Securities and Exchange Commission (SEC) for fraud.

Theoretically, fraud triangle theory (FTT) of Cressey (1950) is the theory that underpins this study. Fraud triangle theory suggests that three factors must be present before any fraud to be successful. On the other hand the theory postulate that there are three main drivers that normally engineered staff to commit financial malpractice in an organization which may consequently have negative effect on the performance of an organization.

3.1 Methodology and Model Specification

Ex-post facto research design is adopted for the purpose of this study. This design is suitable because the data to be extracted were not meant for the purpose of this research but for other purposes. In addition, considering the approach of the research which is quantitative in nature and that ex-post facto is siblings of quasi-experimental research design which is a social science research design. The

population of this study comprises of the thirteen (14) Deposit Money Banks listed on Nigerian Stock Exchange as at 31st December 2015 of which all the 14 were taken as sample size. Secondary sources of data collection is adopted were the annual audited report and account of this banks and the Nigerian deposit insurance corporation annual report is used to extract the relevant data for the study. Multiple linear regression technique is used where longitudinal balanced panel model is used to examine the concession effect of pressure on fraud. The power of this technique to examine the effect of one variable (dependent) against two or more independent variable was behind the choice of this technique. Therefore in order to test the hypotheses formulated and achieve the objectives of the study, the following longitudinal balanced panel model is specified:

$$FRD_{it} = \beta_0 + \beta_1FS_{it} + \beta_2EP_{it} + \beta_3MPFS_{it} + \beta_4MFS_{it} e_{it}$$

Where:

β_0 = Constant intercept

β_1 - β_3 = Coefficient of the parameters

$_{it}$ = firm and year

e_{it} = error term

Table 3.1: Variable Measurement

| S/No. | Variables/Proxies | Measurement |
|-------|---|---|
| 1. | Fraud | Natural log of total amount of fraud for a bank annually. |
| 2. | Financial situation(FS)/Gross profit margin | Gross profit margin |
| 3. | External pressure (EP)/Leverage | Total debt to Total asset |
| 4. | Managers personal financial situation (MPFS)/Managerial ownership | Total value f shares held by managers to Total value of issued shares |
| 5 | Meeting financial target (MFT)/Return on asset | Total profit after tax to Total asset |

Source: Author, 2016

4.1 Result and Discussion

This section discusses the result of the study starting with the descriptive statistics, correlation matrix, robustness test and finally the summary of the regression result.

4.2 Descriptive Statistics

The following table 2 describes the nature and trend of the data for the dependent and independent variables. In this section the average, minimum, maximum, standard deviation, kurtosis and finally skewness related to individual variable will be presented and discuss.

Table 2 Descriptive Statistics

| Variable | FRD | FS | EP | MPFS | MFT |
|-----------------|------------|-----------|-----------|-------------|------------|
| Mean | 1.980159 | 0.1414239 | 0.6266033 | 12.29244 | 11.54814 |
| Std. Dev | 4.352805 | 0.0666535 | 0.3747888 | 17.92033 | 36.47531 |
| Minimum | 0.693147 | 0.0675453 | 0.039427 | 0.002 | -332.2766 |
| Maximum | 22.4933 | 0.2918782 | 1.79855 | 52 | 74.83327 |
| Skewness | 4.489202 | 0.9327817 | 1.238224 | 1.300325 | -6.008283 |
| Kurtosis | 21.23554 | 3.233316 | 4.109285 | 3.267413 | 57.73193 |

Source: STATA output 2015

Table 2 shows that the measure of fraud (FRD) in the Nigerian listed deposit money banks (NDMBs) has a mean value of 1.980159 with standard deviation of 4.352805, and minimum and maximum values of 0.693147 and 22.4933 respectively. This implies that the average fraud committed in NDMBs is 1.980159 to 22.4933 within the period of the study, and the deviation from both sides of the mean is 4.352805. This suggests a wide dispersion of the data from the mean because the standard deviation is far away from mean. The skewness and kurtosis values of 4.489202 and 21.23554 suggest that most of the data are skewed right (that is most of the data are on the right hand side of the normal curve) which is a violation of the symmetrical distribution assumption. However, the value of the kurtosis of 21.2354 which represent the peak of the data suggest that most of the values are higher than mean, hence violation of normal distribution assumption.

