Does Effective Working Capital Management Increase Profitability? Evidence: Tanzania Insurance Company

Ali Othman Abbas
(PhD Candidate)
School of Accounting Jiangxi Unversity of Finance and Economics-Nanchang China
Email: abbasal14@hotmail.com

Cao Yushan
Professor
School of Accountancy, Jiangxi Unversity of Finance and Economics, Nanchang,China
Email: jxcdcysh@163.com

Abstract
This study was a descriptive assessment with the aim to evaluate the relationship between working capital practices and its effects on profitability of Insurance Companies for a period of five years from 2006 – 2010. Data are obtained from financial statements of the selected companies, and analyzed by using STATA software. The consequence shows their is strong negative correlation involving components of the working capital management along with profitability of the companies, also constructive correlation involving size of the company and its profitability. The recommandation is to advise active working capital management matters in profit maximization and, thus, should be included in a company's financial planning.

Keywords: *Working capital management, Profitability, and Insurance Company*

1. Introduction

The Tanzania insurance industry continued to increase since liberalization in 1998, with increased companies currently reaching more than 27 insurance companies from 2 before liberalization. According to the annual performance of industry issued by Tanzania Insurance Regulatory Authority (TIRA) [18], the sector employed more than 2,530 people, 39 per cent of whom (982 people) worked in insurance firms and the remaining 61 per cent were employed by various insurance agencies. Thirteen years of the liberalization of the insurance industry in Tanzania had seen four private insurance companies topping the rest and led the country's market and increased the competition in the industry. The performance is unquestionably a result of careful standards and presence of competitive, professional and transparent market environment under the TIRA. In 2006 the registered Insurance companies were about 17 and were able to collect the premium of TZS 115billion .The five chosen Companies had the total premium of TZS 53billion in that particular year, while in 2010 the registered Companies graw up to 27 which had the collection premium of TZS 286billion the selected Companies have the total premium of TZS 106billion .Even if the industry shows a good trend of increasing the premium and contribution to the GDP of the country , but the market share of the individual vary according to the increase of the insurance companies in the industry. A close scrutiny of the companies' ten years aggregate gross premium for instance, showed that Heritage, Jubilee and Alliance Insurance companies topped the rest by having high collection premium. In 2010 the market grew by 24 percent in gross premiums written compared to the year 2009. The market growth was higher than the growth of the national nominal GDP and higher than the growth of the nominal financial intermediation sector GDP in 2010.The industry’s contribution to the national GDP was 0.86 percent, compared to a contribution of 0.80 percent in 2009. This show how the industry grows gradually in contribution of the country’s economy. Working capital management is a significant factor of any organization including Insurance Companies since it has straight effects on the liquidity and profitability of the company, the current assets of an Insurance firm is the one that used to settle the claims and short-term obligations of the Company. However, firms with inadequate current assets may perhaps acquire shortages and worries in preserving smooth operations [11].

Normally most of the Companies keep their awareness with the short term financing sources and specially concentrate on their working capital management. Working capital assists the Companies to meet their short-term obligations. If this sustenance deteriorates, consequently does the company's aptitude to fund operations. Study indicates that the management spends substantial time every day to solve the problem concerning working capital resolution for the rationale current assets are short-term reserves transformed into other asset types [6]. While current liabilities, the firm is liable for paying these obligations on an appropriate basis, liquidity for the in progress firm is not dependent relative on the insolvency value of its assets, other than on the effective cash generation [1]. Taken together, result on the level of working capital components become every day, repetitive, uninteresting and time overriding.
[7].It involves the choice of the quantity and composition of current assets and how to financing these assets. Current assets comprise all assets that facilitate the standard course of business turn in to the cash within a small period, normally within a year. The final goal of any firm in any industry is to maximize the wealth that increases profit overtime. However, defensive liquidity of the firm is a significant idea; the predicament is that rising profits at the cost of liquidity be able to bring serious problems to the firm, for that reason, there is a necessity to exchange between these two objectives of the Company. One objective should not be at expense of the other because together they have their importance. If we are not bothered about profit, we cannot live for a longer period. Consecutively, if we don’t care concerning liquidity, we might experience the problem of insolvency or bankruptcy. Working capital management affects the profitability of the firm, for the reasons depicted; should have appropriate consideration and will. Many Companies including Insurance Companies include a most favourable level of working capital that capitalizes on their worth. Some of the researchers reveal that when Insurance Companies have large amount of working capital they lead to generate more profit of those particular firms. André analyzed 621 of insurance companies on working capital and profitability concluded that; Structure of working capital in Insurance companies, everywhere financial current assets go beyond burdensome current liabilities, and recurring current assets exceed recurring current liabilities is associated with higher levels of profitability, [3]. [10] when she examined the determinants of Pakistan`s insurance companies profitability concluded that there is significantly positive relationship between profitability and size. According to the guideline of the People’s Republic of China on supervision of foreign funded Insurance Companies article number 4 up to 6, an overseas funded insurance company recognized within the province of China must pay as a capital or working capital of less than RMB 200million (1$ = 6.33 RMB) or equivalent amount in a freely convertible currency. After establishing a branch, the foreign Insurance Companies shall not take out the working capital in any shape. There is no required amount of working

