CAPITALIZATION POLICY AND FINANCIAL PERFORMANCE OF OIL AND GAS COMPANIES IN NIGERIA

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Abstract

This research work investigates the impact of capitalization policy on financial performance of oil and gas exploration companies in Nigeria. The purposive sampling technique was adopted to select the sample size for the study based on data accessibility. Panel data only of a secondary nature was utilized, and these were collected from the annual reports of the selected firms dating from 2009 to 2014, Regression analysis was used to carry out impact tests among variables. The results show that capitalized exploration and evaluation costs have no significant effect on Return on Capital Employed (ROCE) and Total Asset Turnover (TAT) of the firms. It was recommended that capitalization methods that are objective, unbiased and consistent with accounting prudence concept be implemented to address the divergent policy issues and or an industry-specific initiative that would enhance investment decision making and uniformity of accounting language be introduced.

Keywords: Capitalization, Exploration & Evaluation costs, Full Cost, Successful Efforts, Oil & Gas, Financial Performance.

Introduction

One major contending issue in oil and gas accounting is when to expense exploration and evaluation costs, and when to capitalize them, The two basic schools of thoughts behind this argument are "successful efforts" and lull cost" methods of accounting for exploration and evaluation expenditures (E&E). Over forty years now, this grand debate has attracted a number

of concerns from scholars in the accounting field and is of empirical interest (Cortese & Irvine, 2010; Byrant, 2003 as cited in Joline & Christo, 2014). This argument is associated with the notion of "quality of earnings" which has evoked some concerns in journals and academic write-ups (Bandyophadhyay, 1994). Results from academic literature according to Bandyophadhyay suggest that certain accounting procedures appear capable of producing superior quality earning numbers which are highly valued (Priced) by the market, while some other accounting procedures are not.

Ideally, there seems to emerge a consensus by the accounting regulatory frameworks enabling exploratory companies the discretion to apply either of the two major accounting procedures in oil and gas. Neverthe ess, the unresolved argument for the best oil and gas accounting procedure has left a parallel of struggle to achieve methodological uniformity in treatment of exploratory costs. The unique nature of oil and gas exploratory business has equally made its accounting unique and interesting. Despite this, there still exists problem of comparability analysis among rivals (competitors) due to lack of consensus in the treatment of exploration and evaluation costs. The assessment of performance of individual entity in relation to industrial average remains problematic (Masud, 2013).

Investors in their speculations and rational behaviours would want to part with their resources where there are high or favourable key performance indicators (KPIs) (Batool & Salwa, 2014). Unfortunately, with the elective accounting procedures in oil and gas extraction, the accounting ratios upon which investors base their judgment to make informed decisions are subject to the firm's rational behavior. Analyzing Investee Company to understand its viability poses some challenges. There is therefore an urgent need for uniformity in accounting for exploration and evaluation costs if the harmonization agenda by the International Accounting Board (IASB) must be achieved. Hence, this paper examines the impact of capitalization policy on financial performance of oil companies in Nigeria. However, the specific objectives of this empirical work are to:

i) Determine the effect of Capitalized Exploration and Evaluation costs (E&E) on Return on Capital Employed (ROCE) of oil and gas companies in Nigeria.

ii) And to evaluate the effect of Capitalized Exploration and Evaluation costs on Total Asset Turn-over (TAT) of the oil & gas companies in Nigeria.

To achieve the above stated objectives, one may begin to ask, “to what extent has Capitalized Exploration & Evaluation costs impacted on ROCE and TAT of the oil & gas companies in Nigeria?”

The research hypotheses for this paper were formulated and stated in null forms as follows:

H_{01}: Capitalized E&E costs have no significant impact on ROCE of the oil & gas firms in Nigeria.

H_{02}: Capitalized E&E costs have no significant effect on TAT of the oil & gas firms in Nigeria.

Literature Survey Theoretical Framework

A number of theories abound in accounting literature but the one underpinning this study is that of "Positive Accounting Theory", Deegan (2009) defines Theory of Positive Accounting as "a theory designed to explain and predict which firms will and which firms will not use a particular method...but it says nothing as to which method a firm should use. "Positive Accounting Theory" proposes that management of a firm is most likely to favour

accounting policies that will minimize costs in order to maximize prospects of the company. The philosophy seeks to create forecasts of the global happenings and translate them to accounting businesses. However, Positive Accounting Theory, a scholarly work of Watts and Zimmerman has received various criticisms in accounting literature as identified by Deegan (2009).

Conceptual Framework

Capitalized Exploration and Evaluation Costs

Exploration and evaluation costs are accounted for using mainly successful efforts or full cost method. Under successful efforts, only exploratory drilling costs that are successful, i.e., directly result in the discovery of proved reserves are capitalized while unsuccessful exploratory drilling costs are expensed (Weight & Gallun, 2008). The probability of future economic benefits of the expenditure qualifies it an asset in the book of account. In contrast, according to Wright & Gallun (2008), full cost accounting capitalizes all exploration costs whether successful or not and thus treats them as assets.

