

Aggressive and Conservative Working Capital Financing Policies

(An Empirical study of Domestic & Industrial Rubber Sub-sector of Manufacturing Companies Listed on the Nigerian Stock Exchange)

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Abstract

Working capital financing policy has been a very important area of working capital management. It measures a trade-off between an aggressive working capital financing policy and a conservative approach. The later refers to a situation where the current assets investment is high while the former represents a lower current assets investment. The study measures this relationship within the context of domestic and industrial plastic rubber sub-sector of manufacturing companies listed on the Nigerian Stock Exchange. A panel data methodology was employed in testing this relationship. Findings revealed that when relatively aggressive working capital asset financing policies are followed, they are balanced by relatively conservative working capital financial policies and that firms should employ the duo in achieving effective working capital management.

Keywords: Working Capital Management, Financing Policy, Aggressive, Conservative.

1. INTRODUCTION

Efficient and effective management of working capital is an important component of overall corporate strategy to create the shareholder's value. Firms try to keep an optimal level of working capital that maximizes the value (Deloof, 2003; Howorth & Westhead, 2003; and Afza & Nazir, 2007). In line with this, working capital management has become one of the most important issues in the organizations, where many financial managers are

striving to identify the basic working capital drivers and what is considered as an appropriate level of working capital (Lamberson, 1995).

In addition to this, the importance of working capital management is reflected in the fact that financial managers spend a great deal of time in managing both current liabilities and assets. This is seen in the area of controlling movement of cash, administering of accounts receivable, arranging short term financing and negotiating appropriate credit terms, consume a great deal of time of financial managers Prasana (2000).

Therefore, working capital and its importance is unquestionable (Fillbeck & Krueger, 2005). It directly influences the liquidity and profitability of firm (Raheman & Nasr, 2007). Excellent management of working capital decreases the dependence on external financing due to increased cash flow, thus lowering the chances of default for an organization (Deloof, 2003).

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 working capital management 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 working capital. It is therefore the most crucial factor for ensuring survival, profitability, liquidity and solvency of business (Raheman, *et al*, 2010).

It is worthy to note that as important as working capital management is to the survival of a firm, the nature of its financing policy (i.e aggressive or conservative) is undoubtedly more in achieving an efficient and effective working capital management policy. However, investigation has revealed that there is paucity of empirical studies specifically conducted on working capital financing policies of aggressiveness or conservativeness particularly in sub-saharan Africa. The current study intends to fill this existing gap.

2. LITERATURE REVIEW

An important working capital policy decision is concerned with the level of investment in current assets (Prasana, 2000). Under a conservative policy or flexible policy, current assets investment is high. By this, a business maintains a high cash balance and marketable securities, carries large amount of inventories, and grant generous terms of credit to customers which leads to high level of debtors. However, under an aggressive policy (also referred to as restrictive policy), the investment in current asset is low. By this, firms keep small balance of cash and marketable securities, and provide strict credit terms resulting to a low level of debtors (Prasana, 2000).

However, the important elements that should be considered in the management of short-term financial policy are liquid, cash flow, risk and the return level to compensate the risk (Pinches, 1994). Generally, in finance literature, there is always a long discussion on the risk /return trade-off among the policies of working capital (Gitman, 2005; Moyer, McGuigan & Kretlow, 2005; Brigham & Ehrhardt, 2004). In practice, high aggressive working capital result in higher return and risk, while a more conservative working capital policy is associated with lower risk and return (Weinraub & Visscher, 1998 and Gardner, Mills, & Pope, 1986). In general term working capital policy, is basically a strategy that offers guidelines for the management of short-term assets and short term liabilities in order to reduce the risk of default (Hussain *et al.*, 2012).

Normally, current assets have key position in working capital (Afza & Nazir, 2007). It therefore follows that more money tied up in

current assets would reduce the rate of return on firm's investment (Vishani, 2007). An aggressive investment policy deals principally with the firm's active control and management of current assets with aim of minimizing it (Hussain *et al.*, 2012). According to this policy, current assets are only needed to effectively facilitate the operations of a business. Conversely, a conservative assets management is a passive approach in which current assets grows in size whatever situation is (Pinches, 1994). The two alternative policies could be clearly distinguished in the fact that, aggressive investment policy indicates the smallest level of investment in short-term assets. Conversely, a conservative investment policy set a greater proportion of funds in short term assets versus long term assets with the opportunity cost of low level of profit (Nazir & Afza 2009).