capital set by TIRA in Tanzania but the leading Company in 2010 has a working capital of TZS 2.6billion that make the profit of TZS 2.5billion.(1$= 2,200 TZS)

Working capital plays an important role in any financial firm; it has an impact to accomplishment or breakdown of firms in big businesses for the reason that it affects the profitability of the firm. Expecting that, the idea contributes better understanding of relationship between working capital and profitability. This amount of working capital helps management to create value for their shareholder's welfare. Even though strong empirical support may not uphold the statement that poor working capital could play a major role in financial sectors performance failures, very few would deny it. These are the major motivations for the current study. Specifically, the study will attempt to find out the correlation between working capital and the effectiveness of Insurance Companies in Tanzania. This debate of the importance of working capital, its different components and effects on profitability leads to the research problem statement, which we will be analyzing. Most researchers have studied working capital from the views of general firm environments, but in this study, we will focus specifically on the relationship between working capital and profitability in insurance industry in Tanzania.

2. Literature Review

[3], when they examined the adequacy of a working capital form in provisions of profitability, liquidity and solvency, they established that financial Current assets, go above onerous Current liabilities is accompanied through higher levels of profitability, liquidity and solvency, repeating the significance of well-organized working capital to the performance and continued existence of healthcare insurance companies. [13], about working capital requirement in their study insist that, in today's business world, companies need to be supported by finance activities in order to meet their working capital requirements [19]. The importance of working capital policy can't be denied in any organization; all researchers over the world focused on this issue and discuss it in detail in the perspective of many countries, from developing countries to developed they consider working capital as a life blood of any organization and this is the reason why most of the researches on the topic had been carried out in the developing countries such as Pakistan, India, and Taiwan etc.[16] observed that effective working capital will achieve a high level of profit and positive cash inflow and the company will enjoy good facility of cash credit and working capital loans from various commercial banks due to its satisfactory level of liquidity. These facilities of short term loan will help the insurance company to have strong and competitive working capital to meet its short terms obligation in terms of claims and that will create confidence to the clients and continue to insure their risk in that particular firm [17]. Insurance Companies have thought of assets very differently than they have thought of liabilities, from a practical perspective, how does one look at an insurance company without a line of business. When the client looks upon the strong nest of the insurance Companies in terms of financial soundness, he gets the confidence to transact with those particular Companies and in return the revenue and profit of those companies will be increased [14].Observed the concept of insurance is based on a risk transfer technique; we are all familiar with insurance from our everyday life, whether car insurance, real estate insurance, or life insurance, the insured has to pay a premium to the insurer. Once the insured pays the premium they are expected to be compensated for specific possible future losses that will be incurred, the obligation of the insurance company to have enough hard cash at any particular time in order to be able to face that loss to their clients.

[10] In Pakistan findings show that willingly accessible there is no correlation between profitability and age of Insurance Companies along with significantly positive correlation

