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SWAY OF WORKING CAPITAL ON PROFITABILITY OF TWO LEADING FMCG COMPANIES IN INDIA

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Abstract
This study has been undertaken to examine the effect of working capital on profitability of FMCG companies in India. Secondary data from some important data banks were collected and used to perceive whether working capital influence the profitability of these companies. The study realized that the major components of working capital management such as GWCTR, NWCTR CR, LR, ITR and DTR have influence on the profitability of FMCG companies in India. It was known from the study that the only variable that influenced the profitability of both companies under the study is ITR.

Key Words: Working Capital, Profitability, Fast Moving Consumer Goods.

Introduction

FMCG Companies play an important role in living an incredible and the easy life of people in any country. FMCG includes a wide range of products those make life easier in this untidiness life like cosmetics, detergents, shaving items,non-durable products and many more. When one who talks about the economic growth of any country, these companies perform a wonderful protagonist in achieving a healthy growth of the country. The Indian FMCG sector is the fourth largest in the economy and has a market size of US$13.1 billion. Well-established distribution networks, as well as intense competition between the organized and unorganized segments are the characteristics of this sector.

FMCG in India has a strong and competitive MNC presence across the entire value chain. It has been predicted that the FMCG market will reach to US$ 33.4 billion in 2016 from US $ billion 11.6 in2003. The middle class and the rural segments of the Indian population are the most promising market for FMCG and give brand makers the opportunity to convert them to branded products. Most of the product categories like jams, toothpaste, skin care, shampoosetc., in India, have low per capita consumption as well as low penetration level but the potential for growth is huge.

Keeping in mind the above importance of the FMCG industry in the economic development, it is required to do an in depth study of the problems faced by some leading companies in the industry especially in the area of working capital and profitability. The study aims to analyse the impact of working capital on profitability of two leading companies' viz., Hindustan Unilever Ltd., and ITC.

Working capital management is a very important component of corporate finance because it directly affects the liquidity and profitability of the company. It deals with current assets and current liabilities. Working capital management is important due to many reasons. For one thing, the current assets of a typical manufacturing firm accounts for over half of its total assets. A firm with excessive level of current assets may result in low rate of return on its investment. However firms with too low currents assets may incur shortages and difficulties in maintaining smooth operation.

The concept of working capital may be viewed in terms of its 'qualitative and quantitative nature. The qualitative concept explains working capital as "excess of current assets over current liabilities." The excess of current assets over current liabilities is the net working capital. The quantitative concept of working capital refers to the total of all current assets.

The profitability may be defined as the ability of a given investment to earn a return from its use. Profitability is one of the main criteria to judge the extent to which management has been successful in maximizing its profits or minimizing its losses if any.

Review of Literature

The study of working capital and profitability has attracted the attention of many researchers and research organizations. Many studies on these concepts have been made in the past, which mainly focussed on few enterprises but only few dealtwith financial performance and not the entire aspects related to working capital and profitability of the FMCG companies. Some of the important studies conducted on the financial performance, working capital management and profitability are reviewed here.

Deloof (2003) used a sample of 1009 large Belgian non-financial firms for a period of 1992-1996. He used correlation and regression analysis and found a significant negative relation between gross operating income and the collection period of

accounts receivable, average days in inventories and accounts payable of Belgian firms. These results suggest thatmanagers can create value for shareholders by reducing collection period of accounts receivable and average days in inventories to reasonable minimum.

Dong (2010) reported that the firms‟ profitability and liquidity are affected by working capital management in his analysis. Pooled data are selected for carrying out the research for the era of 2006-2008 for assessing the companies listed in stock market of Vietnam. He focused on the variables that include profitability, conversion cycle and its related elements and the relationship that exists between them. From his research it was found that the relationships among these variables are strongly negative. This denote that decrease in the profitability occur due to increase in cash conversion cycle. It is also found that if the number of days of account receivable and inventories are diminished then the profitability will increase numbers of days of accounts receivable and inventories.

Jose at al. (2003) tested the corporate returns and cash conversion cycle of 2,718 firms for the period 1974-1993 by using multiple regression analysis. In their research, an aggressive liquidity management (lower CCC) is associated with higher profitability for several industries, including natural resources, manufacturing, service, Retail/wholesale, and professional services.

