

**WORKING CAPITAL POLICY AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA.**

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**ABSTRACT:**

*This study examined the effect of working capital policy on shareholders wealth for Quoted Manufacturing Companies. The study employed a longitudinal research design. The population of this study covered all quoted manufacturing companies in the three sectors (conglomerates, food and beverages, and industrial) listed on the Nigerian Stock Exchange from 2010 to 2018. The sample for the study was 40 quoted manufacturing companies across three sectors. The study adopted simple random sampling techniques. The Robust Least Squares (RLS) was employed for the data analysis and estimation of the models. The result of the study shows that both working capital policies impact on ROE, the effect of conservative policy is stronger with a higher coefficient. Secondly, the impact of CCC on Financial performance is significant for aggressive firms at 5% ( $p=0.000$ ) and significant at 10% for conservative firms ( $p=0.0826$ ). (iv) The impact of Average Collection Period (ACP) is negative (0.01673) and significant ( $p=0.00$ ) for aggressive and positively significant for conservative (0.000,  $p=0.3081$ ) estimations. The study recommended that shareholders should be keenly interested in the working capital policy that a firm adopt because it can have significant effects on the viability of the firm. Also, managements must endeavour to adopt working capital policies that could improve shareholders' value.*

**Keywords: Working Capital Policy, Financial Performance, Risk, Average Collection Period.**

**Introduction:**

Working capital exists because of market imperfections which occur over firms' operating cycles. To maintain the day-to-day operations while accommodating these imperfections, firms choose the pattern and weights of short term asset and liabilities according to their operating environments and financing abilities (Afza & Nazir, 2017) Operating components of working capital are targeted as vehicles for improving cash flow and maximizing shareholders' wealth. Brigham and Houston (2018) defined working capital policy as the manner in which the permanent and temporary current assets of a firm are being financed. Pandey (2017) saw it as the relative mix of short and long term funds in financing working capital. Efficient management of working capital is a fundamental part of the overall corporate strategy to create the shareholders' value. Firms try to keep an optimal level of working capital that maximizes their value (Afza & Nazir, 2017; Deloof, 2013 and Howorth & Westhead, 2017)

Basically, working capital policy is concerned with the issues that arise in attempting to manage the current assets, the current liabilities and the interrelations that exist between them. The management of current assets and short term funds is as important as that of non-current assets and long term funds because in both cases, a firm analyses their effects on its return and risk. In managing current assets, a firm's liquidity position is a very important factor; consequently, large holding of current assets, especially cash, strengthens the firm's liquidity (and reduces risks), it also reduces the overall profitability. Thus, a risk-return trade-off is involved in holding current assets. Current assets are the capital available for running the day to day operations of an organization and they are termed as working capital (Olowe, 2017). Companies can minimize risks and improve the overall performance by understanding and adopting the right working capital policy.

A firm may adopt an aggressive working capital management policy with a low level of current assets as a percentage of total assets or it can also be used for the financing decisions of the firm in the form of a high level of current liabilities as a percentage of total liabilities. Excessive levels of current assets may have a negative effect on the firm's profitability whereas a low level of current assets may lead to a lower level of liquidity and stock outs resulting in difficulty in maintaining smooth operations (Van Horne & Wachowicz, 2004)

### **Research Problem:**

In the context of manufacturing companies in Nigeria, to the best of the researcher's knowledge, no none study has decomposed working capital policy of firms into aggressive and conservative, and examined their implications for profitability/returns and shareholders' value. The focus of a number of studies (Ernest, Nweze, Offor & Ikediashi 2017; Duru & Okpe, 2015; Iyewumi, Remy, & Omotayo 2015; Kajola, Nwaobia, & Adedeji, 2014; Kolapo, Oke, & Ajayi, 2015; Mahmoud, Amir, & Ali, 2015) have been to examine the issue in relation to firms' profitability and financial performance using performance variables like Profit after tax (PAT,) Return on assets (ROA) and Return on equity (ROE). None of the studies have provided empirical evidence on the implications of working capital policy on risks for non-financial firms in Nigeria. Consequently, the study addressed this gap by showing empirically, the implications of the various working capital policy scenarios (aggressive, and conservative) on financial performance but also considering risk for nonfinancial firms in Nigeria.

