

## A STUDY ON WORKING CAPITAL MANAGEMENT OF SELECTED PHARMACEUTICAL COMPANIES IN INDIA

**Palanisamy .A<sup>1</sup>**

Ph.D Research Scholar,  
PG and Research Department of Commerce,  
Kaamadhenu Arts and Science College,  
Sathyamangalam-638503.

**Sengottaiyan .A<sup>2</sup>**

Assistant Professor and Head,  
PG and Research Department of Commerce,  
Kaamadhenu Arts and Science College,  
Sathyamangalam-638503.

### **Abstract:**

The management of Working Capital draws close attention of finance managers as it involves frequent and dynamic decision-making to determine the size of current assets required for uninterrupted flow of activities of a business. The main aim of this paper to construct an overall performance Index and to measure the degree of efficient utilisation of short term resources by the pharmaceutical companies. As the data selected for the study consists of observations in a time series manner so, analytical method is used in this study. Ten companies were selection during the study period is confined only 10 years from 2003-2004 to 2012-2013. The financial and statistical tools used for the study were Ratio Analysis, Descriptive Statistics and Indices. In this study four variables are used utilization index, operating profit index, performance index, efficiency index and regression. The result inferred that there is a positive relationship between operating profit index and utilisation indices can be explained by independent variables. The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices.

**Key Words:** Utilisation Index, Working Capital, Profit, Business, Pharmaceutical Companies.

### **Introduction**

Efficient management of working capital include preparation and controlling of current assets and existing liabilities in a way that minimize the danger of incapability of the company to meet up due near future debt and to keep away from too much investment in these assets. Cash decline affects the companies' potential to finance operation, reinvest and meet up with capital requirements and payments. It entail that whenever working capitals go down too low, such business may be at risk; this is why it's very essential for company to have effective management of working capital to keep its financial system alive. A fine calculated and employed management of day to day expenses is anticipated to add positively to the formation of a firms worth. Holding of the excess amount of working capital, cause for decline in profitability of a business. The aim of supervision is to maintain the optimum balance of all components of working capital, so it is extremely necessary for companies to keep an eye on overall trends in order to find out areas that require more rapid management. For achieving this, different methods and strategies are applied to effectively control each component. Working capital management is necessary for financial management. The fundamental idea of financial management is to optimize owner of the company wealth. The company can only achieve their objective when business get enough revenue. The amount of earnings mainly relies on the degree of sales but it does not transfer into cash immediately because there is a time interval among the good sold and the cash received.

### **Review of Literature**

**Chakraborty (2008)<sup>1</sup>** studied the relationship between working capital management and profitability of Indian pharmaceutical companies. He concludes a two school of thoughts. The first is that, working capital itself is not a factor of improving profitability, hence there may be a negative relationship between them, the second being that it is the investment in working capital even at minimum level, the sales and output cannot be maintained, and will keep fixed assets in operative.

**Sandeep Goel (2009)<sup>2</sup>** in his study on "Working capital management in Reliance Industries Limited, analysed the working capital management in said group not only in totality but also in segmental performance as far as possible. The study found that the present unit has got quite an under investment in current assets. The study reveals that efficiency in utilization of current assets is really good. Still, to improve the situation of working capital management in firms in general, it is suggested that a proper combination of long term and short term source should be employed to finance working capital requirements both of permanent nature and temporary nature.

**Azhagaiah Ramachandran and Muralidharan Janakiraman (2009)<sup>3</sup>** analyzing the relationship between Working Capital Management Efficiency and EBIT of the Paper Industry in India during 1997-1998 to 2005-2006. To measure the wcme three index values viz., Performance Index, Utilization Index, and Efficiency Index are computed, and are associated with explanatory variables, viz., Cash Conversion Cycle, Accounts Payable Days, Accounts Receivables Days, Inventory Days. Further, Fixed Financial Assets Ratio, Financial Debt Ratio and Size are considered as control variables in the analysis, and are associated with the EBIT. The study reveals that the Paper Industry has managed the working capital was satisfactorily. The Paper Industry in India performs remarkably well during the period, however, less profitable firms wait longer to pay their bills, and pursue a decrease in cash conversion cycle.

