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Research Paper

The Effect of Accounts Payable Ratio on the Financial Performance of Food and Beverages Manufacturing Companies in Nigeria.

Okpe Innocent Ikechukwu[1] and Duru Anastesia Nwakaego[2]
[1]*Department of Accountancy, Enugu State University of Science and Technology, Enugu State, Nigeria.*
[2] *Department of Accountancy, Enugu State University of Science and Technology, Enugu State, Nigeria*

ABSTRACT:- Accounts payable are suppliers whose invoices for goods or services have processed but not yet been paid. This study examines the effect of accounts payable ratio on the financial performance of food and Beverages manufacturing firms in Nigeria. Multiple regression analytical tool was used to test the hypotheses. Data were sourced from Annual Reports of the companies under study. The results show that accounts payable ratio had negative significant effect with the profitability ratio. The study revealed also that Debt ratio had positive but non-significant effect on profitability, while sales growth rate also had positive and non-significant effect on the profitability ratio of these companies under study Food and Beverages companies in Nigeria.

Keywords:- Payable, Management, Profitability and Multiple Regression.

I. INTRODUCTION

Accounts payable is one of the major sources of secured short-term financing. Utilizing the value of relationship with payee is a sound objective that should be highlighted as important as having the optimal level of preventions. As a consequence strong alliance between company and its suppliers will strategically improve production lines and strengthen credit record for future expansion. Creditor is a vital part of effective cash positive purchasing initiates cash outflows and over-zealous purchasing function can create liquidity problems. Accounts payable represents the rates of payable of firms to their suppliers. They are also called suppliers whose invoice for goods or services has been processed but who have not yet been paid. The higher the value, the longer firms take to settle their payment commitment to their suppliers. Inadequate management of companies' payables can cause problem which may bring disaster to the company.

II. OBJECTIVES OF THE STUDY

The general objective of the study is to examine the effect of accounts payable on the profitability of food and Beverages manufacturing companies in Nigeria. The Specific Objectives Include,

1. To ascertain the effect of accounts payable ratio on the company's performance.
2. To examine the effect of sales growth rate on the company's performance.
3. To ascertain the effect of Debt ratio on the financial performance of food and Beverages companies in Nigeria.

Hypotheses

The following hypotheses were proved,

1. Accounts payable ratio has no significant effect on the company's financial performance.
2. Sales growth rate has no significant effect on the company's performance.
3. Debt ratio has no significant effect on the financial performance of food and Beverages companies in Nigeria.

III. REVIEW OF RELATED LITERATURE

Ranchandran, A and Janakiraman, M, (2009), Analyzed the relationship between working efficiency and earnings before interest and tax of the paper Industry in Indian capital management. The study revealed that cash conversion cycle and inventory days had negative correlative with earnings before interest and tax, while accounts payable days and accounts receivable days related positively with earnings before interest and tax. Grzegoz M. M (2008) in his study a portfolio management approach in accounts receivable management, used portfolio management theory to determine the level of accounts receivable in a firm he paid out that there was an increase in level of accounts receivable in a firm increase both net working capital and cost of holding and managing account receivables.

*Corresponding Author: Okpe Innocent Ikechukwu[1]

[1]*Department of Accountancy, Enugu State University of Science and Technology, Enugu State, Nigeria.*

In ksenija (2013), he investigates how public companies listed at the regulated market in the republic of Serbia manage their accounts receivable during recession times. A sample of 108 firms is used. The accounts receivables polices are examined in the crisis period of 2008-2011. The short-term affects are tested and the study shows that between accounts receivables and two dependent variables on profitability, return on total asset and operating profit margin, there is a positive but no significant relation. This suggests that the impact of receivables on firm's profitability is changing times of crisis.

Researcher studies by Deloof (2003) Laziridis and Tryfonidis (2006) Garcia-Jeruel and Martinez-Solano (2007), Samiloglu and Demrigunes (2008) and Mathura (2010), in belginm, Greece, U.S.A, Spain, turkey and Kenya respectively, all point out to a negative relation between accounts receivable and firm profitability. Contradicting evidence is found by Sharma and Kumar (2011) who find a positive relation between ROA and accounts receivable.

