

Published Financial Statements, Equity-holders' Investment Decisions and Bank Performance: A Study of Zenith Bank Nigeria Plc.

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ABSTRACT

This paper assessed the effects of published financial statement and equity holders' investment decisions on firm performance in Nigeria using the Zenith Bank Nigeria Plc as a case study. The paper assumed, all things being equal, that common stockholders' equity holding decisions (investment decisions), are born out of their abilities to read out and interpret the financial statements, either with the mind to continue to invest in the equities or to disinvest. In this case, the researcher proxy equity holder's investment decision in the firm with shareholder funds (SHF). In other words, the shareholder's funds, SHF, are independent of the changes or rates of growth of the firm's profitability index, to which he (equity-holder) participates in through holding of more shares of the company. Series analysis of secondary data variables were used, and a regression model of level series and lagged differencing tests were conducted to test the hypothesis at 5% significance level. The finding is: there is a significant and positive correlation between Zenith bank's performance and its equity holders' investment decisions. This, in effect, shows that the knowledge, understanding and utilization of the information contained in the published financial statements of Zenith bank by its equity holders, have greatly influenced their participation in additional equity-holding of the firm, which reflected in the positive growth of the profitability of the bank within the period under consideration. The researcher recommended that regular training, in the form of seminars, workshops and conferences, be organized by the management of the banks to sustain insider investments; and adequate care and due diligence should be maintained in the preparation and publication of bank financial statements to avoid faulty equity-holder investment decisions.

Keywords: financial statement, equity-holders, investment decision, bank profitability, regression

1. INTRODUCTION

In every society, whether developed or underdeveloped, there are organizations. These organizations, whether profit-oriented or non-profit oriented, regularly put out or publish annual records known as financial statements. When these statements are released they can have a great impact on the organization and its investors.

Financial Statements have been defined in the extant literature by scholars and experts. According to the Nigerian Companies and Allied Matters Act (CAMA) 1990, financial statements consist of the basic statements of accounts used to convey the quantitative information of financial nature to shareholders, creditors and others interested in the reports of a company's financial conditions, results of operations, uses and sources of funds. Financial statements are reliable financial information about the economic resources and obligations of a business enterprise. Meigs&Meigs (1998) define a financial statement as a logical point to begin the study of accounting. This is because most of the accounting information we see and use everyday reflects the terminology and concepts used in these statements.

Duru (2012) defines a financial statement as one that conveys to management and to interested outsiders a concise picture of the profitability and financial position of a business. Concurring with above definitions, we can generally define a published financial statement as the audited annual report and accounts of an organization, including the balance sheet, profit and loss account and the cash flow statement, which gives a summary of the result of operations of a firm and its financial conditions for the period represented. It is prepared by the company's external auditor(s) and therefore made public for use by any interested party. Following from the above, a published financial statement should be devoid of any material misrepresentation or errors so that all the interested parties can be adequately equipped to make informed decisions. A financial statement, as a communication medium, provides a valuable information background of a corporation. It is useful in the establishment of the performance as well as the future potential of the enterprise. The financial statements are as follows:

The Balance Sheet

The Balance sheet is often described as a “snapshot of a company’s financial condition”. Of the three basic statements, the balance sheet is the only statement which applies to a single point in time of a business’s calendar year. Hence, it is a record of the assets and liabilities on a given date.

The balance sheet is a statement that shows the financial position of the company, from the point of a going concern. There is no investor that would invest in companies with negative working capital and negative assets; except of course, there are other information that can project good future for such companies.

Profit And Loss

This shows, at a particular accounting period, the performance of an organization in terms of total income less total expenditure. Since organizations (except Non-Governmental Organizations and other non-profit making firms) are set up to increase wealth of the shareholders, it is imperative that the company must be making profit in increasing this wealth. So, for ordinary investor, the more the profit made vis-à-vis those available for distribution, the more the desire to invest.

