

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/328677037>

Impact of Average Payments Period on the Return on Assets of Quoted Insurance Companies in Nigeria

Article in *European Journal of International Management* · January 2018

CITATION

1

READS

2,338

2 authors:



Agbo ELIAS Igwebuike

Godfrey Okoye University

75 PUBLICATIONS 31 CITATIONS

[SEE PROFILE](#)



Simon Ugochukwu Nwankwo

Ebonyi State University

8 PUBLICATIONS 60 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



IMPACT OF EARNINGS PER SHARE AND DIVIDEND PER SHARE ON THE STOCK PRICE OF LISTED NIGERIAN INSURANCE COMPANIES [View project](#)



PUBLIC FINANCE [View project](#)

Impact of Average Payments Period on the Return on Assets of Quoted Insurance Companies in Nigeria

Elias I. Agbo

Department of Accounting/Banking and Finance
Faculty of Management and Social Sciences, Godfrey Okoye University, Ugwu-omu, Enugu

S.N.P Nwankwo Ph.D.

Department of Accounting/Finance FMSS, Godfrey Okoye University, Enugu

Abstract

A properly designed and implemented payables management is expected to contribute positively to the insurance firm's profitability. The purpose of this study is to determine the impact of average payments period on profitability of quoted insurance companies in Nigeria. The study was carried out using Return on Assets as dependent variable and Average Payments Period as explanatory variable. Return on Assets was used as a measure of profitability. Data were collected from the annual financial reports of 20 sampled insurance companies. Multiple regression technique was used in analyzing the model for testing the hypothesis. Current Ratio, Fixed Financial Total Asset Ratio, Debt Asset Ratio, Growth and Size were incorporated in the model as control variables. The results indicated that Average Payments Period has a significant negative impact on profitability. Based on the findings, the study recommends that Nigerian insurance companies should endeavour to reduce their number of days accounts payables optimally and concentrate on reducing the high variability in the average payables period to enhance their corporate profits.

Keywords: Average Payables Period, Accounts Payable, Return on Assets, Profitability, Nigeria.

1.0 Introduction

Corporate trade credit has been seen as one of the most interesting and important topics in the finance field for a long time. This type of short term financing is especially relevant to both large publicly listed companies and the Small and Medium Enterprises (SMEs) (Oliveira Marques, 2010). In developing countries, both small and large firms trade credit to raise funds. Some studies like Nilsen, et al. (1999) highlight that trade credit can be industry- specific. They proved that there is little variation within industries and a wide variation among industries in terms of credit. While Miwa and Ramseyer (2005) emphasized the importance of trade credit as a source of fund, Antov and Alanasova (2007) viewed it as a signal of firm's creditworthiness. Payables constitute one of the most important components of working capital. Their effective management facilitates the increase in the size of the business activities. They make possible the increase in business activities by increasing total sales which consequently increase the recycling of funds and the generation of higher profitability (Madishetti and Kibona, 2013). An enterprise that is managed efficiently normally keeps average payments period (APP) higher than Average Collection Period (ACP) so as to minimize investment in receivables and, at the same time, honour its short- term obligations on time. The large number of business failures are attributable to the inability of business managers to plan and control the Average Payables Period (APP) and Accounts Receivable Period (ARP) of their respective companies, (Madishetti and Kibona, 2013).

Cooler, et al (2014) observed that working capital performance showed a slight improvement over the past three years (2011-2013) globally. According to Cooler, et al (2014) payables were the only components that had shown consistent improvement globally with Europe reducing by 1 day to 43 days, America by 1% to 33 days and Asia, Africa and Australia each showing a reduction of 2 days to 42 days. Padachi, Narasimham, Durbarray and Howorth (2008) observed that "short-term sources, more particularly trade credit and other payables, play a significant role in financing working capital" (p.58). For Welner (2000) firms have excessive use of trade credit in spite of the apparent greater cost.

According to Padachi, et al (2008), "if a firm is forced through financial stringency to keep its working capital constant, then, increased payment delays from customers must be balanced by delaying payments to suppliers" (p.46). The implication of those assertions is that companies use significant payables investment while adopting a working capital management policy. Companies extend payables days if they over- invest in inventory or are not being paid on time from receivables.

Ganesh, Mohapatra and Nagarajan (2014) noted that organizations all around the world had become conscious of the fact that, in order for them to compete in the international markets and sustain their competitive advantage successfully, it was necessary for them to strive to imbibe and rely on effective supply chains and network. Bartram (2013) shared similar view with Ganesh, Mahapatra and Nagarajan (2014) on the need for the members that constitute a part of the supply chain to be in close co-operation. Padachi, et al (2008) maintained that a lengthening of the working capital cycle was partly met by stretching the credit period from suppliers and

that this might impact adversely on customer-supplier relationships. Bartram (2013) shared the same view with Padachi, et al (2008). In the comparison of the relative importance of working capital components, Tauringana and Afrifa (2003) discovered that the management of payables for SMEs was more crucial than even the management of inventory. According to Deloof (2003), delaying payments to creditors would serve as an inexpensive and flexible source of financing a firm.

