

IMPACT OF WORKING CAPITAL ON PROFITABILITY OF INDIAN SELECTED COMPANIES

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INTRODUCTION

Working capital management is significant in financial management. It plays a vital role in keeping the wheel of the business running. Every business requires capital, without it can't be promoted. Investment decisions is concerned with investment Current assets and fixed assets. Working capital plays a key role in a business enterprise just as the role of heart in human body. It acts as grease to run the wheels of fixed assets. its effective provision can ensure the success of business while its inefficient management can lead not only to loss but also to the ultimate downfall of what otherwise might be considered as a promising concern. Efficiency of a business enterprise depends largely on its ability to its working capital. Working capital management is one of the important facts of a firms overall financial management. For increasing shareholder's wealth, a firm has to analyses the effect of fixed assets and current assets on its return and risk.

The management of current assets on the basis of the following points:1) Current assets are for short period while fixed assets are for more than one year

2) The large holding of current assets, especially cash, strengthens liquidity position but also reduce overall profitability, and to maintain an optimal level of liquidity and profitability, risk return tradeoff is involved holding current assets.

3) Only current assets can be adjusted with sales fluctuating in the short run. Thus, the Firm has greater degree of flexibility in managing current assets. The management assets help a firm in building a good market reputation regarding its business and economic conditions.

"Working Capital is the Life-Blood and Controlling Nerve Center of a business"

The working capital management precisely refers to management of current assets. A firm's working capital consists of its investment in current assets, which include short-term assets such as: Cash and bank balance, Inventories, Receivables (including debtors and bills), Marketable securities.

◆ Working capital is commonly defined as the difference between current assets and current liabilities.

WORKING CAPITAL = CURRENT ASSETS-CURRENT LIABILITIES

There are two major concepts of working capital:

3) Gross working capital

4) Net working capital

CONCEPT OF WORKING CAPITAL:

➤ **Gross working capital:**

It refers to firm's investment in current assets. Current assets are the assets, which can be converted into cash with in a financial year. The gross working capital points to the need of arranging funds to finance current assets.

➤ **Net working capital:**

It refers to the difference between current assets and current liabilities. Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities. And vice-versa for negative net working capital.

1.2 MEANING OF WORKING CAPITAL

Capital required for a business can be classified under two main categories via,

1) Fixed Capital

2) Working Capital

1) Fixed Capital:

Every business need funds for two purposes for its establishment and to carry out its day- to-day operations. Long

terms funds are required to create production facilities through purchase of fixed assets such as p&m, land, building, furniture, etc. Investments in these assets represent that part of firm’s capital which is blocked on permanent or fixed basis and is called fixed capital.

2) Working Capital:

A company invests its funds for long term purposes and short-term operations. In ordinary parlance, the capital available for meeting the day-to-day requirements of an enterprise is regarded as ‘working capital’. Normally, after investment in fixed assets (e.g. land and buildings, plant and machinery, furniture and fittings), a part of the capital is kept in the business for supporting the day-to-day normal operations. That portion of a company’s capital, which is required for minimum stock of raw material to maintain continuity in production, minimum stock of finished goods to fulfill future demand, payment of wages and salaries of laborers and employees is called Working Capital. In other words, working capital is that part of the firm’s capital which is required for financing short term or current assets such as debtors, inventories, marketable securities and cash. It is also known as the revolving or circulating capital.

The word working capital comprises of two words ‘working’ and ‘capital’. In trade and industry, the word ‘working’ with reference to capital means circulation of capital from one form to another during day-to-day operations of the business whereas the word ‘capital’ refers to the monetary values of all the assets (tangible and intangible) of the business.

DEFINITIONS OF WORKING CAPITAL:

According to C.W. Gutenberg-

“A Working capital is ordinarily defined as the excess of the current assets over current liabilities”.

According to Lawrence. J. Gitmen-

“The most common definition of working capital is the difference of the firm’s current assets and current liabilities.”