Cash Flow Statement

This is a record of the source and application of funds that includes operating, investing and financing activities and how they impact on the cash position during the reporting period. The cash flow statement provides additional information on how an entity has generated its cash and cash equivalents and how it has utilized them. It is very important to consider the cash flow statement in conjunction with the profit and loss account and the balance sheet because some of the cash flows for a period will result from the transactions that took place in earlier years and some may also result in further cash flows in future. For this reason, there is usually the need to reconcile the cash flow for the year to key indicators in the profit and loss account and balance sheet. With the global problems associated with collapse of many organizations, it is of necessity to look at the process of generating the information on the financial statements, the roles of the auditors, and the optimization steps needed in ensuring that financial statements are reliable in satisfying investors’ decision making. This study is set to investigate the impact of published financial statements on corporate investment decisions in Nigeria, using Zenith Bank Plc as a study case.

1.2 Statement of the Problem

In the past years most investors and other financial statement users, who relied so much on the financial statement prepared by a given company to either invest or give loans to the company, see the company fold-up after some period of time and their money is gone. This could be partly because the investors and other users do not have the knowledge and understanding which enable them to analyse and appraise the financial performance of the company through the published financial statements.

The problem is the inability on the part of the investors, shareholders and other users of financial statements to analyse the performances of companies. Such a problem could result to misinformation, understatement or overstatement regarding the performance of the organization; and sometimes, knowledge conflicts do occur amongst equity-holders when such problems arise.

The financial performance of companies cannot be understood from their published financial statement by investors by mere looking at the financial transactions that are contained in the financial statement. This makes some investors become worried whether to invest or not in a company. Therefore, investors’ decisions to continue to invest in their company could be induced by their abilities to analyse the financial statements.

1.3 Objectives of the Study

The purpose of the study is to assess the impact of equity shareholders’ investment decisions via financial statements on the performance of banks. The specific objectives are:

1. To examine the motives that inform every decision made in favour or against financial statements.
2. To examine the conceptual and theoretical views on investors’ investment decisions, financial statements and the bank performance.
3. To establish the correlation between financial statement information, investors’ decision processes and the firm performance.

1.4 Research Questions

The following questions are asked to enable the researcher assess the impact of financial statements, investors' investment decisions on bank performance indices:

- a) To what extent are the analyses of financial statements relevant to the users?
- b) How can financial statements' information influence a shareholder to continue to invest in the company?
- c) What is the relationship between financial statement information, equity holders' investment decision making and bank performance?

1.5 Hypothesis

Based on the statement of problem, the following null hypothesis is formulated and tested:

H₀: There is no significant correlation between the equity holders' investment decision making and Zenith bank's

profitability over the years.

H_A: There is a significant relationship between equity investor's investment decision making and Zenith bank's

profitability over the years.

1.6 Scope of the Study

The study is limited to the financial industry in Nigeria, with commercial banks in focus and Zenith bank plc as a target study unit. The Zenith bank plc serves as a yardstick in measuring the analysis of the impact of financial statement via equity shareholder's investment decision on commercial banks' performance in Nigeria. The Study covers a period of fifteen years (2003-2017).

1.7 Significance of the Study

Since the objective of a financial statement is to provide information about the financial position, performance and financial adaptability of an enterprise, it follows that the study will be useful to a wide range of users for assessing the stewardship of management and economic decisions. Again, since the perception of investors about company's securities relative to others in the industry is real, financial statements can only be useful in this direction. A published financial statement is the information source that is most directly related to items of interest to both existing and potential investors.

Those who will benefit from the research range from the equity holders, investors, governments, competitors, creditors, etc since a financial statement of a company is what gives financial information to the users of such a statement. The user can appraise and analyse the financial statement and be able to make the right decision whether to invest in such a company or not. This work will also serve as a secondary data to other scholars who may wish to conduct more researches in this field.

1.8 Assumptions of the Study

In this paper, the researcher made the following assumptions during the course of this work: the published financial statement will be so disclosed as to give the true state of affairs of the company concerned before a wise investor can accept being part of the investment in such an organization. Also, wise investors always seek to understand the published financial statement of an organization they wish to invest in. Furthermore, it is assumed that some investors use all they have for investment with the hope of getting greater future returns and as such, put all efforts and knowledge to sustain such an organization. Finally, investors seek to study the financial statement carefully to believe in the reliability of such a statement. Equity holders' investment decisions are only on equity investment in the company with the exclusion of other investment decisions. Again, equity owners show their desires to invest in the company through their share holding activities.

1.9 Organization

The paper is organized in sections. Following section 1-introduction- is section 2 which reviews related literatures. Section 3 is the research methodology. Section 4 presents the test and result, including discussion of findings. Section 5 offers some concluding remarks and recommendation.