Similarly, the table also indicate a minimum financial stability of 0.693147 implying that the gross profit margin as a measure of financial stability cover 69% of the fraud perpetrated as a result of pressure; on the other hand, it reveal a maximum of 29% implying a situation whereby the gross profit margin covers 29%of financial stability in the NDMBs. The peak of the data is indicated by the kurtosis value of 3.233316, suggesting that most of the values are higher than mean, hence the data did not meet a normal distribution assumption. The coefficient of skewness of 0.9327817 implies that the data is positively (that is, the data are on the right hand side of the curve), thus, the data did not meet the symmetrical distribution assumption. Similarly, the table indicates that the average external pressure is 62% with a standard deviation of 37%, and minimum

and maximum of 0.039427 and 1.79855 respectively. This suggests a wide dispersion of the data from the mean because the mean value is higher than the standard deviation. The peak of the leverage as a measure of external pressure data is indicated by the kurtosis value of 4.109285, suggesting that most of the values are higher than mean, and the data did not meet a normal distribution assumption. The coefficient of skewness of 1.238224 implies that the data is positively skewed (that is, most of the data are on the right hand side of the curve), implying that the data did not meet the symmetrical distribution assumption.

In addition, the table also indicates an average managerial ownership as a measure of managers' personal financial situation of 12.29244 with standard deviation of 17.92033, with minimum and maximum values of 0.002 and 52 respectively. This also suggests a wide dispersion of the data from the mean because the standard deviation is higher than the mean value. The peak of the managers' personal financial situation data is indicated by the kurtosis value of 3.267413, suggesting that most of the values are higher than mean, and the data did not meet a normal distribution assumption. The coefficient of skewness of 1.300325 implies that the data is positively skewed (that is, most of the data are on the right hand side of the curve), implying that the data does not meet the symmetrical distribution assumption. Finally, table 2 above also indicate a minimum meeting financial target of 11.54814 implying that the return on asset as a measure of meeting financial target cover 11.54814 of the fraud perpetrated as a result of pressure; on the other hand, it reveal a maximum values of 74.83327 implying a situation whereby the return on asset covers 74.83327of meeting financial target in the NDMBs. The peak of the data is indicated by the kurtosis value of 57.73193, suggesting that most of the values are higher than mean, hence the data did not meet a normal distribution assumption. The coefficient of skewness of -6.008283 implies that the data is negatively skewed (that is, the data are on the left hand side of the curve), thus, the data did not meet the symmetrical distribution assumption.

The analysis of the descriptive statistics of the study variables shows the nature and extent of dispersion of the data, which strongly suggested that the data did not follow the normal curve as indicated by the higher values of standard deviations, skewness and kurtosis. Thus, the Guasian theorem (1929) and Shao (2003) suggest that normality of data does not in any way affect the inferential statistics estimate. Therefore, the following table 3 will present the correlation matrix of the variables and table 4 present the regression result of the study.

4.3 Correlation Matrix

The following table 3 present the correlation matrix table where the relationship of the independent variables and the dependent variable is analyse and also between independent variables and themselves.

Table 3: Correlation Matrix

| Variable | FRD | EP | FS | MFT | MPFS |
|-----------------|------------|-----------|-----------|------------|-------------|
| FRD | 1.0000 | | | | |
| EP | -0.2641 | 1.0000 | | | |
| FS | 0.1079 | 0.1575 | 1.0000 | | |
| MFT | -0.3057 | -0.1801 | -0.1965 | 1.0000 | |
| MPFS | 0.2133 | 0.2080 | -0.0617 | -0.3611 | 1.0000 |

SOURCE: STATA OUTPUT 2016

The results in Table 3 show the degree of association between fraud (FRD) and all pairs of independent variables individually between them salves and cumulatively with the dependent variable (FRD) of the study in the Nigerian deposit money Banks. The table presents a negativereleation between fraud (FRD) and external pressure (EP) from the correlation coefficient of -0.2641; also a negative association is documented between meeting financial target and fraud. This relationship implies that as the proportion of external pressure (EP) and meeting financial target increases the fraud will in the sample Banks will decrease. In addition, table 3 shows that there is a positive relationship between financial stability (FS), managers' personal financial situation (MPFS) and fraud in the NDMBs, from the correlation coefficient of 0.1079 and 0.2133. Moreover, the table also reveals that the relationship between the pairs on independent variables and themselves are not up to 0.8 and not below 0.01 which signifies that multicollinearity between the variables will not be problem for the study. However, to conclude the relation and the impact of the dependent variable (FRD) and all the pairs of independent variables (external pressure, financial stability, meeting financial target and managers personal financial situation) of Nigerian listed deposit money banks in the regression model of the study is analyzed in the following section.

4.4 Robustness Test for Independent and Dependent variables

This section of the study will present and discuss the entire robustness test conducted in order to improve the validity and reliability of the statistical inferences derivable from the regression model. This test includes; multicollinearity test, Cook-Weisbergb test of heteroskedasticity, Fixed and Random effect test, Hausman specification test for fixed and random and Breusch and pagan Lagrangian multiplier test for random effects.