In due consideration of the significance of the investment in variables, the benefits derived from utilizing payables and the fact that some of the results derived from previous studies are considered as contrary to theory, this study has sought to find out whether average payables period has a significant impact on the Return on Assets of quoted insurance companies in Nigeria, as proposed by theory.

The structure of this paper is as follows: Section 2 presents a summary of the previous research on the impact of average payables period on firm's profitability. Methodology, data and variable issues are discussed in section 3, while sections 4 and five discussed the results, conclusion and recommendations of the study.

2.0 Literature Review

Accounts payable includes all the money which a business owes for the purchase already made (Hartman, 2014). It represents the money owed by a business to its supplier which is shown as a liability on a company's balance sheet. It is different from note payable and wages payable which are debts that are created by formal legal instrument documents (Needles et al, 2013). Investopedia (2015) defines accounts payable as an accounting entry that represents an entity's obligation to pay off a short-term debt to its creditors. Accounts payables are often referred to as "payables". They are debts which must be paid off within a given period of time in order to avoid default. Payables are not limited to corporations but are also applicable at household level. Webster's New Universal Unabridged Dictionary defines Accounts Payable as "a liability to a creditor carried on open account usually for purchases of goods and services" (1935-40). Much of the information that needs to be reviewed in the accounts payable process are expected to be found in the following documents:-

- Purchase orders used by the company
- Receiving reports used by the company
- Invoices from the company's suppliers.
- Contracts and other agreements. The accuracy and completeness of a company's financial statements depends on the efficiency of the accounts payable process.

Web-finance (2015) views accounts payable as the money which a company owes to vendors for products and services purchased on credit. It is a current liability since the expectation is that the liability will be defrayed in less than one year.

Accounts payables, also known as payables or trade payables, is the aggregate amount of an entity's short-term obligations to pay suppliers for products or services which the entity bought on credit. A default in paying the accounts payable may trigger a penalty or interest payment, or the revocation or curtailment of additional credit from the supplier.

Accounts payables are viewed as a source of cash because they represent funds borrowed from suppliers. When accounts payables are paid, cash is used. Because of these cash flow considerations, suppliers are naturally inclined to push for shorter payment terms while debtors want to lengthen the payment terms. However, from a management perspective, it is worthwhile having accurate accounts payable records to ensure that suppliers are paid on time and that liabilities are recorded in full within the current time periods. If that is not the case, suppliers may decline from granting credit and the financial results of the company may be incorrect. Account payable are the opposite of accounts receivable. Accounts payable were explained as follows by Humpton and Wagner (1989) "When a firm makes a purchase on credit, it makes an obligation to pay for the goods according to the terms given by the seller." The value of accounts payable usually rises as costs rise, especially when rising cost compels the small business to buy necessary items on credit. Unless income goes up instantaneously, the result of more spending through accounts payable is a lower return on investment rate. Accounts payable has a more direct and significant effect on the cash flow of small business than it does on the overall return on investment (ROI). It creates the need for cash at some point in the future when the accounts come down.

According to Peavler, (2015), accounts payables, located on a company's balance sheet represent what the company owes its suppliers or the vendors from which it buys its' inventory and other suppliers. They are current liabilities which are listed on the right-hand of the balance sheet. They are just like unpaid bills and are expected to be repaid to the suppliers within one year. Apart from being a source of funding, accounts payable can be used to assess the quality of a product (Deloof, 2003; Long, Malitz and Ravid, 1993; Smith, 1997).

Accounts payables can have a serious impact on profitability and can either improve corporate profitability or cause the latter to decline. The two primary ways that accounts payables impact on corporate profitability are the company's relationship with its suppliers and the company's cash flow. The single most crucial thing a company can do to maintain good supplier relationship is to pay its bills on time. Supplier relationship management involves having a mutually beneficial relationship between the company and each of its suppliers.

Good supplier relationship will motivate suppliers to cut good deals for the company. They will suggest new better products to the company and work with the company on delivery times and policies. With a set of best practices in accounts payable management, accounts payable can have a positive impact of corporate profitability. This is achieved by the company (a) paying its bill on time (b) eliciting trust between it and its suppliers and (c) trying to facilitate the pressure of its accounts payables with a minimum of cost (Peavler, 2015).