between the size of the company and profitability. In Nigeria, [9] examined the characteristics of capital structure in Nigerian and listed insurance companies for the period of 2001-2010. The results insist a negative relationship between profitability, size and leverage. [12] intentional strategic working capital management, and its position in business strategy growth, ultimately ensuring the continued existence of the firm. In addition, they emphasize how strategic current asset assessment and strategic current liabilities assessment had multi-dimensional crash on the presentation of a corporation. [5] Identified the magnitude of the position of the financial system and included business indicators in their revision of working capital determinants. They discovered a constructive association involving business indicator and working capital requirements. The correlation between profitability and working capital management in a variety of markets has also attracted intense interest. [15] Examined association between working capital management and business effectiveness of listed business companies in Athens Stock Exchange. The outcome signifies that there was statistical correlation between profitability, deliberate throughout gross operating earnings, and the cash adaptation succession. On or after individual's outcomes, they argue that managers may perhaps create value for shareholders by treating correctly the cash conversion cycle and charging each different module to an optimum level. [8] decorated efficient working capital was extremely significant for creating value for the shareholders. The technique of working capital supervision had an essential crash on both profitability and liquidity. [2] originated the working capital assessment as a goal indoctrination trouble, generous primary consequence towards liquidity, with intention on the current ratio and quick ratio. In testing, the effectiveness controls were deliberate to capture the opportunity cost of excess liquidity (in expressions of dropdown profitability). [4] give emphasis to those who endorse working capital hypothesis shared profitability and liquidity involving the most important goals of working capital management. In general, current assets are regarded as one of the essential mechanisms of total assets of a company. A firm may be intelligent to decrease the savings (investment) in permanent property (fixed asset) through rental fee or hire plant and machinery, while the identical procedure and policy cannot go behind the mechanism of working capital. The high intensity of current assets may perhaps diminish the risk of liquidity allied with the opportunity cost of resources that might be invested in long-term assets. All the above studies provide the solid base and give the idea regarding working capital and its components.

3. Methodology

The research plan which was engaged in this study was descriptive assessment with the aim to evaluate the relationship between working capital practices and its effects on profitability of Insurance Companies for a period of 2006 – 2010. The study employed a panel data analysis used to examine the effect of working capital management if it does increase profitability in Tanzania insurance companies, in analyzing the working capital variables, such as Net Operating Profit as dependent variable and number of day's accounts receivable, accounts payable, current ratio, and size of the company as independent variables. Data are obtained from financial statements of the selected companies, annual performance of insurance industry in Tanzania..Furthermore, STATA software was used for data analysis of the different variables.

3.1 Model Specifications

According to the literature the econometric model used in the study was-:

$$NOP_{it} = \beta_0 + \sum_{all}^{n} \beta_1 X_{it} + \varepsilon$$

NOP_{it}: Net operating profitability of a Company at time t; i = 1, 2… in a year's Company performance. B_0: The intercept of equation. B_1: Coefficients of X variables. Xit: The different independent variables for working capital of Company at time t. t: Time = 1, 2,……,5 years, and ε: The error term

Specifically, the model becomes

$NOP_{it} = \beta_0 + \beta_1 (ACP_{it}) + \beta_2 (APP_{it}) + \beta_3 (CR_{it}) + \beta_4 (SC_{it}) + \varepsilon$

4. Results and Discussion

Table 1(a) presents all summary statistics for all variables undertaken in this study. Campany profit (PC) the mean is 19.998, the minimum 0.09 and maximum 47.5, the size of the company (SC) is 20.0004 the minimum 6.71 and maximum 38.22 respectively, and Account Receivable collection periods (ACP) the mean 59.04, the minimum and maximum is 0 and 109 respectively.

Table 1 (a) Summary statistics for all variables under normally distribution

	PC	SC	CR	AP	AR
Observation	25	25	25	25	25
Mean	19.998	20.0004	1.1144	185.96	59.04
Std. Dev.	12.4461	10.07702	0.1042865	52.61296	30.96568
Variance	154.9054	101.4089	0.0108757	2768.123	958.8733
Skewness	0.4586042	0.3974227	0.8499833	1.162034	-0.1856177
Kurtosis	2.443993	1.993235	4.26474	4.086988	1.941137
Min	0.09	6.71	0.9	103	0
Max	47.5	38.22	1.37	331	109

Table 1(b) presents the summary statistics for the transformed variables of which their skewness is within the required normal distribution.The mean of the Current ratio (CR) is 0.9045457, the minumum 0.729927 and maximum 1.111111 and Account Payable Period (APP) the mean is 0.752257 the minumum and maximum is 0.054965and 0.0985329 respectively.