Table 4: Robustness Test Results

| Variables | VIF | Tolerance Values |
|----------------------------|------------|-------------------------|
| MFT | 1.22 | 0.816653 |
| MPFS | 1.21 | 0.824492 |
| FS | 1.09 | 0.919192 |
| EP | 1.08 | 0.922059 |
| Mean vif | | 1.15 |
| Hetest Chi2 | | 103.02 (0.0000) |
| Hausman test | | 3.57 (0.4675) |
| Lagrangian multiplier test | | 0.08 (0.3908) |

Source: Stata Output 2016

Multicollinearity test is to check whether there is a correlation between independent variables which will mislead the result of the study. Table 3 above presents the correlation matrix of the linear relationships of the independent variables and themselves. From observation, there is no variable with a high correlation of above 0.80, and also no variable with a very low correlation of 0.01 and below, despite this the threat is not too cruel. For that multicollinearity should not be a problem to the statistical inferences derivable from the regression model. However, to formally substantiate the absence of multicollinearity between the independent variables, colinearity diagnostics of variable inflation factor (VIF) and tolerance values (TV) are observed and all indicate the lack of multicollinearity in the panel data as is shown in table 4 above. The table indicates that all the VIF are consistently less than 10 and tolerance values consistently less than 1.0 but greater than 0.01, also the mean vif of 1.15 which is also a support for the lack of multicollinearity between the exogenous variables. In addition, heteroscedasticity test is conducted to check whether the variability of error terms is constant or not. The present of heteroscedasticity indicates that the variation of the error term is not constant which would affect the best linear unbiased estimators (BLUE) of the study. The result of the test reveals that there is a presence of heteroscedasticity because the probability of the chi square is statistically significant at 1%, which indicates that, the data are not homoscedastic. In addition, because of the fact that, there is presence of heteroscedasticity a further test is required for fixed and random, thus, hausman specification test is also conducted to help select between the fixed and random effect result. The chi₂ reveals 3.57 with a probability value of 0.4675 which is not significance suggesting that, ordinary least square regression (OLS) result will best suit the study. Thus, robust OLS is hereby presented.

4.5 Summary of the Regression Result

The Summary of the regression result will be presented and discuss in the following table 5:

Table 5 Summary of the regression result

| Variable | Beta Coefficients | Z-values | p-values |
|----------------------|--------------------------|-----------------|-----------------|
| EP | -0.2376173 | -3.93 | 0.000 |
| FS | 0.0139423 | 1.51 | 0.131 |
| MFT | -0.0135266 | -4.36 | 0.000 |
| MPFS | 0.014792 | 2.23 | 0.026 |
| Constant | 3.96388 | 8.77 | 0.000 |
| R² | | | 0.24 |
| F-Statistic | | | 74 |
| F-Sig | | | 0.0000 |

Source: Stata Output 2016

Table 5 shows that external pressure has a t-value of -3.93 with a beta coefficient of -0.2376173 which is statistically significance at 1% level of significance. This indicates that external pressure has negative impact on fraud perpetrated in the listed deposit money banks in Nigeria. This further explained that an increase in the amount of external pressure the amount of fraud committed in deposit money banks will reduce by 0.2376173 kobo. The result is not surprising because leverage as a measure of external pressure is expected to monitor and control better the tendencies for managers to use their discretion in perpetrating fraud. In addition the presence of debt covenant also contributed to this finding of the study. In addition, external pressure put by the debt holders on the management by monitoring the activities in the company and ensuring that their money they extend to this banks a loan is properly utilized for the purpose of which its purport to be will force managers to employ all the necessary mechanisms in order to prevent the occurrence of fraud. Thus, the finding validates fraud triangle theory (FTT). However the result is in line with reality of practice that, the presence of debt covenant prevent better the opportunistic tendencies of managers to manage earnings opportunistically which may lead to fraudulent practices in the deposit money banks listed in Nigeria. Therefore, the policy implication derivable from this finding is that, the board of deposit money banks in Nigeria should encourage external borrowing from other financial institutions since it discourage fraud in the deposit money banks listed in Nigeria. The findings also provide an evidence of rejecting the first null hypothesis of the study that, external pressure have no significant impact on the fraud of Nigerian listed deposit money Banks. The

finding is in line with Kanu and Okorofor (2013), Thanasak (2013) and Peterson and Buckhoff (2004).