Lazaridis and Tryfonidis (2006) used a sample of 131 companies listed in the Athens Stock Exchange (ASE) for the period of 2001-2004.They founded a significant negative relationship between cash conversion cycle and gross operating profit. The findings reveal that managers can create profits for their companies by handling correctly the cash conversion cycle and keeping each component (accounts receivable, accounts payable and inventory) to an optimal level.

Nunn (1981) used the PIMS database to examine why some product lines have low working capital requirements, while other product lines have high working capital requirements. In addition, Nunn was interested in “permanent” rather than temporary working capital investment as he used data averaged over four years. Using factor analysis, he identified factors associated with the production, sales, competitive position, and industry reinforcing the role of industry practices on firm practices.

Shin Soenen (1998)analyzed a sample of US firms also reported similar findings but have used Net Trading Cycle (NTC) as comprehensive measure of working capital management and found significant negative relationship between NTC and profitability. However, this relationship was not found to be very significant when the analysis was for specific industry.

Afza and Nazir (2007) investigated the relationship between aggressive and conservative working capital policies for a large sample of 205 firms in 17 sectors listed on Karachi Stock Exchange during 1998-2005. They found a negative relationship between the profitability measures of firms and degree of aggressiveness of working capital investment and financing policies.

Objectives of the Study

The present study aims to analyse the impact of working capital on profitabilityof two leading FMCG companies in India. Hence, the following objectives have been framed by the researcher.

1. To analyse the relationship between Gross working capital ratio and profitability of select FMCG companies in India.
2. To assess the relationship between Net working capital ratio and profitability of these select companies.
3. To evaluate the impact of WC on profitability of the above select FMCG companies.

Research Methodology

The study is based on secondary data collected from the audited Profit & Loss A/c and Balance Sheet associated with schedules, annexure available in the published annual reports of HUL and ITC for period of 15 years (i.e. from 2000-01 to 2014-15). For the purpose of the study, Journals, Conference proceedings and other relevant documents have also been gone through to supplement the data. In the present study the liquidity and profitability position have been taken into consideration by calculating different key liquidity and profitability ratios in order to judge their financial performance for the period under study. The ratios applied here for highlighting the efficiency of working capital management are current Ratio (CR), Liquid Ratio (LR), Inventory Turnover Ratio (ITR), and Debtors Turnover Ratio (DTR).The measures of profitability selected for the study are Return on Capital Employed (ROCE) and Return on Total Assets (ROTA) As such the objective of this article is to identify the relationship between working capital variables and profitability by using regression. The working capital variables explaining the variations in profitability are selected on the basis of the existing theories and relevant empirical works.

Hypothesis

The following research questions are raised to frame the hypothesis.

1. How does working capital turnover ratio affect profitability?

2. How do the liquidity ratios influence profitability?
3. How do the inventory turnover ratio and debtors' turnover ratio affectprofitability?

Corresponding to the three questions, the following hypotheses are formulated:

1. Profitability is an increasing function of working capital turnover ratio.
2. Profitability is a decreasing function of liquidity ratios such as currentratio and liquid ratio.
3. Profitability increases with increase in inventory turnover ratio anddebtors turnover ratio.

Profitability Functions

Based on the above questions, an attempt has been made to answer by using the multiple regressionframeworks. The function for profitability is estimated on the basis of the ordinary least square method as shown below:

$$P = f (NWCTR, GWCTR, CR, LR, ITR, DTR)$$

Where,

P = profitability measured in terms to ROCE and ROTA
ROCE = Return on capital employed
ROTA = Return on total assets
GWCTR = Gross working capital turnover ratio
NWCTR = Net working capital turnover ratio
CR = Current ratio
LR = Liquid ratio
ITR = Inventory turnover Ratio
DTR = Debtors turnover ratio

Specification of Variables

a. The co-efficient of WCTR is expected to be positive. It implies that the increase in WCTR would tend to increase the profitability.
b. As per the accepted theory as well as the previous studies, the co-efficient of liquidity measured in terms of current ratio and liquid ratio should be negatively related to profitability. It indicates that the increase in liquidity ratio would tend to decrease the profitability.
c. The coefficient of inventory turnover ratio and debtors' turnover ratio should be positively related to profitability. It means that the increase in inventory turnover ratio and debtors turnover ratio would lead to increase profitability.

