

Causal Relationship between Working Capital and Firm's Profitability: Empirical Evidence from Indian Banking Sector

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Abstract – The present research focuses on the study of working capital and its effect on the profitability of banking sector in India. As we know that working capital plays an important role in the capital formation of organizations and the same thing is apply for the banks also because the banks also have to maintain some sort of capital formation in order to remain profitable. For the completion of this research we have chosen top 10 BSE listed public and private sector banks from the available secondary data from 2006-2017. linear regression model was used in this research and it was found that working capital significantly impact the profitability of the banks.

Keywords- Working Capital, Profitability

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INTRODUCTION

Working capital management plays an important role in corporate financial management because the profitability and liquidity of the organizations is depended on it, irrespective of the size of the organization. Financial specialists define working capital as the sum total of the current assets i.e. Net current assets. As per (Jain, 2004) stated that, working capital management involves two aspects first is the management of organization's current assets and second is providing financial support to the organization. Eljelly, (2004) suggested that working capital management is the process of planning and controlling the current assets and liabilities of an organization which minimizes the possibility of incapability to convene due to temporary obligations of the organization, and at the same time neglecting too much investment in the current assets. As per (Filbeck and Krueger, 2005), It is the major objective of working capital management to maintain best possible balance between all working capital components. Rahman and Nasr, (2007), stated that, If the organizations manage their cash, accounts owing and stocks then this will assist the organizations to achieve profitability. According to (Ricci and Vito, 2000), the main objective of working capital management is to manage the firm's current assets and liabilities sequentially to achieve a balance between profitability and risk. (Tauringana and Adjapong Afrifa, 2013), in their research said that firms should focus on working capital management so they can enhance their profitability efficiently by taking into account the problems of cash conversion cycle

which is calculated from the number of days account receivables, the number of days of inventories and the number of days of accounts payable.

LITERATURE REVIEW

Asghar Ali and Syed Atif Ali (2012) in their study found the effect of Working Capital Management on Profitability by using the the Hypothesis tool they found that there is positive impact of Working Capital Management over Profitability.

Zubir Arshed and Muhammad Yasir Gondal (2013) tested a relationship between the Working Capital and Profitability of Pakistan firms and with the help of Regression Analysis came to the result that there is positive relationship between accounting receivable period and profitability so it can be reduced as customers want to take time to evaluate the quality of products that purchase competition with profitable.

Rjveer Rawlin and Ramaswamy Shannugam (2014) in their study "A comparison of key determinants on profitability of India's largest public and private sector banks" made a relationship between the profitability of top private and public banks and with the help of Correlation Analysis and Regression Analysis found that the profit of both the banks are driven out by a different set of determinants.

Amalendu Bhunia and Amit Das (2012) studied a relationship between the Working Capital

Management and Profitability of Indian Private and public sector companies and with the help of Hypothesis and Correlation Analysis confirm a lower degree of association between Working Capital Management and Profitability.

Mustafa Afeef (2011) in their study showed a determination of effect of Working Capital Management on productivity of small firms and with the help of Correlation Analysis found that the pointers of Working Capital Management had a perceivable impact on Profitability.

R. Malathi and A. Sengottaiyan (2014) found a positive relationship between the Working Capital Management and Profitability in their study to assess the impact on Working Capital on Profitability with the help of several tools named as Standard Deviation, Coefficient of Variations and Regression Analysis.

M. Yousaf Raza, Muhammad Bashir and etal (2015) in their study found the impact of Working Capital Management on Profitability and with the help of Correlation Analysis found that Profitability perceptions fluctuates significantly during the crisis of the firm.

Adjapong, V. T. (2013) investigated the relative importance of working capital management and its elements to small medium enterprise's profitability and with the help of panel data regression analysis and questionnaire survey they found that management of accounts payable and receivable is important for SME's.

