Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.6, No.6, 2016

Relevance of Working Capital on Organisational Performance: Study of Selected Quoted Manufacturing Companies

Eniola, Omoniyi Jacob Akinselure, Oluwafemi Philip
Department of Accounting, Joseph Ayo Babalola University, Ikeji - Arakeji, Osun State, Nigeria.
P.M.B 5006, llesa, Osun State, Nigeria

Abstract
The study focuses primarily on the relevance of working capital management on organisation performance. The variable considered in this study were working capital management and organisation performance which were represented with proxies such as profit after tax and working capital ratio. These proxies were analysed using multiple regression analyses in Statistical Packages for Social Sciences (SPSS) version 20. The result of the analysis reveal that there is significant relationship between working capital management and organisation performance, because their proxies had a P- value (i.e. 0.002) that was lower than the alpha value of 0.05 specified in SPSS. The study, thus, recommends that policy maker (i.e. the management) should ensure adequate control on working capital management so as to improve the organisation performance because both of them have significant influence on each other.

Keywords: Working capital, organisations, profitability, current asset, current liability

1. Introduction

Working capital is an essential tool in any business organization. It is as important as financing fixed assets, in the sense that, management of both of them have effects on profitability of an organization. Working capital comprises majorly of Current Assets and Current Liability. The Current Asset refers to the liquid assets of an organization, that is, asset that can be easily converted to cash within an accounting year. They includes cash, short-term securities, debtors, pre-payment and inventories. It accounts for more than 50% of Total Assets of most manufacturing firms and even more in other firms (Stephen, 2012). Current liabilities on the other hand, are the claims against a business organization that must be met within an accounting year. This includes creditors, bill payable, bank overdraft and outstanding expenses to mention a few. Inadequate working capital brings restrictions to trading activities of a firm and causes financial embarrassment. On the other hand, excess working capital is considered uneconomical. Thus, an organization must manage working capital as it manages human assets. The major components of working capital are the Cash, Debtor and stock. These three are very important and must be regularly checked, to avoid excesses in any of them. Also, they must be a balance between liquidity and profitability because there are usually costs attached to each situation (Weston and Brigham, 2011). Adequate working capital is also explained in term of Current ratio. Current ratio, is usually seen as the relationship between Current assets and liabilities which is the major metric use to measure liquidity of an organization. Generally, the acceptable current ratio is 2:1(Pandey, 2005), however, this depends on the types of industry involved. While ratio 1.5:1 may be inadequate in a manufacturing setting, current ratio of 1:1 may be acceptable as adequate working capital in a retail business that sells for cash.

2. Statement of the problem

The performance of most successful organization has frequently been related to effective and efficient management of working capital but this is not usually the case, because many successful organization still continue to experience great difficulty as regard management of working capital components, Infact, according to Mathuva,(2010), Rahaman, Afza, Qayyum, Bodla, (2010),Most well performing organization still have problem with the collection and payment of cash and other working capital components as at when due. This is the problem which this study considers.

However, existing researchers among whom are; Filbeck & Kruger(2005), Nyabwanga, Ojera, Lumumba, Odondo & Otieno (2012)to mention a few, have stated that most successful organization do not have problem with management of working capital components, but this is actually misleading, because, this research work has identified a gap in this findings, of the prior researchers by establishing that successful organization still have problems with management of working capital components which is agreement with the study of Mathuva,(2010), Rahman et al.,(2010), in the statement of problem section of this study.

3. Research Objectives

The main objective of this study is to examine the impact of working capital management on organizational performance of selected quoted while the specific objectives are:

- to examine if there is any relationship between working capital ratio and profitability of the selected quoted manufacturing companies.

4. Research Hypotheses

Ho_1 There is no relationship between working capital ratio and profitability of the selected quoted manufacturing companies.

5. LITERATURE REVIEW

5.1 Concept of Working Capital

Different people use the term "working capital" differently, Khan &Jain (2007) argue that there are two concepts of working capital; gross and net. The term gross capital also referred to as working capital means the total current assets of a business. The term net working capital can be defined in two ways (i) net working capital (NWC) is the difference between current assets and current liabilities; (ii) that portion of current assets which is financed with long-term funds.

Working capital is usually defined as the current assets less current liabilities. The major elements of current assets are inventories, accounts receivables and cash (in hand and at bank) while that of current liabilities are accounts payable and bank overdrafts. According to Atrill (2006) working capital represents a net investment in short term assets. These assets which are continually flowing (circulating) into and out of the business are essential for day-to day operations.