However, when it comes to the issue of managing current assets, the policy is more conservative, if the firm uses more current assets in proportion to total assets (Weinraub & Visscher, 1998). On the other hand, the degree of aggressiveness of working capital investment policy is measured by ratio of current assets to total assets, where the lower value of this ratio shows more t aggressiveness (Weinraub & Visscher, 1998; Nazir & Afza 2009). In view of this therefore, other things being equal, an aggressive investment policy result in lower current assets, lower expenses, a shorter cash conversion cycle, higher risk and higher required return to compensate the risk (Pinches, 1994). As seen earlier, current liabilities plays a vital role in explaining the aggressive financing policy of working capital. This is so because current liability is desirable source of financing. It is usually cheaper than long term liabilities (Campsey, Brigham, Gilroy, & Hutchinson, 1994). When an aggressive financing policy is adopted, a firm finances its seasonal and possibly some permanent requirements of current assets with current liabilities (Gitman, 2005). Other things being equal, it is expected that the higher the current liabilities, the more aggressive, the firm financing policy and consequently, low level of current liabilities leads to a conservative financing policy (Pinches, 1994).

In addition to all the strategies and techniques of the two policies mentioned above, it is still worthy to mention that, an aggressive financing policy uses high levels of short-term liabilities and low-level of long term debt. While in contrary to that, a conservative financing policy utilizes less current assets and higher long-term debts (Weinraub & Visscher, 1998). However, most of the empirical studies supports the traditional belief about working capital and profitability, that reducing

working capital investment would positively affect the profitability of a firm (aggressive policy) by reducing proportion of current assets in total assets (Raheman *et al*, 2010).

However, divergent to traditional belief, more investment in working capital (Conservative policy) might also increase profitability (Raheman *et al*, 2010). It is observed that when high inventory is maintained, it reduces the cost of interruptions in the production process, decrease in supply cost, protection against price fluctuations and loss of business due to scarcity of products (Blinder & Maccini, 1991). Czyewski and Hicks (1992) also concluded that firms with the highest return on assets hold higher cash balances, but they did not consider liquidity management beyond static cash and asset ratio as cited in (Raheman *et al*, 2010).

Many empirical studies were conducted in an attempt to investigate the impact of working capital management policies (i.e. aggressiveness or conservativeness) on the firm's profitability, as we shall see below: Fillbeck and Krueger (2005) highlighted the importance of efficient working capital management through the means of investigating and analyzing the working capital management policies of 32 non-financial industries in the United States. The findings of their study showed significant differences that existed among industries in relation to working capital practices overtime. More so, it was found out that these working capital practices change significantly within industries overtime. Other similar studies were conducted by Gombola and Ketz (1983), Long *et al* (1993) and Soenen (1993).

However, in a related research by Weinraub and Visscher (1998), they discussed extensively the issues of aggressive and conservative working capital management policies by using quarterly data for the period 1984-93 of the United States firms. Their study considered 10 diverse industry groups to investigate the possible relationship between their aggressive / conservative working capital policies.

The findings of their study concluded that the industries studied had distinctive and significantly different working capital policies. They equally affirmed that the relative nature of working capital management policies, showed a remarkable stability over the 10 year study period. The study also found a high and significant negative correlation between industry asset and liability policies and found that when relatively aggressive working capital asset policies are followed, they are balanced

by relatively conservative working capital financial policies (Nazir & Afza, 2009).

3.METHODOLOGY

For the sake of this paper a panel data methodology is employed to test the impact of working capital financing policy of the domestic and industrial plastic and rubber sub-sector of the manufacturing companies listed on the Nigerian Stock Exchange.

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).