2. LITERATURE REVIEW

2.1 Published financial statements

Publication of a financial statement provides a way for a firm to present its financial health or otherwise to shareholders, creditors, the general public and to potential investors, to enable them make rational investment

decisions. The role of a financial statement analysis in making investment decisions should not be overlooked as it helps investors to establish the fiscal strengths and weaknesses of a firm. A financial statement analysis can reveal the red flags of an investment opportunity. On the other hand, it can reveal the strengths of a company as well as the potential profit of investing in a company. By their nature, financial statements are retrospective, which means an investor should never look at a single statistic or metric in making investment decision. For instance, an actual or potential investor must analyse the balance sheet, to assess the company's assets, liabilities and ownership equity (net worth) at a particular point in time. Also, he will assess the income statement to know the company's expense income and profit or loss over a specified period of time. He will also assess the cash flow statement, to find out how the company raised cash through investors or creditors; how the cash is use to acquire assets and inventory; how the assets and inventory allow the company to generate cash pay for business expenses; and finally how the cash is returned to investors and creditors. Moreover, the purpose of cash flow analysis is to estimate the amount of money an investor would receive from an investment, based on future free cash flow projections for the company, at least in the short term.

Finally, virtually every sick person goes to a doctor's office or hospital and at some point goes in for an X-ray. Typically, when it comes to financial markets, the same diagnostic principles apply to securities analysis. But rather than X-rays, we have financial statements. The income statement, balance sheet and cash flow statement provide analyses for making a proper company diagnosis. Each financial statement provides the user a unique perspective, and together, the statements paint a more complete picture of the financial conditions of a company.

Additionally, investment bankers also rely heavy on financial statement when determining the sustainability of a corporate business. For instance, a company cannot be bought or sold without determining an agreed-upon valuation. Therefore financial statements help bankers establish an appropriate price for transactions.

2.1 Definition and Nature of Investment Decisions

According to Pandey (2005), an investment decision or analysis has to do with an efficient allocation of capital. It involves decision to commit the firm's funds to the long-term assets. Such decisions are of considerable importance to the firm since they tend to determine its value size by influencing its growth, profitability and risk. An investment decision of a firm is one which is expected to produce benefits to the firm over a long period of time and it can result to both tangible and intangible assets.

The investment decisions of a firm are generally known as the capital budgeting decisions. They are the firm's decision to invest its current funds most efficiently in the long-term assets in anticipated of an expected flow of benefits over a period of time. The long-term asset is the one which affects the firm's operations beyond the current period. The firm's investment decision would generally include expansion, acquisition, modernization and replacement of the long-term assets. Activities such as change in the methods of sales distribution or undertaking an advertisement campaign or research and development programmes have long-term implications for the firm's expenditures and benefits, and therefore, they may also be evaluated as investment decisions. It is important to note that investment in long-term assets invariably requires funds to be tied up in the current assets such as inventories and receivables. Some of the features of investment decisions are as follows: (a) The exchange of current funds for future benefits (b) The funds are invested in long-term assets (c) The benefits will occur to the firm over a series of years. The two important aspects of investment decisions are: (a) The evaluation of the prospective profitability of new investment; and (b) The measurement of a cut-off rate against the prospective return of new investment.

2.2 Theoretical Framework

2.2-1 Proprietary theory

Proprietary equity theorists, such as Husband (1938), insist that the accounting process of companies must be conducted from the shareholders' perspective. Under the proprietary view, transactions and events are analysed, recorded and accounted for as to their immediate effect on the proprietors and are meant to measure and analyse their net worth expressed by the accounting equation: (1) assets-liabilities = equity, proprietorship or net worth.

In the proprietary view, the assets are considered the proprietors' assets and the liabilities. Accordingly, liabilities are negative assets (negative properties) which must be sharply defined and separated in the accounting process. Revenues are increases in proprietorship and expenses are decreases. Net profits, - the excess of revenues over expenses-accrue directly to the owners; they represent an increase in the wealth of the proprietors (Hendriksen and Van Breda, 1992).