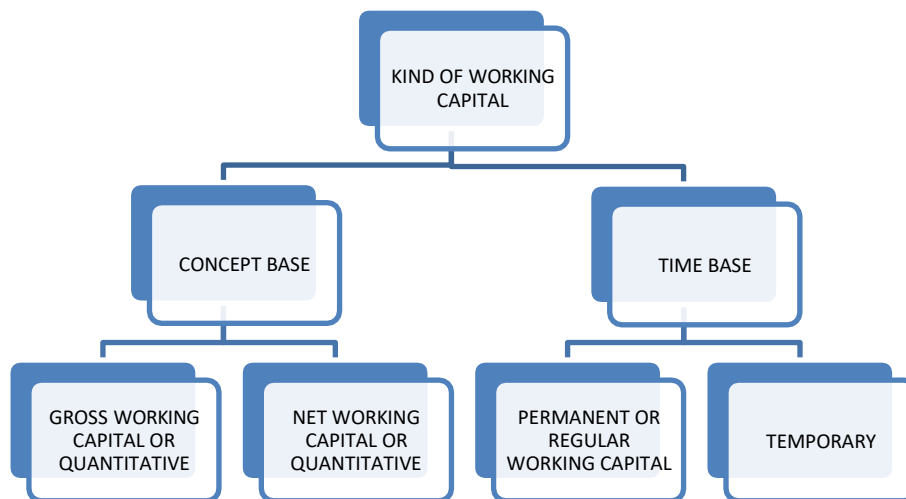
According to field and baker also define working capital is as the aggregate value of all current assets of business.

According to Lincoln is of the opinion that working capital equals the aggregate value of current assets minus aggregate value of current liabilities.

According to one school of thought, working capital represent all current assets of a company.

According to Hoagland “working capital is descriptive of that which is not fixed. but the more common use of working capital is to consider it as the difference the book value of the current assets and current liabilities”

CLASSIFICATION OF WORKING CAPITAL



Working capital is the amount of funds required to cover the cost of operating the enterprise. In other words, working capital may be defined as excess of current assets over current liabilities. It may be classified in two ways i.e.

- (i) On the basis of concept
- (ii) On the basis of time

On the basis of B/S concept

According to this concept, working capital is calculated on the basis of the balance sheet prepared at a specific date. It is further classified in two forms gross and net working capital.

Gross Working Capital - 'Gross working capital' represents the aggregate of current assets that are converted, in the ordinary course of business, into cash within one accounting year.

Gross Working capital = Current assets

Net Working Capital - In a narrow sense, the term working capital refers to the Net working capital is the difference between the current assets and the current liabilities or the excess of total current assets over total current liabilities.

Net Working capital = Current assets - Current liabilities

On the basis of Time

On the basis of time working capital may be classified as Permanent or regular working capital and Variable or temporary working capital.

Permanent or fixed working capital -Permanent or fixed working capital is minimum amount which is required to ensure effective utilization of fixed facilities and for maintaining the circulation of current assets. Every firm has to maintain a minimum level of raw material, work- in-process, finished goods and cash balance. This minimum level of current assets is called permanent or fixed working capital

IT has following characteristics:

- ❖ It keeps on changing its form from one current asset to another
- ❖ The size of working capital grows with the growth of the business

Temporary or Variable working capital- Temporary or variable working capital refers to that portion which is required over and above the permanent level to cater the needs of fluctuation in the volume of activity over the normal activity.

A. Seasonal working capital - The capital required to meet the seasonal demands of the enterprise is called seasonal working capital. It is of short-term.

B. Specific working capital - Special working capital is that part of working capital which is required to meet special exigencies such as launching of extensive marketing for conducting research, etc.

The permanent level is constant while the temporary working capital is fluctuating increasing and decreasing in accordance with seasonal demands as shown in the figure. In the case of an expanding firm, the permanent working capital line may not be horizontal. This is because the demand for permanent current assets might be increasing (or decreasing) to support a rising level of activity. In that case line would be rising.

LITURATURE REVIEWS

According to Mohdmmad and Saad (2010) the impact of working capital management on profitability and evaluation of companies listed on Malaysia stock exchange during 2003 to 2009. In this study, 172 companies were selected as samples. The results found that there is a negative and significant relationship between variable of working capital with market value and profitability of company.

According to Izadima and Taki (2010) the effect of working capital management on capability of profitability for listed companies on Tehran Stock exchange for the period of 2001-2008. Their finding indicated that there is a negative significant relationship between working capital and profitability of firms.