### **Significance of the study**

This research is mainly based on efficient Management of Working Capital is essential in maintaining Liquidity, Solvency and Profitability of a business organization, irrespective of its size and nature of operations. The management of Working Capital draws close attention of finance managers as it involves frequent and dynamic decision-making to determine the size of current assets required for uninterrupted flow of activities of a business. Sufficient doses of Working Capital is required to facilitate the procurement of inputs, hire manpower, create value addition through transformation of inputs into output, carrying inputs and outputs for a better market time. Further, a series of market facilitating infrastructure such as warehouse, cold storage, transport, packaging and extension of credit time to customers are to be financed before the product realizes the investment made in it. The length of operating cycle, availability of credit lines, lead-time in supply chain, and the market compulsions for extension of customer credit, determine the quantum of working capital required for financing each operational cycle.

<sup>1</sup> Chakraborty, K., "Working Capital and Profitability: An Empirical Analysis of Their relationship with reference to selected companies in the Indian Pharmaceutical Industry", *The ICFAI Journal of Management*, 2008.

<sup>2</sup> Sandeep Goel (2009) "Working capital management in Reliance Industries Limited", *Jims8m*, Vol.14, No: 1, Jan- March 2009, pp 44-48.

<sup>3</sup> Azhagaiah Ramachandran and Muralidharan Janakiraman, "Working Capital Management Efficiency and EBIT", *Managing Global Transitions*, Volume 7 · Number 1 · Spring 2009, pp: 61-74.

## **Need for the study**

Most of the empirical studies support the traditional belief about Working Capital and Profitability that reducing working capital investment would positively affect the profitability of firm (aggressive policy) by reducing proportion of current assets in total assets. With working capital, there is the possibility of seasonal factors being associated with profitability; credit requirements, business expansion, and firms' credit policy are other important considerations. The results of the study will most likely be useful in understanding the dynamics of and, thus, in improving Working Capital Management practices towards maximizing profitability. It could help guide financial managers toward more specialized handling of day-to-day operations and achieving optimal levels for the increased efficiency. The results drawn from the experience of the pharmaceutical sector could lead to valuable conclusions for other sectors of Indian economy.

## **Statement of Problem**

Corporate finance is an area of immense importance for business organizations. The decisions made by financial managers significantly affect the overall profitability of a business organization as well as the interests of a wide variety of stakeholders. The efficient Working Capital Management must guarantee an adequate relationship between the different components of an organization and working capital so as to make an efficient mix, which guarantees capital adequacy. The management of Working Capital is a major part of managing financial operations as it is thought to be linked to profitability. Working capital efficiency appears to be a function of credit policy and the cost-efficient supply of raw material and inputs. Frequently, managers encounter trade-off situations in their endeavours. For instance, improving the efficiency of accounts receivable can generate bad debts; allowing for discounts can improve the collection of receivables but the fast collection of receivables can also lead to lost sales due to a strict credit policy. A sound Working Capital Management (WCM) policy is usually structured around the consideration of these realities. In this context, it makes sense to look at how profitability behaves in relation to working capital practices.

## **Objectives of the study**

To construct an overall performance Index and to measure the degree of efficient utilisation of short term resources by the sample companies.

## **Methodology**

As the data selected for the study consists of observations in a time series manner so, analytical method is used in this study. As the complete source list of all the Pharmaceutical Companies is 174 listed companies as per the latest Balance Sheet available, the data for this study is selected based on convenience sampling method. The criteria while selecting the Pharmaceutical companies' Total Assets (Rs in Cr.) is an appropriate factor to determine the Financial Performance of the company. The companies which hold Total Assets of more than of Rs 5,000 Cr. is categorized as Large Scale Pharmaceutical Companies which are Piramal Enterprises, Dr.Reddys Labs, Cipla, Sun Pharma and Ranbaxy Labs. The companies which hold Total Assets of more than of Rs 2,500 Cr. and less than of Rs 5,000 Cr. is categorized as Medium Scale Pharmaceutical Companies such as Jubilant Life, Cadila Health, Glenmark, Orchid Chemical and Divis Labs. The study period is confined only 10 years from 2003-2004 to 2012-2013. The financial and statistical tools used for the study were Ratio Analysis,

**Descriptive Statistics and Indices.** In this study four variables are used utilization index, operating profit index, performance index, efficiency index and regression.