### **Research Objectives**

The broad objective of the study was to examine the effect of working capital policy on financial performance and also risk for listed manufacturing companies in Nigeria. The specific objectives were to:

- i. examine the impact of TCL/TA Ratio on financial performance and risk for listed manufacturing companies in Nigeria
- ii. investigate the impact of Cash conversion cycle on financial performance and risk for listed manufacturing companies in Nigeria
- iii. evaluate impact of average payment period on financial performance and risk for listed manufacturing companies in Nigeria
- iv. identify the impact of average collection period on financial performance and risk for listed manufacturing companies in Nigeria

### **Research Questions**

Based on the gap identified above, this study attempts to answer the following questions:

- i. What is the impact of TCL/TA Ratio on financial performance and risk for listed manufacturing companies in Nigeria?
- ii. What is the impact of Cash conversion cycle on financial performance and risk for listed manufacturing companies in Nigeria?
- iii. What is the impact of average payment period on financial performance and risk for listed manufacturing companies in Nigeria?
- iv. What is the impact of average collection period on financial performance and risk for listed manufacturing companies in Nigeria?

## **Research Hypotheses**

The following are the research hypotheses for this Study

- H<sub>01</sub>. TCL/TA Ratio has no significant impact on financial performance and risk for listed manufacturing companies in Nigeria.
- H<sub>02</sub>. Cash conversion cycle has no significant impact on financial performance and risk for listed manufacturing companies in Nigeria
- H<sub>03</sub>. Average payment period has no significant impact on financial performance and risk for listed manufacturing companies in Nigeria
- H<sub>04</sub>: Average collection period has no significant impact on financial performance and risk for listed manufacturing companies in Nigeria?

## **Conceptual Framework**

### **Working Capital policy**

According to Chowdhary and Amin (2017), the working capital policy of a company refers to the level of investment in current assets for attaining its targeted sales. It can be of three types, viz: restricted, relaxed, and moderate. The relaxed policy has higher and restricted policy has lower levels of current assets whereas moderate places itself between relaxed and restricted policies. Commonly, these are also named as aggressive, conservative and hedging policies. Filbeck and Krueger (2015) asserted that working capital policy was needed in order for management to be able to address the problems that arose in attempting to manage the current assets, the current liabilities and the interrelations that existed between them. Current assets are to those which in the ordinary course of business can be or will be, converted into cash within one year without undergoing a diminution in value and without disrupting the operations of the firm, for instance, cash, marketable securities, accounts receivable and inventory. Current liabilities are intended, at their inception, to be paid in the ordinary course of business, within a year, out of the current assets or the earnings of the concern for example, accounts payable, bills payable, bank overdraft and outstanding expenses.

The main objective of working capital management is to maintain an optimal balance between each of the working capital components. Business success depends heavily on the financial executive's ability to effectively manage receivables, inventory and payables (Filbeck & Krueger, 2015). Firms can reduce their financing costs and/or increase the funds available for expansion projects by minimizing the amount of investment tied up in current assets. Most of the financial managers' time and efforts are allocated to bringing non-optimal levels of current assets and liabilities back to optimal levels. An optimal level of working capital can be the one in which a balance is achieved between risk and efficiency. It requires continuous monitoring to maintain proper levels in various components of working capital, i.e., cash receivables, inventory and payables, etc.

Jones (2017) opined that working capital policy was basically about how much working capital the company could maintain should they go for zero risk management. It involves decisions about companies' assets and liabilities, what they consist of, how they are used, their mix affect and the risk versus return characteristics of the company. Working capital policies, through their effect on the firms' expected future returns and risks associated with these returns, have an impact on shareholders wealth. Effective working capital policies are crucial to a firm's long-run growth and survival.