An asset is defined as "a resource which is controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity in question" (lASB, 2013). In this case "future economic benefits" refers to the capabi ity of the asset to generate future cash benefits to the entity (Venter, 2003). "Even if an asset meets the definition of an element in the financial statements, the Conceptual framework stipulates that such an asset may be recognized only if it is probable that future benefits will flow to the entity from that asset and if the asset has a cost or value that may be measured reliably" (lASB, 2013). All anticipated economic benefits earnable from the asset are to be adequately certain before it can be said to be probable (Venter, 2003).

Financial Performance

Return on Capital Employed and Total Asset Turnover are among the veritable ratios for ascertaining the financial performance of a business firm. Accounting measure for viability that represents the interest of both equity holders as well as providers of debt capital is "Return on Capital Employed". The term "return" is broad and can be specified and related to assets (ROA), sales (ROS), equity (ROE), capital employed (ROCE), etc. In the opinion of Pandian (2005), "return measures the overall efficiency of capital invested in business", Brealey, Myers & Marcus (1995) and Van-Home (1998), view it as "net operating profit rate of return which is expressed as net operating profit before interest and taxes over total assets".

Atrill (2006) submits that "Return on Capital Employed (ROCE) is a fundamental measure of business performance because it expresses the relationship between the net profit before interest and taxes generated during a period and the average long-term capital invested in the business during that period". Looking at it from the general business angle, ROCE is a basic measure of profitability of returns to all suppliers of long-term finances before any deduction for interest payable to lenders or payments of dividend to shareholders are made. It assesses the effectiveness with which funds have been deployed by comparing profit with capital invested.

Literature espouse the use of financial statement analysis, and include without exception the Total Asset Turnover (TAT) and operating profit margin (Brigham and Houston, 2010; Gitman and Zutter, 2011; Keown, John & John, 2011; Ross, Stephen, Randolph and Bradford, 2008; Brealey and Myers, 2007). According to the authors, TAT measures the sales

generated per dollar of assets. It considers all assets including property, plant and equipment, capital working in process, investment -long term, inventories, trade debtors, advances, deposit and prepayment, investment in market securities, short term loan, cash and cash equivalents etc. In these criteria, a high ratio means the company is achieving more profit. The formula is given as: Total asset turnover = Sales /Total asset.

Empirical Review

Reviewing the empirical study conducted in Australia, Wu, Fargher & Wright (2010) investigated how exploration costs, cash flow of investment and Research and Development costs assist the investor to evaluate the value of the Australian mining firms with negative income. The value relevance of capitalized exploration expenditures and expensed exploration expenditures of loss firms is compared with the value relevance of those expenditures of profit firms in the Australian extractive industry. Wu et al find that capitalized and expensed exploration costs and R & D costs are positively and significantly associated with the market value of the resource based profitable firms. Comparing non resource-based firms with losses, Wu et al, (2010) argue that the exploration cost in the resource-based industries is the main factor influencing the market value of the loss firms in the industries.

Using the maximum likelihood logit regression analysis, the findings of Malmquist (1990) suggest that the choice between full costs and successful efforts accounting in the oil and gas industry in USA is governed by the need to efficiently monitor the contracts among the economic agents of the firm. Most of the previous studies dwelt on choice of accounting policy for treatment of exploration and evaluation costs. Despite the abundance of empirical studies in this area, there are less than analytical procedures for policy dialogue in the treatment of E&E costs, a gap which this study intends to fill.

Research Methods

Method of Data Collection

All the local oil & gas upstream companies in Nigeria constitute the population size for the study. However, the researchers employed a judgmental approach to select the sample size based on the accessibility of their annual reports. Furthermore, the sample size was restricted to five of the firms that disclose their capitalized Exploration & Evaluation costs as a separate class of asset in the annual reports, namely Seven Energy, Equator Exploration, Allied Energy, Afren Energy and Seplat Petroleum. All the selected firms that form the sample size for this study adopt consistently successful efforts method of accounting for exploration & production.

Data for statistical analysis were collected from the financial statements of the study firms. These were obtained as existing documents found both on line and otherwise. The timeframe covers from 2009 -2014 accounting years. The periods were chosen due to data accessibility and also minimal or no restiveness in operations of the oil firms following the Amnesty Programme introduced by the Federal Government in 2009.

Data Estimation Techniques and Model Specification

Data collected were analyzed using Regression technique. The following model is thus developed for testing:

Fp = f(CE&E)

Fp = Financial Performance proxied by:

ROCE - Return On Capital Employed

TAT - Total Asset Turnover

CE&E = Capitalized Exploration and Evaluation Costs

ROCE = f(CE&E)

TAT=f(CE&E)

Adopting this into econometric form for this study, we have:

$Fp = \beta_0 + \beta_1 ROCE + \beta_2 TAT + \sum$.....(1)

Where,

β_0 = Constant value

β_1 to β_2= Value of coefficient

$\sum$= Error Term

In order not to distort the analysis, the researchers maintain the same magnitude of data by expressing the Capitalized Exploration and Evaluation Costs in natural logarithm.