In testing the null hypothesis which states that financial stability has no significant impact on fraud of listed deposit money banks in Nigeria. The financial stability has a t-value of 1.51 and a beta coefficient of 0.0139423 with a probability value of 0.131 which is statistically insignificant. This finding explains that gross profit margin as a measure of financial stability is not impacting in any way the fraud that are perpetrated in the deposit money banks listed in Nigeria. This finding did not contradict the study's expectation because financial stability is measured in this study by the gross profit margin, which is a profit before deducting of interest, taxes and other expenses which normally gives managers and or preparers of the financial statement an opportunity to manipulate figures of expenses, interest, deferred taxes for a private gains which is normally fraudulent practices. In addition, the result is in line with reality that managers of deposit money banks listed in Nigeria including top and line managers seize opportunity to perpetrate fraud when putting items of expenses in the financial statement of their respective banks.

The policy implication derivable from the finding of this study is that for the board of deposit money banks listed in Nigeria to recommend for the employment of good professional external auditors with a very sound history of integrity and professionalism and also those with the industry expertise so that they may also serve as a mechanisms to checkmate the management for manipulating accounting figures for private gains when preparing financial statement. The result also gives an evidence of failing to reject the second hypothesis of the study. This finding also support the finding of Thanasak (2013); Peterson and Buckhoff (2004), Rezaee, Crumbley and Elmore (2004) and Bierstaker, Brody and Pacini (2006) were all of the view that fraud triangle theory of Cressey (1950) Srivastava, Mock and Turner (2005), Hooper et, al. (2010), Chen and Elder (2007), Fazli, Mohd and Muhammad (2014), Moyes *et al.* (2005), Wilks and Zimbelman (2004), Ming and Wong (2003), Vance (1983), Kenyon and Tilton (2006) and Wilhelm (2004).

In other to investigate the impact of meeting financial target on the fraudulent activity in deposit money banks in Nigeria, the regression result reveals a t-value of -4.36 and a beta coefficient of -.135266, this is followed by the probability value of 0.000, which is statistically significant at 1% significance level. This implies that return on asset as a measure of meeting financial target has a negative impact on the fraudulent practices in the deposit money banks listed in Nigeria. It further suggests that for every 1% increase in the meeting financial target will affect the amount of fraud perpetrated in the deposit money banks listed in

Effect of Pressure on Fraud in Nigerian Deposit Money Banks

Nigeria by -0.0135266. This result is also not surprising as every officer giving a financial target by the management or the management itself by the board of deposit money banks listed in Nigeria will strive to meet the target instead of finding a way to perpetrate fraud as failure to meet the target will affect their job negatively or means of livelihood. In addition, striving to meet financial target by the employee will likely take off his mind not to think for any fraudulent or financial malpractices. However, strong supervision and effective internal control mechanisms that will be put in place normally whenever, a financial target is given to employees in order to ensure that they meet up the target contribute better in checkmating financial malpractices. The findings provide an evidence of rejecting the third null hypothesis of the study which states that meeting financial target have no significance influence on fraud of deposit money Banks listed in Nigeria. This result is in line with the result of Hooper and Pornelli (2010), Rae and Subramanian (2008), Kenyon and Tilton (2006) and Hassan and Musa (2015).

To formally examine the effect of managers' personal financial situation on fraud in deposit money banks listed in Nigeria. Table 5 shows that, managers' personal financial situation has a beta coefficient of 0.014792 a t-value of 2.23 and a probability value of 0.026. This indicates that, managers' personal financial situation has a positive impact on fraud perpetrated in the listed deposit money banks in Nigeria. This further explained that an increase in the shareholding by managers' as a measure of managers' personal financial situation will increase the amount of fraud perpetrated in the deposit money banks listed in Nigeria by 0.014792. This result is not surprising considering the entrenchment effect argument, that, managers' use their position as managers' to benefit themselves privately which amount to fraud and financial malpractices. In addition, managers' with interest in the entity and serving as managers' in the bank may use their position to practice financial malpractices. However the result is in line with reality of practice that, the presence of managerial interest in the bank encourages opportunistic tendencies of managers' to practice financial malpractice. Therefore, the policy implication derivable from this finding is that, the board of deposit money banks in Nigeria should discourage managerial shareholding since it encourages fraud in the deposit money banks listed in Nigeria. The findings also provide an evidence of rejecting the fourth and final null hypothesis of the study which states that, managers' personal financial situation have no significant effect on the fraud of deposit money banks listed in Nigerian.