Mohammad and Noriza (2010) studied the relationship between working capital management and performance of firms. They used total of 172 listed companies from the databases of Bloomberg. They randomly selected five-year data (2003-2007). They discovered that there is a negative relationship between working capital variable and the firm's performance.

According to Izadinia and Taki (2010) the impact of working capital management on profitability potential companies listed in Tehran stock exchange during the period 2001-2008. The results showed that there is significant negative relationship between the cash conversion cycle with return on assets.

According to Gill et al. (2010) Rezazadeh and Heydarian (2010), and Shakor et al, (2012) had contrary opinion, for example Akinlo, (2011) investigated if there is a long run relationship between working capital measured by

cash conversion cycle and profitability and what is the direction of the causality between those variables in 66 firms in Nigeria for the period 1999-2007. He applied LLC, IPS and Hardi panel unit root test to insure the stationary of the data, which was found stationary at first difference. Then he run the panel regression to detect the long run relationship, the result revealed that there is a long run steady state relationship between working and profitability.

According to gill et al. (2010) in their study surveyed the relationship between working capital management on profitability for the 88 U.S. companies listed on the New york stock exchange during the year 2005 to 2007. The results suggest that statistically there is a significant relationship between the working capital and profitability also.

Rezazadeh and Heydarian (2010) in their study examined the impact of working capital management on profitability of Iranian companies. In this study, they investigated the 1365-year company of observed number among the companies listed in Tehran Stock Exchange during the years 1998-2007. The research results show that there is a significant relationship between the profitability of companies with receivables collection period and maintenance of inventories.

Quayyum (2011) the necessity of firms optimizing their level of working capital management and maintaining enough liquidity as it affects the profitability through examining four cement companies of Dhaka Stock exchange over the period 2005-2009. He discovered that negative relationship exists between working capital management and profitability.

According to Mobeen et al. (2011) also examined impact of working capital management on profitability and 65 companies in Pakistan were used as sample for the periods between 2005 and 2009. Results showed that there is significant correlation between the components of working capital with market value and profitability of the company and concluded that Pakistani companies correlated heavily on current assets to maximize profits.

Vijay Kumar (2011) conducted research of the relationship between working capital management and firm's profitability in automobile industries in India. He used 20 firms as sample for the period from 1996-2009. The result showed that there is negative relationship between the length of cash conversion cycle and firm profitability.

Seyed and Esmail (2012) conducted research study the relationship between working capital management and profitability for 147 listed companies on Tehran Stock exchange for period of 2005-2009. They found that there is a negative significant relationship between working capital management and profitability.

He results of Shakor et al. (2012) is in line with others who investigated the relationship between working capital and profitability. He established a relationship between working capital and profitability based on a sample of 25 Pakistani manufacturing companies listed on Karachi stock exchange over a period of 2001 -2010.

RESEARCH METHODOLOGY

Research Objectives:

This study has the following objectives:

3. To assess impact of working capital on profitability of selected Indian companies.
4. To analyse the relationship of working capital management and profitability.

Significance of this Research:

It seems obvious that working capital policy has some impact on the profitability of the Indian selected companies like cement ,steel, IT and FMCG. There exist a relationship between working capital policy and profitability of the selected Indian four sector cement ,steel, IT and FMCG, but still diminutive research had conducted Indian selected companies. Therefore, the purpose of the study is to find out the relationship between impact of working capital on profitability by using the profitability ratio measurement.

Furthermore, I tried to develop better and practical understanding of the association between the variables and tried to meet the gap in the academic literature over this issue.

Scope of the research study:

Minimizing the losses and increasing profitability in the short run as well as in long run is the major goal of any profit-oriented business enterprises. Researchers all over the world established the concept that working capital management policy is the way of achieving high profitability. Any Indian enterprises should have a strong policy

in order to manage properly their working capital. There are many ways to measure the profitability of a business entity. Return on equity, return on assets, and return on capital employed etc., are some of the methods employed to measure the profitability of a business.

Research method:

Quantitative method followed in this study because the collected data in the form of numerical digits and I have used statistical tools for analysis.