Singh and Randey (2008) had an attempt to study the working capital components and its impact on profitability of hildalco industries limited for a period 1990 to 2007. Results of the study showed that receivable turnover ration had statistical significant impact on the profitability of hibdalco industries limited

Jack and Matthew (1994) state in their article management of accounts receivable That the simplest means of recovering your accounts receivable is to take active steps to avoid the process entirely.

Venkata et al (2013):- Their study impact of receivables management on working capital and profitability : A study of selected cement companies in Indian collected their data from the animal reports the selected cement companies from 2001 -2010. the ratios which highlight the efficiency of receivables management viz, receivables to current assets ratio receivable to total assets ratio, receivable to sales ratio, receivable to turnover ratio, average collection period, working capital ratio profitability ratio have been completed using ANOVA statistical tool to know the impact of working capital and profitability of the selected cement companies. Working capital management and profitability were considered as dependent variables. The investigation reveals that the receivable management across cement industry is efficient and showing significant impact on working capital and profitability

IV. RESEARCH METHODOLOGY

The research work focuses on the empirical analysis of the relationship between receivable management and corporate profitability in some selected manufacturing companies in Nigeria. The ex-post factor research design was used because it involves events that have already taken place in the past. The records observed were from 2000-2011, a period of twelve years. The variables tested were accounts receivable, return on total assets, debt and sales.

Population and Sample Size

The population of this study comprise of all manufacturing companies under food and Beverages quoted in the Nigeria stock exchange. The sample size consists of only companies in the food and beverages sub-sector of manufacturing sector and it is dependent on data availability. The choice is because they are the largest employers of labour in the manufacturing and trading sectors.

Nature and Source of Data

The study used secondary data that were extracted from the selected food and beverages manufacturing companies. Data from annual reports are proven to be more reliable because companies are required to keep accounts and to produce accounts that give true and fair view of their company according to companies and allied matters decree 1990. The data for the study are profit before tax, total assets, receivables, long term debt, sales.

Descriptive Variables

The researchers made their choice primary guided by precious empirical studies along this line; variables are consistent with Basley and Brigam (2005) Samiloglu and Demrigunes (2008). Dependent variable that is financial performance (profitability) is the dependent variable of this study. Return on total assets was used to analyze the impact of payable management on the firm's profitability (Pandey, 2008, Lazarridis and Trynidis, 2006).

$$\text{Profitability} = \frac{\text{PBT}}{\text{Total assets}}$$

Independent Variables
Accounts payable,

Accounts payables are suppliers whose invoice for goods or services have been processed but who have not been paid.. In this respect account payable is calculated as accounts payable divided by cost of sales. This variable represents the payable that the firm will pay to its customers (Basley and bring ham, 2005 Samiloglu and Demrigunes, 2008).

$$\text{Account payable} = \frac{\text{payable}}{\text{Cost of sales}}$$

Debt

When external funds are borrowed. Example from banks at a fixed rate they are assured to be invested in the company and a higher interest paid to the bank. This is measured by long term debt divided by total assets.

$$\text{Debt} = \frac{\text{Total debt}}{\text{Total assets}}$$

Sales Growth

Sales growth is the increase or decrease of annual sales measured as a percentage. It is measured in this study as sales-sales divided by sales.

$$\text{Sales} = \frac{\text{Sales-Sales}}{\text{Sales}}$$

Analytical Tool for the Test of Hypotheses

The computed data were analyzed using four functional models of multiple regression, and the best fitted to the analysis was selected. These four multiple regression models are as follows:-

a. 1 Linear regression model:

Profitability: $= B_o + B_1\,(AP) + B_2(SL) + B_3(DT) + U_1$………………………

b. Semi - log regression Model:

Profitability: $\text{Log } B_o + \text{Log } B_1\,(AP)\ \text{Log} + B_2(SL) + B_3(DT) + U_1$………………………

c. Double log regression Model:

Profitability $= \text{Log } B_o \log + B_1\,(AP) + B_2(SL) + B_3(DT) + U_1$………………………

d. Exponential regression Model:

Log profitability $B_o + B_1\,(AP) + B_2(SL) + B_3(DT)$

After obtaining the result of the four functional multiple regression model, decisions were taken on which among then should be chosen as the best-fit model in the analysis, the choice model were used in the interpretation of the results. Decisions and choice model were based on the one that has the highest number of variables Below presents data for return on asset, accounts payable and debt ratios as well as the sales growth for 7-Up Nigeria Plc.

Raw Data for 7-Up Nigeria Plc.

Years	Return on Asset ratio	Accounts Payable ratio	Debt Ratio	Sales Growth Rate (%)
2000	0.113106	0.539652	0.022355	0
2001	0.145218	0.475622	0	19.69397
2002	0.271914	0.046028	0.056991	46.30892
2003	0.218926	0.572622	0.053993	20.13747
2004	0.160043	0.490233	0.020987	5.029189
2005	0.108646	0.63048	0.049627	16.12928
2006	0.099763	0.576789	0.055393	27.23907
2007	0.090575	0.444438	0.207219	23.72896
2008	0.103443	0.072584	0.244824	11.94874
2009	0.069744	0.078429	0.230766	14.03912
2010	0.078634	0.122955	0.178027	17.79708
2011	0.062763	0.096812	0.189346	24.4201

Source: Author's Computation from Annual Accounts of Firm 2000-2011.

The return on asset captures the profitability of the firm. The firm at the beginning of the period earned 0.113 or 11.3% return on its asset in year 2000. This increased to 14.5% in 2001 while recording the highest increase during the period of 0.2719 or 27.19% in 2002. After this period the return on asset for the firm recorded declines such that in 2006, the return on asset for the firm stood at 0.099 or 9.97% while increasing to 0.1034 or 10.34% in 2008 while ending the period in 2011 at 0.0627 or 6.27%.

*Corresponding Author: Okpe Innocent Ikechukwu[1]

The accounts payable ratio for Seven-Up Nigeria Plc started the period in year 2000 at a ratio of 0.5396 or 53.96%. The highest accounts payable ratio of 0.63 or 63% during the period was recorded in year 2000 the beginning of the period while recording the least ratio of 0.0460 or 4.60% in year 2002. At the end of the period in 2011, the accounts payable ratio for the Firm stood at 0.09681 or 9.68%. The debt ratio for the Firm increased from a meager 0.055 or 5.5% in 2006 to 0.2072 or 20.72% in 2007. The highest debt ratio of 0.2448 or 24.48% was recorded in 2008 implying that the Firm used more debt to finance its activities in year 2008. However, the least debt ratio of 0.0209 or 2.09% debt ratio was recorded in year 2000. The sales growth rate for the firm recorded the highest rate in growth of 46.30% in year 2002 while the least growth rate of 5.02% in year 2004. The growth rate for the Firm ended the period in 2011 at 24.42%.

Raw Data for Cardbury Nigeria Plc.

Years	Return on Asset ratio	Accounts Payable	Debt Ratio	Sales Growth Rate (%)
2000	0.200304	0.930822	0.001468	-80.1463
2001	0.225111	0.134515	0.233933	30.41862
2002	0.257688	0.195981	0	21.04079
2003	0.078091	0.129152	0	28.48299
2004	0.184423	0.203577	0	7.661647
2005	0.120165	0.205678	0	32.96009
2006	-0.19427	0.566632	0	-93.4763
2007	-0.16201	0.368705	0	937.5683
2008	-0.11914	0.318636	0	1118.764
2009	-0.09425	0.320557	0	-89.4703
2010	0.006856	0.411355	0	14.01166
2011	0.15077	0.387519	0	16.93494

Source: Author's Computation from Annual Accounts of Firm 2000-2011.

