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Contributions to books

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

Journal and other articles

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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- Chandel K.S. (2009): "Ethics in Commerce Education." Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

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A STUDY ON WCM AND PROFITABILITY AFFILIATION**DR. AMALENDU BHUNIA****READER IN COMMERCE****FAKIR CHAND COLLEGE UNDER UNIVERSITY OF CALCUTTA****DIAMOND HARBOUR****SOUTH 24-PARGANAS – 743 331****SRI GAUTAM ROY****RESEARCH SCHOLAR****INDIRA GANDHI NATIONAL OPEN UNIVERSITY****NEW DELHI – 110 068****ABSTRACT**

Working capital management is important part in firm financial management decision. An optimal working capital management is expected to contribute positively to the creation of firm value. To reach optimal working capital management firm manager should control the trade off between profitability and liquidity accurately. The purpose of this study is to investigate the relationship between working capital management based on working capital cycle and firm profitability. This study is used Public Enterprises data of 227 firms for the period of 2000-2008 that consist of six different financial sectors which are listed in India. The coefficient results of Pooled Ordinary Least Squares regression analysis provide a strong negative significant relationship between working capital cycle and firm profitability. This reveals that reducing working capital cycle period results to profitability increase. Thus, in purpose to create shareholder value, firm manager should concern on curtail of working capital cycle till carry out optimal level.

KEYWORDS

Working capital ratios, Indian public sector enterprises, correlation, multiple regression analysis.

INTRODUCTION

Working capital is an important issue during financial decision making since its being a part of investment in asset that requires appropriate financing investment. However, working capital always being ignore in financial decision making since it involve investment and financing in short term period. It also acts as a control in financial performance, since it does not contribute to return on equity. Though, it should be critical for to a firm to sustain their short term investment since it will ensure the ability of firm in longer period.

The crucial part in working capital management is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation. However, this is not a simple task since managers must make sure that business operation is running in efficient and profitable manner. There are the possibilities of divergence of current asset and current liability during this process. If this happens and firm's manager cannot manage it properly then it will affect firm's growth and profitability. This will further lead to financial distress and finally firms can go bankrupt.

In traditional view of relationship between working capital cycle and profitability is ceteris paribus. The shorter the working capital cycle, the better the firm's profitability. This shows that less of time a money tied up in current asset and less external financing. At the same time, the longer working capital cycle will hurt firm's probability. The reason is that firm having low liquidity that would affect firm's risk. However, the firm has higher level of account receivable due to the generous trade credit policy it would result to longer working capital cycle. In this case, the longer working capital cycle will increase profitability. Thus, the traditional view cannot be applied to all circumstances.

Dilemma in working capital management is to achieve desired trade off between liquidity and profitability, that is, investment with more risk will result to more return. Thus, firms with high liquidity of working capital may have low risk then low profitability. On the contrary, firm that has low liquidity of working capital, facing high risk results to high profitability. The issue here is in managing working capital, firm must take into consideration all the items in both accounts and try to balance the risk and return.

Working capital management and its outcomes on profitability is focused in this study. Specific objectives are to examine a relationship between working capital management and profitability over a nine years period, to establish a relationship between the two objectives of liquidity and profitability of the firms and to investigate the relationship between debt used by the a firm and its profitability

Additionally, the results of this study would provide firm managers better insights on how to create efficient working capital management that have ability to maximize firm's value. As a result, it will build up confidence in investor to invest in that firm. Further, the confidence of investors to invest in India will influence the growth of economic. The results of this study would also assist policy-makers to implement new sets of policies regarding the working capital market in India to ensure continuous economic growth.

LITERATURE REVIEW

In spite of such a greatcoat of liquidity management, it is strange that so long it could not draw towards as much mindfulness of the researchers in India as it desires. A brief review of the different pains of research in the field is attempted in the following paragraphs.

The National Council of Applied Economic Research (NCAER), New Delhi, was the first to present the volume: Structure of Working Capital in 1966 with special reference to three industries, namely, fertilisers, cement and sugar. This study was mainly devoted to the analysis of composition of the working capital in these industries for the period from 1959 to 1963. However, NCAER appear to have failed to put into sharp focus on various problems involved in the management of different components of working capital.