Sample size:

Various manufacturing companies listed at Indian Stock Exchange were selected for this study, the main reason for selecting only the 40 listed companies is the reliability and accuracy of the information given by them, then compare to other. In this study Total 40 Indian selected companies out of total companies listed at BSE/NSE in 2018. Convenient sampling methods used to choose the sample and availability of reports set as a standard to select a company for sample.

LIST OF COMPANIES			
IT SECTORS	CEMENT SECTORS	FMCG SECTORS	STEEL SECTORS
HCL TECHNOLOGIES LTD	ACC LIMITED	Britannia Industries Ltd	Jindal steel & power ltd
INFOSYS	AMBUJA LIMITED	Colgate	Tata steel ltd
L&T INFOTECH	BINANI	HUL	Usha martin
MINDTREES	BIRLA COPORATION	ITC	Mukund ltd
Mphasis	HEIDEBERG CEMENT INDIA LTD	JOHNSON & JOHNSON	Kamdhenu Ltd
NIIT Technologies	JK CEMENT	NETSLE	Tata metaliks ltd
ORACAL FINANCIAL SERVICES	RAMCO	MARICO LTD	Kirlosker ferrous industries ltd
TCS	SHREE CEMENT	P&G	Srikalahasthi pipes ltd
TECH MAHINDRA	STAR CEMENT	PARLE AGRO	Kalyani steel ltd
WIPRO	ULTRA TECH	THE GODRAGE	Sunflag iron & steel ltd

Time period:

the present study covers the period of five year spanning from year 2013-14- to 2017-2018. the period of five year is sufficient to the result. Moreover, many of companies were incorporated before this period and the complete data of five years is available, so researcher has selected this period.

Research Hypotheses: Research Hypothesis After reviewing the literature on various studies conducted on the impact of working capital on company’s profitability for instance (Qayum (2011) and Gill et al. (2010), the researcher developed the following hypothesis;

H0: There is a significant relationship between working capital components and profitability

H1: There is no significant relationship between working capital components and profitability

Hypothesis 1

Ho: There is no significant relationship between Gross operating profitability and working capital

H1 There is significant relationship between Gross operating profitability and working capital

Hypothesis 3

H0: There is no significant relationship between Net Profitability (NP) and working capital.

H1: There is significant relationship between Net profitability (NP) and working capital

Hypothesis 4

H0: There is no significant relationship between ROCE and working capital.

H1: There is significant relationship between ROCE and working capital.

Hypothesis 5

H0: There is no significant relationship between ROE (profitability) and working capital

H1: There is significant relationship between ROE (profitability) and working capital

Hypothesis 6

H0: There is no significant relationship between sales volume and working capital management.

H1: There is significant relationship between sales volume and working capital management

Data collection and data analysis

In this study I have collected by secondary method. I found data source from annual reports from websites like Capitoline, money control and, BSE, NSE.

I have used tool for data analysis: 1) accounting tool: ratio analysis and trend analysis
2) statistical tool: average (mean), variance, ANOVA