The proprietary approach represents an agency view of the company where the main responsibility of management is to manage the firm in the best interest of the owners. As the assets and liabilities are considered

the owners' assets and liabilities, the maximization of profits equals maximization of the increase in the shareholders' net assets. For this reason, the asset/liability approach to income determination, where income is the by-product of valuation of assets and liabilities, is the most direct way of quantifying the increase in net assets. Under both the proprietary theory and the assets/liability approach to income determination, it is imperative that shareholders' interests are sharply distinguished from the interests of the providers of debt capital in order to be able to measure the increase in net assets.

2.2-2 Entity theory

Under the entity view, transactions are analysed as to their effect on the accounting entity. Financial statements are prepared from the viewpoint of the entity. The income statement is meant to analyse the company's performance over a period, whereas the balance sheet serves to indicate the securities or riskiness of the company's financial position. Under the different varieties of entity theory, the accounting equation may take the following forms: (1) assets = liabilities (2) assets = equities (3) assets = equities + liabilities (Hendriksen and Van Breda, 1992).

In the entity view as expressed in equation 3, the assets are considered the company's assets, and the liabilities are the company's liabilities. Alternatively, the assets are considered the company's assets and the equities are all the financial stakeholders' equities. Entity theory views the entity as "having a separate existence – an arm's length relationship with its owners." The relationship to the owners is regarded as not particularly different from that to the long-term creditors.

2.2-3 DuPont Equation Theory

According to Adebimpe (2009), DuPont equation theory is an expression which breaks return on equity down into three parts. The name comes from the DuPont Corporation, which created and implemented this portfolio formula into its business operations in the 1920s. It was adopted from Markowitz Mean-Variance Portfolio theory which states that profit of a firm is a function of total sales, total assets, shareholder equity contributions and the liabilities (debts). This formula is known by many other names, including DuPont Analysis, DuPont Identity, the DuPont Model, the DuPont Method, or the Strategic Profit Model.

Under the DuPont Analysis, return on equity is equal to the profit margin multiplied by asset turnover and by financial leverage. By splitting ROE (return on equity) into three parts, companies can more easily understand changes in their ROE over time. One of the components of the DuPont Equation- Profit margin- is an indicator of a company's pricing strategies and how well the company controls operating costs. Profit margin is calculated by finding the net profit as a percentage of the total revenue. As one feature of the DuPont equation, if the profit margin of a company increases, every sale will bring money to a company's bottom line, resulting in a higher overall return on equity. Another component of the DuPont Equation – assets turnover is a financial ratio that measures how efficiently a company uses its assets to generate sales income for the company. Companies with low profit margins tend to have high asset turnover, while those with high profit margin tend to have low asset turnover. Similar to profit margin, if asset turnover increases, a company will generate more sales per asset owned, once again resulting in a higher overall return on equity.

The third component of the DuPont Equation - Financial Leverage- refers to the amount of liabilities (debts) that a company utilizes to finance its operations, as compared with the amount of equity that the company utilizes. As was the case with asset turnover and profit margin, increased financial leverage will also lead to an increase in return on equity. This is because the increased use of debt as financing will cause a company to have higher interest payments, which are tax deductible. Because dividend payments not tax deductible, maintaining a high proportion of debt in a company's capital structure leads to a higher return on equity.

2.2-4 The Modern Portfolio Theory (MPT)

Markowitz, an American economist in the 1950s, developed a theory of "portfolio choice," which allows investors to analyse risk relative to their expected profit. For this work, Markowitz, a professor at Baruch College at the City University of New York, shared the 1990 Nobel Memorial Prize in Economic Sciences with William Sharpe and Merton Miller (Frangmyr, 1991). Markowitz's theory is today known as the Modern Portfolio Theory, (MPT). The MPT is a theory of investment which attempts to maximize portfolio expected profit for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected profit, by carefully choosing the proportions of various assets. Although the MPT is widely used in practice in the financial industry, in recent years, the basic assumptions of the MPT have been widely challenged.

The Modern Portfolio Theory, an improvement upon traditional investment models, is an important advancement in the mathematical modelling of finance. The theory encourages asset diversification to hedge against market risk as well as risk that is unique to a specific company. The theory is a sophisticated investment decision approach that aids an investor to classify, estimate, and control both the kind and the amount of expected risk and profit; also, it is called Portfolio Management Theory. Essential to the Portfolio theory are its quantification of the relationship between risk and profit and the assumptions that investors must be compensated for assuming risk. Portfolio theory departs from traditional security analysis in shifting emphasis from analysing the characteristics of individual investments to determining the statistical relationships among the individual securities that comprise the overall portfolio (Edwin and Martins 1997).