## Theoretical Model Framework

**Utilisation of index:** Modern financial management aims at reducing the level of current assets without the replenishment of stock and maximum utilisation of fixed assets. The effective utilisation of current assets can be achieved by reducing the operational cycle of a company, which in turn, depends on the degree of utilisation of the current assets.

**Utilisation Index of Current Assets:** In order to accomplish the objective of analysing the utilisation of current assets and fixed assets in pharmaceutical companies, the utilisation index for the current assets and fixed assets have been given as under,

$$UI_{CA} = \frac{St}{St-1} \times \frac{CAT_{t-1}}{CAT_t}$$

Where;

$UI_{CA}$  refers to the Utilisation Index of Current Assets.

$St$  stands for sales revenue at period 'T'.

$CAT$  represents the 't<sup>th</sup>' period of current assets.

Alternatively,

$$UI_{CA} = (\text{Current Year Sales}/\text{Previous Year Sales}) \times (\text{Previous Year Current Asset}/\text{Current Year Current Assets})$$

The value of  $UI_{CA}>1$  indicates efficiency in the matter of utilisation of current assets of the company. The higher the value of the index, the greater is the degree of efficiency in this regard and vice-versa.

**Utilisation index of Fixed Assets:** The objective of the utilisation of fixed assets is to attain the optimum utilisation of fixed assets. In order to analysis the utilisation of fixed assets in pharmaceutical companies, the utilisation index for the fixed assets has been given as under:

$$UI_{FA} = \frac{St}{St-1} \times \frac{FAt_{t-1}}{FAt_t}$$

Whereas,

$UI_{FA}$  = Utilisation Index of Fixed Assets

$St$  = Sales Revenue at Period 't'

$St-1$  = Sales Revenue at 't-1' Period

$FAt$  = Fixed Assets at 't' Period

$FAt-1$  = Sales Revenue at 't-1' Period.

Alternatively,

$$UI_{FA} = (\text{Current Year Sales}/\text{Previous Year Sales}) \times (\text{Previous Year Fixed Asset}/\text{Current Year Fixed Assets})$$

The value of  $UI_{FA}>1$  indicates efficiency in the matter of utilisation of fixed assets of the company. The higher the value of the index, the greater is the degree of efficiency in this regard and vice-versa.

**Operating Profit Index:** The operating profit index reflects the efficiency of the company for generating operating incomes with respect to sales. Operating profit index of greater than 1 is desirable. The higher the value of operating profit index, the greater is the efficiency of the company in the matter of management of its sales for generating operating income and vice-versa. The computation of operating profit index was made by applying the formula;

$$OPI_{FA} = \frac{St}{St-1} \times \frac{OPt}{OPt-1}$$

Whereas;

OPI = Operating Profit Index  
 Opt = Operating Profit at Period 't'  
 Opt-1 = Operating Profit at Period (t-1)  
 St-1 = Sales at a Period (t-1)  
 St = Sales at Period 't'.

Alternatively,

$$\text{OPI} = (\text{Previous Year Sales}/\text{Current Year Sales}) \times (\text{Opt}/\text{Opt-1})$$

**Performance of Index:** Performance of index is measure of working capital management efficiency and used for checking the performance of individual company or firm regarding management of working capital management. If value of index is  $> 1$  its means the performance of form in managing working capital management is efficient.

$$\text{PI} = \frac{\text{Current year sales}}{\text{previous year sales}} \times \frac{\text{previous year size working capital}}{\text{current year size working capital}}$$

**Efficiency Index (EI):** Efficiency index means product of performance index and utilization and its measure the efficiency of WCM. A firm considers being efficient in managing WCM if the index value is  $> 1$ . Efficiency index is the product of PI and UI. It's computed by multiplying the overall PI with UI. Thus the formula for calculating the efficiency is as follows:

$$\text{EI}_{\text{WCM}} = \text{PI}_{\text{WCM}} \times \text{UI}_{\text{WCM}}$$

Where,

$\text{EI}_{\text{WCM}}$  = efficiency index of working capital management  
 $\text{PI}_{\text{WCM}}$  = performance index of working capital management  
 $\text{UI}_{\text{WCM}}$  = utilisation index of working capital management

## Regression Analysis

The following regression models have been used for this study to determine the variable affected between working capital management and profitability.