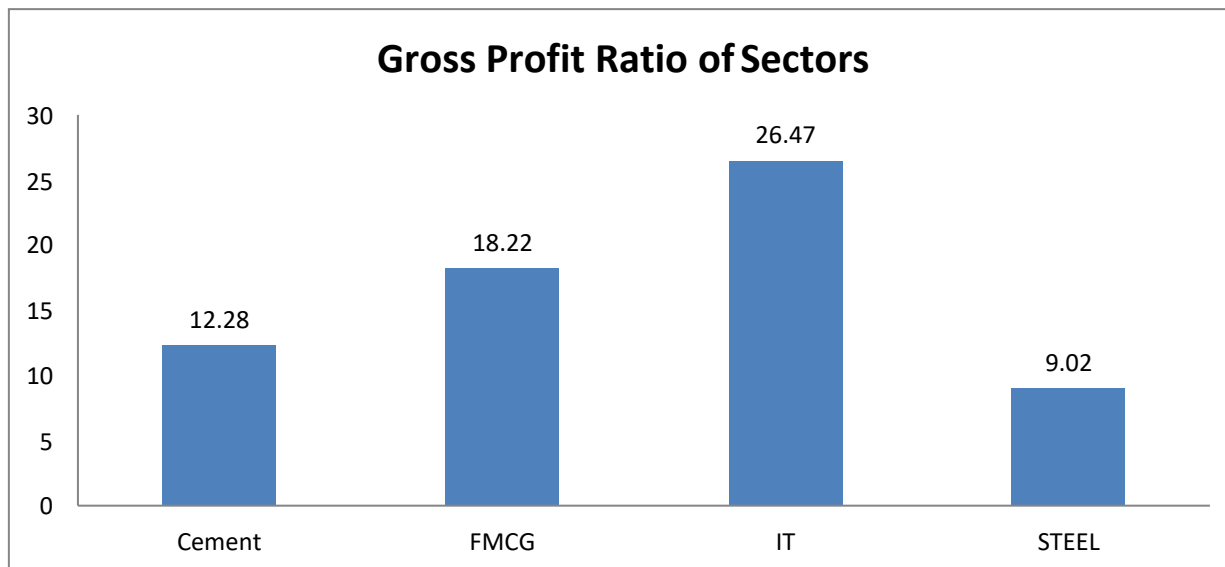
DATA ANALYSIS

Analysis of Gross Profit

The analysis of average gross profit of selected sector as presented in table and graph below shows that highest average gross profit is registered by IT sector (26.46 percent) followed by FMCG sector (18.21 percent). The lowest average gross profit ratio has been registered for steel sector at 9 percent.

Gross Profit Ratio

Sector	Mean	N	Std. Deviation	Minimum	Maximum
Cement	12.2838	50	9.86447	-23.02	32.37
FMCG	18.2152	50	9.19481	-6.04	40.60
IT	26.4651	49	11.13820	11.77	58.82
STEEL	9.0169	49	7.12157	-5.39	25.10
Total	16.4827	198	11.47620	-23.02	58.82



Analysis of Net Profit

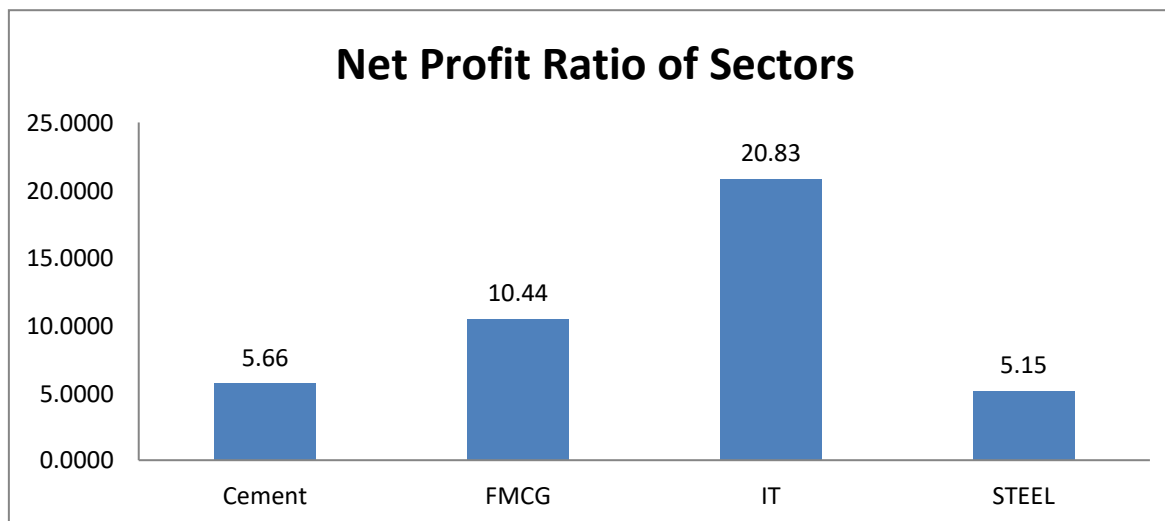
The analysis of net profit of selected sectors for study period is presented in table and graph below.