2.2-5 Firm's Profitability

According to William (2011), the best measure of a company is its profitability, for without it, it cannot grow, and if it does not grow, then its stocks will trend downward. Increasing profits are the best indication that a company can pay dividends and that the share prices will trend upward. Investors will put their money at a cheaper rate to a profitable company than to an unprofitable one. Consequently, profitable companies can use leverage to increase stockholders' equity even more. The common profitability measures compare profits with sales, assets, equity and liabilities: net profit margin, return on assets, and return on equity. Although most financial services publish these ratios for most companies, they can be calculated independently by using net profit and total revenue from the income statement of a company's financial report, and total assets and stockholders' equity from the Balance Sheet, (Iyiola et-al, 2012).

2.2-6 Empirical Studies

In his critical investigation of the degree of reliance on the published financial statements by corporate investors, Micheal (2013) employed a survey research design by which data were generated by means of questionnaires administered on one hundred and fifty corporate investors and senior management officials of selected banks. The results of the survey reveal that one of the primary responsibilities of management to the investors is to give a standardized financial statement evaluated and authenticated by a qualified auditor or financial experts. The results also show that investors do understand the financial statements well before making investment decisions. The results of the analysis also indicate that investors depend heavily on the credibility of auditors/financial experts' approval of financial statements in making investment decisions and as such a published financial statement is very important in the investors' decision making. Michael recommended that adequate care and due diligence should be maintained in preparing financial statements to avoid faulty investment decisions which could lead to loss of funds and possible litigations.

Popoola, et-al (2014), investigated the correlation between published financial statements and investment decisions among commercial bank stakeholders in Nigeria. 180 users of published financial statements were purposively sampled from Lagos and Ibadan. Data generated were analysed using Pearson correlation and regression. The findings of their study revealed that balance sheet is negatively related with investment decisions, while income statement, notes on the account, cash flow statement, value added statement and five-year financial summary are positively related with investment decision making. They recommended that Nigerian banks and professional bodies should instigate programs that would increase the knowledge of stakeholders on published financial statements.

Corporate organizations owe a duty to fully disclose matters concerning their operations so as to aid investors in making investment decisions because investment decision makers rely on information obtained from financial statements to predict future rate of return. Without the financial statement, there will be a problem of how to determine the profit of a company, and the evaluation of the performance of the company. The general objective was to ascertain the role of financial statement in investment decision making.

Adebayo, et-al (2013) examined the impact of accounting information system on organizational effective investment decision. The major source of data to their research was primary data through the administration of questionnaires. Regression analysis and Karl Pearson's correlation were used for the data analysis. Their findings showed that accounting information system is an indispensable tool in investment decision making in today's turbulent world.

An empirical study carried out by Hossain et-al (2004), showed that financial statements are essential in making sound investment decisions, and they reduce the informational asymmetry between the firm's managers and investors. According to them, conventional investors give more weight to financial information than non-financial information.

2.2-7 Current Trends In Zenith Bank PLC

As a group, the performance indices of Zenith Bank Plc – Gross earnings, profit after taxes, earnings per share and dividend per share have fluctuated between 2003 and 2017. Gross earnings have grown from ₦17.86 (in 2003) to more than ₦279.06 (in 2012). PAT has grown from ₦4.46 in 2003 to more than ₦956 in 2012. Earnings per share (basic) shrank between 2003 (375K) and 2005 (136k), and improved tremendously from 2006 (191k) (Annual Report of Zenith Bank, 2012). The fluctuation extends to 2017

The annual report also showed the dividend per share between 2003 and 2012. These figures provided the equity holders with information (accounting and financial information) through which they make informed decisions. The extent to which equity holders of the bank accept the information and ideas on the published financial statement determine their willingness to continue to invest in the firm and the consequent effect on the overall performance of the firm. This is what we have tested in the next sections to see how correlated the two are.

3. RESEARCH METHODOLOGY

3-1 Research Design and Data

This research was conducted with the object of explaining the relationship between the variables of the stated hypothesis. It therefore employs explanatory research method. The study is geared towards explaining/assessing the impact of equity holders' investment decisions on the banking sector's performance, with Zenith bank Nig. Plc as case study. The relevant population of the study is the equity holders of the bank, their shareholding activities and the bank's performance indicators. Secondary data were collected from the published financial statements of Zenith bank Plc.