$$\text{NPAT}_{it} = \beta_0 + \beta_1 (\text{UICA}_{it}) + \beta_2 (\text{UIFA}_{it}) + \epsilon$$

Where:

$\text{NPAT}$  = Net Profit after Taxes (Dependent Variable)  
 $\text{UICA}$  = Utilisation Index of Current Assets (Independent Variable)  
 $\text{UIFA}$  = Utilisation Index of Fixed Assets (Independent Variable)  
 $\epsilon$  = Error

The hypotheses below are operationised as basis for analysis and conclusion on the relationship between operating profit index and utilisation index. In determine the type of relationship between the variables of this study, for deciding which hypothesis is to accept after the test statistics at 0.05 level of significant. Multiple regression analysis was performed to investigate the relationship between profitability and utilisation index.

$H_0$ : Profitability does not depend on efficient utilisation of assets in pharmaceutical companies.

## Analysis and Interpretation

### Utilisation Index

The Utilisation Index (Current Assets) in selected large scale and medium scale pharmaceutical companies in India has shown in Table 1.1. The industry average utilisation index of selected pharmaceutical companies was 1.07 times. The average utilisation index among the large scale pharmaceutical companies was the maximum of 1.23 times in Piramal Enter and the

minimum of 0.98 times in Ranbaxy. The average utilisation index among the medium scale pharmaceutical companies was the maximum of 1.28 times in Glenmark and the minimum of 1.01 times in Jubilant Life.

### **Utilisation Index (Fixed Assets)**

The industry average utilisation index of selected pharmaceutical companies was **1.03** times. The average utilisation index among the large scale pharmaceutical companies was the maximum of 1.05 times in Sun Pharma and the minimum of 0.96 times in Cipla. The average utilisation index among the medium scale pharmaceutical companies was the maximum of 1.13 times in Glenmark and the minimum of 0.98 times in Jubilant Life.

### **Operating Profit Index**

The industry average operating profit index of selected pharmaceutical companies was **0.97** times. The average operating profit index among the large scale pharmaceutical companies was the maximum of **1.12** times in Dr.Reddy's labs and the minimum of 1.02 times in Piramal Enter. The average operating profit index among the medium scale pharmaceutical companies was the maximum of **1.18** times in Orchid and the minimum of 0.97 times in Jubilant Life.

**Table 1.1**  
**Average Working Capital Utilization Index of Selected Companies**  
**During the Period from 2003-04 to 2013-14**

<b>Companies</b>	<b>UICA</b>	<b>UIFA</b>	<b>OPI</b>	<b>PI</b>	<b>EI</b>
Piramal Enterprises	1.23	1	1.02	2.03	7.16
Dr.Reddy's Lab	1.01	1.03	1.12	1.03	1.08
CIPLA	1.03	0.96	1.04	0.99	1.03
Sun Pharma	1.04	1.05	1.03	1.09	1.23
Ranbaxy	0.98	0.97	0.34	1.18	1.19
Jubilant Life	1.01	0.98	0.97	1.23	1.38
Cadila Health	1.02	1.07	1.05	1.04	1.12
Glenmark	1.28	1.13	1.03	1.55	3.41
Orchid	1.03	1.02	1.18	1.02	1.09
Divis Labs	1.03	1.04	0.98	1.04	1.11
<b>Industry Average</b>	<b>1.07</b>	<b>1.03</b>	<b>0.97</b>	<b>1.22</b>	<b>1.98</b>

Source: Computed

### **Performance Index**

The industry average Performance Index of selected pharmaceutical companies was 1.22 times. The standard deviation and co efficient of variation of industry average were **0.52** and 42.93 times. It shows that the moderate fluctuation has found during the period of study. The average Performance Index among the large scale pharmaceutical companies was the maximum of **2.03** times in Piramal Enter and the minimum of 0.99 times in Cipla. The average Performance Index among the medium scale pharmaceutical companies was the maximum of **1.55** times in Glenmark and the minimum of 1.02 times in Orchid.

### **Efficiency index**

Efficiency index is the product of the performance index and the utilisation index and measure the ultimate efficiency in working capital of the company. The industry average efficiency Index of selected pharmaceutical companies was 1.98 times. The average efficiency Index among the large scale pharmaceutical companies was the maximum of 7.16 times in Piramal Enter and the minimum of 1.03 times in Cipla. The average efficiency Index among the medium scale pharmaceutical companies was the maximum of 3.41 times in Glenmark and the minimum of 1.09 times in Orchid.