Effective management of payables has a direct impact on profitability when there are proper controls such as scheduled payments. It is possible for a company to take advantage of such supplier discounts and significantly reduce its purchasing cost. A typical account payable policy is “2 in 10, net 30”. What this means is that if a firm pays for the debt within 10 days, it receives a cash discount of 2 percent; if not, the total bill has to be paid in thirty days. It is possible that the payables policy is net 30. This means that the date is within 30 days without discount (Nwude, 2003).

Average Payments Period (APP)

Average payments period (in days) is calculated thus:

Average payments period (in days)

= Average Payable / (Cost of goods sold) x 365 (Madishetti and Kibona, 2013).

Payables Management Relationship with Profitability

In his study, Deloof (2003) asserted that average payables period has negative relationship with profitability. Sabri (2012) concluded that the relationship between profitability and average payables period is negative just as was discovered by Padachi (2006) and Deloof (2003) who carried out their studies on Belgian firms. This negative result, however, contradicts theory which advises in favour of extending average payables in days in a bid to retain the cash for a longer period and use same to finance the activities of the business. Deloof (2003) rationalized the negative relationship between average payables period and profitability as consistent with the view that less profitable entities wait longer to pay their bills. For Deloof (2003), profitability, in that case, affects average payables period and not the other way round. He suggested that it was the inability of firms in distress to generate enough cash to pay their payables that resulted in extending the payable days. According to Moodley (2014), that was not a choice of management but, rather, a forced reaction and as a result it distorted the results with regard to the relationship of payables and Return On Investment (ROI). An alternative explanation by Deloof (2003) which was concurred to by Sabri (2012) was that speeding up payments to suppliers might increase profitability because Belgian firms often received a substantial discount for prompt payment. This resulted in companies choosing to pay earlier rather than keep their cash in the business. As a result, they do not adopt a policy of increasing payable balances.

The study by Lazaridis and Tryfonidis (2006), however, emphasized the surprise concerning the results of previous studies. According to Lazaridis and Tryfonidis (2006), “this result is highly significant and does not make economic sense, since the longer a firm delays its payment the higher the working capital levels it reserves and is used in order to increase profitability”, (p.31). The view of Lazaridis and Tryfonidis (2006) is consistent with the theory of management of working capital especially with regard to the management of payables.

Payables management constitutes a critical component of the supply chain under the area of procurement. According to Randall and Farris (2009), the task of managing payables balances and supplier relationships have become important, as firms have become more aware of the competitive advantages of supply chain management from cost efficiency, product differentiation and value added services.

Moodley (2014) discovered that the possession of a high payable days’ value may not necessarily indicate a higher return for a company above those of the companies with lower payable days. According to Moodley (2014), the management of the payable days for a company, rather than the absolute number of payable days, is the key driver of value for the company. For Moodley (2014), there is no relationship between change in payable days and return to investors. He advised investors to avoid the companies possessing either low or negative change in their payable days. He further observed a slower style relationship and a competitive advantage in managing their payables for companies as well as the absence of relationship between change in payable days and return to investors for specific industries.

3.0 Research Methodology

This study has the intention of contributing towards an aspect of financial management as it relates to quoted insurance companies in Nigeria. The previous literature holds contradictory results concerning the relationship between average payables period and a firm’s profitability. This situation has necessitated investigating the relationship further in a different economic sector in Nigeria so as to generalize the results better. This study investigated whether average payables period has a significant impact on the Return on Assets (ROA) of quoted insurance companies in Nigeria. It relied completely on historical accounting data which were sourced from the annual financial statements of a sample of twenty quoted insurance firms listed on the Nigerian Stock Exchange (NSE) for the period 2000-2011. Ex post facto research design was adopted. The data used were most authoritative, accessible and reliable as they were extracted from published audited accounts. The data generated

were used to run both cross-sectional and time-series regression. The multiple regression technique was used in analyzing the model stated after ensuring the stationarity of the cross-sectional times and series data and after testing for multicollinearity. Regression analysis was used owing to the statistical dependence of one variable (ROA) on the independent variable (APP). Current Ratio, Debt Asset Ratio, Fixed Financial Total Asset Ratio, Size and Growth were introduced in the model as control variables. The study explained how quoted insurance companies in Nigeria can enhance their revenue and generate higher profits by managing their average payables period optimally. The variables studied were calculated thus:-

(a) Return on Assets = Net Profit after Tax ÷ Average Total Assets

(b) Average Payables Period in Days (APP) = $\frac{\text{Accounts Payables}}{\text{Cost of Goods Sold}} \times \frac{365 \text{ days}}{1}$

(c) Current Asset Ratio (CAR) = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

(d) Fixed Financial Total Asset Ratio (FFTAR)

FFTAR = Fixed Financial Assets/Average Total Assets

(e) Debt Asset Ratio (DAR)
 = Average Total Debt/Average Total Assets

(f) Growth: GDPGR =
 Per Capita Gross Domestic Product
 Growth Rate in year t, for insurance firm i.