Results and Discussion

The regression functions for profitability in each selected FMCG companies are now estimated to determine the variables explaining variations in profitability in terms of ROCE and ROTA.

Profitability Model– 1

The profitability model – 1 has been constructed by using the variable viz., NWCTR, CR, LR, ITR and DTR

$$P = a + b_1 NWCTR + b_2 CR + b_3 LR + b_4 ITR + b_5 DTR – Model\text{-}1$$

P denotes profitability in terms of ROCE and ROTA

The estimated regression results of the profitability model-1 for the selected twoleading FMCG companies in India during the period 2000/01 – 2014/15 are summarised in Table 1.

Table 7.1: Regression Function for Impact of Working Capital on Profitability

(2001 / 02 to 2014 / 15)

Model: 1 -ROCE = f (WTR , CR, LR , ITR , DTR); Model:2 - ROTA = f (WTR, CR, LR , ITR , DTR)

P	Co.	Co-efficient of						R^2	F Ratio	D.W
		Constant	WTR	CR	LR	ITR	DTR			
ROCE	HUL	-31.326 (-3.651)	2.636 (1.701)	7.078 (1.875)*	-5.928 (-1.534)	2.710 (4.171)*	0.395 (1.593)	0.79	9.318	2.223
	ITC	-842.142 (-3.256)	81.502 (0.303)	62.426 (0.352)	149.517 (0.695)	94.456 (4.527)*	-1.516 (-0.140)	0.86	8.705	1.673
ROTA	HUL	-26.058 (-3.709)	3.720 (1.777)	4.974 (1.512)	-4.245 (1.258)	2.310 (4.256)*	0.366 (1.963)***	0.87	9.555	2.172
	ITC	-22.078 (2.536)	4.714 (0.521)	-4.795 (-0.802)	10.404 (1.436)	2.501 (2.560)	0.186 (0.514)	0.89	10.319	2.894

Source: Annual reports of HUL and ITC.

Note: Figures in parenthesis are computed 't' value.
Significant level: * 1 percent, * * 5 percent,* * * 10 percent level.

It is clear from the Table that the estimated regression function is found statistically good fit since the explanatory power of the equation measured by R^2 and F value appears to be good. The value of R^2 stood at 0.79 in HUL and 0.86 in ITC under ROCE, whereas it stood at 0.87 in HUL and 0.89 in ITC under ROTA measure of profitability. Thus about 89per cent to79per cent ofvariation in profitability is explained by the dependent variable in that equation.

Table 1 shows that the co efficient of NWCTR is found to be of positive sign in HUL and ITC. But the co efficient of this variable is insignificant in both the companies. It shows that any change in NWCTR does not affect the profitability of the companies.

The current ratio, a traditional measure of liquidity has an unexpected positive coefficient in HUL and ITC under ROCE measure of profitability. Besides, it obtains negative coefficient under ROTA measure of profitability inITC, whereas it has a positive sign inHUL. Neither the positive coefficient, nor the negative coefficient of CR is statistically significant with profitability in both the firms. It implies that the current ratio does not influence the profitability of the firms under study. It does not confirm our hypothesis that current ratio and profitability has inverse relationship. The liquid ratio, another measure of liquidity, has insignificant negative relationship with profitability (ROCE and ROTA) inHUL, whereas it has insignificant relationship with profitability in ITC. It implies that the liquid ratio does not influence the profitability of the firms under study. It does not confirm our hypothesis that liquid ratio and profitability has inverse relationship.

The co-efficient of DTR is positive and is statistically significant with ROTA in HUL only. It indicates that the increase in DTR increases the profitability (ROTA) in the case of HUL during the period of study. However, the positive co-efficient of DTR with ROCE in HUL and the negative co-efficient of DTR with ROCE in ITC are not statistically significant. Besides, the positive co-efficient of DTR with ROTA in HUL is not significant. It indicates that the DTR does not influence the ROCE in both FMCG companies during the period of study.

