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THE MANAGEMENT OF SHORT-TERM ASSETS AND THE PROFITABILITY OF FIRMS (A STUDY OF SELECTED FIRMS LISTED ON THE NIGERIAN STOCK EXCHANGE)

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ABSTRACT

Current assets of any business are the short-term assets and they comprise of items such as stocks and inventories, receivables, cash in hand and at bank, debtors and prepayment. The current assets composition of any firm is vital in determining its profitability, hence the need for this study. Panel data methodology was therefore employed to test this relationship with both fixed and random effects estimation techniques in running the panel regressions. Eighteen number (18) firms listed on the Nigerian Stock Exchange were studied for five (5) periods (2011-2015). Results from the panel regressions revealed a strong negative relationship between CATAR and profitability depicting that the greater the concentration of current assets in the total assets, the lower the gross operating profit, which translates to mean that higher investment in current assets results to lower gross operating profit of the firms listed on the Nigerian Stock Exchange. Therefore, effective management of the short-term assets is the only panacea in ensuring the survival of firms. Finally managerial implications and suggestions were provided.

Keywords: *short-term assets, profitability, Nigerian Stock Exchange.*

INTRODUCTION

Naturally, the current assets of any business comprise items such as Stocks and inventories, receivables, cash in hand, cash at Bank, debtors and prepayments. While, the total assets refers to the combination of both current and fixed assets (items such as plants and machinery, furniture, fixtures, fittings, motor vehicles and so on). The current asset to total asset ratio is the main explanatory variable of this study as it represents how short-term assets are represented in the total assets of a firm. The basis for employing this variable is to measure the viability and relational contribution of current assets to the total assets of firms, since the entire aspect of working capital management has to do with the analysis of short term (current) assets decisions

relating to the amount and composition of current assets. Raheman *et al* (2010) asserted that all the individual components of working capital management and marketable securities play a vital role in the performance of any firm. In view of this therefore it is imperative to note that discussion on current assets of any firm is always synonymous with aspect of working capital management (short-term assets management).

Efficient working capital management involves planning and controlling the current assets and current liabilities in a manner that eliminates the risk of inability of a firm to meet due short-term obligations and to avoid excessive investment in these assets on the other hand (Eljelly, 2004). Current assets are short-lived investments that are continually being converted into other asset types (Rao, 1989). However, paying of those liabilities is a responsibility of the firm and is done on timely basis. Therefore, decisions on the level of different working capital components become frequent, repetitive and time consuming (Appuhami, 2008).

There is no doubt therefore, that management of short-term assets of a firm is a very sensitive area in the field of Finance and Accounting. It is concerned with decisions on the ideal composition and amount of current assets and the manner in which these assets are financed. A clear distinguishing feature of current assets is that, they include all these assets that in the normal course of business can be easily converted to the form of cash within a short period of time, mostly within a year, and such temporary investment as may be readily converted into cash when needed (Raheman & Nasr, 2007). Decisions that are likely to maximize profitability tend to minimize the chances of sufficient liquidity. On the other hand focusing almost totally on liquidity will likely reduce the potential profitability of the firm (Deloof, 2003).

It therefore, follows that working capital is known as the life giving force for any economic unit hence its management is considered among the most important functions of corporate management (Raheman, Afza, Qayyum & Bodla, 2010). All organizations, either with profit motive or not, no matter the size and nature of the business, require necessary amount of short-term assets. It is therefore the most crucial factor for ensuring survival, profitability, liquidity and solvency of business (Raheman, *et al*, 2010). Therefore this study attempts to measure the influence of current assets to total assets ratio (CATAR) on firms' profitability. The study is conducted with respect to some selected companies listed on the Nigerian Stock Exchange. This was motivated by the fact that fewer studies were conducted specifically to measure the influence of CATAR on the profitability of firms especially in sub-saharan Africa. Therefore this study is expected to fill in this gap.