Net Profit Ratio

Sector	Mean	N	Std. Deviation	Minimum	Maximum
Cement	5.6626	50	6.99214	-22.77	18.77

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FMCG	10.4384	50	7.09066	-10.80	25.32
IT	20.8270	50	7.73676	8.50	37.00
STEEL	5.1543	50	16.39746	-11.00	111.65
Total	10.5206	200	12.05066	-22.77	111.65

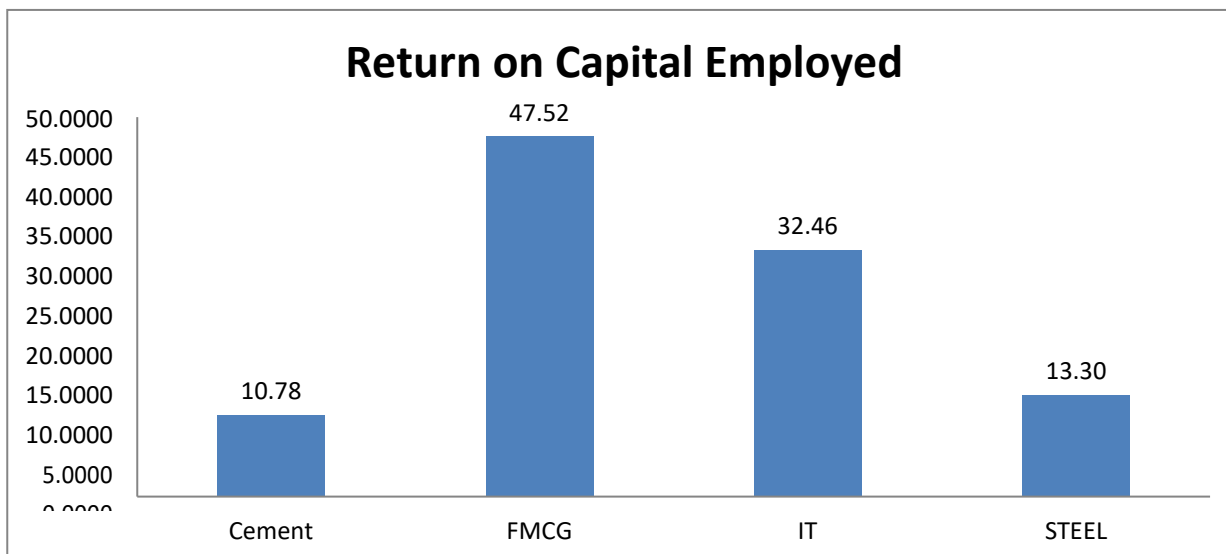


It can be seen from the data that highest average net profit of 20.83 percent is registered for IT sector followed by 10.44 percent for FMCG sector. Steel sector has registered lowest average net profit of 5.15 percent.

Analysis Return on Capital Employed

Return on Capital Employed t

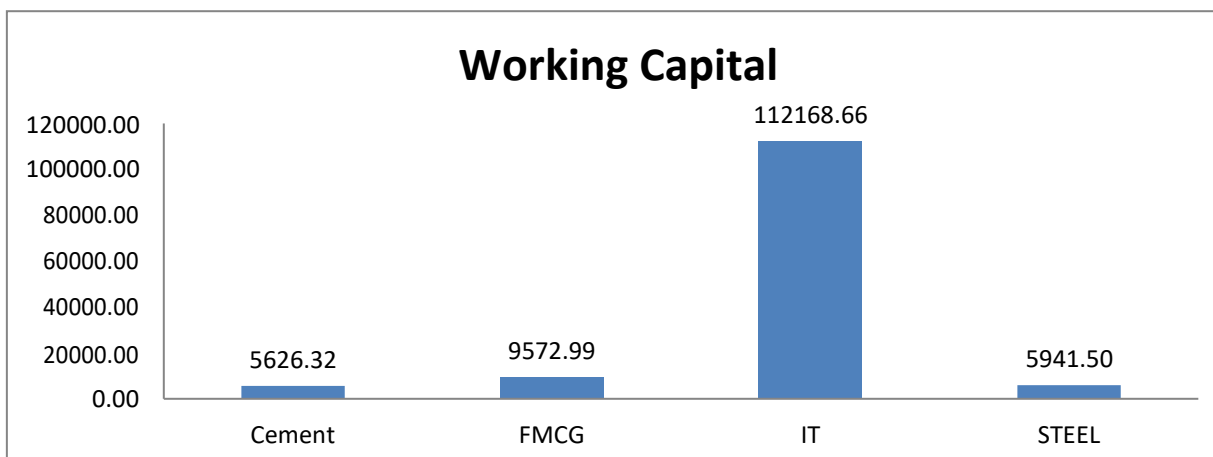
Sector	Mean	N	Std. Deviation	Minimum	Maximum
Cement	10.7806	50	5.18225	-.03	21.24
FMCG	47.5202	50	30.99397	1.44	123.70
IT	32.4580	49	12.26015	13.72	60.13
STEEL	13.2992	50	8.77985	.00	35.39
Total	25.9821	199	22.94320	-.03	123.70