### **Regression Analysis**

In the table 1.1 indicate the relationship between the dependent variable (operating profit index) and independent variables (utilisation index of current asset and utilisation index of fixed asset). The regression co efficient values of the independent variables negative sign also signifies that an increase in one variable will lead to an inverse change in the other variable and vice versa.

### **Medium Scale Companies**

The multiple regression value of Piramal enterprises was found to be positive relationship between operating profit index and utilisation indices were 0.804 which indicate a moderate relationship between the variables. R square was 0.646 shows that 64.6% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 6.392 proves that significant at 5% ( $p<0.05$ ). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices. The multiple regression value of Dr.Reddy's Lab was found to be positive relationship between operating profit index and utilisation indices were 0.910 which indicate a moderate relationship between the variables. R square was 0.828 shows that 82.8% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 16.822 proves that significant at 5% ( $p<0.05$ ). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices

The multiple regression value of Cipla was found to be positive relationship between operating profit index and utilisation indices were 0.616 which indicate a moderate relationship between the variables. R square was 0.379 shows that 37.9% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 2.135 proves that significant at 5% ( $p<0.05$ ). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices.

The multiple regression value of Sun Pharma was found to be positive relationship between operating profit index and utilisation indices were 0.158 which indicate a moderate relationship between the variables. R square was 0.025 shows that 2.5% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 0.090 proves that insignificant at 5% ( $p>0.05$ ). The hypothesis is rejected which state that there is insignificant relationship between operating profit index and utilisation indices

The multiple regression value of Ranbaxy was found to be positive relationship between operating profit index and utilisation indices were 0.212 which indicate a moderate relationship between the variables. R square was 0.045 shows that 4.5% of the changes in operating profit index can be

explained by independent variables. The result of calculated F value of 0.165 proves that insignificant at 5% ( $p>0.05$ ). The hypothesis is rejected which state that there is insignificant relationship between operating profit index and utilisation indices

### Large Scale Companies

The multiple regression value of Jubilant life was found to be positive relationship between operating profit index and utilisation indices were 0.617 which indicate a moderate relationship between the variables. R square was 0.381 shows that 38.1% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 2.151 proves that significant at 5% ( $p<0.05$ ). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices

**Table 1.2**  
**Impact of Asset Utilisation Indices on Operating Profit Indices**

Group	Company	Statistics	Constant	UICA	UIFA	Model Summary		F- Value (p Value)
Medium Scale Companies	Primal Enterprises	Coefficient	0.927	0.204	-0.153	Multiple R R- Square Adjusted R Square	0.804	6.392 (0.026)
		t- value	3.003	3.345	-0.465		0.646	
		p- value	0.02	0.012	0.656		0.545	
	Dr.Reddy's Lab	Coefficient	-1.174	0.713	1.523	Multiple R R- Square Adjusted R Square	0.91	16.822 (0.002)
		t- value	-2.179	1.335	4.909		0.828	
		p- value	0.066	0.224	0.002		0.779	
	CIPLA	Coefficient	0.408	-0.348	1.024	Multiple R R- Square Adjusted R Square	0.616	2.135 (0.189)
		t- value	0.642	-0.783	1.989		0.379	
		p- value	0.541	0.459	0.087		0.201	
	Sun Pharma	Coefficient	1.094	0.021	-0.084	Multiple R R- Square Adjusted R Square	0.158	0.09 (0.915)
		t- value	3.789	0.135	-0.394		0.025	
		p- value	0.007	0.897	0.705		-0.254	
	Ranbaxy	Coefficient	1.639	0.041	-1.39	Multiple R R- Square Adjusted R Square	0.212	0.165 (0.851)
		t- value	0.519	0.018	-0.575		0.045	
		p- value	0.62	0.986	0.583		-0.228	
Large Scale Companies	Jublian - M	Coefficient	0.723	-0.506	0.773	Multiple R R- Square Adjusted R Square	0.617	2.151 (0.851)
		t- value	1.118	-2.013	1.114		0.381	
		p- value	0.301	0.084	0.302		0.204	
	Cadila	Coefficient	1.74	-0.167	-0.488	Multiple R	0.72	3.774