(a) Return On Assets is used as a measure of profitability in firms (Afza and Nazir, 2009), Van- Horne and Wachowiez (2005) regard ROA as a measure of the overall effectiveness of the company in generating profit with the available assets. The alternative measure of ROA, which was used here, has been used most often because of its simplicity. It is defined as ROA = Net Income after Tax ÷ Average Book Value of Assets. Other studies that used this alternative measure include Demirgunes and Samiloglu (2008), Falope and Ajilore (2009) and Afza and Nasir (2009).

(b) Average Payables Period (APP). This was used as a proxy for the payment policy. It is the independent variable and is calculated by dividing Accounts Payable by Cost of Sales and multiplying the result by 365 days.

(c) Current Ratio (CR) is a measure of short term solvency. It was also used by studies like Shin and Soenen (1998) and Sharma and Kumar (2011).

(d) Fixed Financial Total Asset Ratio (FFTAR) was also introduced as a control variable by studies such as Deloof (2003), Raheman and Nasir (2007), Dong and Su (2010) Lazaridis and Tryfonidis (2006) and Mathuva (2009). It is calculated by dividing Fixed Total Assets (mainly shares in affiliated firms and loans granted to affiliates) with Average Total Assets.

(e) Size: This is proxied by the Logarithm of Total Assets (NLTA) or Logarithm of Total sales (NLTS) . The first alternative (NLTA) , used in this study, was also introduced by Gill, et al (2010), Padachi (2006) and Alipour (2011) as a variable to control for economies of scale.

(f) Debt Asset Ratio (DAR)
 This is a proxy for financial leverage. It is calculated by dividing Average Total Debt by Average Total Assets. It was used in studies like Raheman and Nazir (2007), Sharma and Kumar (2011), Shin and Soenen (1998) etc.

(g) Growth: This is proxied by the per capita Gross. Domestic Product Growth Rate (GDPGR). Mathuva (2009), Enqvist, et al (2011) and Karaduman, et al (2011) are among the studies that also used this as a variable to control for inflationary pressures which affect working capital components.

Research Instrument

This study used the Ali Umar (2009) model. The general form of the model for a multiple regression is as given in the following form:-

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + e \dots (1)$$

On the basis of the review of the related literature, the following relationships have been predicted and tested statistically in order to conclude the results of the study:

$$ROA_{it} = \beta_0 + \beta_1(APP_{it}) + \beta_2(CR_{it}) + \beta_3(FFTAR_{it}) + \beta_4(DAR_{it}) + \beta_5(GDPGR_{it}) + \beta_6(NLTA_{it}) + E_{it}$$

Where

ROA = Return on Assets

APP = Average Payables Period

CR = Current Ratio
 FFTAR = Fixed Financial Total Asset Ratio
 GDPGR = Per Capita Gross Product Growth Rate
 DAR = Debt Asset Ratio
 NLTA = Natural Logarithm of Total Assets
 β_0 = The intercept of the equation
 β = The coefficient of the variables
 i = insurance firm 1,2,3,...20th
 t = Year 1,2,3,... 12th
 e = error term.

Table 1: Key variables and the Expected Impact on Return on Assets

Variable	Type	Expected coefficient Sign	Rationale
Average Payables Period	Independent variable	Positive	APP ↑ ROA →
Current Ratio	Control variable	Positive	CR ↑ ROA →
Fixed Financial Total Asset Ratio	Control variable	Positive	FFTAR ↑ ROA →
Gross Domestic Product Growth Rate	Control variable	Positive	GDPGR ↑ ROA →
Debt Asset Ratio	Control variable	Positive	DAR ↑ ROA →
Natural Logarithm of Total Assets	Control variable	Positive	NLTA ↑ ROA →

Population

The population was all quoted insurance companies listed on the Nigerian Stock Exchange (NSE).

Sampling

The sample was 20 companies that comprised about 95% of the population. They were selected on the basis of availability of information for the period of study and size. The insurance firms in the sample include (1) AIICO Insurance PLC (2) Cornerstone Insurance PLC (3) Crusader Insurance PLC (4) Custodian Allied Insurance PLC (5) Equity Indemnity Insurance PLC (6) Guarantee Trust Insurance PLC (7) Goldlink Insurance PLC (8) Guinea Insurance PLC (9) Law Union and Rock Assurance PLC (10) Lasaco Assurance PLC (11) Mutual Benefit Assurance PLC (12) NEM Insurance PLC (13) Niger Insurance PLC (14) Oasis Insurance PLC (15) Prestige Insurance PLC (16) Regency Insurance PLC (17) Royal Exchange Assurance PLC (18) Sovereign Trust Assurance PLC (19) Standard Alliance Insurance PLC (20) UNIC Insurance PLC.