The cumulative correlation between dependent variable and all the independent variables is 0.24 indicating that the relationship between fraud and the component

of pressure (external pressure, financial stability, meeting financial target and managers' personal financial situation) in this study is 24% which is positively significant. The explanatory power of the dependent variable and all the pairs of independent variables of 24% is not surprising considering the fact that, it is only one aspect of fraud which is pressure amongst other component of opportunity and rationalization is considered in this study. This implies that for any changes in the pressure proxies (external pressure, financial stability, meeting financial target and managers' personal financial situation) of listed deposit money Banks in Nigeria will affect the amount fraud perpetrated dir

Hence, this indicates that, the model is fit and the explanatory variable are properly selected, combined and used as evidenced by the Fishers' statistics of 74.00 which is statistically significance at 1%.

The study has several theoretical, practical and regulatory implications. These implications represent the contributions of the study which are expected to benefit the existing body of knowledge within the accounting field of research, regulators and professional service providers also, the management and board of deposit money banks listed in Nigeria stand a better chance to benefit from the outcome of this study.

5.1 Conclusion and Recommendation

The paper investigates the effect of pressure proxied by (external pressure, financial stability, meeting financial target and managers' personal financial situation) on fraud of deposit money banks listed in Nigeria. It was found that, external pressure and meeting financial target impact on fraudulent practices in the deposit money banks listed in Nigeria, while, managers' personal financial situation is affecting fraudulent practices in the same direction. Meeting financial target is not in any way affecting fraudulent practices in the deposit money banks in Nigeria. It is therefore, recommended that, the management and board of listed Nigerian deposit money Banks should intensify effort by encouraging external borrowing by banks, encouraging and tagging their staffs with a financial target in order to discourage financial malpractices. In addition, they should also strike a limit for the maximum managerial shareholding which should not exceed 30% of the total shareholding in the banks because, it was found to have encouraging fraudulent practices in the deposit money banks listed in Nigeria. Finally, the management and the board are also advice to provide a serious punishment to the perpetrators of fraud as well as reporting cases actual or suspected fraudulent practices to responsible commissions such as economic and financial crime commission (EFCC) and to bring it to the notice of public which will deter their image, consequently discourage prospective perpetrators.

References

- Abdul Rasheed, S., Babaitu, D., & Tinusa, G. (2012). Fraud and its implications for bank performance in Nigeria. *International Journal of Asian Social Science*, 2(4), 35-45.
- Abdullahi, B. A. (2011). The Effects of Fraud on Bank Performance: A Case Study of Nigerian Banks. *An unpublished B.Sc project submitted to the Department of Accounting and Finance*, University of Ilorin.
- Abdullahi, R. and Mansor, N. (2015a). Concomitant Debacle of Fraud Incidences in the Nigeria Public Sector: Understanding the Power of Fraud Triangle Theory. *International Journal of Academic Research in Business and Social Sciences*, Vol. 5, No. 5, pp, 312-326.
- Adewunmi, W. (2007). *Fraud in bank*, Nigeria Institute of Bankers. Landmark publication, Lagos.
- Akindele, R. I. (2011). Fraud as a negative catalyst in the Nigerian banking industry *Journal of Emerging Trends in Economics and management Sciences* (JETEMS). Bank administration institute of America and First National bank of Chicago: Fraud prevention series. Benson and Edwards fraud prevention series (Volumes 1-11). B & E publishers Lagos.
- Albrecht, C. and Albrecht, U. (2004). *Strategic Fraud Detection: A Technology-Based Model* Longman, New York.
- Albrecht, W. S., Albrecht, C. & Albrecht, C. C. (2008). Current Trends in Fraud and its Detection: A Global Perspective. *Information Security Journal* Vol.17. Retrieved from www.ebscohost.com on 11th June, 2014.
- Bierstaker, J. L., Brody, R. G. & Pacini C. (2006). Accountants' perceptions regarding fraud detection and prevention methods. *Managerial Auditing Journal* Vol. 21 No. 5 pp. 520- 535.
- Burns, N., and B. Kedia. 2006. The impact of performance-based compensation on misreporting. *Journal of Financial Economics* 79 (1): 35–67
- Chen, K. Y. & Elder, R. J. (2007). Fraud Risk Factors and the Likelihood of Fraudulent Financial Reporting: Evidence from Statement on Auditing Standards No. 43 in Taiwan, *Working paper*.
- Cressey, D. R. (1953). *Other People's Money*. Montclair, NJ: Patterson Smith, pp.1-300.
- Cressey, D.R. (1950). *Other People's Money: A Study in the Social Psychology of Embezzlement*, Montclair, NJ: Patterson-Smith.
- Dechow, P. M., R. G. Sloan, and A. P. Sweeney. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13 Spring: 1–36.