5.2 Concept of Working Capital Management

According to Khan and Jain (2007) working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them. Working Capital Management involves the relationship between a firm's short –term assets and short –term liabilities. The goal of working capital management is to ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses.

Working Capital Management also refers to the decisions relating to working capital and short-term financing and it involves managing the relationship between a firm"s short-term assets and its short-term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. Working capital entails short-term decisions generally relating to the next one year period which are "reversible". These decisions are therefore not taken on the same basis as Capital Investment Decision (NPD) rather they will be based on cash flow and or profitability. Management will use a combination of policies and techniques of working capital. These policies aim at managing the current assets (generally cash and cash equivalent, inventories and debtors). Khan and Jain (2007) also stress that working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exist between them. The goal of working capital management is to manage the firm's current assets and liabilities in such a way that satisfactory level of working capital is maintained in the business. According to Horne (2000) working capital management is the administration of current assets in the name of cash, marketable securities, receivables, inventories.

6. Theoretical Framework

- **Theory of Cash Management**

This theory states that Cash held in the most liquid form is a non-earning asset (Pandey, 2005). This is because cash in hand cannot generate interest. However, the firm requires holding an optimal cash balance since excessive cash means foregone interest income and inadequate cash means difficulty in implementing operating activities of an enterprise. Inadequate cash will also mean that the firm cannot meet its short term maturing financial obligations as and when they fall due. Any idle cash held by a firm should be converted into an earning form so that it can generate interest income. This is achieved though buying or investing in short term marketable securities or investing the idle cash in short term lending

- **3.2 Theory of Account Receivable Management**

According to Maas Dava (2008), the management of debtors is implemented through the formulation of sound credit policies. Debtors arise out of credit sales and the amount of debtors at any point in time is influenced by two factors: - The credit period granted to the debtors and the amount of credit sales

$$\text{Debtors} = \frac{\text{Credit period x Annual Credit sales}}{365 \text{ days}}$$

7. Empirical Framework

Deloof (2003) investigated the relationship between working capital management and firm profitability by using Cash Conversion Cycle (CCC) as a measure of working capital management. He found a negative relation between gross operating income and receivables collection period. Afza & Nazir (2007) through cross-sectional regression models on working capital policies and profitability and risk of the firms, found a negative relationship between the profitability measures of firms and degree of aggressiveness on working capital investment and financing policies. Their result indicates that, the firms yield negative returns if they follow an aggressive working capital policy by investigating the relative relationship between the aggressive or conservative working capital policies for 208 public limited companies listed at Karachi Stock Exchange (KSE) for a period of 1998 to 2005.

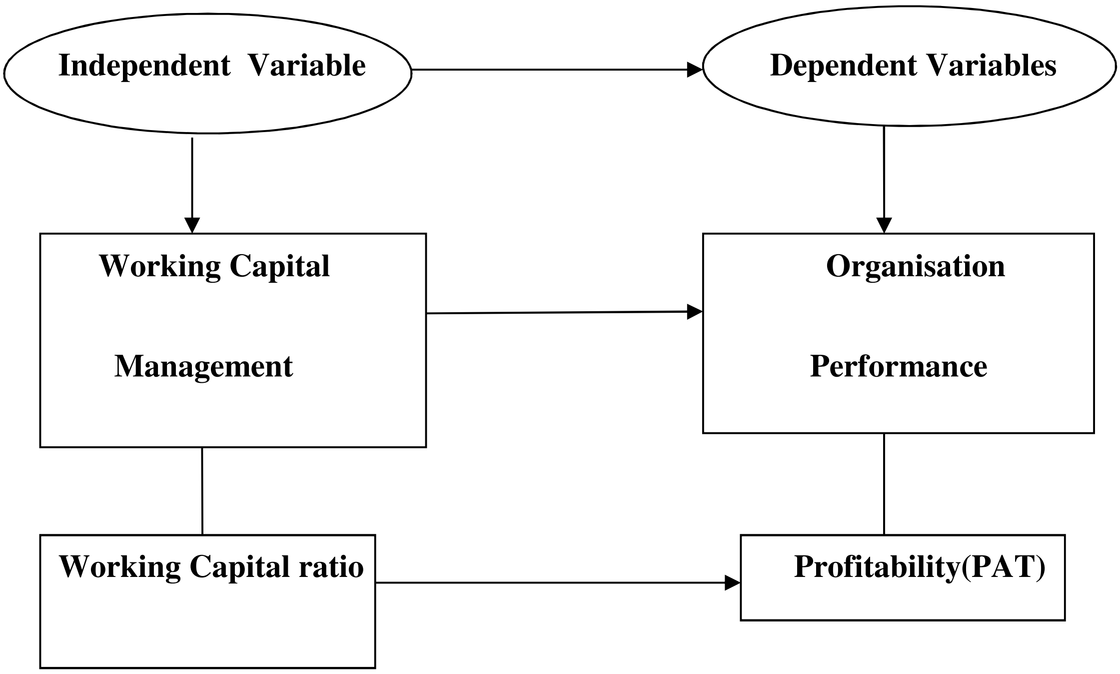
Table 1. Extract of Working Capital Ratio, Turnover, Profitability (PAT) and Return on equity of one of the selected quoted manufacturing companies (2004 -2010).