Period of Study

The study used 12-years financial statements for the period from 2000 to 2011.

Nature of Data

Secondary data were used. They were extracted from the financial statements of the sampled companies which were obtained from the websites of the National Insurance Commission (NAICOM), the Securities and Exchange Commission (SEC), the Nigerian Stock Exchange (NSE) and the corporate headquarters of the companies.

Data Validity and Reliability

The data bases which have been used in previous studies were audited and published financial reports. The book values, rather than market values of the data were used.

Potential Research Limitations

The study was limited to listed Nigerian Insurance companies. Hence, the results may be biased towards listed insurance companies and may contain Nigerian specific distinctions. By limiting the study to quoted insurance companies, it results in the possible inapplicability to those insurance firms that were excluded. Furthermore, the use of Return on Assets as an indicator may be impacted by many other factors apart from the working capital management policy towards payables. These additional factors could be considered as the basis for further studies. The impact of restricting this study to the payables only is that the ROA may be distorted by the management of other components of working capital.

Hypothesis

The research hypothesis is stated as follows: -

Ho: Average Payables Period does not have a significant impact on Return on Assets of quoted insurance companies in Nigeria.

4.0 Data Analysis and Discussion of Results

Table 2: Descriptive Statistics

	Obs	Mean	Std. Dev.	Min	Max
ROA	240	0.103363	0.211776	0.0000	2,590000
APP	240	1430.028	4541.771	1,410000	38725,25
CR	240	6.00031	9.228802	0.020000	62,9000
FFTA	240	4,6000775	62.86858	0.0000	945,5300
GDPGR	240	774,7500	434,6076	125,0000	1984,000
DAR	240	0.659823	1.694071	0.0000	28,21000
NLTA	240	689,30196	51338.46	0.0000	28,21000

Source: Computed from the data obtained from the annual reports of the quoted insurance companies (2000-2011).

The descriptive statistics of the study for insurance firms (2000- 2011) with observations of 240 firm- years are presented in table 2. The statistics demonstrate that the mean value of the variable, ROA, is around 10 percent with standard deviation of 0.21. The mean value of Average Payables Period (APP) of the quoted insurance companies is 1430.028 days. Hence, it may be concluded that, on the average, listed companies in Nigeria faced low profitability during the period under review as represented by their ROA. On the average, the insurance firms had a good average payables period (1430.028 days). However, the high standard deviation figure (± 4541.771) indicates that the companies are dispersed widely on it. The mean \pm standard deviation of CR, FFTAR, GDPGR, DAR and NLTA were $6.000 \pm 9,2229$, $4,601 \pm 62.869$, $774.75 \pm 434,608$, 0.659 ± 1.694 and 68930.96 ± 51338.45 respectively.

Correlation Analysis

Table 3 exhibits the Pearson's Correlation Matrix. It demonstrates how Average Payables Period correlated with Return on Assets. As shown on the table, APP has a strong ROA ($r = 0.750$ at 0.05 level of significance).

Table 3; Correlation Matrix

			ROA	APP	CR	FFTAR	GDPGR	DAR	NLTA
ROA	Pearson Correlation Sign (2-tailed)	R		.750	.018	.784**	-.003	.781**	-.015
		P-value		.009	.791	.000	.969	.000	.825
		N		220	225	226	226	226	226
APP	Pearson Correlation Sign (2-tailed)	R		1	-.085	-.021	.059	.024	.096
		P-value			.211	.761	1385	.722	.154
		N			219	220	221	220	221
CR	Pearson Correlation Sign (2-tailed)	R			1	-.017	-.061	-.008	.006
		P-value				.805	.364	.901	.929
		N				225	225	220	225
FFTAR	Pearson Correlation Sign (2-tailed)	R				1	-.011	.889**	-.003
		P-value					.867	.000	.968
		N					26	226	226
GDPGR	Pearson Correlation Sign (2-tailed)	R					1	-.032	-.024
		P-value						.629	.724
		N						226	228
DAR	Pearson Correlation Sign (2-tailed)	R						1	-.005
		P-value							.936
		N							226
NLTA	Pearson Correlation Sign (2-tailed)	R							1
		P-value							
		N							

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Source: SPSS output on firms' Annual Reports (2000-2011)

Table 4: Test for Multicollinearity Statistics and Individual Contributions of the Predictors

MODEL	Correlations			Colinear Statistics	
	Zero order	Partial	Part	Tolerance	VIF
Constant					
APP	-.055	-.057	-0.34	.980	1.020
CR	.020	.044	.026	.989	1.011
FFTA	.785	.316	.197	.808	1.804
DAR	.782	.294	.182	.808	1.804
GDPGR	-.006	.028	.016	.990	1.010
NLTA	-.016	-0.16	-.009	.989	1.011

Source: SPSS Output on Firms' Annual Reports.