The data about return on capital employed across various sectors as presented in table and graph above shows that highest return of 47.52 percent registered for FMCG sector followed by 32.46 percent for IT sector. Lowest return on capital employed of 10.78 percent is recorded for cement sector.

Analysis of Working Capital
Working Capital

Sector	Mean	N	Std. Deviation	Minimum	Maximum
Cement	5626.32	50.00	7155.12	-16033.90	20395.10
FMCG	9572.99	50.00	21445.81	-21430.90	104247.80
IT	112168.66	50.00	127877.88	2349.00	409740.00
STEEL	5941.50	50.00	24266.31	-55512.50	93693.90
Total	33327.37	200.00	79888.78	-55512.50	409740.00

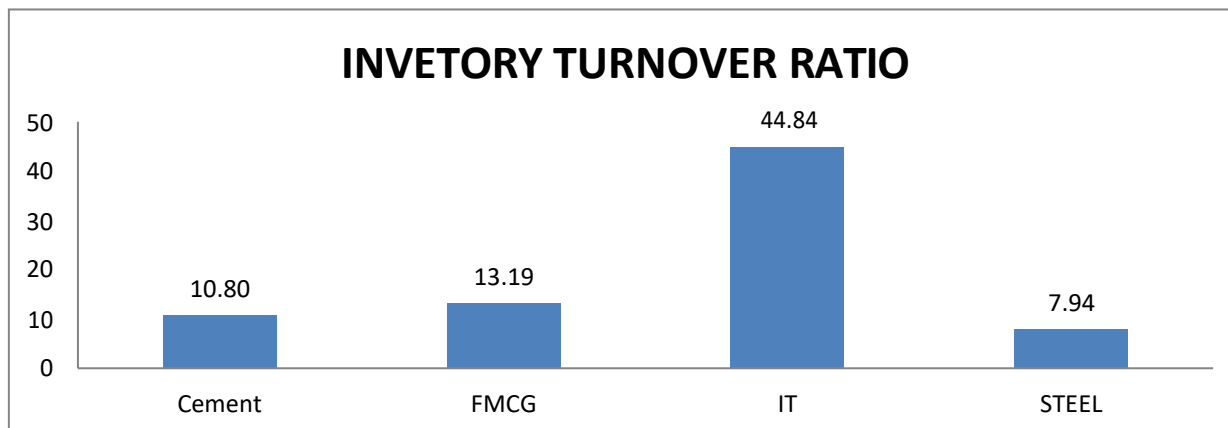


The analysis of average working capital of selected sector is presented in table and graph above. It can be seen from the data that highest amount of working capital of 112168.66 has been registered for IT sector. The lowest average working capital of 5626.324 has been registered for cement sector.

Inventory Turnover Ratio

INVENTORY TURNOVER RATIO t

Sector	Mean	N	Std. Deviation	Minimum	Maximum
Cement	10.7982	50	3.76562	6.41	23.56
FMCG	13.1858	50	6.86008	5.15	33.62
IT	44.8444	50	108.31411	.00	360.24
STEEL	7.9350	50	4.35013	2.13	18.49
Total	19.1909	200	55.96833	.00	360.24



The analysis of inventory turnover ratio of selected sector as presented in table and graph above shows that highest inventory turnover ratio of 44.84 percent has been registered for IT sector followed by 13.19 percent for FMCG sector. The lowest inventory turnover ratio of 10.80 percent has been registered for cement sector.