RESEACH DESIGN

Research design is the science (and art) of planning procedures for conducting studies, so as to get the most valid findings (Vogt, 1993). It is therefore at this stage that research method which constitutes the best way of gathering data is designed. This paper uses secondary source of data collected from the Securities and Exchange Commission for the 18 number companies representing 32.73% of the total manufacturing companies listed on the Nigerian Stock Exchange. Indices for 5 years study period were computed from the financial statements of the respected companies. A probability sampling design was also used in drawing the sample.

Additionally STATA version 11 was used in running the regression analysis based on the econometric equation. The profitability was measured by gross operating profit. The regressions were run based on both the fixed and random effects after which Hausman test was

conducted to select the best result based on the weight of the coefficients and the respective levels of significance. Debt ratio and natural logarithm of sales were used as control variables. The equation is as follows:

$$\begin{aligned}
 \text{Gop}_{it} = & \beta_0 + \beta_1 \text{ccc}_{it} + \beta_2 \text{Oc}_{it} + \beta_3 \text{dr}_{it} + \beta_4 \text{Nls}_{it} + \beta_5 \text{Acp}_{it} \\
 & + \varepsilon_{it}
 \end{aligned}$$

4. RESULTS AND DISCUSSION

Relating to the above model, the panel regression was run based on both the fixed effect and random effect. The result was same in terms of statistical significance, with only variation in the weights of the coefficients of the variables. After obtaining the two results Hausman test was performed to choose the better of the two results based on statistical relevance. The Hausman test signified a chi 2 probability of 0.3650 which is greater than 5%, and therefore prefers the random effect results to be reported. However, going by that outcome, table 4.4 below shows the summary of the results of the random effects.

Results of the Model 3, Table 4.7
Summary GOP Random Effects

GOP	Coefficient	Zvalue	Pvalue	Decision
ccc	1.06e +09	3.99	0.000***	+ sig
oc	-1.24e +09	-4.21	0.000***	- sig
dr	1.06e +09	0.12	0.901	not sig
nls	8.19e +09	16.2	0.000***	+ sig
acp	-1.12e +09	2.83	0.005***	- sig

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

From the results of the random effect, the R-sq values were within = 0.5379, between = 0.8847 and overall = 0.5078 representing 53.97%, 88.47% and 50.78% respectively. The fitness of the model is a quite adequate. It estimates of how much the independent variables in the regression analysis explain the dependent variable. The focus on the model in the regression equation was the average collection period and from the result of the panel regression, the ACP was negatively significantly related to the gross operating profit at 1% significant level. This finding was consistent with the studies of Deloof (2003) and Mathuva (2010). In the former, the results showed a significant negative relationship between all the components of the cash conversion cycle which was used to measure the efficiency of working capital management and the profitability that is inclusive of the average collection period.

Most findings in related studies of working capital financing policy reported a negatively significant relationship between average collection period and profitability denoting that the shorter the collection period the

higher the profitability as such managers create value for shareholders when the collection period is shorter as in the case of Deloof (2003), Afza & Nazir (2007), Mathuva (2010), and Padachi (2006) and so on. From the results also, the cash conversion cycle (CCC) was strongly positively related with gross operating profit at 1% significant level with coefficient of 1.06e+09 and the Z-values of 3.99 this finding was also consistent with that of Lazaridis and Tryfonidis (2006) and Gill, et al (2010). The operating cycle (OC) was found to be strongly negatively related to gross operating profit, depicting that the shorter the operating cycle the higher the profit. The debt ratio has been found not statistically significant with the gross operating profit in this model. The natural logarithm of sales (NLS) which was used as a control variable in the model was found to be strongly positively related with gross operating profit with coefficient of 8.19 +09 and Z vale of 16.2. This is consistent with the findings of Raheman and Nasr (2007).

5. CONCLUSION AND RECOMMENDATION

The findings from this study concluded that the firms studied had distinctive and significantly different working capital policies. It equally affirmed that the relative nature of working capital management policies, showed a remarkable stability over the study period. The study also found a high and significant negative correlation between firms asset and liability policies and found that when relatively aggressive working capital asset financing policies are followed, they are balanced by relatively conservative working capital financial policies (Nazir & Afza, 2009). Therefore, firms should at different times employ the duo in achieving effective working capital financing policy.

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