The collinearity statistics in table 4 show that the tolerances are far away from 0, thereby indicating the absence of multicollinearity. The Variance Inflation Factors (VIFs) are less than 2; this indicates the absence of collinearity problems. The partial correlation coefficients show the contributions of the explanatory variables to ROA. FFTAR is the best contributor (0.785).

Regression Analysis

In order to investigate the causal relationship between the studied variables, regression analysis was carried out. This was done after adjusting for hetero-skedasticity of the data to minimize the effects of outliers. Return on Assets was regressed with the independent and control variables in order to obtain the outcome of the predicted relationships. As earlier stated; the null hypothesis of this study is: Average Payables Period does not have a significant impact on the Return on Assets of quoted insurance companies in Nigeria.

Decision Rule

- (i) Accept H_0 and reject H_a if the probability value of the t-statistics is greater than 0.05 level of significance.
- (ii) Reject H_0 and accept H_a if the probability value of the t-statistics is equal to or less than 0.05 level of significance.

Table 5: Regression Results of Equation of Average Payables Period with Dependent Variables (ROA)

Dependent Variable: ROA

Method: Panel Least Squares

Date: 04/27/15 Time: 08:23am

Sample: 1228

Included observations: 240

Excluded observations: 9

Cross sections included: 20

White Heteroskedasticity – Constant

Standard Errors & Covariance

Variable	Coefficient	Std Error	t-statistics	Prob.
C	0.060183	0.030511	1972525	0.0498
APP	-1.57E-06	7.24E-07	-2.161616	0.0318
GR	0.000594	0.000537	1.107443	0.2694
FFTAR	0.001456	0.001067	1.365406	0.1736
DAR	0.049391	0.044293	1.115091	0.2661
GDPGR	8.15E-06	1.77E-05	0.461556	0.6449
NLTA	-3.75 E-08	1.35E-07	-0.277106	0.7820
R squared	0.651485	Mean dependent var	0.105023	
Adjusted R-squared	0.641622	S.D. Dependent Var	0.214736	
S.E. of regression	0.128551	Akaikeinfo criterion	-1.233543	
Sum squared resid.	3.503367	Schwarz criterion	-1.126217	
Log likelihood	142.0730	F-statistic	66.04924	
Durbin-Watson Stat	2.074453	Prob. (F-statistic)	0.0000	

Table 5 shows the regression result equation of the dependent and independent variables. Since the probability value (0.0318) of the t-statistic is less than 0.05 level of significance for the variable (APP) tested, the null hypothesis is hereby rejected. This implies that Average Payables Period has a significant impact on the Return on Assets of the Nigerian quoted insurance firms. The negative coefficient (-1.57×10^{-6}) shows that the impact is negative. This implies that an increase in APP will reduce the profitability (ROA) of the firms in Nigeria as indicated by the regression coefficient. The Coefficient of Determination ($R^2 = 0.65$) indicates that

more than half of the variations in ROA is explained by the model. The Durbin Watson statistic is very close to 2-implying the absence of autocorrelation problems.

Hence the model:

$$ROA = 0.060 - 1.57E-06APP + 0.0005CR + 0.001FFR + 0.05DAR + 8.15E-06GDPGR - 3.75E-08NLTA.$$

From the results above, it is evident that when APP is shortened the profitability of quoted insurance companies is enhanced; and, vice versa. Although it is contrary to expectation based on theory, this result is consistent with the studies of Deloof (2003), Karaduman, et al (2004), Lazaridis and Tryfonidis (2006), Padachi (2006), Enqvist, et al (2009) and Sharma and Kumar (2011). The interpretation of this negative effect is that one-unit increase in the number of days Accounts Payable will result to a decrease in the profitability of a Nigerian insurance firm by $1,57 \times 10^{-6}$. This disagrees with the main theory where positive effect of APP on ROA was expected. Economically, the negative effect might not make sense because, if firms should pay their bills faster, there may be less reserve in the working capital to ultimately increase profitability. However, Deloof (2003) rationalized the negative relationship by opining that less profitable firms wait longer to pay their bills.

