Effect of Accounting Estimates on the Profitability of Listed Firms in Nigeria

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pp 197 - 203

Abstract

This study examined the effect of accounting estimates on the profitability of listed agricultural firms in Nigeria. The scope of the study in relation to time covers a period between 2010-2015. The study used ex post factor research design and the secondary data gathered were analyzed using regression analysis. The regression result shows there is a very strong relationship between (PEB,PBD) and PROF at 85.0%. It was further observed that there is no significant effect of Provision for bad debt on profitability of firms but there exist a significant effect of provision for employee benefit on the profitability of firms. In consonance with this study's findings, it was recommended that Listed firms in Nigeria should make Proper estimates in other to capture the real cost incurred so as to determines its effect on firms profitability. Firms should also be more focus on their estimates to enable them makes the right decisions as regards their debt policies.

Keywords: Provision for bad debt, Provision for employee benefits and Profitability

1.0 INTRODUCTION

Studies carried out on the determinants of firms' decisions to provide quantitative sensitivity disclosures about Accounting estimates (AE), "material" and "highly uncertain" accounts requiring judgment (SEC 2002; SEC 2003). Accounting estimates comprise a large and growing component of financial statements, making the dividing line between fact and conjecture largely unknown to investors (Lev, Li, and Sougiannis 2010).

Since capital market inefficiencies can result if investors are led by estimates-based accounting information to misallocate resources, the SEC mandates that firms provide quantitative AE information when "quantitative information is reasonably available and will provide material information for investors" (Lev et al. 2010, SEC 2003,). Consistent with AE disclosures informing investors about the reliability of accounting estimates, AE disclosures reduce the value relevance of reported accounting numbers (Glendening 2014).

Common accounting estimates seen in AE disclosures include defined-benefit pension plans, sales returns, inventory obsolescence, warranty reserves, and uncollectible accounts receivable (Cassell, Dreher, and Myers 2013). Though management has ultimate responsibility for financial reporting, the auditor and the audit committee have important oversight responsibilities (Cohen et al. 2004). Recognizing this shared oversight role, the New York Stock Exchange (NYSE) and the Public Company Accounting Oversight Board (PCAOB) require audit committee/auditor discussion AE (Cohen et al 2004). Thus, this study examines the effect of accounting estimates on the profitability of firms in Nigeria. Its specific objectives includes to:

- Ascertain the effect of Provision for liabilities on the profitability of quoted firms in Nigeria.
- Determine the effect of provision for employee benefits on the profitability of quoted firms in Nigeria.

The scope of the study covers the five listed agricultural firms on the Nigerian stock exchange market but for the constraint of getting financial statement the study looks at 4 between 2010-2015 (a period of 6 years).

Research Hypotheses

The following null hypothesis has been formulated to guide the researcher in the investigation.

Ho_1: provision for liabilities has no significant effect on the profitability of quoted firms in Nigeria.

Ho_2: Provision for employee benefits has no significant effect on the profitability of quoted firms in Nigeria.

2.0 Review of Related Literature

Concept of Accounting Estimates

A past history of a business may show that a portion of receivable balances is not recovered due to unforeseen circumstances. Therefore, it may be prudent as started by Wood & Sangster (2009) to create an estimate for doubtful debts in addition to other specific estimates. These estimates may be calculated on the basis of past experience concerning recoverability ofdebts. However, creating a general provision has been on the decline after revisions in the International Financial Reporting Standards (IFRS). Specifically, International Accounting Standards (IAS) 39 prohibits creation of general provisions on the basis of past experience due to the subjectivity involved in creating such an estimate. Instead, reporting entity is required to carry out impairment review to determine the recoverability of the receivables and any associated allowance.

Zhang (2012) note that "accurately evaluating the credit risk posed by financial institutions loan granting decisions cannot be underestimated" They note this is clearly demonstrated by the large credit defaults in recent years. Also, Zhang (2012) noted that credit-recording methods are not new phenomena. They have been used for decades to group customers into two categories: good credit and bad credit. A credit worthy customer otherwise a good credit customer is likely to repay the debt whereas a bad credit customer is likely to default. A proper bad debt accounting entry for debtors can provide a good measurement for solving debts related problems However, every interested business entity must have seen the warning sign in the year 2000, regarding debts.