Cadbury Plc has return on asset ratio of 0.25 in the year 2002 and did not do well from 2006 -2009. Cadbury Plc has 0.931 as their highest payable in the year 2000 while they have less than 50% to pay in other years except in 2006 when their payable ratio is 0.566. This company borrowed in 2000 and 2001 only, but did not borrow in other years from 2002 – 2011. Their sales growth ratio is low in 2000, 2006, and 2009 they made the highest sales in 2008.

Raw Data for FlourMills Nigeria Plc.

Years	Return on Asset Ratio	Accounts Payable Ratio	Debt Ratio	Sales Growth Rate (%)
2000	0.062955	0.383491	0	-30.4156
2001	0.045528	0.354695	0	30.2805
2002	0.121243	0.315678	0.014902	40.04672
2003	0.079136	0.457299	0.061983	-2.43955
2004	0.064044	0.410195	0.077586	26.77674
2005	0.050743	0.373551	0.091148	24.72301
2006	0.123591	0.332991	0.094368	29.58734
2007	0.128599	0.101588	0.043324	22.05919
2008	0.090501	0.077658	0.130942	20.8133
2009	0.086655	0.063838	0.198082	41.05095
2010	0.170286	0.053804	0.196633	14.73876
2011	0.10073	0.038454	0.051569	15.57971

Source: Author's Computation from Annual Accounts of Firm 2000-2011.

Flour mills did not do well in all the years under study. Their return on total asset ratio is low. None of the years has up to 0.20 they had little too receive and more to pay, the company did not borrow in 2000 and 2001 respectively. Their sales growth rate ratio is very high except in 2003 where their ratio is -2.439.

Raw Data for Nestle Nigeria Plc.

Years	Return on Asset Ratio	Accounts Payable Rtio	Debt Ratio	Sales Growth Rate (%)
2000	0.481512	0.041147	0	-95.8007
2001	0.542715	0.061754	0	41.07834
2002	0.538042	0.044004	0	38.39675
2003	0.490925	0.121868	0	25.80868
2004	0.455249	0.086666	0	15.54538
2005	0.468611	0.065146	0	20.64157
2006	0.433563	0.068358	0	11.90268
2007	0.398252	0.086122	0	14.58703
2008	0.406804	0.095891	0.205094	17.52262
2009	0.311483	0.078163	0.026949	32.03375
2010	0.302325	0.093108	0.130988	17.25981
2011	0.240945	0.131958	0.108809	22.28536

Source: Author's Computation from Annual Accounts of Firm 2000-2011.

In Nestle Plc, the highest ratio of return on total assets is 0.542 in 2001, while the lowest is in 2011. This means that it was in 2001and 2002 that they made up to 50% profit. The company had more to pay than to receive, and they should watch it to avoid disaster. The company also did not borrow from 2000 to 2007, their sales growth ratio is high except in 2000 when they had -95.801 as their ratio.

Raw Data for Nigerian Bottling Company Plc.

Years	Return on Asset Ratio	Accounts Payable Ratio	Debt Ratio	Sales Growth Rate (%)
2000	0.393536	0.263167	0.16795	-99.3784
2001	0.206563	0.262537	0.016966	15400.98
2002	0.189522	0.340301	0.00665	-82.223
2003	0.179394	0.289718	0.001568	26064.26
2004	0.10425	0.262171	0.0072	-98.9168
2005	0.081297	0.21873	0.00155	16.59303
2006	0.041572	0.308382	0.145827	-89.2371
2007	0.090393	0.261337	0.17138	1048.382
2008	0.046941	0.024452	0.127306	16.85642
2009	0.065202	0.274417	0.140371	12.63138
2010	0.066978	0.267598	0.925761	2.420694
2011	0.069759	0.25823	1.345363	2.927982

Source: Author's Computation from Annual Accounts of Firm 2000-2011.