LITERATURE REVIEW

As described earlier, the current assets of any business comprise items such as Stocks and inventories, receivables, cash in hand, cash at Bank, debtors and prepayments. While, the total

assets refers to the combination of both current and fixed assets (items such as plants and machinery, furniture, fixtures, fittings, motor vehicles and so on). The CATAR therefore is a ratio that measures the constituents of the short-term assets in comparison to the total assets of a firm in order to ascertain its relational relevance and Perhaps contribution on the firms' profitability. However, in line with above, Nor Edi and Noriza (2010) employed the current asset to total asset ratio (CATAR) along with all the components of the cash conversion cycle and other relevant ratios to measure the efficiency of working capital management in relation the profitability of 172 listed companies from Bursa Malaysia Main Board. The study was in the perspective of the effects of the market valuation. Findings from the study, shows a positive significant relationships between the current asset to total asset ratio (CATAR) and the Tobin Q which was used to measure the effects of the market valuation.

Similarly, Afza and Nazir (2007) used current asset to total asset ratio (CATAR) to measure the degree of aggressiveness on investment policies of working capital management. The study investigated the relationship between aggressive/conservative working capital policies for seventeen industrial groups of companies listed at Karachi Stock Exchange, In Pakistan for period covering 1998-2003. The results signify that each industry maintained its relative extent of aggressiveness in both working capital investments in CATAR. Therefore, the next item to review as far this study is concerned is the concept of profitability.

CONCEPT OF PROFITABILITY

Profitability is identified as the dependent variable of this study. The efficiency of short-term assets management is measured by the components of the cash conversion cycle (namely; the average collection period, the average payment period and the inventory conversion period) in relation to either an increase or decrease in PROFITABILITY. Therefore, in line with above, profitability is a concept which originated from the word "Profit". A profit is an excess of revenues over associated expenses for an activity over a period of time (CIMA, 2009). Some terms with similar meanings include "earnings", "income", and "margin". Lord Keynes remarked that "profit is the engine that drives all businesses". This makes it imperative for all businesses to earn enough profit in order to survive and be able to expand over a time period.

It is the index of business progress, enhanced national income and an appreciating standard of living. Profit is quite essential for business expansion. It is the yardstick for judging the managerial efficiency as well as the Economic and Social Objectives (CIMA, 2009). Profitability therefore means ability to make profit from all the business activities of an organization, company, firm or an enterprise. Profitability shows how efficiently the management can make profit by using the markets' available resources. Furthermore, "Profitability is the effort of a given investment to earn return from its use" (CIMA, 2009).

Profitability is an index of efficiency, and is regarded as a measure of efficiency and management guide to greater efficiency. In as much as profitability is an important yardstick to measure efficiency, it cannot alone be considered a final proof of efficiency. Since current assets to total assets ratio is the main dimension in this study, to measure the focus of the study "Profitability", it should be understood that sometimes satisfactory profits may mark inefficiency and in the opposite way, a firm might be efficient to some extent but with no profit. The figure of a net profit simply reveals a satisfactory balance between the values received and value given. However, the change in operational efficiency is merely one of the factors on which profitability of an enterprise largely depends (CIMA, 2009).

A clear distinction between profit and profitability is quite important. Therefore, in a nutshell the term "Profit" simply refers to the total income earned by an enterprise during the specified time period, and profitability connotes efficiency in the operation of an enterprise. It is the ability of the enterprise to make profit on sales, or to get sufficient return on the capital and employees used in the business operation. Therefore, profitability ratios are mostly used as the assessors of efficient profitability.

PROFITABILITY RATIOS

Profitability ratios are defined as a class of financial metrics that are used to assess a business ability to generate earnings as compared to the expenditure, and all the costs generated during a specific period of time (CIMA, 2009). For most of these ratios, having values relative to a competitor`s ratios, having a higher values relative to a competitor`s ratio or the same ratio from previous period is indicative that the company is doing well.

