Examining Profitability Through Working Capital Management in ITC Limited

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**ABSTRACT**
The present research has been undertaken to examine the impact of working capital management on the profitability of an Indian conglomerate ITC Limited. The period of the study is ten financial years from 2007-08 to 2015-17. Return on assets (ROA), return on equity (ROE), and return on capital employed (ROCE) have been used as the proxy variables of profitability. Current ratio, quick ratio, debtors turnover ratio, and inventory turnover ratio have been used as independent proxy variables for the working capital management. Multiple linear regression has been used as the statistical tool to investigate the impact of various independent variables on ROA, ROE, and ROCE. The findings show that there is a significant impact of working capital management on the profitability of ITC.

**KEY WORDS** working capital, management, ITC, profitability.

**INTRODUCTION**
Working capital is the difference between two current assets and current liabilities. It is described as the capital available to meet the day-to-day operations. It is important because of its impact on the firm's profitability (Saleem & Rehman, 2011). Working capital management is one of the most important functions of corporate management. It is central to the growth and survival of any business. The importance of working capital management in a business enterprise cannot be underplayed. Working capital is as inevitable in business as blood is in human body. It is important for creating wealth for shareholders (Tandel, 2015). The working capital management contributes to ensure that a firm is capable enough to continue its day to day operations and it has sufficient ability to satisfy both short-term debt obligations and upcoming operational expenses (Madhavi, 2014). It helps in designing a framework to smooth the financial constraints of business so as make effective use of its resources. When working capital is managed improperly, allocating more than enough of it will render management non-efficient and reduce the benefits of short-term investments. However, if working capital is too low, the company may miss a lot of profitable investment opportunities or suffer short-term liquidity (Kolapo, Oke, and Ajayi, 2015). Working capital management is considered to be a vital issue in a firm's overall financial management since it contributes in creating firms' value. Working capital approved the company's ability to continue its activities without endangering liquidity. It is very difficult for the management to estimate working capital properly because the amount of working capital varies across firms and over the periods depending upon the nature of the business, nature of raw material used, process technology used, nature of finished goods, degree of competition in the market, scale of operation, credit policy etc. The need for maintaining adequate working capital is imperative. The going concern ability of an organization is greatly anchored on the continued solvency of that organization (Karaduman, Akbas, Caliskan, & Durer, 2011)

**ITC LIMITED**
ITC Limited or ITC is an Indian conglomerate based in Kolkata, West Bengal. It was established on 24th August in the year 1910 as the Imperial Tobacco Company of India Limited. It was renamed as Indian Tobacco Company Limited in 1970 and later to I.T.C. Limited in 1974. Its diversified business includes five segments: Fast-Moving Consumer Goods (FMCG), Hotels, Paperboards & Packaging, Agri Business & Information Technology. The company completed 100 years in 2010. In 2000, ITC launched the Expressions range of greeting cards, the Wills Sport range of casual wear, and a wholly owned information technology subsidiary, ITC Infotech.
LITERATURE REVIEW

Nejad et al. (2013) revealed significant inverse relationship between cash conversion cycle and its components, including the collection period, inventory turnover period and accounts payable turnover period, and profitability of the firms. Hoque, Mia, and Anwar (2015) in the research entitled, “Working Capital Management and Profitability: A Study on Cement Industry in Bangladesh” analyzed the profitability and working capital position of selected cement industries in Bangladesh. The study was based on secondary data. The authors used ratio analysis to show the profitability position & working capital position. Regression Analysis was used to show the impact of working capital management on profitability. Correlation matrix shows that there exists positive correlation between working capital efficiency and profitability ratios. Regression analysis results indicated that independent variables (CCC, ICP, DSO & CR) were statistically significant for explaining the variation of dependent variables (NPM & ROA) as well as coefficient of the regression equation shown that there exist negative β coefficient between dependent & independent variables of the model. Among the independent variables, negative β coefficient of DSO with dependent variables (NPM & ROA) is statistically significant at 5% level which means that if DSO decreases then NPM & ROA increases and when DSO increases then NPM & ROA decreases. Nonetheless, the profitability position and working capital management of the selected cement industries was not satisfactory and hence reduction in day sales outstanding (DSO) for improving their profitability position has been recommended by the author. Al-

RESEARCH GAP

A number of researches have been conducted in this field but not a single research is available on ITC Limited in relation to working capital management. Besides, majority of the researches have taken ROA as the measure of profitability. But, this study has taken ROA, ROE, and ROCE as the proxy variables of profitability for evaluating the effect of working capital management on the profitability of ITC Limited.