## **Working Capital policy and financial performance**

Efficient working capital policy involves planning and control of current assets and current liabilities in a manner to strike a balance between liquidity and profitability. Working capital management is considered to be a very important element to analyse the firm's performance while conducting day to day operations (Gill, Biger & Mathur, 2017). A firm that wishes to maximize profit must strike a balance between current assets and current liabilities and hence keeping abreast of the liquidity and profitability trade-off. Preserving liquidity and profitability of the firm is an important objective as increasing profit at the expense of liquidity can bring serious problems to the firm and vice-versa. Meanwhile, in determining the firm's profitability, the finance manager also need to take into account the firm's working capital management, which basically means managing the firm's current assets and current liabilities at satisfactory level (Dong & Su, 2018). Oladipupo and Ibadin (2013) examined the relationship between financial performance and working capital management. The working capital management was measured by the net trade cycle, current and debt ratios. The data used in the study were obtained from twelve manufacturing companies quoted on the Nigerian Stock Exchange between 2002 and 2006, and analysed using the Pearson product moment correlation and Ordinary Least Square (OLS) regression techniques. The results show that financial performance ratio was influenced positively by profitability and net trading cycle.

## **Working Capital policy and Risk**

Risk relates to the probability of having a realisation of a random variable different to the realisation preferred by the economic agent. Working capital is deemed to be a probable source of risk (Bolek, 2013). It is common knowledge that if a firm is unable to organize its liquidity level, this means that its current asset is unable to cover its current liabilities or short term debts. The enterprise should always try to maintain a reasonable risk with optimum level of working capital for better profitability. Here the risk actually refers to the ability to meet the financial obligation (both short term & long term) by the firm (Kimani et al., 2014). The lack of sufficient liquidity to meet its short term financial obligations has a considerable contribution towards risk. Therefore, the management should maintain adequate level of working capital along with the fixed capital so that the firm can minimize its risk which has a bearing on profitability (Eljelly, 2004). Risk is generally measured with the help of financial ratios. It is to be noted that there are no prescribed accounting ratios for risk evaluation. However, some important financial ratios such as current ratio, acid test ratio, current assets to total assets ratio, current liabilities to total assets ratio etc. are popularly used for measuring the risk associated with the liquidity of the firm. Moreover the risk dimension of working capital cannot be ignored in the measurement of overall performance of the firm (Deloof, 2013).

## **Measures of Working Capital Management**

### **Total current liabilities-total assets ratio (TCL/TA).**

This working capital ratio is a very basic metric of liquidity. It is meant to indicate how capable a company is of meeting its current financial obligations and is a measure of a company's basic financial solvency. Generally, a working capital ratio of less than one is taken as indicative of potential future liquidity problems. A high value indicates a good level of financial sustainability and ability to actively operate even in the absence of access to the short-term loan capital and external source of finance.

### **Average Payment Period (APP)**

A firm can utilize accounts payable for financing purposes. This is termed a cost free source of funds. Its proper management can reduce the dependency of firms on bank loans. The account payable is one of the main tools of financing working capital (Chowdhury & Amin, 2017). The efficiency of a firm in meeting its accounts payable can be analysed as payable turnover in days or average payment period (APP) of the firm. APP is the average length of time between the purchase of material and labour and the payment of cash for them. It is expected that this variable has as positive relationship with the Net Operating Profitability which also makes economic sense. As the firm takes more time in making payment to payables, it will have a positive impact on the firm's profitability because the firm takes time to utilize funds for a longer period. There are studies which found a negative relationship between net operating profitability and average payment period (Garcia Teruel & Martinez-Solano, 2017). A negative relationship between APP and a firm's profitability explains that the less profitable firms wait for a longer period to pay their bills.

### **Average Collection Period:**

Accounts receivables are credit sales given to customers for the purchases of goods or services. The management of accounts receivable (fourth component) is largely influenced by credit policy and collection procedures (Brigham & Ehrhardt, 2008). Credit policy and collection procedures affect cash inflows, sales and risk of bad debts. Any changes made in credit policy has a direct impact on working capital performance.

### **Empirical Review:**

Panigrahi (2014) in a study examined the association of working capital with liquidity, profitability and risk of bankruptcy of ACC Ltd. for the period 2000-01 to 2009-10. The study found that even with having negative working capital in most of the times, the company was able to earn a good rate of return because of its aggressive working capital policy but its solvency was ultimately at a stake.

