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The impact of collection period on profitability of Nigerian listed oil and gas companies

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Abstract
Working capital management takes a vital role in a company's operation, hence it is of paramount importance in determining company's profitability. Profitability is one of the goals that every business organization wants to achieved, because each activity in the company is expected to generate profits. Therefore, components of working capital must be managed effectively in order to generate higher profits. The purpose of this study is to examine the effect of collection period (accounts receivable) management on profitability of listed oil and gas company in Nigeria, for the period of 6 years from 2013 to 2018, the variables used in the study were accounts receivable as independent variable and return on assets as dependent variable. The target population for this research were 12 listed oil and gas companies in Nigerian stock exchange website, method of data collection for this research is secondary method of data, the study employed panel data research design and utilized simple linear regression analysis. The findings of the study show that, Account Receivable has a negative and significant impact on Profitability. Based on the findings the study recommends that, the management of listed oil and gas companies in Nigeria should maintain the current strategy of the receivables' collection period in order to improve profitability of Nigerian listed oil and gas company.

Keywords: Profitability, Working Capital Management, Account Receivables

1.0 Introduction

The main goal of every business organization is to maximize profit (Adamu, 2018). Profitability is the most important activity which could assessed the success and efficiency of assets for the survival of the company (Choong, 2011). Olaoye, Adekanbi and Oluwadare (2019), states that profitability assesses the effectiveness and efficiency at which non-current and current assets are transformed into profit. profitability is the primary aim of every company without which, the company could not survive in the future (Iklimatu, Naziru & Maiwada).

Working capital management is concerned with managing the different elements of current assets and current liabilities (Osundina, 2014; Akindele & Odusina, 2015). The importance of managing the component of working capital (Account Receivables) for the effectiveness of the company cannot be denied because it influences the power and success of liquidity and profitability (James, Quadri & Taiwo ND). Management of account receivable is one of the working capital management that determines the profitability and liquidity of a company (Onyimba, Ugwu & Bassey ND). Receivables are managed by the companies so that credit period will become well known to the customer and when it is due (Pandey, 2015). Accounts receivable occurred when companies' products or services sold out on credit and does not receive any cash at the time of transactions. Receivables are created when sales are made on credit, where as it is not created when goods sold by cash (Abuhommous, 2017).

Furthermore, the main objective of account receivable is to received debt due, to help cash flow requirements in meeting organizational goals. (Onyimba *et al.*). A company that invested more on trade credit, their profit will increase compared to other companies with less or no investment in trade credit (Abuhommous, 2017). accounts receivable is an alternative tool to price reductions and avoiding price control without provoking competitors into a price war (Garcı ´a-Teruel & Martı ´nez-Solano 2010)

Account receivables (AR) This is the invoice from customers that have not been received. When a firm sells its product or services and does not receive cash from it immediately, the firm is said to have granted trade credit to customer, trade credit, thus create receivables (Adamu, 2018). To a realistic minimum, by minimizing the number of days of days of accounts receivables, profits could be produced by the managers of a company to its shareholders (Sharma, 2011). A positive association was detected among number of days' accounts receivable and corporate profitability (Sharma, 2011). The shortest time taken by the firms to collect cash from its customer the most profitable the firm is. Among profitability and the time company takes to collect the cash from its customers possess a highly significant negative association (Mathuva, 2010). Account Receivable Period (ARP) is measured as, accounts receivable divided by sales multiplied by 365 days (Mansori & Muhammad, 2012).

The objective of this study is to examine the effect of collection period (accounts receivable) management on profitability of listed oil and gas company in Nigeria, for the period of 6 years from 2013 to 2018. Accounts receivables is one of the items that determines the liquidity of a firm as such listed oil and gas and other companies will immensely benefit from the study, also the study will serve as a reference material to researchers.

Literature review

Gill Biger and Mathur. (2010), conducted a study on the relationship between working capital management and profitability. Using an American sample of 88 manufacturing firms listed on New York Stock Exchange, for 3years during the period of 2005 to 2007. Their study used a weighted least squares (WLS) regression technique to estimate the effect of account receivable days (AR), on the firms' gross operating profit. The result revealed a negative relationship between accounts receivables and profitability

Mathuva (2010) examined the influence of working capital management components on corporate profitability using a sample of 30 firms listed on Nairobi Stock Exchange (NSE) for the period 1993-2008 using regression analysis, the result shows a significant negative relationship between the Average Collection Period and profitability,

Dong and Su (2010) studied the relationship between WCM and profitability using the fixed effects model for a sample of 130 companies listed in Vietnam Stock Market for the period 2006 – 2008.The results of the study showed a significant and negative relationship between profitability and the RCP

Dinku (2013) examines the impact of working capital management on performance of Ethiopian Micro and Small Enterprises of Bahir Dar city administration using a sample of 67 micro and small enterprises. for the year 2003. Pearson's correlation and OLS regression with a cross sectional analysis were used. The result shows that number of days' accounts receivable have a significant negative impact on ROA.

Ponsian, Chrispina, Tago, and Mkiibi. (2014) conducted a study and examine the statistical significance between company's working capital management and profitability using a sample of three manufacturing companies listed on the Dar es Salam Stock Exchange (DSE) for ten years from 2002 to 2011, regression analysis specifically Ordinary Least Squares (OLS) is used. They found a highly significant negative relationship between average collection period and profitability.