Dr. Ram Kumar Mishra made another study at the University of Rajasthan under the title "Problems of Working Capital" with special reference to selected public sector undertakings in India, Bombay, Somaiya Publications Pvt. Ltd., 1975. The analysis and findings of this research relate to the functioning of a chosen sample of six large public sector enterprises during the period 1960-61 to 1967-68. No doubt, the basic issues outlined in Dr. Mishra's study and the findings therein have currency and relevance to many of the units in the public sector even today, but due to the functional and structural changes that public sector enterprises have witnessed in the post 1968 era, a repeated effort on a different samples is called for to bring the prescriptions up-to-date.

The study of Grablowsky in 1976; Walker and Petty in 1978 and Deakins in 2001 have showed a significant relationship between various success measures and the employment of formal working capital policies and procedures. Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance.

Dr. K. Rajeshwar Rao in his Ph.D. thesis under Kakatiya University, 1980 "Working Capital Problem of Public Enterprises in India (with special reference to selected undertakings)", have enquired and suggested that a well developed working capital management technique which is a sine-qua-non for the liquidity and profitability did not exist in the public enterprises.

The study of (Shin & Soenen, 1998) consistent with later study on the same objective that done by (DeLoof, 2003) by using sample of 1000 large non-financial firms for the period of 1992-1996. However, he used trade credit policy and inventory policy are measured by number of days accounts receivable, accounts payable and inventories, and the cash conversion cycle as a comprehensive measure of working capital management. He founds a significant negative relation between gross operating income and the number of days accounts receivable, inventories and accounts payable. Thus, he suggests that managers can create value for their shareholders by reducing the number of days accounts receivable and inventories to a reasonable minimum. He also suggests that less profitable firms wait longer to pay their bills.

In other study, (Lyroudi & Lazaridis, 2000) use food industry Greek to examined the Working Capital cycle (WCC) as a liquidity indicator of the firms and tries to determine its relationship with the current and the quick ratios, with its component variables, and investigates the implications of the working capital cycle in terms of profitability, indebtedness and firm size. The results of their study indicate that there is a significant positive relationship between the working capital cycle and the traditional liquidity measures of current and quick ratios. The working capital cycle also positively related to the return on assets and the net profit margin but had no linear relationship with the leverage ratios. Conversely, the current and quick ratios had negative relationship with the debt to equity ratio, and a positive one with the times interest earned ratio. Finally, there is no difference between the liquidity ratios of large and small firms.

The conclusive sum of this retrospective review of relevant literature produced till date on the offered subject reveals wide room for the validity and originates of this work and reflects some decisive evidences that affirm its viability, as may be marked here it. Nor has any previous research examined the optimal level of working capital key components through working capital cycle and the existence of working capital management and profitability relationship companies. No study has incorporated in this fashion before the present one.

OBJECTIVES OF THE STUDY

The main object of the present study is to examine the importance of the management of working capital in terms of short-term liquidity in selected public sector enterprises. More specifically it seeks to dwells upon mainly the following issues:

To observe the working capital management of the selected enterprises under the study;

To search the working capital management-profitability relationship based on sophisticated statistical techniques.

DATA AND VARIABLES

Data of this study is obtained from Public Enterprises Survey which consists of financial statements public enterprises in India. The sample was constructed as follows. Firms must be available during study period of year 2000 to year 2008. Because of the specific nature of their activities, firms in financial sector are excluded from the sample. Some firms with missing data were also removed. Out of 227 firms, 60 firms were taken for the study for 2000-2008 periods. Table 1 shows the sample distribution by type of financial sector. Numbers of public enterprises for each financial sector are not balance.

TABLE 1: SAMPLE DISTRIBUTION FOR YEAR 2000-2008

Financial Sector	No. of Selected Companies
Steel (S)	7
Petroleum (P)	14
Chemical and Pharmaceuticals (CP)	15
Consumer Goods (CG)	10
Textiles (T)	10
Heavy Engineering (HE)	4
Total	60

In order to analyze the effects of working capital management on the firm's profitability, earning before interest and taxes as measure of profitability was used as the dependent variable. With regards to the independent variables, working capital management was measured by working capital cycle (WCC). WCC focuses on the length of time between when a firm makes payment and when firm receives cash inflow. The lower the value is better due to reveal that firm has high liquidity which easily converts its short term investment in current asset to cash. However, longer value of WCC indicate greater investment in current assets, and hence the greater the need for financing of current assets. WCC is calculated as the age of accounts receivable (AOR) plus the age of inventory (AOI) minus the age of accounts payable (AOP).