Chauhan and Bhayani (2017) assessed the dividend pay-out policies of Indian companies. Using data collected from BSE Sensex -30 companies dividend pay-out was regressed on profitability and working capital of firms. The results of the study showed that dividend policies of Indians companies were highly influenced by profitability and working capital of the firms. Another study by Griffin (2019) examined working capital and dividend policy on the international level to determine what relationship the working capital of a firm's has on the decision of how much dividend to disburse to investors. It finds that in several specific cases, there is an inverse relationship between aggressive working capital and the dividend amount paid.

Oladipupo and Okafor (2013) examined the effects of working capital management (measured by the net trade cycle, current ratio and debt ratio) on the profitability and dividend pay-out ratio. Financial data were obtained from twelve manufacturing companies quoted on the Nigeria Stock Exchange over five years period (2002 to 2006). Using both the Pearson product moment correlation technique and Ordinary least square regression technique, they observed that shorter net trade cycle and debt ratio promote high corporate profitability and that dividend pay-out ratio was influence positively by profitability and net trade cycle.

Charitou, Lois and Halim (2017) had investigated on the relationship between working capital management and firm's profitability for an emerging Asian country by focusing on 718 firms listed on the Indonesia stock exchange for 13 year period, 1998-2010. Based on multivariate regression analysis,

their findings revealed that Cash Conversion Cycle and net trade cycle (NTC) have positive relationship with the firm's profitability, while debt ratio measuring firm's riskiness was found to have negative relationship with firm's profitability, which is determined by Return on Assets (ROA).

Muhammad and Syed (2018) investigated the impact of working Capital Management on firms' performance for non-financial institutions listed in Karachi Stock Exchange (KSE-30) Index. A panel data of 21 firms listed in KSE-30 Index for a period of years 2001 to 2010 was analysed. Results were obtained using canonical correlation analysis for identifying the relationship between working capital management and firms' performance. The findings show that working capital management has a significant positive impact on firms' performance. They concluded that managers can increase value of shareholder and return on asset by reducing their inventory size, cash conversion cycle and net trading cycle.

## **Theoretical Framework**

### **Agency Theory**

This study anchored on the Agency Theory. According to this agency theory, managers as agents are expected to monitor corporate activities in a most profitable manner so as to maximize the value of the owners as principals and protect the interest of other stakeholders. Under the theory, managers are responsible for managing the business profitably. One of the factors responsible for the agency problem in the corporate world by the managers is the self-serving interest and incentives. For instance, the interest of the managements usually conflict with the interest of the owners, in which the managers try to meet their goals at the expense of the firm, and this affect the performance in many ways (Roberts, McNulty & Stiles 2005). However, proper monitoring and control could effectively reduce the agency cost caused by separation between ownership and control (Fama & Jensen 1983); thus, efficient resources utilization can be achieved. One of the areas that require adequate attention with regards firm resources is working capital; this is due to its direct relation with the liquidity and the overall profitability of firms.

From the agency perspective, working capital is a managerial activity that managers are expected to efficiently monitor and manage so as to make profit and maximize the owners' value. The Agency Theory was used in this study because it helps to determine the stewardship of Managers of enterprise and accountability to shareholders. The theory provides a framework and a logical linkage between the management of working capital and shareholder wealth.

### **Methodology:**

The study adopt the ex-post factor research design

### **Model Specification**

In this model, the researcher examine the relationship between working capital policy and financial performance

#### Model 1: Working Capital Management Practices and Shareholder value

$$FP_{it} = f(WCP) \text{ -----(i)}$$

$$FP_{it} = \beta_0 + \beta_2(TCL/TA)_{it} + \beta_2CCC_{it} + \beta_3(ACP)_{it} + \beta_4APP_{it} + \varepsilon_i + \mu_{it} \text{ -----(ii)}$$

**Model 2: Working Capital Management Practices and Solvency Risk**

In this model, we examine the relationship between working capital policy and solvency risk (SR)

$$SR_{it} = f(WCP) \text{ -----(v)}$$

$$SR_{it} = \beta_0 + \beta_1(TCL/TA)_{it} + \beta_2CCC_{it} + \beta_3(ACP)_{it} + \beta_4APP_{it} + \varepsilon_i + \mu_{it} \text{ -----(iv)}$$