Misbah, Anjum, Aqdas, Marwat and Muhammad (2015) conducted a study on The Relationship between Working Capital Management and Profitability: Evidence from Listed Companies in Kuala Lumpur Stock Exchange (KSE) Malaysia. Using 189 listed companies in KSE for the period of 10 years, 2002 to 2011. Pearson correlation technique, paired sample t-test and descriptive statistical analysis were used. The findings of this study reveal that the days' account receivable have a significant negative relationship with the profitability of the firms.

Hill, Kelly, and Lockhart (2012) and Mbula, Memba, and Njeru (2016) studied the impact of accounts receivable management on the firm's performance in Kenya, Serbia, and Finland. Using descriptive statistics, correlation, and regression model, and found that accounts receivable connected positively with firm's performance. Other studies Martínez-Sola, García-Teruel, and Martínez Solano (2014) argued that accounts receivable has a positive effect on firm`s performance.

Husain and Alnefaee (2016) examined the statistical significance of the impact of working capital management on profitability of the selected listed agriculture and food companies of Saudi Arabia. Using a sample of three firms engaged in agriculture and food services listed in the stock exchange (Tadawul) is used for a period of 6 years from 2009-2014 Correlation and Regression Analysis (Ordinary Least Square) the result shows a positive relationship between gross operating profitability and average collection period of the companies of Saudi Arabia, Tran, Abbott, and Yap (2017), Ukaegbu (2014), Vahid Elham, Mohsen, khosroshahi, and Mohammadreza, (2012) stated that firm`s performance is negatively affected by accounts receivable. On the other Hand, Falope and Ajilore (2009), Mathuva, (2010), Dong and Su (2010), Azam and Haider (2011), Iqbal**,** Ahmad, Hamad**,** Kensal, M. and Anwar**.** (2014) Ponsian *et al*. (2014), Misbah *et al*. (2015), Husain and Alnefaee (2016), Mbawuni, Mbawuni, and Nimako, (2016), Oyedele, Adeniran, and Oluwatosin, (2017), They used account receivables and found a negative relationship with profitability. Unlike the result of Sharma (2011), Khalid, Saif, Gondal, and Sarfraz (2018), and Nastiti, Atahau, and Supramono, (2019). Which shows significant positive relationship on profitability.

Methodology

The main objective of this study is to examine impact of account receivables management on the profitability of listed Oil and Gas Company. The target population for this research were 12 listed oil and gas companies in NSE website. Method of data collection for this research is secondary method of data, the technique for data analysis was regression analysis, the research analyzed using simple linear regression analysis in order to determine the impact of accounts receivables towards profitability in the Nigerian oil and gas sector. Panel data research design was employed, the study covered the period of 6 years from 2013 to 2018, taken the entire listed companies in the sector.

The following regression model were used:
$ROE = \beta_0 + \beta_1 AR_{it} + \varepsilon$
Where;
ROE = Return on Equity
AR = Account Receivable
β_0 = Regression Constant
$\beta_{1,}$ = is the regression co-efficient associated with independent variables.
i = i…N refers to the number of companies
t = t… Ti refers to time period
ε = Error Term

Table 1. Variables Measurements

S/N	Acronyms	Variable Name	Measurement	Source
1.	ROE	Return on Equity	Net income (loss)/Average share holders	Samilogu and Akqun (2016).
2.	ARP	Account Receivable Period	Account Receivable/sales x 365 days	Mansori & Muhammad (2012)

Source: Research 2020

RESULTS

Introduction

The presentation of the result comprises the descriptive and the main regression result, this study ignores some of the statistical test like correlation and pre-regression assumption tests like multicollinearity, heteroskedasticity and model specification test. The reason for that is the presence of a single predictor (independent variable) and dependent variables in the study

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ROE	0.383	1.294	-3.287	9.125
AR	1.799	0.527	0. 301	3.246

Source: STATA (13) Output, 2020

Descriptive Statistics

Table 1: shows the summary of the descriptive statistics of the study variables. The descriptive statistics comprises measures of central tendency that is the mean and measure of dispersion such as the standard deviation, minimum and maximum for both the dependent and explanatory variable. From the results, the profitability measured by return on equity ROE found to have a

mean and standard deviation of 0.383 and 1.294 respectively; Account Receivable had a mean of 1.799 with standard deviation of 0.527.

Table 3: Summary of OLS Regression Result

ROE	Coefficient	T	P-value
AR	- 0.6004818	-2.11	0.0380*
CONSTANT	1.4637610	2.74	0.0080
R-squared	**0.0598**		
Probability > X^2	**0.0384**		

**5% Significance level*
Source: STATA (13) Output, 2020

The table 2 above depicts the simple linear regression result analyzed using Profitability as a dependent variable measured by Return on Equity (ROE) and the account receivable (AR) as independent variable of the study. The result indicates that AR has a negative and significant impact on Profitability of listed oil and gas companies in Nigeria at 5% level of significance with coefficient and p-value of -0.6004818 and 0.0380 respectively.

Findings, Conclusions and Recommendations

The findings of the study highlighted negative and significant impact of Accounts Receivable on profitability of listed oil and gas company in Nigeria, for the period of 6 years from 2013 to 2018. This result suggests that If the amount of Accounts receivable is not properly collected, it will have an adverse effect on profitability of the company.

the management of listed oil and gas companies in Nigeria should maintain the current strategy of the receivables' collection period in order to improve profitability of Nigerian listed oil and gas company. It is suggested that shorter collection period of accounts receivable is more profitable than taking longer period to receivables collection. managers can create value for their shareholders by decreasing the number of days, accounts receivable to a reasonable minimum. The way a company manages it accounts receivable, has significant impact on its profitability. The researcher suggested for further study in listed companies of another sector.

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