Table 1(b) Summary statistics for the transformed variables

	CR	APP
Observation	25	25
Mean	0.9045457	0.752257
Std. Dev.	0.810793	0.0096996
Variance	0.0065739	0.0000941
Skewness	0.0886309	0.0040022
Kurtosis	4.151269	3.352194
Min	0.729927	0.054965
Max	1.111111	0.0985329

Table 2.A below shows the summary of the correlation matrices which indicate that the variance inflation factor (VIF), the degree of correlation between each pair of indipendent variable is low which suggests the absence of multicollinerity problem in the models. All the tests for the significance were done at 95% confidence level. This means that all the above tests must have p-value less or equal to 0.10 for the test to be significant. The consequence shows strong negative correlation involving components of the working capital management

along with profitability of the insurance companies, also constructive correlation involving size of the companies and its profitability.

Table 2(a) Summary of the correlation matrices

Source	SS	df	MS
Model	2759.99245	4	689.998113
Residual	957.737743	20	47.8868872
Total	3717.7302	24	154.905425

Number of obs	=	25
F(4, 20)	=	14.41
Prob > F	=	0.0000
R-squared	=	0.7424
Adj R-squared	=	0.6909
Root MSE	=	6.92

profitofth~o	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
sizeoftheco	.9967386	.1526804	6.53	0.000	.6782529	1.315224
ardays	-.0360516	.0612098	-0.59	0.562	-.163733	.0916298
currentrat~1	21.83102	18.12998	1.20	0.243	-15.98745	59.64949
apdays1	-219.8784	186.1868	-1.18	0.251	-608.2574	168.5005
_cons	-1.015407	25.40228	-0.04	0.969	-54.00363	51.97282

. vif

Variable	VIF	1/VIF
ardays	1.80	0.555395
apdays1	1.63	0.611782
sizeoftheco	1.18	0.844039
currentrat~1	1.08	0.923402
Mean VIF	1.43	

In table 2(b) regression and correlation results of the variables, contain the beta coefficients of four independent variables. The positive coefficient of the beta indicates the predictive power of the individual variables were positive relationship between dependent variable (NOP) and independent variables (CR and SC). This means that increase of a unit changes in the Current Ratio, as well Size of the Company results to an increase in a unit change in Net Operating Profit to the extent of 0.9967386 and 21.83102 units respectively. The entire negative beta coefficients of ACR and APP imply inverse relationship between the dependent variable and indipendent variables. This means that decrease of a unit changes in Average collection Period and Average Payment Period result to a decrease a unit change in Net Operating Profit to the extent of 0.0360516 and 219.8784 units respectively.

Table 2(b) The Regression and Correlation results of the variables

```
. reg profitoftheco sizeoftheco ardays currentratio1 apdays1

      Source |       SS       df       MS              Number of obs =      25
-------------+------------------------------           F(  4,    20) =   14.41
       Model |  2759.99245     4  689.998113           Prob > F      =  0.0000
    Residual |  957.737743    20  47.8868872           R-squared     =  0.7424
-------------+------------------------------           Adj R-squared =  0.6909
       Total |   3717.7302    24  154.905425           Root MSE      =    6.92

------------------------------------------------------------------------------
profitofth~o |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 sizeoftheco |   .9967386   .1526804     6.53   0.000     .6782529    1.315224
      ardays |  -.0360516   .0612098    -0.59   0.562     -.163733    .0916298
currentrat~1 |   21.83102   18.12998     1.20   0.243    -15.98745    59.64949
     apdays1 |  -219.8784   186.1868    -1.18   0.251    -608.2574    168.5005
       _cons |  -1.015407   25.40228    -0.04   0.969    -54.00363    51.97282
------------------------------------------------------------------------------

. corr profitoftheco sizeoftheco ardays currentratio1 apdays1
(obs=25)

             | profit~o sizeof~o   ardays curren~1  apdays1
-------------+---------------------------------------------
profitofth~o |   1.0000
 sizeoftheco |   0.8349   1.0000
      ardays |   0.2873   0.3625   1.0000
currentrat~1 |   0.2508   0.1042  -0.1307   1.0000
     apdays1 |  -0.3452  -0.2694  -0.6027  -0.0749   1.0000
```

NOP it = -1.015 -0.361ACR- 219.878APP+21.831CR+0.997SC

The coefficient determinate (goodness of fit) is above 50%, since the result obtained from regression outcome is about 69.09 percent which indicates that, the variations of the factors that affect the profitability of insurance companies in Tanzania are caused by the explanatory variables, p-value was 0.0000, which signified that, there was strong relationship between dependent and independent variables. The R square value is about 0.7424 means all variables together explain approx 74% of variation in the Net Operating Profit suggestions. As they explain more than 50% of changes in the Net Operating Profit suggestions it can be claimed as good regression model. The adjusted R-square is 69% this means that the regression does not have any degree of freedom problem. F-statistic was greater than 10 which specify the model is significant, and probability obtaining such p value is zero. It suggests that the probability of R squared being zero is zero. Definitely we can say that R squared is different from zero and variables that explained dependent variable by statistically 74%.