Beta glass	2004	2005	2006	2007	2008	2009	2010
CA	3038255	2963374	3264852	3286456	43543599	5276371	7420496
CL	2261046	2219054	2390718	4064403	24251186	2097066	3422025
Wk/cap Ratio	1.343739	1.335422	1.365637	0.808595	1.795525	2.516073	2.168452
DEBT/LOAN	1124325	831887	1434492	1749120	8906005	2208763	2962204
TURNOVER	6053265	4822876	5135840	7032235	9075941	10561248	11168096
DEBT – RATIO	67.79459	62.95803	101.9482	90.78604	358.1658	76.33553	96.81189
PAT	162597	218654	381088	886252	1192690	1384776	1472444
ASSET	5631788	5728236	6166314	8835765	877101	7953933	8688689
ROA	34.63648	26.19772	16.18081	9.969811	0.735397	5.743841	5.900862
Equity	227260	227260	227260	227260	249986	249986	249986
PAT	162597	218654	381088	886252	1192690	1384776	1472444
ROE	0.715467	0.962132	1.676881	3.899727	4.771027	5.539414	5.890106

Source: Annual Reports (Online)

8. Conceptual Framework Diagram

Fig.1. Relationship between Dependent and Independent Variables.



Source: Diagram Conceptualized From the Literature review(2016)

9. Methodology of the Study

This study is based on an Ex-post Facto Research Design, because it analyses the behaviour of the independent and dependent variables of the selected companies base on data obtain from past records of online annual report of 2004-2010. The companies considered include (5) quoted companies, which are Guiness Nigeria Plc, PZ Ltd, Dangote Cement Plc, Wapco Plc, Beta glass Plc .These companies were chosen using purposive sampling technique, while the data for the study were obtained from www. Africanfinancial.com and www. cashcraft.com. The statistical analysis was done using Regression Analysis in SPSS (Statistical Packages for Social Sciences - version 20).

10. Model Specification Using Regression Analysis

The model specification used in this study is based on the description of the relationship between the dependent and independent variables of this research work.

Y = f(X) ---(1)

Where Y = Dependent Variable represented by Organisation performance

But Y= F(P_{at})

That is Y_1= Profit After tax.

X = Independent Variable represented by Working capital management

But, X = f (W_{crt})--- -(2)

That is X_1 = Working capital ratio.

Therefore, the multiple linear regression model for this study is defined as:

$Y = \beta_0 + \beta_1 X\ W_{crt} + Er$ --- (3)

Where, Y is the dependent variable which was represented by Organisational performance and proxied by Profit after Tax, while X represent the Independent Variable Working Capital Management which was proxied by working capital ratio, β_0 represents the intercept or constant while β_1, is the regression parameters/ coefficient of regression.

Er = error term.

11. Discussion and Findings

- **Hypothesis One**:

Ho_1 There is no relationship between working capital ratio and profitability of the selected quoted manufacturing companies.

Table4.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901	0.811	.049	4.08164

Table showing the extent to which the dependent variable (profitability) is affected by the independents variable (working capital ratio).

- **Model Testing and Interpretation**

The model summary above explains the percentage of the dependent variable (i.e. profitability) that can be determined by the independent variable (i.e. working capital ratio). According to this Table, the independent variables account for 81.1% (R Square, 0.811) of the dependent variable. While the remaining 18.9% can be explained by other factors outside the scope of this model. This implies that the relationship between working capital ratio and profitability is very strong, because the R-square values showing the relationship of between the independent variables and the dependent variables is very significant.