- Efendi, J., A. Srivastava, and E. Swanson. 2007. Why do corporate managers misstate financial statements? The role of option compensation and other factors. *Journal of Financial Economics* 85 (3): 667–708.
- Erickson, M., B. W. M. Hanlon, and E. L. Maydew. (2006). Is there a link between executive equity incentives and accounting fraud? *Journal of Accounting Research* (44) 113–144.
- Fazli, S. A., Mohd T. I., & Mohamed M. Z., (2014). Fraud Risk Factors of Fraud Triangle and the Likelihood of Fraud Occurrence: Evidence from Malaysia. *Information Management and Business Review* Vol. 6, No. 1, pp. 1-7, (ISSN 2220-3796).
- Florenz, C. T. (2012), Exploring a New Element of Fraud: A Study on Selected Financial Accounting Fraud Cases in the World. *American International Journal of Contemporary Research* Vol. 2 No. 6; pp. 112-121.
- 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* Vol.1, No. 4, pp.129-138,
- Glass Lewis & Co GLC. (2005). Control Deficiencies—Finding Financial Impurities Analysis of the 2004 and Early 2005 of Deficiency Disclosures. Control Deficiencies Trend Alert (June 24). Available at: <http://www.glasslewis.com>.
- Hooper, M. J., & Pornelli, C. M. (2010). Detering and detecting financial fraud: A platform for action. <http://www.thecaq.org/docs/reports-and-publications/detering-and-detecting-financial-reporting-fraud-a-platform-for-action.pdf>? Retrieved on 2 August 2014.
- Idowu, A. (2009). An assessment of fraud and its management in Nigeria commercial banks. *European Journal of Social Sciences*, 10(4).
- Kanu, S. I., & Okoroafor, E. O. (2013). The Nature, Extent and Economic Impact of Fraud on Bank Deposit in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*, 4(9), 253-264.
- Kelly, P. and Hartley, C. A. (2010). Casino gambling and workplace fraud: a cautionary tale for managers. *Management Research Review*, Vol. 33, No. 3, 224-239.
- Kenyon, W. and Tilton, P. D. (2006). Potential red flags and fraud detection techniques: A Guide to Forensic Accounting Investigation, First Edition, John Wiley & Sons, Inc, New Jersey.
- Lister, L. M. (2007). A Practical Approach to Fraud Risk: Internal Auditors.
- Mackevičius, J. (2012). Apgaulių gyvavimo ciklas ir sąlygos, didinančios jų atsiradimo riziką. *Verslas: teorija ir praktika*, Nr. 1, p. 50.

- Mackevičius, J., Bartaška, R. (2003). Klaidų ir apgaulių aptikimas, įvertinimas ir prevencija. Pinigų studijos, Vol. 2, pp. 36–41.
- Ming, J. J., & Wong, T.J. (2003). Earnings management and tunnelling through related party transactions: Evidence from Chinese corporate groups. EFA 2003 Annual Conference, Paper No.549.
- Moyes G., Lin, P. & Landry-Jr, R. (2005). Raise the red flag: Internal Auditor, October: 47-51.
- Murdock, H. (2008). The Three Dimensions of Fraud: Internal Auditors. Retrieved on June 22, 2014 from www.emerald.com.
- Nwankwo, G. O. (2005). Bank Management Principles and Practices. Malthouse Press Ltd: Lagos-Nigeria.
- Okezie A. (2012). An Analysis of Fraud in Nigerian Banks. *American Charter of Economics and Finance*, Vol. 1 No. 2 pp. 60-73.
- Otusanya, J. O. (2009). An investigation of corporate executive fraud by CEOs in the Nigerian banking industry. A seminar paper presented at the Department of Accounting, faculty of business Administration, University of Lagos
- Peterson, B. K. & Buckhoff, T. A. (2004). Anti-fraud education in academia. *Advances in Accounting Education: Teaching and Curriculum Innovations*, Vol. 6, pp. 45-67.
- Rae, K., & Subramaniam, N. (2008), Quality of internal control procedures: Antecedents and moderating effect on organisational justice and employee fraud. *Managerial Auditing Journal*, 23(2), 104-124.
- Rasha, K., & Andrew, H. (2012). The New Fraud Triangle, *Journal of Emerging Trends in Economics and Management Sciences*, Vol. 3(3): Retrieved from google.com July 13, 2014.
- Rezaee, Z., Crumbley, D. L., & Elmore, R. C. (2004). Forensic accounting education. *Advances in Accounting Education: Teaching and Curriculum Innovations*, Vol. 6, pp. 193-231.
- Robertson, J. C. & Timothy, J. L. (1999). *Auditing*, New York: Irwin McGraw-Hill.
- Saksena, P.N. (2012). Ethical Theories and the Incidences of Occupational Fraud. *Advances in Management*. 5(10).
- Srivastava, R. P., Mock T. J., & Turner, J. L. (2005). Fraud Risk Formulas for Financial Statement Audits. *Australian National University Business and Information Management Auditing Research Workshop* and from Gary Monroe, Lei Gao and Lili Sun. pp. 1-48
- Thanasak, R. (2013). The Fraud Factors. *International Journal of Management and Administrative Sciences (IJMAS)* (ISSN: 2225-7225) Vol. 2, No. 2, pp. 01-05.