Health	t- value	5.95	-0.47	-0.984	R- Square Adjusted R Square	0.519	(0.077)
	p- value	0.001	0.652	0.358		0.381	
Glenmark	Coefficient	0.543	0.063	0.361	Multiple R R- Square Adjusted R Square	0.307	0.364
	t- value	0.819	0.666	0.655		0.094	
	p- value	0.44	0.527	0.534		-0.165	
Orchids	Coefficient	-0.772	-1.483	3.408	Multiple R R- Square Adjusted R Square	0.718	3.726
	t- value	-0.611	-1.652	2.662		0.516	
	p- value	0.561	0.142	0.032		0.377	
Divis Lab	Coefficient	1.195	0.323	-0.53	Multiple R R- Square Adjusted R Square	0.473	1.009 (0.412)
	t- value	3.314	1.131	-1.33		0.224	
	p- value	0.013	0.295	0.225		0.002	

Note: P Value < 0.05 indicates significant at 5 per cent level

Source: Computed

The multiple regression value of Cadila Health was found to be positive relationship between operating profit index and utilisation indices were 0.720 which indicate a moderate relationship between the variables. R square was 0.519 shows that 51.9% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 3.774 proves that significant at 5% (p<0.05). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices.

The multiple regression value of Glenmark was found to be positive relationship between operating profit index and utilisation indices were 0.307 which indicate a moderate relationship between the variables. R square was 0.094 shows that 9.4% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 0.364 proves that insignificant at 5% (p<0.05). The hypothesis is rejected which state that there is insignificant relationship between operating profit index and utilisation indices.

The multiple regression value of Orchid was found to be positive relationship between operating profit index and utilisation indices were 0.718 which indicate a moderate relationship between the variables. R square was 0.516 shows that 51.6% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 3.726 proves that significant at 5% (p<0.05). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices. The multiple regression value of Divis Lab was found to be positive relationship between operating profit index and utilisation indices were 0.473 which indicate a moderate relationship between the variables. R square was 0.224 shows that 22.4% of the changes in operating profit index can be explained by independent variables. The result of calculated F value of 1.009 proves that significant at 5% (p<0.05). The hypothesis is accepted which state that there is significant relationship between operating profit index and utilisation indices.

## **Conclusions and Recommendation**

The study has analyzed the working capital management of pharmaceutical industry in India. It can be concluded that the company's overall risk evaluation process is not at desired level and should be concentrate on liquidity and working capital management and it should be managed effectively and reviewed periodically and thereby optimum utilization of fixed assets is possible. It is further concluded that can be strengthened if firm is managed its working capital management through effective ways. The efficiency of the selected pharmaceutical companies in proper utilisation index of working capital in the generation of sales is captured by constructing an overall efficiency index. Since the selected pharmaceutical companies is highly capital intensive the policy of purchase and utilisation of fixed assets should be carefully planned and reviewed so that the funds of pharmaceutical companies may be properly used. There should be a more efficient utilisation of current assets by management. Increase in sale should correspond to the increase in current assets. Individual attention should be maintain to the management of each components of current assets for inventories, receivable, payable and cash conversion etc.,

## **References:**

1. Chakraborty, K., "Working Capital and Profitability: An Empirical Analysis of Their relationship with reference to selected companies in the Indian Pharmaceutical Industry", *The ICFAI Journal of Management*, 2008.
2. Sandeep Goel (2009) "Working capital management in Reliance Industries Limited", *Jimsm*, Vol.14, No: 1, Jan- March 2009, pp 44-48.
3. Azhagaiah Ramachandran and Muralidharan Janakiraman, "Working Capital Management Efficiency and EBIT", *Managing Global Transitions*, Volume 7 · Number 1 · Spring 2009, pp: 61-74.
4. Debdas Rakshit and Chanchal Chatterjee, "An Empirical study on working capital management practice of selected Indian Pharmaceutical companies", *The Management Accountant*, September 2012. pp: 1067-1073.
5. Farhan Shehzad, Kamran Ahmed, Saba Sehrish, Faiza Saleem and Muhammad Yasir, "The Relationship between Working Capital Management Efficiecy and EBIT: Evidence from Textile sector of Pakistan", *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 4, No.5, September 2012, pp: 211-224.