5.0 Recommendations and Conclusion

This study empirically analyzed the impact of Average Payables Period on the profitability of the quoted insurance companies in Nigeria. The result showed that Average Payables Period (APP) had a significant negative impact on Return on Assets, implying that the decrease in APP would lead to an increase in the profitability of the quoted insurance companies. The previous findings on APP with ROA were contradictory. While Mathuva (2010) found that the relationship between APP and profitability was positive, Falope and Ajilore (2009) and some other studies found a negative relationship between APP and ROA. The results in this study agreed with Mathuva's (2010) findings. Finally, Current Ratio, Financial Total Asset Ratio, per capita Gross Domestic Product Growth Rate, Debt Asset Ratio and Size are the variables which appear in the regression model as control variables. In the regression model, it was observed that for Current Ratio, Fixed Financial Total Asset Ratio, Debt Asset Ratio and Growth, each had a positive relationship with the firms' profitability as measured by ROA. The relationship between size and ROA, however, was negative. The high variability of the variables denotes lack of effective management in payables. This calls for the effective intervention by the management of quoted insurance firms. Management should concentrate on reducing the high variability in APP so as to improve on profitability. The profitability of Nigerian insurance companies will be enhanced if they meet their claim obligations to their customers/policy holders as at and when due.

The scope of further research in this topic may be extended to the unlisted insurance companies and other working capital components including inventories, marketable securities, etc., and over a longer period.

References

- Afza, T. and Nasir M. (2009) Impact of Aggressive Working Capital Management Policy on Firm's profitability." *The IUP Journal of Applied Finance* 15(8) 20-30.
- Afza, T. and Nasir, M. (2009) "Impact of Aggressive Working Capital Management Policy on firm's Profitability. *THE IUP Journal of Applied Finance*. 15 (8) 20-30.
- Alipour, M. (2011) "Working Capital Management and Corporate Profitability: Evidence from Iran," *World Applied Sciences Journal* 12(7) 1013 – 1099.
- Antov D. and Alanasova, C.V. (2007). "Trade credit Financing; How Expensive is it Really?" in Working paper, University of York, March, 2007. <http://ssrn.com/abstract=967522>.
- Bartram, P. (2013). "8 Ways to improve Working Capital- Financial Management. 2013. Retrieved from <http://www.fm-magazine.com/feature/list/8-ways-%E2%80%A6improve-working-capital>.
- Cooler, N., Sentence A., Terry, C., and Ubindaas, D., (2014). Cash to Growth Pwc. Annual Global Working Capital Survey. Retrieved from <http://www.pwc.com/working-capital>.
- Deloof, M. (2003), "Does Working Capital Management Affect Return equity of Belgian Firms?" *Journal of Business Finance and Accounting*, 30(3-4) 573-588.
- Demirgunes, R. and Samiloglu, F. (2008) "The Effects of Working Capital Management on firm profitability; Evidence from Turkey," *The International Journal of Applied Economics and Finance*. 2(1) Pp 44-50.
- Dong, H.P. and SU, J. (2010) "The Relationship between working capital Management and Profitability: A Vietnam Case," *International Research Journal of Finance and Economics* Vol. 49, Pp 59-67.
- Enqvist, J. Graham, M. and Nikkinen, J. (2011) "The Impact of Working Capital Management on Firm Profitability in Different Business Cycles; Evidence from Finland." Available on SSRN:<http://ssrn.com/abstract-1794602>.
- Falope, O.I. and Ajilore, O.T. (2009) "Working Capital Management and Corporate Profitability, Evidence from Panel Data Analysis of Selected Quoted Companies in Nigeria," *Research Journal of Business Management*. Vol 3(3) pp 73-78.
- Ganesh, K., Mohapatra, S. and Nagarajan, S. (2014); Design and Development of knowledge management for