**Table 1 Measurement of Variables**

Variable	Measurement	Source	Apriori sign
Financial performance	The measure for financial performance or profitability used in this study is Return on equity (ROE)	Sohail, Rasul and Fatima (2016)	
Cash conversion cycle (CCC)	Measured as Receivable days + Inventory days– Payable days	Padachi, (2006).	+
Average collection period (ACP)	Average receivables/ Sales x 365 days	Egbide (2009)	+
Average payment period (APP)	APP is the average length of time between the purchase of material and labour and the payment of cash for them.	Brigham and Ehrhardt, (2008).	+
Total current liabilities-total assets ratio (TCL/TA).	The measurement for working capital policy is the total current liabilities-total assets ratio (TCL/TA).  Where this ratio is higher than the sample average computed in the analysis section, it suggest that the firm is being <b>aggressive</b> and when it is lower than the sample average, it suggest <b>conservative</b> .	Sohail, Rasul and Fatima (2016)	+

**ANALYSIS OF DATA**

**Table 2 Descriptive Variables**

	Mean	Skewness	Kurtosis	Max	Min	Std. Dev.	Jarque-B	Prob
ROE	0.75177	0.715081	3.39805	16.142	-12.14	168.1183	40806.7	0.00
TCL/TA	0.292302	0.332497	1.798124	8.7592	0	0.884342	25988.59	0.00
SR	33.63161	6.833599	52.42327	165.28	0	167.2849	26780.58	0.00
ACP	89.65737	-0.005838	1.566153	1013.096	2.8804	106.0545	8524.907	0.00
APP	301.2442	0.47272	2.692962	7629.91	0.4715	870.161	16560.81	0.00
CCC	80.6078	-0.079137	2.446673	143.313	17.57	858.7685	15059.95	0.00

*Source: Researchers Compilation (2020)*

Table 1 presents the result for the descriptive statistics for the variables. As observed, **ROE** has a mean value of 0.7517, with maximum and minimum values of 16.142 and -12.14 respectively. The standard deviation of 168.118 suggests considerable spread from the average for the sample showing that ROE for firms in the distribution varies strongly from firm to firm. The mean for **CLTA** is 0.2923 with a standard deviation of 0.884. **SR** has a mean value of 33.631 with maximum and minimum values of 165.28 and 0 respectively. **ACP** was observed with a mean value of 89.65 with maximum and minimum values of 64.086 and 1013.09 respectively. The standard deviation is also quite significant at 106.05 and this implies that ACP varies strongly from firm to firm. **CCC** has a mean value of 80.6078 with maximum and minimum values of 143.313 and 17.57 respectively. The Jacque-bera statistics for the variables all show that their probability values are all less than 0.05 which implies that all the variables are normally distributed and that the presence of outliers is unlikely in the data.

**Table 3 Correlation Analysis**

	ROE	CLTA	ACP	APP	CCC
ROE	1	-0.0205	0.1397	0.01993	0.0162
TCL/TA		1	0.2751	-0.0227	0.0857
ACP			1	0.06667	0.0837
APP				1	-0.9787
CCC					1

*Source: Researchers Compilation (2020)*

From table 4 above, the correlation coefficients of the variables are examined. The key working capital policy variable is the CLTA ratio. From the results, CLTA, is positively correlated with ACP (r=0.2751), CCC (r= 0.085) while negatively with APP (-0.022), SRT (r=-0.067), ROE(r=-0.021) and DIV(r=-0.026). It suffices to note however, that correlations are limited in their inferential abilities as the computations do not necessarily suggest causality in a strict sense between the variables.



**Table 4 VIF test for Multicollinearity**

Variable	VIF
TCL/TA	1.708
CCC	8.292
APP	6.133
ACP	2.207

*Source: Researcher's compilation (2020)*

In order to determine the multicollinearity problem in a dataset that has independent variables, of the following methods can be used: Pearson's correlation matrix of predictor variables; eigenvalues of the matrix or variance inflation factor (VIF). Essentially, VIFs above 10 are seen as a cause of concern (Hair et al., 2010). As observed, none of the variables have VIF's values more than 10 and hence none gave serious indication of multicollinearity.