To sum up, out of the five independent variables under the profitability model-1, only one variable i.e. ITR significantly increases the profitability (ROCE and ROTA) in the case of HUL and ITC during the period of study. Most of other variables, such as NWCTR, CR, LR do not influence the profitability of both the firms under study. The DTR increases the ROTA in HUL, whereas it does not influence the ROTA in ITC as well as the ROCE in both the firms under study.

Profitability Model– 2

The Profitability model 2 has been turned by using five variables namely viz., Gross working capital turnover Ratio (GWCTR), current Ratio (CR), , liquidity ratio (LR), Inventory Turnover Ratio (ITR) and Debtors Turn Over Ratio (DTR).

$$P = a + b_1\ GWCTR + b_2\ CR + b_3\ LR + b_4\ ITR + b_5\ DTR \text{ -Model} - 2$$

Where P denotes ROTA

The estimated regression results of the profitability model 2 for the selected FMCG companies during the period 2000-01/2014-15 are presented in Table 2.

Table 2: Regression Function for Impact of Working Capital on Profitability

(2000/ 01 to 2014 / 15)

Model: 1 - ROCE = f (WTR , CR, LR , ITR , DTR); Model : 2 - ROTA = f (WTR, CR, LR , ITR , DTR)

P	Co.	Co-efficient of						R^2	F Ratio	D.W
		Constant	WTR	CR	LR	ITR	DTR			
ROCE	HUL	-30.530 (-3.677)	3.380 (1.770)	4.982 (1.538)	-5.204 (-1.306)	2.725 (4.247)*	0.436 (1.876)***	0.81	9.441	2.251
	ITC	-532 .699 (-1.239)	-87.199 (-0.936)	42.545 (0.190)	134.525 (0.771)	96.092 (2.790)*	2.617 (1.198)	0.86	8.525	1.734
ROTA	HUL	-26.574 (3.6220	2.172 (1.631)	6.938 (1.840)***	-4.938 (1.494)	2.302 (4.143)*	0.357 (1.688)	0.84	9.033	2.158
	ITC	-13.382 (-0.910)	-3.084 (-0.869)	-5.399 (-0.920)	10.984 (1.603)	2.559 (3.728)**	0.403 (5.396)*	0.82	11.897	2.941

Source: Annual reports of HUL and ITC.
Note: Figures in parenthesis are computed 't' value.
Significant level: * 1 percent, * * 5 percent,* * * 10 percent level

It is clear from Table2 that the estimated regression function is found statistically good fit since the explanatory power of the equation measured by R^2 and F value appears to be good. The value of R^2 stood at 0.81 in HUL and 0.86 in ITC under ROCE, whereas it stood at 0.84 in HUL and 0.82 in ITC under ROTA measure of profitability. Thus about 86per cent to 81per cent ofvariation in profitability is explained by the dependent variable in that equation.

It is evident from Table 2 that the regression co-efficient of GWCTR is positive but insignificant with ROCE as well as with ROTA in HUL. It is negative but insignificant with ROCE as well as with ROTA in the case of ITC. It implies that the GWCTR did not influence the profitability (ROCE and ROTA) in both of the FMCG companies under the study. Hence, the hypothesis that the profitability is an increasing function of GWCTR has not been proved.

The co-efficient of CR is positive (contrary to the theoretical expectation) with profitability (ROCE and ROTA) in the case of HUL, whereas in ITC, it is positive with ROCE and negative with ROTA. The negative co-efficient of GWCTR with ROTA in HUL and the positive coefficient of GWCTR with ROCE in ITC and HUL are statistically insignificant. It means that the CR did not influence the profitability in those cases. However, the significant positive relationship with ROTA in HUL implies that the increase in CR, increase the ROTA which is against the theoretical expectation. Hence, the hypothesis that profitability is a decreasing function of CR is not proved.

The co-efficient of LR is negative (expected) with ROCE as well as with ROTA in the case of HUL. On the other hand, the coefficient of LR is positive (unexpected) with ROCE as well as with ROTA in the case of ITC. Neither the negative coefficient nor the positive coefficient of LR with profitability is significant. Hence, the hypothesis that profitability is a decreasing function of LR is not proved.