In this respect, AOR is calculated as accounts receivable/ [sales/365]. AOR represents the number of days that a firm takes to collect payments from its customer. We calculated the AOI as inventories/ [cost of sales/365]. This variable reflects the average number of days of stock held by a firm. Longer storage times represent a greater investment in inventory for a particular level of operations. AOP is calculated by accounts payable/ [cost of sales/365]. This measure indicates the average time firm takes to pay their suppliers. The higher the value, the longer firms take to settle their payment commitments to their suppliers.

Control variables are introduced as the growth in firm sales and its leverage. Sales growth (SG) is calculated by (Sales at the end – Sales at the opening)/Sales at the opening. The leverage (DR) measures by debt ratio as calculated by total debt over total asset. In addition current ratio (CR) which calculated by current asset over current liability, was included as one of independent variable. The reason is current ratio always been used as measure of corporate liquidity conventionally.

TABLE 2: MEANS AND STANDARD DEVIATION FOR THE SELECTED VARIABLES

VARIABLES		FINANCIAL SECTORS						
		Total	S	P	CP	CG	T	HE
EBIT	Mean	0.06	0.03	0.07	0.05	0.06	0.03	0.08
	Std Dev.	0.09	0.07	0.10	0.11	0.0	0.07	0.08
WCC	Mean	1.51	3.17	1.08	1.40	0.67	4.55	1.21
	Std Dev.	3.26	4.06	1.86	2.49	3.44	6.91	2.63
CR	Mean	2.14	1.69	2.10	1.10	3.53	2.55	1.72
	Std Dev.	2.83	1.17	3.60	2.22	4.52	2.51	1.79
DR	Mean	0.30	0.39	0.27	0.35	0.17	0.18	0.35
	Std Dev.	0.36	0.19	0.24	0.54	0.22	0.17	0.25
SG	Mean	0.16	0.17	0.10	0.15	0.21	0.14	0.18
	Std Dev.	1.19	0.67	0.54	1.32	0.94	0.54	1.62

Table 2 gives the descriptive statistics for variables that used in this study. The average profitability (EBIT) for the whole sample is 6 per cent with Heavy Engineering (HE) sector having the highest profit of 8 per cent and the lowest is Textiles (T) sector with 3 per cent. WCC is working capital cycle divide by 100. Sector Consumer Goods (CG) is the lowest WCC with 67 days and 344 days standard deviation. The average of current ratio is 2.1 and the lowest is sector of

Steel (S) with 1.7. Due to the nature of business, Steel sector and Chemical and Pharmaceuticals (CP) have more than 35 per cent debt compare to total asset which 38.6 per cent and 35 per cent respectively. On average firms sales growth is 15 per cent and the least sale growth by firm in sector of Petroleum (P) with only 10 per cent.

RESULTS AND ANALYSIS

First, the relationship is examined between working capital cycle period and firm profitability. Next, a regression analysis is applied to a pooled sample and six financial sectors.

Correlation Analysis

Spearman’s Correlation analysis is used to see the relationship between working capital management and profitability. If efficient working capital management increases profitability, one should expect a negative relationship between the measures of working capital management and profitability variable. Table 3 exhibit result of correlation coefficients and p-values are listed in parenthesis. The result shows a negative relationship between WCC and EBIT. This means that result is support the expectation that a working capital cycle (WCC) is associated with higher profitability. However, the current ratio is, positively related to profitability. This reveals that WCC is measuring liquidity differently from the conventional current ratio. Generally, traditional liquidity ratios such as current ratio have been understood that have lack in measuring the efficiency of the firm’s working capital management.