Profitability ratios measures a company`s ability to generate earnings in relation to assets, equity and sales. These indices of ratios evaluate the ability of a company to generate earnings, profit and cash flows relative to some metrics, most often the investment in money. Ratio expresses the effectiveness of company's profitability (Moles *et al.*, 2011).

Furthermore, the common examples of profitability ratios include return on investment, return on sales, return on capital employed, return on equity, cash return on capital invested, net profit margin and gross profit margin ratios. All these ratios indicate how well a company is performing at generating profits or revenues relative to a certain metric (CIMA, 2009). Looking inwardly the main categorization of financial ratios is based on either profit margin ratios or the rate of returns. Various profitability ratios give divergent useful insights into the health and performance of a company.

GROSS OPERATING PROFIT

Gross operating profit or the gross profit margin ratio, usually denoted by dividing the gross profit by the net sales is the difference between net sales and the cost of goods sold. Various studies on working capital management and profitability employed this measure (for example, Deloof, 2003; Lazaridis & Tryfonidis, 2006). This study intends to employ the Gross operating profit as a proxy for profitability. Other measures of profitability are the net operating profit and the return on asset as employed by Raheman and Nasr (2007) and Karaduman *et al* (2010) respectively. Therefore, resource-based theory is employed in this study to include the cognitive ability of individual managers of business in ensuring effective management of short-term assets of business (working capital). This implies that managers have individual-specific resources that facilitates and ensures the recognition of new opportunities, effective assembling of resources as well as making payments and recovering of receivables.

METHODOLOGY

This study is designed to be descriptive. Data in respect of 18 number companies from manufacturing companies listed on Nigerian Stock Exchange were collected from the financial statements of those companies through the Securities and Exchange Commission. All the companies in this category numbering eighteen were drawn as a sample out of the total population of fifty five. A five year study period was assessed (2011-2015). The unit of analysis is represented by the firms.

Panel data methodology

The panel data methodology used has certain benefits, which includes using the basic assumption that companies are heterogeneous, more variability, has less collinearity between variables, has more informative data, has greater degree of freedom and more efficiency (Baltagi, 2001). More on these advantages are that panel data give the researcher a large number of data points. It equally allows researcher to construct and test more complicated behavioral models than purely cross-sectional or time series data (Hsiao, 2003). Panel data to a certain degree provides a means of resolving or reducing the effects of the presence of omitted (mis -measured or unobserved) variables that are correlated with explanatory variables. This is done by utilizing information on both inter temporal dynamics and the individuality of the entities being investigated (Hsiao, 2003).

In panel data regression, several cross-sectional units are observed over a period of time. The panel data method of analysis, is considered more useful in studying the dynamics of adjustments, and is also better able to identify and measure effects that are simply not detectable in pure cross-sections or pure time-series data (Raheman & Nasr, 2007). Therefore given these advantages, we expect a more reliable estimate. The use of panel data analysis methodology is in

consistent with studies of (Garcia-Terual & Martinez-Solano, 2007; Falope & Ajilore 2009; and Raheman *et al*, 2010).

Accordingly STATA version 11 was used in running the analysis. Both fixed effects and random effects estimation techniques were employed after which Hausman test was conducted in order to choose from among the two methods.

Model Specification

GOP MODEL

$$Gop_{it} = \beta_0 + \beta_1 ccc_{it} + \beta_2 Oc_{it} + \beta_3 dr_{it} + \beta_4 Nls_{it} + \beta_5 Catar_{it} + \varepsilon_{it}$$

Where,

ccc is the cash conversion cycle

oc is the operating cycle

dr is the debt ratio and employed as a control variable

Nls is the natural logarithm of sales also a control variable and

Catar as the current asset to total asset ratio

RESULTS AND DISCUSSION

$$GOP_{it} = \beta_o + \beta_1 CCC_{it} + \beta_2 OC_{it} + \beta_3 DR_{it} + \beta_4 NLS_{it} + \beta_5 CATAR_{it} + \varepsilon_{it}$$