This company has the highest profit of 0.394 in 2000 and the lowest of 0.0416 in 2006 they did not do well. They also had more to pay than to receive. This company has the highest debt ratio of 1.345, and lowest of 0.001 in 2005, their sales growth ratio is low in 2000, 2002, 2004, 2006; their highest sales growth ratio is in 2003.

Food and Beverages
Multiple Regression Analysis showing the relationship between Profitability ratio and AP, DT and SL of Food and Beverages firms in Nigeria

Variables	Linear Regression	Semi Log Regression	Double Log Regression	Exponential Regression
Constant	-0.018 (-0.210)	0.017 (0.224)	-0.633*** (-2.706)	-0.565* (-1.789)
Accounts Payable Ratio (AP)	-0.382*** (-2.896)	-0.143*** (-2.766)	-0.042 (-0.261)	-0.432 (-0.909)
Debt Ratio (DT)	-0.089 (-1.060)	0.001 (0.019)	.172** (2.121)	-0.196 (-0.650)
Sales Growth Rate (SL)	4.332E-6 (0.905)	0.015 (0.738)	-0.008 (-0.131)	-1.167E-5 (-0.677)
R^2	0.367	0.454	0.306	0.063
Adjusted R^2	0.281	0.381	0.212	-0.063
F-Ratio	4.299***	6.181***	3.270***	.502

NB*: 1.Profitability=Bo + Bi (AR)ii + Bi(STO)ii+ Bi(AP)ii+ Bi(CCC)ii + Bi(LQ)ii + B2DT(control)2i + B2SL(control)2i + U*i
*2. Also, 1%, 5%, 10% levels of significance are represented by ***; ** and * respectively*
3. Values in brackets are coefficients while those outside brackets are t-values of the variables

The results of multiple regression analysis for the variables influencing the profitability ratio of Food and Beverages firms in Nigeria were summarized above. Out of the four functional models of the multiple regression calculated, the semi log model was chosen because it has the highest number of significant variables as well as a very significant F-ratio (6.181***) value which indicated that the choice model suited the analysis. Furthermore, the results of the analysis revealed an R^2 value of 0.454 thus indicating that 45.4% variation in the profitability ratio (dependent variable) of Food and Beverages firms in Nigeria was accounted for by the explanatory (independent) variables considered in the analysis. Specifically the results showed that the industries' AP had significant but negative relationships with the profitability ratio at 1% levels of significance. This means that unit increases in the variables shall bring about corresponding decrease in the profitability ratio of Food and Beverages firms in Nigeria.

Test of Hypotheses
Hypotheses 1
Ho: Accounts payable has no significant effect on the company's perfirmance
Hi: Accounts payable has significant effect on the company's performance.
This hypothesis was used to test the payables of the companies under study. The coefficient was Negative but significant. Hence we reject the alternate hypothesis and conclude that accounts Payable ratios of Food and Beverages companies in Nigeria have negative but significant effect on the profitability.[See table above].

Hypotheses 2
This hypothesis was also used to test the sales growth of these companies under study.The result shows that sales growth rate had positive and non significant effect on the profitability of these companies. [see table above] .
Ho: Sales growth rate has no significant effect on the company's performance.
Hi: Sales growth rate has significant effect on the company's performance.

Hypotheses 3
Ho: Debt ratio has no significant effect on the performance of food and Beverages companies in Nigeria.
Hi: Debt ratio has significant effect on the performance of Food and Beverages companies in Nigeria.
Debt ratio refers to the external funds that are borrowed from Banks and pay interest for the amount borrowed externally. The result shows that Debt ratio had positive non significant effect on the profitability of these companies under study. It also means that the null hypothesis should be rejected.

V. CONCLUSION

The study examines the effect of accounts payable management on the profitability of Food and Beverages manufacturing companies in Nigeria. Data were sourced from the Annual Reports of the companies under study, while multiple regression analytical tool was used to test the Hypothesis. The result of the study shows that accounts payable ratio had negative and Significant effect on profitability. Debt ratio and sales growth rate had positive and non Significant effect on the profitability of Food and Beverages manufacturing companies in Nigeria.

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