In this paper, the researcher selected profit after taxes (PAT) as a major bank performance index. A cursory look at our assumptions in Section 1, shows that (i) equity holders' investment decisions are focused only on the equity investments in the company with the exclusion of other investment decisions, and (ii) they use all they have for equity investments in the company with the expectation of greater future returns, thus the choice of PAT, because it (PAT) becomes the mirror upon which the equity investors view their returns. The researcher selected equity owners' share holdings (represented by shareholder funds–SHF) as a proxy for equity-holders' investment decisions on share-holding activity, motivated (or otherwise) by their knowledge and understanding of the true state of the bank's financial statements.

SHF is the explanatory variable that represents equity owner's investment decisions which impact on the bank's profit streams- PAT. It is assumed that shareholders deep knowledge and interpretation of the published financial statements drive them to acquire more shares (equities) of the company which, in the long-run, reflect in the company's improved profit streams. The indices (proxies) in table 1 are extracted from a 15 –year financial reports of Zenith bank plc (see table 1 in the appendix).

3-2 Model Specification

In the study, the researcher adopted the simple regression model of $Y = f(X)$Eq. 1, where Y = Zenith bank's profit after tax, (PAT), X = shareholders' funds (SHF) and f = a function: Assuming a simple linear relationship between Y and X, the above equation becomes:

$$Y_t = b_0 + b_1 X + u \text{.....Eq. 2, where } u = \text{error term.}$$

3-3 Additional Variables

Incorporating variables along the new growth paradigm over the last fifteen years the researcher considered some of the exogenous factors - political efficiency (GEFF) and inflation dynamics (INF) - to which an investor, additionally, analyzes in his or her investment decisions. Thus Eq.2 is rewritten as follows: $Y_t = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + u$Eq. 3, where X_1 is SHF, X_2 is GEFF, and X_3 is INF.

The political efficiency entered the model as an indicator of periods of democracy and military dictatorship. In this case democracy is growth inducing (represented with a dummy 1), while military dictatorship is growth reducing (represented with a dummy 0). Inflation entered the model as a quality of macroeconomic policy. Thus, a low inflation rate is expected to be positively related to investment decisions while high inflation is negatively related to investment decisions.

3-4 Analysis Technique

The ordinary least squares method was used to fit the "best" regression line between X and Y observations, and in this process the parameters, b_0 , b_1 , b_2 and b_3 are estimated. The E – view computer package was applied for the estimation (see the Appendix).

4. DATA ANALYSIS AND INTERPRETATION

4.1 Data In this section, the researcher determined whether there is a significant relationship between the equity owners' share – holdings, an outcome of their investment decisions as a result of their knowledge and understanding of their bank's published financial statements, on the profitability of the bank. The two major indices (proxies) extracted from Zenith bank's financial reports (2003 – 2017) are: Profit before taxes (PAT) and equity owners' share-holding funds over the years. The incorporated growth variable of inflation dynamics was sourced from the Central Bank of Nigeria (CBN) Statistical Bulletins over the years (see table 1 in the appendix)

Table 1: Datasheet of Regression

GEFF = Political system; INF= INFLATION RATE; PAT=Zenith's profit after taxes SHF = Zenith bank's shareholders funds				
YEAR	GEFF	INF	PAT	SHF
2003	1	0.238	4424	126516
2004	1	0.101	5191	156744
2005	1	0.116	7215	377897
2006	1	0.085	11501	938007
2007	1	0.066	18821	112833
2008	1	0.151	52075	341794
2009	1	0.139	20610	335760
2010	1	0.118	37414	363561
2011	1	0.103	48702	394267
2012	1	0.082	100681	462956
2013	1	0.081	94576	509251
2014	1	0.090	99883	549183
2015	1	0.090	117492	600509
2016	1	0.204	135833	652785
2017	1	0.154	148221	680127

Source: Computed from CBN Statistical Bulletins (2003-2017)