TABLE 3: SPEARMAN CORRELATION COEFFICIENTS AND PROBABILITIES

Variables	EBIT	WCC	CR	DR	SG
EBIT	1.00				

WCC	-0.27	1.00			
	(0.00)	-----			
CR	0.30	0.06	1.00		
	(0.00)	(0.02)	-----		
DR	-0.29	0.13	-0.65	1.00	
	(0.00)	(0.00)	(0.00)	-----	
SG	0.24	-0.19	0.07	-0.08	1.00
	(0.00)	(0.00)	(0.01)	(0.001)	-----

Note: The p-value is given in parentheses

Regression Analysis

To further investigate the impact of working capital management on profitability, the model used for the regressions analysis is expressed in the general form as given in equation below:

$$EBIT = b_0 + b_1WCC_t + b_2Current\ Ratio_t + b_3Debt\ Ratio_t + b_4Sales\ Growth_t$$

The equation above is estimated using the regression-based framework Pooled Ordinary Least Squares (OLS) as employed by Shin & Soenon (1998). Model of this study differs by using WCC as a comprehensive measure of working capital management. The data set used for this part is pooled across firms and years, given a balanced panel data set of 1628 firm-year observations. This study is also estimated by fixed effect model. Where the fixed effects estimation assumes firm specific intercepts, which capture the effects of those variables that are particular to each firm and that are constant over time. In all regressions, standard errors are calculated using White’s correction for heteroscedasticity.

TABLE 4: REGRESSION FOR PROFITABILITY ON WORKING CAPITAL CYCLE

Dependent		Panel A							
EBIT		Intercept	WCC	CR	DR	SG	R ²	Adj. R ²	
All Sectors	Pooled	0.08	-0.005	0.00	-0.05	0.002	0.07	0.07	
	OLS	(0.00)	(0.00)	(0.56)	(0.00)	(0.39)			
	Fixed	0.07	-0.003	0.00	-0.03	0.00	0.50	0.44	
	Effect	(0.00)	(0.003)	(0.12)	(0.00)	(0.91)			

Note: The p-value is given in parentheses

The regression results are present in Table 4. The results offer strong evidence of a negative relationship between the working capital cycle and firm profitability. The negative regression coefficient for WCC is highly significant (p-value = 0.000 & 0.0046) for both regression implies that a firm with a relatively shorter period of cash conversion cycle is more profitable. Therefore, reducing the firm’s WCC is potential way for the firm to create additional shareholder value.

For conventional measure of liquidity that current ratio, it positively related to profitability. This relationship that is not consistent to study Shin & Soenon (1998). However the positive relationship is not significant. Furthermore, current year profitability is negatively associated with current year’s leverage which is measure by debt ratio. Both of debt ratio coefficients are also exhibit the highly significant with p-value= 0.0001 and 0.0012 respectively. For the sales growth, evidence is positively related to profitability. This is consistent with often argument that growth a part of feature for firm profitability and the creation of shareholder value. But, this argument inappropriate to this study since the positive relationship is not significant at all.

Analysis for Financial Sector

A significant industry effect subsists on a firm’s investment in working capital is well recognized. One of the reason is due to no single policy is necessary optimal to all firm. To further investigate the impact of working capital management on firm profitability whether different in particular industry, the regression analyses are applied to each financial sector in the sample.

Table 5: Regression for Profitability on Financial Sectors

Dependent		Panel B						
EBIT		Intercept	WCC	CR	DR	SG	R ²	Adj. R ²
Steel (S)	Pooled OLS	0.084 (0.00)	-0.01 (0.00)	0.01 (0.07)	-0.15 (0.001)	0.02 (0.11)	0.41	0.38
	Fixed Effect	0.079 (0.003)	-0.01 (0.04)	0.004 (0.41)	-0.10 (0.09)	0.01 (0.24)	0.51	0.44
Petroleum (P)	Pooled OLS	0.14 (0.00)	-0.01 (0.00)	-0.001 (0.02)	-0.22 (0.00)	0.02 (0.03)	0.38	0.37
	Fixed Effect	0.12 (0.00)	-0.01 (0.23)	0.001 (0.42)	-0.16 (0.001)	0.01 (0.14)	0.70	0.66
Chemical and Pharmaceuticals (CP)	Pooled OLS	0.06 (0.00)	0.001 (0.32)	-0.002 (0.68)	-0.01 (0.07)	-0.002 (0.41)	0.01	0.003
	Fixed Effect	0.04 (0.001)	0.00 (0.90)	0.01 (0.14)	-0.01 (0.25)	-0.002 (0.37)	0.38	0.32
Consumer Goods (CG)	Pooled OLS	0.10 (0.00)	-0.003 (0.001)	-0.003 (0.00)	-0.14 (0.00)	0.01 (0.01)	0.21	0.20
	Fixed Effect	0.07 (0.00)	-0.00 (0.79)	-0.001 (0.01)	-0.04 (0.12)	0.01 (0.00)	0.61	0.56
Textiles (T)	Pooled OLS	0.03 (0.04)	-0.001 (0.00)	0.01 (0.00)	-0.04 (0.35)	0.01 (0.29)	0.15	0.11
	Fixed Effect	0.004 (0.79)	-0.003 (0.09)	0.01 (0.04)	0.10 (0.12)	0.01 (0.26)	0.40	0.32
Heavy Engineering (HE)	Pooled OLS	0.11 (0.00)	-0.01 (0.00)	0.01 (0.00)	-0.11 (0.00)	0.002 (0.28)	0.24	0.23
	Fixed Effect	0.11 (0.00)	-0.01 (0.00)	0.00 (0.07)	-0.07 (0.002)	-0.00 (0.70)	0.55	0.50