Turner, J. L., Mock, T. J., & Srivastava, R. P. (2003). An analysis of the fraud triangle. The University of Memphis Working Paper.

Vance, S. (1983). Corporate leadership: Boards, directors and strategy. New York: McGraw-Hill.

Vona, I. W. (2008). Fraud Risk Assessment: Building a Fraud Audit Programme: Hoboken, New Jersey: John Wiley and Sons. Webster’s New Collegiate Dictionary (1997,1976, 1941).

Wilhelm, W. K. (2004). The Fraud Management Lifecycle Theory: A Holistic Approach to Fraud Management. *Journal of Economic Crime Management Spring 2004.* (2) 2.

Wilks, T. J., & Zimbelman, M. F. (2004). Decomposition of Fraud-Risk Assessments and Auditors’ Sensitivity to Fraud Cues. *Contemporary Accounting Research*, 21(3), 719- 745.

Wolfe, D., & Hermanson, D. R. (2004). The fraud diamond: Considering four elements of fraud. *The CPA Journal*, 74 (12), 38-42.

Appendix

. su frd fs ep mpfs mft

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------|-----|----------|-----------|-----------|----------|
| frd | 140 | 1.980159 | 4.352805 | .693147 | 22.4933 |
| fs | 140 | .1414239 | .0666535 | .0675453 | .2918782 |
| ep | 140 | .6266033 | .3747888 | .039427 | 1.79855 |
| mpfs | 140 | 12.29244 | 17.92033 | .002 | 52 |
| mft | 140 | 11.54814 | 36.47531 | -332.2766 | 74.83327 |

FRD

| Percentiles | | Smallest | | |
|-------------|---------|----------|-------------|----------|
| 1% | .693147 | .693147 | | |
| 5% | .693147 | .693147 | | |
| 10% | .693147 | .693147 | Obs | 140 |
| 25% | .693147 | .693147 | Sum of wgt. | 140 |
| 50% | 1.09861 | | Mean | 1.980159 |
| | | Largest | Std. Dev. | 4.352805 |
| 75% | 1.38629 | 22.4737 | | |
| 90% | 1.38629 | 22.4737 | Variance | 18.94691 |
| 95% | 1.38629 | 22.4933 | Skewness | 4.489202 |
| 99% | 22.4933 | 22.4933 | Kurtosis | 21.23554 |

Effect of Pressure on Fraud in Nigerian Deposit Money Banks

FS

| | Percentiles | Smallest | | |
|-----|-------------|----------|-------------|----------|
| 1% | .0675453 | .0675453 | | |
| 5% | .0675453 | .0675453 | | |
| 10% | .0677233 | .0675453 | Obs | 140 |
| 25% | .0825147 | .0675453 | Sum of wgt. | 140 |
| 50% | .1484185 | | Mean | .1414239 |
| | | Largest | Std. Dev. | .0666535 |
| 75% | .1780148 | .2918782 | | |
| 90% | .2918782 | .2918782 | Variance | .0044427 |
| 95% | .2918782 | .2918782 | Skewness | .9327817 |
| 99% | .2918782 | .2918782 | Kurtosis | 3.233316 |

EP

| | Percentiles | Smallest | | |
|-----|-------------|----------|-------------|----------|
| 1% | .039427 | .039427 | | |
| 5% | .203324 | .039427 | | |
| 10% | .266751 | .17329 | Obs | 140 |
| 25% | .3812495 | .17329 | Sum of wgt. | 140 |
| 50% | .50107 | | Mean | .6266033 |
| | | Largest | Std. Dev. | .3747888 |
| 75% | .785441 | 1.67753 | | |
| 90% | 1.16711 | 1.67753 | Variance | .1404666 |
| 95% | 1.50843 | 1.79855 | Skewness | 1.238224 |
| 99% | 1.79855 | 1.79855 | Kurtosis | 4.109285 |