4.2 Results and Interpretations

Table 2: Normality Test

Date: 02/23/18 Time: 03:04 Sample: 2003 2017				
	GEFF	INF	PAT	SHF
Mean	1.000000	0.121200	60175.93	440146.0
Median	1.000000	0.103000	48702.00	394267.0
Maximum	1.000000	0.238000	148221.0	938007.0
Minimum	1.000000	0.066000	4424.000	112833.0
Std. Dev.	0.000000 NA	0.048560	51031.18	225483.9
Skewness	NA	1.170294	0.402649	0.393700
Kurtosis		3.486449	1.672119	2.827159
Jarque-Bera Probability	NA NA	3.571865 0.167641	1.507358 0.470632	0.406171 0.816208
Sum Sum Sq. Dev.	15.00000 0.000000	1.818000 0.033012	902639.0 3.65E+10	6602190. 7.12E+11
Observations	15	15	15	15

Using the estimated residuals (see table 2 above), the application of Jarque-Bera test shows that the JB statistics are about 3.57187, 1.50736, and 0.40617 for INF, PAT and SHF respectively. The probabilities of obtaining the statistics are about 17% for INF, 47% for PAT and 82% for SHF. Because of the sufficiently low p-value of INF-JB statistic, which happens if the value of the statistic is very different from zero, we reject the hypothesis that the residuals of INF and error term are normally distributed. However, because of the reasonable p-values of SHF and PAT which happens if the values of the statistics are very close to zero, we do not reject the normality assumption. But the researcher keeps in mind that the 15 observations are not large enough.

Table 3: Correlation

	GEFF	INF	PAT	SHF
GEFF	NA	NA	NA	NA
INF	NA	1.000000	0.040630	-0.135995
PAT	NA	0.040630	1.000000	0.539456
SHF	NA	-0.135995	0.539456	1.000000

Table 3, describes the pair-wise correlations (entries off the main diagonal) of the matrix in which the simple degree of linear association between INF and PAT is low (about 4%); and between it and SHF is very low (about -14%). The correlation matrix between PAT and INF is low (about 4%); and between it and SHF is reasonably high (about 54%). From the matrix SHF explains the variations in PAT about 54% and INF explains it about 4%. As can be seen the main diagonal of the matrix gives the correlation of one variable with itself which is 1 by definition, and several of the pair-wise correlations are quite low, suggesting that there may be a less severe collinearity problem.

Table 4: OLS Model

Dependent Variable: PAT				
Method: Least Squares				
Date: 02/23/18 Time: 03:19				
Sample: 20032017				
Included observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9927.131	43465.34	-0.228392	0.8232
SHF	0.125663	0.055006	2.284547	0.0413
INF	122052.6	255417.2	0.477856	0.6413
R-squared	0.304252	Mean dependent var		60175.93
Adjusted R-squared	0.188294	S.D. dependent var		51031.18
S.E. of regression	45976.40	Akaike info criterion		24.48650
Sum squared resid	2.54E+10	Schwarz criterion		24.62811
Log likelihood	-180.6488	Hannan-Quinn criter.		24.48499
F-statistic	2.623813	Durbin-Watson stat		0.847896
Prob(F-statistic)	0.113426			

Applying OLS estimation method to the data (see table 4 above) the researcher obtained the following regression results:

$$\text{PAT} = -9927.13 + 0.1257 \text{ SHF} + 122052.6 \text{ INF} \dots \text{Eq.4}$$

Std. Er	43465.3	0.0550	255417.2
t-stat	-0.22884	2.2845	0.4779
p-value	0.8232	0.0413	0.6413
R ²	= 0.304		
Adj. R ²	= 0.188		

$$DW = 0.849$$

The above model shows that, as the bank's shareholders funds increase, on the average, the bank's profit after taxes increase by about 0.13 in million naira with higher inflation. Using the probability value, p-value, the probability of obtaining a t-value of 2.2845 is only 0.0413 or 0.04% less than 0.05% significance level. Using R^2 , which determines the overall significance of the regression, the researcher concludes that the explanatory variable – SHF and INF – explained only about 30% of the variations in PAT. Adj. R^2 - (19%) - which, conventionally, is less than R^2 implies that as the explanatory variables increase, adj. R^2 increases less than R^2 . Adj. R^2 is just another summary of R^2 statistic.