**Table 5 Profitability and Working Capital policy**

	Apriori sign	Aggressive policy	Conservative policy
<b>Dependent Variable =</b>		ROE	ROE
<b>C</b>		10.1044*	20.4361*
	+	(3.0214)	(2.9105)
		{0.0008}	{0.000}
<b>TCL/TA</b>	+	2.1611**	36.8987*
		(1.2009)	(9.5208)
		{0.0719}	{0.000}
<b>CCC</b>	+	0.0989	-0.0221
		(0.0168)	(0.0125)
		{0.000}	{0.0787}
<b>APP</b>		0.0667	-0.02130
	+	(0.0199)	(0.0124)
		{0.000}	{0.0845}
<b>ACP</b>	+		
		-0.1088	0.0296
		(0.0229)	(0.0292)
		{0.000}	{0.3093}

Adj R <sup>2</sup>	0.5776	0.100
F-statistic	49.6618	19.735
P(f-stat)	0.000	0.0000
Deviance	11.15	0.371
B-G Autocorrelation Test	0.646	0.636
B-P-G Hetero Test	0.342	0.810
Ramsey Reset Test	0.129	0.499

**Source: Researchers compilation using Eviews 9.0. ( ) Standard errors, { } p-value**

The impact of working capital policy on ROE is shown in the results above, the key working capital policy variable is the TCL/TA ratio. The disaggregated analysis reveals that the R<sup>2</sup> for the aggressive sample is 0.576 which implies that the model explains about 57.6% of the systematic variations in the dependent variable for aggressive firms. The F-stat is 49.6618 (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. For the conservative firms the R<sup>2</sup> is 0.10 which implies that the model explains about 10% of the systematic variations in the dependent variable for conservative firms. The F-stat is 19.735 (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. For the aggressive sample, we find the coefficient for TCL/TA is positive (0.2.1611) and significant at 10% (p=0.0719) which suggest that an aggressive working capital policy can result in an increase in earnings per share measure of shareholders wealth and thus aggressiveness improves shareholders wealth. A similar outcomes is noticed for the conservative sample where the coefficient is higher (36.8987) than that of the aggressive sample and significant at 5%. The result implies that though both working capital policies impact on ROE, the effect of conservative policy is stronger with a higher coefficient. Hence the conservative policy appears to be better in ensuring profitability in the long-run. The impact of CCC is significant for aggressive firms at 5% (p=0.000) and significant at 10% for conservative firms (p=0.0826). The impact of APP is positive (0.0007) and significant (p=0.00) for aggressive and negatively significant for conservative (-0.0002, p=0.0897) estimations. The impact of ACP is negative (0.01673) and significant (p=0.00) for aggressive and positively significant for conservative (0.000, p=0.3081) estimations.

The diagnostic test was also conducted for the model to ascertain the robustness of the results. The Breush-Goffery (B-G) test for serial correlation was performed on the residuals as a precaution. The results showed probabilities in excess of 0.05, which leads us to reject the presence of serial correlation in the residuals. The Breush-Pagan-Goffery (B-P-G) test for heteroskedasticity reveals that the hypotheses of heteroskedasticity in the residuals were not rejected. This was because the probabilities (Prob) were greater than 0.05. The performance of the Ramsey RESET test showed high probability values that were greater than 0.05, meaning that there was no significant evidence of misspecification.

**Table 6 Solvency Risk and Working Capital policy**

	Apriori sign	Aggressive policy Solvency Risk	Conservative policy Solvency Risk
C		4.0088*	3.3536*
	+	(0.4208)	(0.770)
		{0.000}	{0.000}
TCL/TA	+	-0.1717	3.3156
		(0.163)	(2.2792)
		{0.2936}	{0.1457}
CCC	+	-0.0067*	-0.00115
		(0.0023)	(0.0029)
APP	+	{0.003}	{0.6970}
		-0.0103*	-0.0012
		(0.0019)	(0.0028)
		{0.000}	{0.6864}
ACP	+	0.00835*	-0.0054
		(0.0031)	(0.0072)
		{0.0076}	{0.4470}
Adj R <sup>2</sup>		0.2785	0.031
F-statistic		22.7051	12.85
P(f-stat)		0.000	0.0582
Deviance		3.2997	4153.754
B-G Autocorrelation Test		1.25	11.68
B-P-G Hetero Test		1.25	11.68
		0.309	
Ramsey Reset Test			0.0199