MPFS

| | Percentiles | Smallest | | |
|-----|-------------|----------|-------------|----------|
| 1% | .002 | .002 | | |
| 5% | .002 | .002 | | |
| 10% | .002 | .002 | Obs | 140 |
| 25% | .005 | .002 | Sum of Wgt. | 140 |
| 50% | 1.2 | | Mean | 12.29244 |
| | | Largest | Std. Dev. | 17.92033 |
| 75% | 23.97 | 51.6 | | |
| 90% | 51.4 | 51.7 | Variance | 321.1382 |
| 95% | 51.535 | 51.7 | Skewness | 1.300325 |
| 99% | 51.7 | 52 | Kurtosis | 3.267413 |

MFT

| | Percentiles | Smallest | | |
|-----|-------------|-----------|-------------|-----------|
| 1% | -49.8034 | -332.2766 | | |
| 5% | -23.11079 | -49.8034 | | |
| 10% | -10.72077 | -49.63413 | Obs | 140 |
| 25% | 3.835173 | -47.31833 | Sum of wgt. | 140 |
| 50% | 12.11252 | | Mean | 11.54814 |
| | | Largest | Std. Dev. | 36.47531 |
| 75% | 23.85643 | 53.59662 | | |
| 90% | 44.4406 | 56.5144 | Variance | 1330.448 |
| 95% | 52.20468 | 71.15998 | Skewness | -6.008283 |
| 99% | 71.15998 | 74.83327 | Kurtosis | 57.73193 |

. correlate frd ep fs mft mpfs
(obs=140)

| | frd | ep | fs | mft | mpfs |
|------|---------|---------|---------|---------|--------|
| frd | 1.0000 | | | | |
| ep | -0.2641 | 1.0000 | | | |
| fs | 0.1079 | 0.1575 | 1.0000 | | |
| mft | -0.3057 | -0.1801 | -0.1965 | 1.0000 | |
| mpfs | 0.2133 | 0.2080 | -0.0617 | -0.3611 | 1.0000 |

. reg frd ep fs mft mpfs

| Source | SS | df | MS | Number of obs = 140 |
|----------|------------|-----|------------|------------------------|
| Model | 44.8853913 | 4 | 11.2213478 | F(4, 135) = 10.63 |
| Residual | 142.473398 | 135 | 1.05535851 | Prob > F = 0.0000 |
| Total | 187.35879 | 139 | 1.34790496 | R-squared = 0.2396 |
| | | | | Adj R-squared = 0.2170 |
| | | | | Root MSE = 1.0273 |

| | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] |
|-------|-----------|-----------|-------|-------|----------------------|
| frd | | | | | |
| ep | -.2374142 | .0494857 | -4.80 | 0.000 | -.3352817 -.1395467 |
| fs | .0139422 | .0087406 | 1.60 | 0.113 | -.003344 .0312285 |
| mft | -.013523 | .0040572 | -3.33 | 0.001 | -.021547 -.0054991 |
| mpfs | .0147738 | .0061355 | 2.41 | 0.017 | .0026397 .0269079 |
| _cons | 3.962221 | .4669717 | 8.48 | 0.000 | 3.038695 4.885748 |

. vif

| Variable | VIF | 1/VIF |
|----------|------|----------|
| mft | 1.22 | 0.816653 |
| mpfs | 1.21 | 0.824492 |
| fs | 1.09 | 0.919192 |
| ep | 1.08 | 0.922059 |
| Mean VIF | 1.15 | |

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of frd

chi2(1) = 103.02
Prob > chi2 = 0.0000

. xtreg frd ep fs mft mpfs,fe

Fixed-effects (within) regression
Group variable: year

Number of obs = 140
Number of groups = 10

R-sq: within = 0.2636
between = 0.0539
overall = 0.2390

Obs per group: min = 14
avg = 14.0
max = 14

corr(u_i, xb) = -0.2065
F(4,126) = 11.28
Prob > F = 0.0000

| | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] |
|---------|-----------|-----------|-------|-------|-----------------------------------|
| frd | | | | | |
| ep | -.2666536 | .0527946 | -5.05 | 0.000 | -.3711326 -.1621747 |
| fs | .0139627 | .0087692 | 1.59 | 0.114 | -.0033913 .0313167 |
| mft | -.0140334 | .004084 | -3.44 | 0.001 | -.0221156 -.0059512 |
| mpfs | .0173098 | .0062814 | 2.76 | 0.007 | .0048791 .0297405 |
| _cons | 4.201849 | .491342 | 8.55 | 0.000 | 3.229498 5.1742 |
| sigma_u | .28096633 | | | | |
| sigma_e | 1.0276252 | | | | |
| rho | .06955522 | | | | (fraction of variance due to u_i) |

F test that all u_i=0: F(9, 126) = 0.99 Prob > F = 0.4511