Durbin- Watson, DW, being 0.85 suggests that there is a positive serial correlation in the residuals. Given a 5% significance level, a sample size of 15 observations and two explanatory variables, there is a statistically significant positive (first order) autocorrelation in the model. Although the low R^2 and low pair-wise correlations are an indication that multicollinearity is not a possibility, a positive serial correlation is an indication that one or more variables may be superfluous.

Table 5: Breusch-Godfrey, or BG, LM Test

F-statistic	4.504504	Prob. F(2,10)	0.0403
Obs*R-squared	7.109005	Prob. Chi-Square(2)	0.0286
Test Equation:			
Dependent Variable: RESID			
Method: Least Squares			
Date: 02/23/18 Time: 05:04			
Sample: 2003 2017			
Included observations: 15			
Presample missing	lagged residuals set to zero.		
Variable	Coefficient	Std. Error	t-Statistic
C	79531.3	43533.03	1.826919
SHF	-	0.051966	-1.610740
INF	-	230507.3	-1.377537
RESID(-1)	0.81932	0.328130	2.496947
RESID(-2)	0.20400	0.298401	0.683672
R-squared	0.47393	Mean dependent var	-1.94E-12
Adjusted R-squared	0.26350	S.D. dependent var	42565.88
S.E. of regression	36529.6	Akaike info criterion	24.11084
Sum squared resid	1.33E+1	Schwarz criterion	24.34686
Log likelihood	-	Hannan-Quinn criter.	24.10833
F-statistic	2.25225	Durbin-Watson stat	1.457332
Prob(F-statistic)	0.13576		

To avoid some pitfalls of the DW test of autocorrelation, the researcher went further to apply the BJ LM test which is based on Lagrange Multiplier principle for a general autocorrelation that allows for (1) non-stochastic regressors (2) higher-order autoregressive schemes, and (3) simple or higher-order moving average of white noise error terms (see table 5 above). From the table the residuals are significant at lag 1 (i.e., P = 1), meaning first-order autoregression and the DG test is Durbin's M test and suggesting there is no need to consider more than one lag. In this case our model is homoscedastic and becomes:

$$PAT = 79531.32 - 0.0837SHF - 317532.3INF + 0.8193Rt \dots \dots \dots \text{Eq.5}$$

Std Er. 43533.03 0.0520 230507.3 0.328130
 t-stat. 1.82 - 1.6107 - 1.3775 2.496947
 p-value 0.0977 0.1383 0.1984 0.0316
 $R^2 = 0.47$ or 47%
 Adj. $R^2 = 0.26$ or 26%
 DW = 1.46 or 1.50

The interpretation of Eq.5 is simple: Over time, the index of PAT has been increasing by about N0.82 million naira in residual trend. By allowing for residual trend variable, the DW value has increased from 0.85 (see OLS model) to 1.50, an improvement very close to non-autocorrelation, of less model specification error and of efficient OLS estimators.

5. FINDINGS

The data analysis and interpretations in section 4 reveal that we reject the null hypothesis that SHF (a proxy for shareholders' share investment decision activities, emanating from the utilization of the knowledge and understanding of financial statements), cannot explain or influence PAT (a proxy for Zenith' performance). In other words, we accept the alternative that Zenith bank's performance, over the last fifteen years, has improved as a result of the equity holders' improved holding of shares of the company through their improved utilization of the knowledge and understanding of the bank's financial statements.

Inflation dynamism and the political system seemed to have played a less significant role in equity-holders' investment decisions. The positive influence of shareholders' knowledge and utilization of the information contained in the bank's financial statements might have played a significant role. Generally, the researcher assumes that the positive knowledge, understanding and utilization of information contained in the financial statement of Zenith bank by their equity investors have greatly influenced and impacted on the equity holders decision performance which is a positive influence on the profitability index of the bank.

6. Conclusion

The major finding is that every equity investor in Zenith bank relies heavily on the company's published financial statements to increase or reduce his or her investment in the firm. To this end, the company's profitability becomes a function of equity owner's continuous share-holding in the company as a result of their increased knowledge and understanding of the published financial statements.

In conclusion, the researcher makes the following recommendations: that Nigerian banks should continue to encourage programmes that improve stakeholders' knowledge and understanding of published financial statements; that adequate care and due diligence should be maintained in preparing and publishing financial statements to avoid faulty stakeholder investment decisions which could lead to loss of profits and adversely affect corporate governance in banks.

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