**Source: Researchers compilation using Eviews 9.0. ( ) Standard errors, { } p-value**

The impact of working capital policy on risk is shown in the results above, the key working capital policy variable is the TCL/TA ratio. The diagnostic test was also conducted for the estimations to ascertain the robustness of the results. The Breush-Goffery (B-G) test for serial correlation was performed on the residuals as a precaution. The results showed probabilities in excess of 0.05, which

leads us to reject the presence of serial correlation in the residuals. The Breush-Pagan-Goffery (B-P-G) test for heteroskedasticity reveals that the hypotheses of heteroskedasticity in the residuals were not rejected. This was because the probabilities (Prob) were greater than 0.05. The performance of the Ramsey RESET test showed high probability values that were greater than 0.05, meaning that there was no significant evidence of miss-specification.

The disaggregated analysis reveals that the  $R^2$  for the aggressive sample is 0.278 which implies that the model explains about 27.8 % of the systematic variations in the dependent variable for aggressive firms. The F-stat is 22.7 (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. For the conservative firms the  $R^2$  is 0.031 and the F-stat is 12.85 (p-value = 0.05) which is significant at 10%. The key working capital policy variable is the TCL/TA ratio. For both aggressive and conservative sample, the coefficient of TCL/TA is not significant at 5%. The impact of CCC is significant for aggressive (p=0.003) but not for conservative (p=0.6970) estimations. The impact of APP is significant (p=0.00) for aggressive but not for conservative (p=0.6864) estimations. The impact of ACP is significant (p=0.007) for aggressive but not for conservative (p=0.4470) estimations. The diagnostic test was also conducted for the model to ascertain the robustness of the results.

### **Summary of Findings**

- i. The result implies that though both working capital policies impact on ROE, the effect of conservative policy is stronger with a higher coefficient. Hence the conservative policy appears to be better in ensuring profitability in the long-run. For both aggressive and conservative sample, the coefficient of TCL/TA in relation to risk is not significant at 5%.
- ii. The impact of CCC on Financial performance is significant for aggressive firms at 5% (p=0.000) and significant at 10% for conservative firms (p=0.0826). In relation to risk, it is significant for aggressive (p=0.003) but not for conservative (p=0.6970) estimations.
- iii. The impact of APP on financial performance is positive (0.0007) and significant (p=0.00) for aggressive and negatively significant for conservative (-0.0002, p=0.0897) estimations. For risk, the impact of APP is significant (p=0.00) for aggressive but not for conservative (p=0.6864) estimations.
- iv. The impact of ACP is negative (0.01673) and significant (p=0.00) for aggressive and positively significant for conservative (0.000, p=0.3081) estimations. In relation to risk, the impact of ACP is significant (p=0.007) for aggressive but not for conservative (p=0.4470)

### **Conclusion and Recommendation:**

Efficient management of working capital is a fundamental part of the overall corporate strategy to create the shareholders' value. Firms try to keep an optimal level of working capital that maximizes their value. Working capital policy management has become one of the most important issues in the organizations where many financial executives are struggling to identify the basic working capital drivers and the appropriate level of working capital. Efficiency in the management of working capital requires a clear understanding of the economics of trade-off involved in it. Therefore firms try to keep an optimal level of working capital that maximizes their value. The study recommends that managers of aggressive firms look closely at the risk implications that such aggressive strategy would have on their fundamentals. Investors looking to buy stocks may not find aggressive firms attractive because more investors may tend to be more risk averse and are attracted by stable revenue flows. In addition, the study also recommends that being conservative is the way to go for firms especially because of the unstable economic environment. In addition, though aggressiveness may come with possible high

returns, the risk is also very threatening and can result in significant decline in revenues. Thus firms wishing to be aggressive may need to look at diversifying their risks into investments and production that may have relatively uncorrelated returns and risk so that a low return in one area can be moderated by high returns in another.

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