OBJECTIVE OF THE STUDY

The objective of the Study is to examine the impact of working capital management on the profitability of ITC Limited.
HYPOTHESES OF THE STUDY
H$_{01}$: There is no significant impact of working capital management on return on assets (ROA) in ITC.
H$_{a1}$: There is a significant impact of working capital management on return on assets (ROA) in ITC.
H$_{02}$: There is no significant impact of working capital management on return on equity (ROE) in ITC.
H$_{a2}$: There is a significant impact of working capital management on return on equity (ROE) in ITC.
H$_{03}$: There is no significant impact of working capital management on return on capital employed (ROCE) in ITC.
H$_{a3}$: There is a significant impact of working capital management on return on capital employed (ROCE) in ITC.

RESEARCH METHODOLOGY
The study is based on secondary data and therefore annual reports of ITC Limited were approached and calculations were made out of it. The period of the study taken in this research is ten years which ranges from financial year 2007-08 to 2015-17. The study used multiple linear regression to examine the impact of various proxy variables of working capital on ROA, ROE, and ROCE. Figure 1 highlights the research model of the study. The independent proxy variables for working capital are taken as current ratio (CR), quick ratio, inventory turnover ratio (ITR), and debtors turnover ratio (DTR). However, ratio of return on assets (ROA), ratio of ROE (return on equity), and return on capital employed (ROCE) are taken as dependent proxy variables for profitability.

Fig.1: Research Model

HYPOTHESES TESTING
H$_{01}$: There is no significant impact of working capital management on return on assets (ROA) in ITC.
H$_{a1}$: There is a significant impact of working capital management on return on assets (ROA) in ITC.
Table 1: Multiple Regression Analysis [Dependent Variable: Return on Assets]

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Variables</th>
<th>Regression Coefficient</th>
<th>T Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Current Ratio</td>
<td>0.554</td>
<td>11.521</td>
<td>0.000</td>
</tr>
<tr>
<td>X2</td>
<td>Quick Ratio</td>
<td>0.629</td>
<td>2.698</td>
<td>0.003</td>
</tr>
<tr>
<td>X3</td>
<td>Inventory Turnover Ratio</td>
<td>0.337</td>
<td>-4.577</td>
<td>0.008</td>
</tr>
<tr>
<td>X4</td>
<td>Debtors Turnover Ratio</td>
<td>0.228</td>
<td>26.685</td>
<td>0.006</td>
</tr>
</tbody>
</table>

R = 0.856
R Square = 0.732
Adjusted R Square = 0.726
Standard Error = 52.254
ANOVA (Model Fitness) F Value: 62.967; P Value: 0.005*

* Significant at 5% level

Multiple linear regression analysis has been used to measure the impact of working capital management (independent variable) on ROA. Table 1 shows the results of multiple regression. The value of adjusted R square is 0.726 which means 72.6 percent variation in ROA is explained by various independent variables and rest of the variation (1-R²) is an unexplained variation due to other variables. ANOVA shows the model fitness. The value of F is 62.967 and P value is 0.005 which means that all the variables exactly fulfilled the criteria of model accuracy. Besides, the value of unstandardized beta coefficient on the variable current ratio is 0.554 which means that one unit change in current ratio brings 0.554 units change in ROA. All regression coefficients are statistically significant at 95 percent confidence interval. Therefore, the null hypothesis stands rejected and it can be said that there is a significant impact of working capital management on return on assets (ROA) in ITC.

H01: There is no significant impact of working capital management on return on equity (ROE) in ITC.

H11: There is a significant impact of working capital management on return on equity (ROE) in ITC.

Table 2: Multiple Regression Analysis [Dependent Variable: Return on Equity]

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Variables</th>
<th>Regression Coefficient</th>
<th>T Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Current Ratio</td>
<td>0.601</td>
<td>-2.551</td>
<td>0.001</td>
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<tr>
<td>X2</td>
<td>Quick Ratio</td>
<td>0.599</td>
<td>19.525</td>
<td>0.000</td>
</tr>
<tr>
<td>X3</td>
<td>Inventory Turnover Ratio</td>
<td>0.507</td>
<td>1.705</td>
<td>0.000</td>
</tr>
<tr>
<td>X4</td>
<td>Debtors Turnover Ratio</td>
<td>0.413</td>
<td>4.448</td>
<td>0.002</td>
</tr>
</tbody>
</table>

R = 0.901
R Square = 0.811
Adjusted R Square = 0.804
Standard Error = 67.852
ANOVA (Model Fitness) F Value: 29.544; P Value: 0.000*