Ray, K. K. (2014) tested the analysis of working capital management of Hindalco and its impact on its profitability and with the help of multiple regression analysis found the liquidity position of the firm over profitability objective.

Kandpal, V. (2015) in his study "Implication of working capital management on profitability: A case of ONGC LTD. India" prepared the correlation between liquidity, profitability and profit before tax and with the help of correlation analysis and regression analysis found that there is an impact on profitability when there is an increase in liquidity the profitability of the company decreases and vice versa.

OBJECTIVES OF THE STUDY

- To evaluate the impact of working capital on profitability of the firm.
- To open new vistas for further research

RESEARCH METHODOLOGY

Study: The study was causal in nature.

Sample Design:

Population: The population was top listed public and private sector banks in BSE.

Sample size: Sample size for the study was 10 public and private sector banks 2006 to 2015.

Sample element: Yearly data of Working Capital and Net Profit during the period of 2006 to 2015 was sample element for the study.

Sampling Technique: Non probability purposive sampling technique was used.

Tools Used for Data Collection: Secondary data of working capital and net profit was collected from the official website of all the 10 public and private sector banks.

Tools used for data analysis: For the purpose of this study linear Regression model was used.

HYOPOTHESIS

HO1. There is no impact of working capital on profitability.

REGRESSION ANALYSIS

Table – 1 Model Summary

Model	R	R square	Adjusted R square	Std. Error of the Estimate	Durbin Watson
1.	.658	.433	.430	4.860	1.363

a. Predictors: (Constant), WC

b. Dependent Variable: NP

Table – 2 ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3121.539	1	3121.539	132.179	.000 ^a
Residual	4085.569	173	23.616		
Total	7207.109	174			

a. Predictors: (Constant), WC

b. Dependent Variable: NP

Table – 3 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	38.515	1.370		28.107	.000
working capital	-.369	.032	-.658	-11.497	.000

Table 1 -The model summary table indicated the value of Adjusted R² which was found to be 0.430 indicating that working capital as independent variable explained 43% variance on net profit.

Table 2 - The current Model indicated that working capital as independent variable and net profit as dependent variable was having a good fit checked through F-test value from table which was 132.179 significant at 0.000 level of significance. The result of F-test clearly indicated that current model is highly fit.

Table 3 - Coefficient table indicated that working capital found to be significant effect on net profit having β value of -.658 tested through t test value 28.107 and -11.497 significant at 0.000 and 0.000 level of significance.

Regression equation showing the relationship between working capital (current assets - current liabilities) and profitability (Total Revenue - Total Expenses)

$$Y = a + bx + e$$

Here, Y= profitability, X= Working Capital, B= Beta value of X, A= Constant and E = Standard Error

So, we can conclude that there is a significant impact of working capital on profitability. Hence our null hypothesis (H₀₁) is rejected.

IMPLICATIONS OF THE STUDY

1. This research is useful for the researchers who want to do a research on this topic as it will provide direction to them.
2. This study is useful for the banking sector.
3. This study helps in understanding the importance of working capital in banking sector.
4. This study ensures that working capital affects the profitability of the banks.

SUGGESTIONS AND RECOMMENDATIONS

1. The study has been done by taking only a sample of 10 public and private sector banks therefore in future if the sample size is expanded it is likely to produce more excellent and accurate results.
2. In this research only working capital and profit aspects of the banks are taken so it is suggested to take more different aspects in this research in near future in order to make it broader.

CONCLUSION

This study treated as an example to banking sector so that they should focus on the working capital of their banks. Manager should also focus on the working capital of their banks, this study is not only limited to the banking sector it is also applicable to the manufacturing firms also because there is an interdependency between the firms profitability and the working capital. In this research we have framed an objective to evaluate the impact of working capital on profitability of the banks so we found that there exists an impact of working capital on profitability of banks which is significant at 0.000 level of significance. Values of R and R square found to be .658 and .433 which established the relationship between working capital and profitability.

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