Walther, (1997) verified the implications of the rapid rate of growth in consumer debt and attributed it to aggressive and overly generous credit granting policies amongst others. He called for banks and companies to be cautioned in their way of handling debts granting. According to Walther, (1997) "massive inflows of foreign capital through the U.S. capital market depressed loan rates and contributed to credit expansion by making additional loan funds available at relatively lower costs." This attracts many borrowers. Therefore, keeping a close attention to the efficiency of recording and follow up of the receivables (debts) is worthwhile. Furthermore, Li (2008) discovered that default receivables (debts) recording and verification

has gained a great deal of attention. Banks are called upon to be efficient in accounting because it helps them develop the risk of default hence; banking authorities can determine the overall strength of the banking system and its ability to handle adverse debt default conditions. The best method for analyzing and recording bad debt hence making an estimate for debts that are likely to go bad will depend not only on the data structure, the characteristics of the data but more largely on the ability of a person handling the task to classify the data, and lastly on the objectives of classification.

Determinants in Estimating Allowance for Bad Debt

According to the generally Accepted Accounting Principles (GAAP), the estimate method for bad debt can be estimated in three different ways. The first method is an Income Statement approach where a bank or a company makes an estimate of the percentage of its credit sales, which will ultimately prove uncollectible. In the second and third methods, the balance Sheet approaches is used. Unlike the Income Statement approach, which only records an expense without consideration of the existing allowance for bad debts, the Balance Sheet approach always adjusts the amount estimated to be uncollectible based upon the amount of bad debt expense. The uncollectible amount can be based on an aging of receivables or a forecast of the amount of overall accounts receivable, which are expected to be uncollectible. In most case there is always little or no evidence to determine the details of how each and every individual company arrives at its estimate for bad debts. What is important is that the amount should be based on GAAP and also that the amount will involve estimates and subjective judgment.

Theoretical Framework

This study is anchored on the signaling theory as propounded by Miller and Rock (1985) but other theories and models are also discussed here.

Signaling theory

This theory refers to the idea that the agents send information to the principal in order to create credible relationship. Managers have more firsthand information about the firm than firm's investors do but they are always reluctant to provide transparent information to the shareholders. So, the performance index of a firm can be used for information purpose and it also act as a signal for the firm's future projection proficiently.

The relatively relaxed Theory: refers to a situation where by firms are willing to give out more credit in other to facilitate ease of business operation. Arnold (2008) explains this theory in line with firms with large cash reserves, more generous customer credit and high inventories. This theory is adopted by companies which operate in an uncertain environment where buffers are needed to avoid production stoppages (Arnold, 2008).

The aggressive Theory: As propounded by Arnold (2008) this theory represents a stance taken by companies who operate in a stable and certain environment where working capital is to be kept at a minimum. Enterprises hold a minimal inventory level, cash buffers and force customers to pay at the earliest moment possible.

In this study the both theories are looked into as firms to be studied either engage in an uncertain or certain business credit guarantee environment.

Empirical Review

Prior studies have found that the lower persistence of accruals is not quickly incorporated by investors in their valuation of the firm (Sloan 2001). One explanation for this finding is that investors fixate on total earnings thereby disregarding the affect of the lower persistence of accruals on how predictive current earnings are of future earnings (Sloan 2001; Levine, and Smith 2011). Accordingly, Sloan (2001) finds that the future abnormal returns of firms are negatively associated with the magnitude of firms' accruals. This finding is consistent with his hypothesis that investors misinterpret the persistence of accruals. If investors fixate on total earnings and ignore the accruals portion of earnings, which could be calculated from the statement of cash flows or from the balance sheet, then investors may not incorporate the estimation information in the footnotes in a timely manner. Therefore, in the short term, investors should more greatly undervalue firms with more estimated income reducing accruals (negative accruals) and over value firms with more estimated income increasing accruals (positive accruals). Hence, we would find that the estimation information found in the company's footnotes is informative of future returns. On the other hand, investors may quickly incorporate the amount of estimation in accruals into their valuation of the firm since this information is readily available in the firm's disclosures. More specifically, information provided in a firm's footnote disclosures has been shown to be incorporated by both investors and analysts