Table 2. ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	58.539	1	58.539	3.514	.002[a]
Residual	799.668	48	16.660		
Total	858.207	49			

Table showing the relationship between working capital ratio and profitability of the selected quoted companies using Analysis of Variance Statistical Tool (ANOVA).

The study also conducted ANOVA (i.e. analysis of variance) to determine the extent of relationship between the Independent and dependent variable and the result established that p- value, which is 0.002 in the table, is lower than the fixed level of significance or alpha level of 0.05 specified in SPSS software for this analysis, therefore according to the decision rule, the Alternate hypothesis is accepted and while the Null hypothesis is rejected. This implies that there a strong relationship between working capital ratio and profitability of the selected quoted companies, which also means that a change in the working capital will have a significant influence on the profitability of the selected quoted manufacturing companies

Table 3. Regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.539	.791		1.946	.004
	Pat	8.619E-8	.000	.261	1.875	.002

Table showing the relationship between working capital ratio and profitability of the selected quoted companies.

Multiple Regression analysis was also conducted to determine if the result established by ANOVA Statistic can be said to be accurate. The result shows that the p-value, 0.002, which was also lower than the alpha level of significance of 5% specified by SPSS for this analysis therefore, it can be inferred from this result, that the ANOVA Statistic is correct. Thus, according to the decision rule above, the Alternate Hypothesis will be accepted while the Null Hypothesis will be rejected, which means that there is significant relationship between working capital ratio and the profitability of the selected quoted manufacturing companies, Also, this means that working capital management has significant relationship with organizational performance, since it has been established statistically that their proxies have significant relationship with each other. which is in agreement with the a' priori expectation and with the study of Cheluget, Onyango and Keraro (2012),Nyabwanga, Ojera, Lumumba, Odondo and Otieno (2012) who emphasized that working capital have positive relationship with organizational performance.

11. Conclusion

The recent global financial crisis has brought to the forefront of most research work the need for improvement in the efficient utilization and management of firm's resources. This study, examine relevance of working capital management on organizational performance of selected quoted manufacturing companies, it concluded that management of organization should give equal preference to their working capital management and organizational performance since the proxies of both of them, that is, working capital ratio, profitability show significant relationship with each other because the statistical value obtained also called the P-value (i.e. 0.002,) for the hypotheses tested in this study were significantly lower than the alpha value specified in SPSS for this analysis, which empirically establish that there is significant relationship between working capital management and organization performance of the selected quoted manufacturing companies.

12. Recommendations

- The management should put in place adequate strategies and initiative that will ensure adequate management of working capital because it has significant relationship with the performance of the organization.
- The attitude of the organization management towards the improvement of working capital should also be reflected in how the organization's daily operation, since both variables have direct influence on each other.
- The task of managing of working capital should not make management to forget the need to improve organizational performance of the selected quoted manufacturing companies.
- Managers of the various branches in selected quoted manufacturing companies should also focus and put extra effort in collecting debts from debtors and paying creditors as soon as possible because this has great impact on the performance of their organization.

References

Afza, T., & Nazir, M. (2007). Is it better to be aggressive or conservative in managing working capital? Journal of Quality and Technology Management, 3 (2), 11-21.

Atrill, P. (2006) Financial Management for Decision Makers. London: Pearson Education Ltd.

Deloof, M. (2003). Does Working Capital Management Affect Profitability of Belgian Firms? Journal of Business Finance & Accounting, 30 (3-4), 573-585.

Filbeck, G., & Krueger, T. (2005). (2005). An Analysis of Working Capital Management Results Across Industries. American Journal of Business, 20 (2), 11-20.

García-Teruel, P. J., & Martínez-Solano, P. (2007). Effects of Working Capital Management on SME Profitability. International Journal of Managerial Finance, 3(2), 164-186.

Filbeck, G., & Krueger, T. (2005). (2005). An Analysis of Working Capital Management ResultsAcross Industries. American Journal of Business, 20 (2), 11-20.

Khan and Jain (2007), The Impact of Working Capital Managemnt on Firm's Profitability. Evidence from Selected Manufacturing Companies in Somali Regional State, Ethiopia.,College of Business and Economics, Department of Accounting And Finance, Addis Ababa University.

Mathuva, D.M. (2010). Influence of working capital management components on Corporate profitability: A survey on Kenyan listed firms. Research Journal of Business Management 3 (1),1-11.

Stephen, M. and Elvis, K.,(2011). Influence of Working Capital Management on Firms Profitability: A Case of SMEs in Kenya. International Business Management Review, 5(5), 279-286.