5 Conclusion and Recommendation

The general objective of the study was to establish relationship between Working Capital components and Profitability over a period of five years (2006- 2010), the specific objectives were to determine the effects of various variables of working capital on profitability and to find the correlation between profitability and size of the Insurance Companies in Tanzania.

The consequence shows strong negative correlation involving components of the working capital management along with profitability of the insurance companies, also constructive correlation involving size of the companies and its profitability. Moreover the results showed positive relationship between dependent variable (Net Operating Profit) and independent variables (Current Ratio and Size of the Campany), as well as inverse ralationship between Average collection Period and Average Payment Period with Net Operating Profit. The study recommanded that Policy makers should set a specific working capital in terms of total assets percentage or otherwise to make the companies to act on that particular bench mark in order to perform well in the growth of a country's economy.

References

[1] Adams M., P. Hardwick, & H. Zou (2008) Reinsurance and corporate taxation in the United Kingdom life insurance industry, *Journal of Banking and Finance, 32(1)*, 101-115

[2] Alves, S. L. (2008) Eficiência das operadoras de planos de saúde Revista Brasileira de Risco eSeguro, v. 4, n. 8, p. 87-112,

[3] André G. and Valcemiro N. (2010), BBR - Brazilian Business Review, v. 7, n. 2, Vitória-ES, pp. 37 - 59, ISSN 1808-2386

[4] Baranoff, E.G.and Sager, T.W. (2009). The impact of mortgage-backed securities on capital requirements of life insurers in the financial crisis of 2007-2008 *Geneva Papers on Risk and Insurance*, *34(1)*, 100-118.

[5] Chiou J R and Cheng L (2006), "The Determinants of Working Capital Management", Journal of American Academy of Business, Vol. 10, No. 1, pp. 149-155

[6] D´oliveira, N. (2006) Mercados de seguros: solvência, riscos e eficácia regulatória. Riode Janeiro: Funenseg, 164 p

[7] Dibra, S. and Leadbetter D (2008) Why Insurers Fail: The Dynamics of Property and Casualty Insurance Insolvency in Canada. Geneva Papers on Risk & Insurance, 33: 464-488.

[8] Guimarães A. D., & Nossa, V. (2010) Working capital, profitability, liquidity and solvency of healthcare insurance companies Brazilian Business Review, Vol. 7, No, 2, 37-59.

[9] Hassan S. (2011) Determinants of Capital Structure in the Nigerian Listed Insurance Firms, International Conference on Management.

[10] Hifza M (2011) Determinants of insurance companies' profitability: an analysis of insurance sector of Pakistan

[11] Horne, J. C. and Wachowicz J. M. (2000) Essential of Financial Management, 11th Ed. Prentice Hall Inc

[12] Leadbetter D., & Dibra, S. (2008). Why insurers fail: The dynamics of property and casualty insurance insolvency in Canada. *Geneva Papers on Risk and Insurance, 33(3)*, 464

[13] Maryam P. and Barjoyaibin B.(2012), Global Research Journal of Finance and Economics- Issue 90

[14] Naser N. (2012), International Journal of Learning & Development ISSN 2164-4063 2012, Vol. 2, No. 2

[15] Osipitan T (2009). Legal Regulation of Insurance Business in Nigeria: Problems and Prospects. Chartered Insurance Inst. Nig. J., 11(1): 69-82

[16] Sayaduzzaman, Md. (2006). Working capital management: A study on British American tobacco Bangladesh Company Ltd. The Journal of Nepalese Business Studies, Vol. 3, No. 1 78-84.

[17] Stephen W. P.at al (2001) DFA Insurance Company Case Study, PartII: Capital Adequacy and Capital Allocation

[18] TIRA Annual Insurance Market Performance Report (2010), available on www.tira.go.tz

[19] Wajahat.(2010) Relationship between the profitability and working capital policy of Swedish companies