Hassan, Liaqat, Ch. Abdul and Muhammad (2011) set out to examine the impact of working capital management on the profitability of the firm without compromising the liquidity of the firm. Using data for sixty five companies randomly selected from Karachi

Stock Exchange, and a set of variables Tobin's Q, proxy used for determining the market value of the firm, return on assets & return on invested capital, were used to measure financial performance of the firm. Five financial **Asian Economic and Financial Review 2(8):966-982** 970 ratios, cash conversion cycle, current ratio, current asset to total asset ratio, current liabilities to total asset ratio and debt to asset ratio, were used as variables against which changes in dependent variables were measured by applying correlation and multiple regression techniques. Their findings revealed that significant correlations exist between working capital components with firms' market value and firms' profitability.

3.0 Methodology

Research Design

The study adopts ex-post facto research design. Ex-post facto research design involves the ascertaining of the impact of past factors on the present happening or event. The research design is also adopted due to the fact that, the audited financial statements of listed manufacturing companies which are the primary source of data are already in existence.

Data Analysis Technique

The descriptive statistics is used to summarize the collected data in a clear and understandable way using numerical approach. The multiple regression technique using ordinary least square regression (OLS) method is adopted in investigating the relationship between the dependent and independent variables. The study adopts the preliminary test for incidences of co linearity in the model are also necessary. To do this, the variance inflation factor (VIF) statistics and the tolerance level statistics were deployed to be used. The main advantage of these two statistics is that it filters out variables that might distort the result of regression analysis.

Model Specification

$$PROF_{ft} = \alpha + \beta_1 PFL_{ft} + \beta_2 PEB_{ft} + U_{ft}$$

Where;

α = Constant

PROF_Profitability proxy by log of profit after tax.

PFL_Provision for liabilities.

PEB_Provision for employee benefits.

FT= Firm ($_F$) at time ($_T$)

U = Error term used in the model.

β_1-β_4 = Beta coefficient of the independent variables.

Decision Rule

Accept the null hypothesis if the calculated value is greater than the significant level of 0.05.

4.0 Data Presentation and Analysis

Data Analysis

Data Validity Test

In order to ensure that the results are robust, several diagnostic tests such as variance inflation factor (VIF) and Tolerance statistics were computed as shown in Table 4.1, 4.3 & 4.4. The Variance Inflation Factor (VIF) statistics for all the independent variables stood at 1.00. This indicates the absence of multicollinearity problems among the variables under investigation (Berenson and Levine, 1999). This statistics ensures that the independent variables are not so correlated to the point of distorting the results and assists in filtering out those ones which are likely to impede the robustness of the model. There is no formal VIF value for determining presence of multicollinearity. Values of VIF that exceed 10 are often regarded as indicating multicollinearity, but in weaker models values above 2.5 may be a cause for concern (Kouisoyiannis, 1977: Gujarati and Sangeetha, 2007). Thus, this model exhibit low risk of potential multicollinearity problems as all the independent variables have a variance inflation factor (VIF) below 5 (Myers, 1990). This shows the appropriateness of fitting of the model of the study with the three independent variables.

In addition the tolerance values stood at 1.00 (see table 4.4). Menard (1995) suggests that a tolerance value of less than 0.1 almost certainly indicates a serious collinearity problem. In this study, the tolerance values are more than 0.1; this further substantiates the absence of multicollinearity problems among the explanatory variables.

Descriptive Statistics

The descriptive statistics for both the dependent and independent variables are presented in table 4.1 below:

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
PROF	28	4.45	7.66	6.2367	.17360	.91862
PBD	28	.00	5.32	3.5719	.39999	2.11653
PEB	28	3.48	6.77	5.3898	.19400	1.02654
Valid N (listwise)	28					

Table 4.1 presents the descriptive statistics of all the variables. N represents the number of paired observations and therefore the number of paired observation for the study is 28.

Profitability reflects a mean of 6.2367 and a standard deviation of 0.91862, it has a minimum value of 4.45 and a maximum value of 7.66. The Provision for bad debt (PBD) has a mean of 3.5719 with a deviation of 2.11653 also, with a minimum and maximum value of 0.00 and 5.32 respectively. The result also Provision for employment benefits (PEB) has a minimum and maximum value of 3.48 and 6.77 respectively and reflects a mean of 5.3898 with a deviation of 1.02654
The result of the descriptive statistics in respect to the study's independent variables indicates that Listed agro firms consider the Provision for employee benefits more as a major variable of Estimates that influence the financial performance of firms as a result of its high mean, the reason for this could be due to the fact that firms incur more cost on Estimates on employee benefits which enhances their profitability.