The model of the panel regression was run with gross operating profit as the dependent variables, the CCC, OC and CATAR as the independent variables and the DR and NLS as the control variables. The focus of this model was on the CATAR (current asset to total asset ratio). The analysis was run with both the fixed effect and the random effect. The findings in both fixed effect and the random effect were almost similar, with only difference in terms of the weights of the coefficients but the statistical significance were same. However, Hausman test was conducted between the fixed and random effects. The results of the hausman indicated a chi 2 probability of 0.0555 which was greater than 5% and therefore, recommends the random effect results. Below is the summary table 4.5 of the random effect results.

Table 4.5

Summary Table of the Model 4, GOP Random Effect Results

GOP	Coefficients	Zvalue	Pvalue	Decision
ccc	9.83e +08	3.71	0.000***	+ sig
oc	-5.85e +08	-2.87	0.004***	- sig
dr	8.39e +09	0.95	0.343	not sig
nls	8.22e +09	16.30	0.000***	+ sig
catar	-1.91e +10	-3.43	0.001	- sig

*** (1% sig level), ** (5%sig level), *(10%sig level)

From the results of the random effect regression, the R-Sqr had values of within = 0.5349, between = 0.0445 and overall = 0.5281, this is considered reasonably adequate for the model fitness. Drawing from the above table, the cash conversion cycle (CCC) was significantly positively related to gross operating profit in the model with the weight of the coefficient as 9.83e + 08, the Z Value of 3.71 and also the P Value signifying strong association at 1% level of significance. This is consistent with the studies of Lazaridis and Tryfonidis (2006), that of Gill, et al (2010) as well as Imran and Noursheen (2010). The operating cycle (OC) was found in this model as strongly significantly and negatively related to gross operating profit, signalling that the shorter the operating cycle, the greater the profit of the manufacturing companies listed on the Nigerian Stock Exchange, which is consistent with most studies on working capital management such as Danuletiu (2010) and Shin and Soenen (1998).

The debt ratio was found not significant with gross operating profit in this model. The natural logarithm of sales also which was used in the model as a control variable was shown with a coefficient of 8.22e + 09, a Z value of 16.30 and a P value of 0.000 depicting a strong positive significance with gross operating profit. The strong positive significant relationship of nls is consistent with the study of Raheman and Nasr (2007). The next variable in this model is the CATAR (Current asset to total asset ratio).

The CATAR is the main focus of this model, the result of panel regression shows that CATAR has a coefficient weight of -1.91e + 10, a Z value of -3.43 and a strong p value of 1% significant level in relations with gross operating profit. The variable CATAR itself measures the

relational relevance in terms of composition of current assets compared to the total assets of a business.

The result of the panel regression signifies therefore that, the greater the concentration of current assets compared to the total assets the lower the gross operating profit. This presupposes that higher investment in current assets translates to lower gross operating profitability of manufacturing companies listed on the Nigerian Stock Exchange. By implication, the aggressive working capital management policy is more preferred than the conservative policy by the majority of the manufacturing companies listed on the Nigeria Stock Exchange. This finding goes further to validates the general assertion that most empirical studies supports the traditional belief that reducing working capital investment would positively affect the profitability of firms (aggressive policy) by reducing response rate and the proportion of current assets in total assets, and this finding is consistent with the study of Raheman, *et al* (2010). The bottom line here is that is not the proportion of short-term assets to total assets that matters but the effective management of those short-term assets of any firm that ensures its profitability and survival.

CONCLUSION

In conclusion, this study was able to address the importance of current assets to any business. It also revealed how critical the current assets to total assets ratio is ensuring corporate profitability. It was also affirmed from the findings of this study that the higher the concentration of short-term assets in the total assets of a business, then the lower the firms' profitability. It is the hope of the researcher that more similar researches in this area will be conducted in order to fill the requisite gap which this study could not fill.

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