Results and Discussion

The descriptive statistics analysis in table 1 below shows the minimum, maximum and mean value of observations with standard deviations. It shows that the firms made some exploratory successes during the periods under review. The optimum value means that the maximum exploration costs capitalized by the firms stood at$1,071,000,000 approximately. The mean value of 7.7338 indicates that on the average the firms capitalized about $54,000,000 worth of E&E Assets. ROCE shows a least value of -8.23, suggesting the maximum loss on capital employed of the firms expressed as a ratio. On the average, the firms made a 0.1821 loss per capital employed with a standard deviation of 1.76487, a suggestion of more loss than returns. TAT shows a least value of 0.00, optimum value of 1.65, and average value of 0.4636 and standard deviation of 0.46789.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Capitalized Exploration & Evaluation Costs	24	6.42	9.03	7.7338	.90771
Return on Capital Employed	24	-8.23	1.27	-.1821	1 .76487
Total Asset Turnover	22	.00	1.65	.4636	.46789
Valid N (listwise)	22				

Using a simple regression analysis, table 2 below is a summary of the model estimate extracted from SPSS output.

Table 2: Summary of Model Estimate

Variables	R^2	B	Std Error	F-statistic	T-statistics	Sig
CONST.	-	1.922	0.832	-	2.309	0.032
ROCE	0.025	0.310	0.409	0.572	0.756	0.457
TAT	0.135	-0.187	0.106	3.109	-1.763	0.093

From the result in table 2, the E&E Assets of the study firms have a positive coefficient value of 0.310 with ROCE. This estimates that the Capitalized Exploration and Evaluation costs (E&E Assets) of the firms have a positive but weak effect on the ROCE. The coefficient of determination of 0.025 shows that changes in the predictor variable (E&E Assets) explain only about 2.5% changes in the criterion variable (ROCE). The t-statistics of 0.756 is significant at 0.457. Hence, the result is said to be statistically not significant at 0.05 level (p0.457>0.05). Therefore, the null hypothesis (Hoi) which states that Capitalized Exploration and Evaluation Costs have no significant impact on ROCE of the firms is not rejected Also, E&E Assets of the firms have a negative coefficient value of -0.187 with TAT. This suggests that capitalization of exploration and evaluation costs have inverse effect on TAT of the firms. The coefficient of determination of 0,135 indicates that changes in E & E assets explain 13.5% changes in TAT of the firms. Though, the t-statistics of -1.763 seems to be significant at 0.10 level, pO,093>0.05 goes to confirm that the negative effect is not significant at 0.05 levels. The researchers therefore do not reject the null hypothesis (Hoa) that Capitalized Exploration and Evaluation Costs have no significant effect on TAT of the firms.

Analyzing the findings for the sound effects of independent variable on dependent variables, the study reveals that exploratory success as capitalized by the independent oil and gas firms does not significantly impact on the ROCE and TAT of the firms. This means that the recognition of E&E Assets based on successful exploratory efforts does not bias the traditional profitability ratios measured by capital returns (ROCE), and Asset utilization ratio measured by TAT. Put differently, capitalized exploration & evaluation costs under the successful efforts method are not the major determinant of ROCE and TAT of oil and gas companies in Nigeria.

This is because oil and gas extractive business is characterized by other uncertainties and risks as maintained by Wright and Gallun (2008). The study also reveals that capitalization of exploration and evaluation costs based on successful efforts only have caused earning volatility among the study firms as shown in the descriptive statistics table above. This is consistent with the earlier finding of Byrant (2003) which argues that firms choose full cost method of accounting following the high level of earnings volatility associated with successful efforts method of accounting for oil and gas exploration business.

Furthermore, the negative coefficient value of TAT goes to confirm that the more the Capitalized Exploration and Evaluation Costs, the less TAT ratio, and verse visa. It means that the more the firms are prudent in recognizing E&E assets, the better their asset turnover. This supports the earlier findings of Wu, Fargher and Wright (2010). It is possibly due to the relatively low asset base associated with successful effort firms which is theoretically believed to generate revenues represented in assets.

Concluding Remarks

Capitalized Exploration and Evaluation Costs as factors affecting financial performance of oil and gas companies in Nigeria have been investigated. Based on the empirical results, the researchers hence conclude that Capitalized Exploration and Evaluation Costs (E&E Assets) have no significant effect on Return on Capital Employed of the firms. Also, E&E Assets have no significant impact on Total Asset Turnover of oil & gas firms in Nigeria.

The practical implication of the findings is that as ROCE and TAT are not dependent on the capitalized exploration and evaluation costs (E&E Assets) of the firms, shareholders or equity holders, providers of debt capital and competitors may make their usual informed and objective decisions under capitalization of exploratory success (i.e. successful efforts method) without bias.

Based on the findings and practical implications, the researchers recommend the following: As comparability analysis poses some challenges following the divergent procedures in oil and gas accounting practice. The International Accounting Standard Board (IASB) in trying to streamline the pending issues in IFRS 6 should either suspend other capitalization methods for the one that is objective, unbiased and consistent with accounting prudence concept or initiate industry-specific measures for each method of accounting for oil and gas exploration activities that enhance investment decision making and uniformity in accounting language.

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