Regression of the Estimated Model Summary
This section of the chapter presents the results produced by the model summaries for further analysis.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.850[a]	.723	.701	.50214	.723	32.681	2	25	.000	1.150

a. Predictors: (Constant), PEB, PBD
b. Dependent Variable: PROF

Table 4.3.1, presents the regression result between PDB, PEB and PROF. From the model summary table above, the following information can be distilled.

The R value of 0.850 shows that, there is a very strong relationship between (PEB,PBD) and PROF at 85.0%. Also the R^2 stood at 0.723.The R^2 otherwise known as the coefficient of determination shows the percentage of the total variation of the dependent variable (PROF) that can be explained by the independent or explanatory variables (PBD and PEB). Thus the R^2 value of 0.723 indicates that 72.3% of the variation in the PROF of listed agro firms can be explained by a variation in the independent variables: (PEB and PBD) while the remaining 27.7% (i.e. 100-R^2) could be accounted by other variables not included in this model.

The adjusted R^2 of 0.701 indicates that if the entire population is considered for this study, this result will deviate from it by only 0.022 (i.e. 0.723 – 0.701). This result shows that there is a deviation of the sample examined and the total population by 2.2%. The table further shows the significant change of 0.00 with a variation of change at 72.3% indicate that the set of independent variables were as a whole contributing to the variance in the dependent.
The results of the model summary revealed that, other factors other than PBD and PEB can affect the profitability of listed firms. According to Ezekiel, Michael and Solomon (2014) this factors include Direct material cost, direct labour cost, production overhead

Regression Results
Regression analysis is the main tool used for data analysis in this study. Regression analysis shows how one variable relates with another. The result of the regression is here by presented in this section.The regression result as presented in table 4.4.1 above

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.350	.540		4.354	.000		
	PBD	-.051	.046	-.117	-1.117	.275	1.000	1.000
	PEB	.755	.094	.844	8.020	.000	1.000	1.000

a. Dependent Variable: PROF

to determine the relationship between PBD, PEB and PROF shows that when the independent variables are held stationary; the PROF variable is estimated at 2.350. This simply implies that when all variables are held constant, there will be a significant increase in the *PROF* of listed firms up to the tune of 2.350 units occasioned by factors not incorporated in this study. Thus, a unit increase in PBD will lead to a significant decrease in the PROF by 0.117. Similarly a unit increase in PEB will lead to a significant increase in

PROF by 0.844.

Test of Research Hypotheses

The hypothesis formulated in chapter one will be tested in this section inline with the decision rule.

Accept the Null hypothesis if the calculated value is greather than the significant level of 0.05.

Ho_1: *Provision for Bad debt has no significant effect on the Profitability of listed firms.*

Given that the significant level is 0.05 and the calculated value for Provision for Bad debt (0.275) is greater than the significant level, we therefore accept the Null hypothesis.

Ho_2: *Provision for Employee benefits has no significant effect on the Profitability of listed firms*

Given that the calculated significance level for Salary and wages is 0.000 which is less than the accepted significance level of 0.05, therefore the null hypothesis is rejected and the alternative accepted.

5.0 Summary, Conclusion and Recommendations

Summary of Findings

The following are the summary of the major findings of this study arrived at through the test of the research hypotheses earlier formulated in this study.

- There is no significant effect of Provision for bad debt on profitability of firms.
- There is a significant effect of provision for employee benefit on the profitability of firms.

Conclusions

The following conclusions becomes pertinent:

- Provision for Bad debt has no significant effect on the profitability of firms.
- Provision for employee benefits has a significant effect on the profitability of listed firms.

Recommendations

In consonance with this study's findings, it is recommended that:

1. Proper estimates should be made accurately in other to capture the real cost incurred so as to determines its effect on firms profitability.
2. firms should be more focus on their estimates to enable them make policies in regards to their debt policies and make the right well fare policy in regards the estimates made on employee benefits

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