Gross Profit and Working Capital

In order to understand the relationship between gross profit and working capital correlation analysis has been computed. The results of the analysis are presented in table below;

Correlations: Gross Profit and Working Capital

		Gross Profit Ratio	Working Capita
Gross Profit Ratio	Pearson Correlation	1	.269**
	Sig. (2-tailed)		.000
	N	198	198
Working Capita	Pearson Correlation	.269**	1
	Sig. (2-tailed)	.000	
	N	198	200

** . Correlation is significant at the 0.01 level (2-tailed).

The results of correlation analysis between gross profit and working capital as presented in table above shows that there is significant positive relationship between them. (r = 0.269). The relationship is significant at 0.01 percent level of significant.

Net Profit and Working Capital

The relationship between net profit and working capital has been studied with the help of correlation analysis. The results are presented in table below;

Correlations: Net Profit and Working Capital

		Working Capita	Net Profit Ratio
Working Capita	Pearson Correlation	1	.364**
	Sig. (2-tailed)		.000
	N	200	200
Net Profit Ratio	Pearson Correlation	.364**	1

Sig. (2-tailed)	.000	
N	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

The relationship between net profit and working capital as presented in table above shows that there is significant positive relationship between net profit and working capital ($r = 0.364$). The relationship is significant at 0.01 percent level of significant ($p < 0.01$).

Return on Capital Employed and Working Capital

The relationship between return on capital employed and working capital has been studied with the help of correlation analysis. The results are presented in table below;

Correlations: Return on Capital Employed and Working Capital

		Working Capita	ROCE
Working Capita	Pearson Correlation	1	.098
	Sig. (2-tailed)		.170
	N	200	199
ROCE	Pearson Correlation	.098	1
	Sig. (2-tailed)	.170	
	N	199	199

The relationship between return on capital employed and working capital as presented in table above shows that there is no significant relationship between return on capital employed and working capital ($r = 0.098$).

FINDINGS CONCLUSION

Considering the research objective, present study has used secondary data collected for selected companies from four sector viz. Cement, IT, FMCG and Steel. The major findings emerging from data analysis are as follow;

- Highest average gross profit is registered by IT sector (26.46 percent) followed by FMCG sector (18.21 percent). The lowest average gross profit ratio has been registered for steel sector at 9 percent.
- The variation in gross profit across various sectors shows that there is very high variation in the gross profit of IT sector as presented in by standard deviation. The profit of steel companies is more stable as compared to other sectors as represented by lowest standard deviation.
- Highest average net profit of 20.83 percent is registered for IT sector followed by 10.44 percent for FMCG sector. Steel sector has registered lowest average net profit of 5.15 percent.
- The variation in average net profit across various sectors shows that there is very high variation in the net profit of Steel sector as presented in by high value of standard deviation. The net profit of Cement companies is more stable as compared to other sectors as represented by lowest standard deviation.
- Highest return on capital employed of 47.52 percent registered for FMCG sector followed by 32.46 percent for IT sector. Lowest return on capital employed of 10.78 percent is recorded for cement sector.
- The variation in average return on capital employed across various sectors shows that there is very high variation in the return on capital employed of FMCG sector as presented in by high value of standard deviation. The return on capital employed of Cement companies is more stable as compared to other sectors as represented by lowest standard deviation.
- Highest amount of working capital of 112168.66 has been registered for IT sector. The lowest average working capital of 5626.324 has been registered for cement sector.
- The variation in working capital across various sectors shows that there is very high variation in the working capital of IT sector as presented in by high value of standard deviation. The working capital of Cement companies is more stable as compared to other sectors as represented by lowest standard deviation.
- Highest inventory turnover ratio of 44.84 percent has been registered for IT sector followed by 13.19 percent for FMCG sector. The lowest inventory turnover ratio of 10.80 percent has been registered for cement sector.
- The variation in inventory turnover across various sectors shows that there is very high variation in the

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inventory turnover ratio of IT sector as presented in by high value of standard deviation. The inventory turnover of Cement companies is more stable as compared to other sectors as represented by lowest standard deviation.

- There is significant positive relationship between gross profit and working capital. ($r = 0.269$). The relationship is significant at 0.01 percent level of significant.
- There is significant positive relationship between net profit and working capital ($r = 0.364$). The relationship is significant at 0.01 percent level of significant ($p < 0.01$).
- The relationship between return on capital employed and working capital as presented in table above shows that there is no significant relationship between return on capital employed and working capital ($r = 0.098$):

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