Note: The *p*-value is given in parentheses

Table 5 summarizes regression result between working capital management and profitability for each economic sector. It reveals that all economic sector relationship between WCC and EBIT is significantly negative except for Chemical & Pharmaceuticals for both regressions, while Petroleum and Consumer Goods for fixed effect regression. No significant between WCC and EBIT for both regression analysis for Chemical & Pharmaceuticals may cause by nature of business that depend more on long term assets compare to short term assets that have higher liquidity.

Consumer Goods are the only financial sector that has significantly negative relationship between profitability and current ratio for both regressions. As well, Petroleum also significantly negative evident by OLS. Besides, Textiles sector has highly positive significant between current ratio and profitability with *p*-value = 0.00. This is may cause by the having the lowest profitability, 3.1% compare to other sectors.

Furthermore, no significant relationship between debt ratio and profitability is found for Textiles. However, highly negative significant between debt ratio and profitability is found in sector Petroleum and Heavy Engineering. These shows the both sector have fully utilize the firm leverage to generate firm profit. The evident shows in Table 3 that the profit of Petroleum and Heavy Engineering are higher than average.

It is probably of all sectors that not provide any significant relationship between sales growth and profitability thus results to insignificant relationship result for across industries. However, Consumer Goods provide strong evident of a positive association between sales growth and profitability (*p*-value = 0.01 & 0.00 respectively for both regression). This may results of the lowest WCC of this sector which is 67 days.

CONCLUSION

Working capital management is important part in firm financial management decision. The ability of the firm to continuously operate in longer period is depends on how they deal with investment in working capital management. The optimal of working capital management is could be achieve by firm that manage the trade off between profitability and liquidity. The purpose of this study is to investigate the relationship between working capital management and firm profitability. Working capital cycle is used as measure of working capital management. Results of this study found that working capital cycle are significantly negative associated to the firm profitability. Thus, firm manger should concern on reduction of working capital cycle period in purpose of creation shareholder wealth.

REFERENCES

- Eljelly, A. 2004. "Liquidity-Profitability Tradeoff: An empirical Investigation in An Emerging Market", *International Journal of Commerce & Management*, 14(2), 48 – 61.

2. Shin, H. H., & Soenen, L. (1998). Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, 8(2), 37-45.
3. Smith, K. V. (1980). Profitability and liquidity trade off in working capital management. In *Reading on the Management of Working capital* (pp. 549-562). St. Paul: West Publishing Co.
4. Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *Internationa Review of Business Research Papers*, 2(2), 45-58.
5. Sury, M.M., 2007, "Indian Economy in the 21st Century: Prospects and Challenges", New Century Publications, New Delhi, ISBN: 81-7708-069-5, main pages.
6. Bhunia, A, 2007, "Working Capital and Liquidity Management of Iron and Steel Enterprises in India: A Comparative Study between SAIL and TISCO", Unpublished UGC-Minor Research Project, Eastern Region, Kolkata, p. 3.
7. James C. Van Horne, 1973, *Fundamentals of Financial Management*, Prentice Hall Inc. Englewood Cliffs, N.J., 1971, p.29.
8. Gentry, E. J., 1976, "Management Perceptions of the Working Capital Process", *Faculty Working Paper, College of Commerce and Business Administration, University of Illinois*, p.32.



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