- Manufacturing. Switzerland: Springer International Publishing, 157-177. <http://dx.doi.org/10.1007/978-3-519-02892-79>.
- Gill, A.; Biger, N. and Malthur .N. (2010), "The Relationship Between Capital Management and Profitability; Evidence from the United States." *Business and Economics Journal*. PP 19.
- Hartman, D. (2004) "What effect Does Accounts payable have on the ROI" Demand Media, Retrieved from www.references.com.
- Investopedia (2015) "Accounts Payable Definition". Retrieved from http://www.investopedia.com/term/a/accounts_payable.asp. On April 10.
- Karaduman, H.O.; Akbas, H.E.; Caliskan, A.O. and Durer, S. (2011). "The Relationship between Working Capital Management and Profitability; Evidence from Emerging Market." *International Journal of Finance and Economics* Vol. 62(2011) pp 61-67.
- Lazaridis, I, and Tryfonidis, D. (2008). "Relationship between Working Capital Management and Return on Equity of Selected Entities in the Athen's Stock Exchange" *Journal of Financial Management and Analysis*. 19(1) 26-35.
- Long, M.S; Malitz, .I.B. and Ravid, S.A. (1993) "Trade Credit Guarantees and Product Marketability" *Financial Management*, Vol 22(4) Pp 111-127.
- Madishetti, S. and Kibona, D. (2013). Impact of Receivables and Payables on the Profitability of SMEs in Tanzania. *Journal of Economics and Management*. Vol.2. Iss. 3 ISSN 2278-0629.
- Mathuva, D.M. (2010). "The Influence of Working Capital Management Components on Corporate Profitability: A survey of Kenyan Listed firms," *Research Journal of Management*. 4(1) 1-11.
- Miwa, Y. and Ramseyer, J.M; (2005) "Trade Credit, Bank Loans and Monitoring Evidence from Japan", in Harvard Law and Economics Discussion Paper n; 572 October, <http://ssrn.com/abstract=843526>.
- Moodley, T. (2014) "The relationship between the management of payables and the return to investors" (Research Thesis). Gordon Institute of Business Studies. University of Pretoria pp 1-63.
- Needles, B.E; Powers, M; Susan V. and Boeken, C. (2013). *Financial and Managerial Accounting* <http://books.google.com/books?id=v18pEz069UC> and Pg=PA 373 and dg. Books.google.com. Retrieved 2013-11-29.
- Nilsen, C.K; Smith J.K. and Smith, R; (1999). "Evidence on the Determinants of Credit terms used in inter firm Trade." in *Journal of Finance*, Vol. LVIV pp.1109-1129.
- Nwude, C. (2003). Basic Principles of Financial Management: A second Course. Enugu, Chikenwabude Nigeria, pp 210-427.
- Oliveira Marques J.M. (2010). "The days to pay Accounts Payable Determinants Financial Substitution Effects: A Panel-Data GMM Estimation from European Western Countries". Documents de Trabajo, Instituto Superior de Estudos Financeiros e Fiscais March, 2010.
- Padachi, K, Narasimham, M.S.; Durbarry, R. and Howorth. C, (2008). "An Analysis of Working Capital Structures and Financing Pattern of Mauritan Small Manufacturing Firms" *The Icfai Journal of Applied Finance*. 14(7) 41-02.
- Padachi, K. (2006). Trends in Working Capital Management and its Impact on Firm's Performance: An analysis of Mauritian Small Manufacturing firms" *International Review of Business Research Papers* 2(2) 45-58.
- Peavler, R. (2015) "Accounts Payable Management and its impact on profitability: Business Financial Expert." Retrieved from www.612finance.abstract.com/ocl/Accounts-Payable and Accruals.
- Raheman, A and Nasr, M. (2007) "Working Capital Management and Profitability: Case of Pakistani Firms" *International Review of Business Research papers*. Vol 3(1) pp. 279 – 300.
- Randall, W.S. and Farris, M.T. (2009). "Utilizing Cash-to-Cash to benchmark Company Performance. Benchmarking". *An international Journal*. 16(4). 449-461 doi: 10: 110B/14635770910972405.
- Sabri, T.B. (2012) Different Working Capital Policies and the Return on Equity of a firm" *International Journal of Business and Management* 7(15) doi: 10: 5539 Jbm. V 7R 15P 50.
- Sharma A.K. and Kumar, S. (2011), " Effect of Working Capital Management on Firm Profitability: Empirical Evidence of India." *Global Business Review*. 12(1) 159-173.
- Shin, H. and Soenen, I. (1998) "Efficiency of Working Capital and Corporate Profitability," *Financial Practice and Education*. VOL 8. PP 37-45.
- Smith K.J. (1991), "Working Capital Management" *The Journal of Management Accountability*. Vol 2 p.507
- Taurigana, V. and Afrifa, G.A. (2013). "The relative importance of working capital management and its components to SMEs profitability," *Journal of Small Business and Enterprises Development*. 20(3) 452-469. doi: 10.1118/JSBED-12-2011-0029.
- Uyar, A. (2009) "The Relationship of Cash Conversion Cycle with Firm Size and Profitability: An Empirical Investigation in Turkey." *International Journal of Finance and Economics*. ISSN 1450 – 2881. Issue 24(2009) and Theo Journals Publishing Inc. 2009.
- Van-Horne J.C. and Wachowicz, J.M. (2005) *Fundamentals of Financial Management*. 11th Edition. New York;

Prentice Hall.

Web- Finance (2015) “Accounts Payable? Definition and Meaning” Retrieved from http://www.investorwords.com/51/accounts_payable.html.

Websters New Universal unabridged Dictionary.

Wilner, B. (2000). “The Exploitation of Relationship in Financial Distress: The case of Trade Credit”, *The Journal of Finance*. 55.153-178.