* Significant at 5% level

Multiple linear regression analysis has been used to measure the impact of working capital management on ROE. Table 2 shows the results of multiple regression. The value of adjusted R square is 0.804 which means 80.4 percent variation in ROE is explained by various independent variables and rest of the variation (1-R²) is an unexplained variation due to other variables. ANOVA shows the model fitness. The value of F is 29.544 and P value is 0.000 (P<0.05). It means that all the variables exactly fulfilled the criteria of model accuracy. Besides, the value of unstandardized beta coefficient on the variable quick ratio is 0.599 which means that one unit change in quick ratio brings 0.599 units change in ROE. All regression coefficients are statistically
significant at 95 percent confidence interval. Therefore, the null hypothesis stands rejected and it can be said that there is a significant impact of working capital management on return on equity (ROE) in ITC.

\[ H_{03}: \text{There is no significant impact of working capital management on return on capital employed (ROCE) in ITC.} \]

\[ H_{a3}: \text{There is a significant impact of working capital management on return on capital employed (ROCE) in ITC.} \]

Table 3: Multiple Regression Analysis [Dependent Variable: Return on Capital Employed]

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Variables</th>
<th>Regression Coefficient</th>
<th>T Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X_1</td>
<td>Current Ratio</td>
<td>0.552</td>
<td>5.504</td>
<td>0.000</td>
</tr>
<tr>
<td>X_2</td>
<td>Quick Ratio</td>
<td>0.404</td>
<td>-3.037</td>
<td>0.000</td>
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<tr>
<td>X_3</td>
<td>Inventory Turnover Ratio</td>
<td>0.362</td>
<td>13.524</td>
<td>0.001</td>
</tr>
<tr>
<td>X_4</td>
<td>Debtors Turnover Ratio</td>
<td>0.399</td>
<td>6.681</td>
<td>0.000</td>
</tr>
<tr>
<td>R</td>
<td></td>
<td>0.785</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td></td>
<td>0.616</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td></td>
<td>0.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Error</td>
<td></td>
<td>49.685</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANOVA (Model Fitness)</td>
<td></td>
<td>F Value: 72.277; P Value: 0.001*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 5% level

Multiple linear regression analysis has been used to measure the impact of working capital management on ROCE. Table 3 shows the results of multiple regression. The value of adjusted R square is 0.609 which means 60.9 percent variation in ROCE is explained by various independent variables and rest of the variation (1-R^2) is an unexplained variation due to other variables. ANOVA shows the model fitness. The value of F is 72.277 and P value is 0.001 (P<0.05). It means that all the variables exactly fulfilled the criteria of model accuracy. Besides, the value of unstandardized beta coefficient on the variable quick ratio is 0.599 which means that one unit change in quick ratio brings 0.599 units change in ROCE. The values of regression coefficients on ITR and DTR are 0.362 and 0.399. All regression coefficients are statistically significant at 95 percent confidence interval. Therefore, the null hypothesis stands rejected and it can be said that there is a significant impact of working capital management on return on capital employed (ROCE) in ITC.

CONCLUDING REMARKS

Working capital is as inevitable in business and its management is central to the growth and survival of business. It approved the company’s ability to continue its activities without endangering liquidity. The working capital management helps in designing a framework to smooth the financial constraints of business so as to make effective use of its resources. The current study is based on secondary data and therefore annual reports of ITC Limited were approached and calculations were made out of it. The period of the study is ten years from 2007-08 to 2015-17. The study used multiple linear regression to examine the impact of various proxy variables of working capital on ROA, ROE, and ROCE. The independent proxy variables for working capital are taken as current ratio (CR), quick ratio, inventory turnover ratio (ITR), and debtors turnover ratio (DTR). However, ratio of return on assets (ROA), ratio of ROE (return on equity), and return on capital employed (ROCE) are taken as dependent proxy variables for profitability.

The findings highlighted that 72.6 percent variation in ROA is explained by independent variables and rest of the variation (1-R^2) is an unexplained variation. All regression coefficients are statistically significant and hence there is a significant impact of working capital management on return on assets (ROA). Furthermore, 80.4 percent variation in ROE is explained by various independent variables and rest of the variation (1-R^2) is an unexplained variation. Besides, all regression coefficients are statistically significant and it can be said that there is a significant impact of working capital management on return on equity (ROE). Nevertheless, on the dependent variable ROCE, 60.9 percent variation is explained by various independent variables and the rest of the variation (1-R^2) is an unexplained variation. Besides, the values of all regression coefficients are statistically significant and it can be said that there is a significant impact of working capital management on return on capital employed (ROCE) in ITC.
REFERENCES


www.itcportal.com

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