The coefficient of ITR is positive (expected) as well as significant with profitability (ROCE and ROTA) in both of the FMCG companies under the study. It indicates that the increase or decrease in ITR will significantly affect the profitability of the firms. Hence, the hypothesis that the profitability is an increasing function of LR has been tested and proved.

The coefficient of DTR is positive (expected) with profitability (ROCE and ROTA) in both the firms (HUL and ITC) but significant only in HUL with ROCE measure of profitability. It means that the DTR influenced only the ROCE in HUL whereas it did not influence the profitability in all other case under the study.

To conclude, the variables such as GWCTR, LR and CR did not influence the profitability at all. Though the DTR influenced the ROCE in the case of HUL it did not influence the profitability in other cases under the study. The only variable that influenced the profitability of both firms under the study is ITR.

Conclusion

In this paper, two models developed to make an empirical research on the associations between working capital management with firms' profitability. From the above analysis, out of the five independent variables under the profitability model-1, only one variable i.e. ITR significantly increases the profitability (ROCE and ROTA) in the case of HUL and ITC during the period of study. Most of other variables, such as NWCTR, CR, LR do not influence the profitability of both the firms under study. The DTR increases the ROTA in HUL, whereas it does not influence the ROTA in ITC as well as the ROCE in both the firms under study. In the second regression model the variables such as GWCTR, LR and CR did not influence the profitability at all. Though the DTR influenced the ROCE in the case of HUL it did not influence the profitability in other cases under the study. The only variable that influenced the profitability of both firms under the study is ITR.

References

1. **Afza, T. & M. S. Nazir, (2007).** Working Capital Management Policies of Firms: Empirical Evidence from Pakistan. *Conference Proceedings of 9th South Asian Management Forum (SAMF)*, North South University, Dhaka, Bangladesh
2. **Deloof, M. (2003).***Does working capital management affect profitability of Belgian firms?* Journal of Business Finance and Accounting, 30(3/4), 573-588.
3. **Dong H. P. (2010),***"The Relationship between Working Capital Management and Profitability".*International Research Journal of Finance and Economic.Issue-49.
4. **Falope OI, Ajilore OT (2009).** "*Working Capital Management and Corporate Profitability: Evidence from Panel Data Analysis of Selected Quoted Companies in Nigeria", Res. J. Bus. Manage. 3:73-84.*
5. **Filbeck G, Krueger T (2005).** *"Industry related differences in Working Capital Management",* J. Bus. 20(2):11-18.

6. **Gatsi JG, Akoto RK (2010),** "*Capital Structure and Profitability in Ghanaian Banks*", Working Paper, available at: http://ssrn.com/abstract=1618952.
7. **Gill A, Nahum B, Neil M (2010).**"*The Relationship between Working Capital Management and Profitability*: Evidence From The United States. Bus. Econ. J. 1-9.
8. **Jose, M., Lancester, C., Stevens, J., (1996).***Corporate Returns and Cash Conversion Cycles.*Journal of Economics and Finance, 20, 33-46.
9. **Karaduman HA, Akbas HE, Ozsozgun A, Durer S (2010).** *"Effects of Working Capital Management on Profitability: The Case of Selected Companies in the Istanbul Stock Exchange (2005-2008)"*, Int. J. Econ. Financ. Stud. 2(2):47-54.
10. **Kaur J (2010).**"*Working Capital Management in Indian Tyre Industry"*, Int. Res. J. Financ.Econ. 46:7-15. Lazaridis
11. **Lazaridis, J., Tryfonidis, D. (2006).** *Relationship between working capital management and profitability of listed companies in the Athens Stock Exchange.* Journal of Finance Management Analysis, 19, 26-35.
12. **Mathuva DM (2009).**"*The Influence of Working Capital Management Components on Corporate Profitability: A Survey on Kenyan Listed Firms"*, Res. J. Bus. Manage. 3(1):1-11.
13. **Naser K, Nuseith R, Al-hadeya A (2013).**"*Factors Influencing Corporate Working Capital Management: Evidence from An Emerging Economy"* J. Contemporary Issues Bus. Res. 2(1):11-30.
14. **Padachi K (2006).**"*Trends in Working Capital Management and its impact on Firms' Performance: An analysis of Mauritian SmallManufacturing Firms"*, Int. Rev. Bus.Res.Papers. 2(2):45-58.