A

Project Report Entitled

"Study of Working Capital Management of Jain Irrigation System Ltd. (JISL)"

Submitted in partial fulfillment of Post-Graduate Degree

Master in BusinessAdministrat ion

TO

University of Pune

-: Submitted By:-

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-: The Research Guide:-

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-:For The Academic Year:-

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It gives me immense pleasure to present this project report on Working Capital Management carried out at **Jain Irrigation Systems Ltd**. In partial fulfillment of post-graduate course M.B.A.

No work can be carried out without the help and guidance of various persons. I am happy to take this opportunity to express my gratitude to those who have been helpful to me in completing this project report.

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Lastly I would like to thank my parents, friends and well wishers who encouraged me to do this research work and all those who contributed directly or indirectly in completing this project to whom I am obligated to.

SANTOSH WATPADE
M.B.A. II

DECLARATION

I, Santosh D. Watpade Student of MBA II (Finance) 2007-2009 studying at **MET's Institute of Management, Nasik**, declare that the project work entitled ñ**Working Capital management of Jain Irrigation System Ltd. Jalgaon**ò Was carried by me in the partial fulfillment of MBA program under the University of Pune.

This project was undertaken as a part of academic curriculum according to the university rules and norms and it has not commercial interest and motive. It is my original work. It is not submitted to any other organization for any other purpose.

Date: -

Place:-Nasik

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1.1) Introduction
Working capital management

Working capital management is concerned with the problems arise in attempting to manage the current assets, the current liabilities and the inter relationship that exist between them. The term current assets refers to those assets which in ordinary course of business can be, or, will be, turned in to cash within one year without undergoing a diminution in value and without disrupting the operation of the firm. The major current assets are cash, marketable securities, account receivable and inventory. Current liabilities ware those liabilities which intended at there inception to be paid in ordinary course of business, within a year, out of the current assets or earnings of the concern. The basic current liabilities are account payable, bill payable, bank over-draft, and outstanding expenses.
The goal of working capital management is to manage the firmôs current assets and current liabilities in such way that the satisfactory level of working capital is mentioned. The current should be large enough to cover its current liabilities in order to ensure a reasonable margin of the safety.

Definition:-

1. According to Guttmann & Dougall-

ñExcess of current assets over current liabilitiesò.

1. According to Park & Gladson-

ñThe excess of current assets of a business (i.e. cash, accounts receivables, inventories) over current items owned to employees and others (such as salaries & wages payable, accounts payable, taxes owned to government)ò.

1.2) Need of working capital management

The need for working capital gross or current assets cannot be over emphasized. As already observed, the objective of financial decision making is to maximize the shareholders wealth. To achieve this, it is necessary to generate sufficient profits can be earned will naturally depend upon the magnitude of the sales among other things but sales can not convert into cash. There is a need for working capital in the form of current assets to deal with the problem arising out of lack of immediate realization of cash against goods sold. Therefore sufficient working capital is necessary to sustain sales activity. Technically this

cycle. If the company has certain amount of cash, ...sing the raw material may be available on credit basis. Then the company has to spend some amount for labour and factory overhead to convert the raw material in work in progress, and ultimately finished goods. These finished goods convert in to sales on credit basis in the form of sundry debtors. Sundry debtors are converting into cash after expiry of credit period. Thus some amount of cash is blocked in raw materials, WIP, finished goods, and sundry debtors and day to day cash requirements. However some part of current assets may be financed by the current liabilities also. The amount required to be invested in this current assets is always higher than the funds available from current liabilities. This is the precise reason why the needs for working capital arise

1.3) Gross working capital and Net working capital'

There are two concepts of working capital management

1. Gross working capital

Gross working capital refers to the firmôs investment I current assets. Current assets are the assets which can be convert in to cash within year includes cash, short term securities, debtors, bills receivable and inventory.

2. Net working capital

Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses. Net working capital can be positive or negative

Efficient working capital management requires that firms should operate with some amount of net working capital, the exact amount varying from firm to firm and depending, among other things; on the nature of industries.net working capital is necessary because the cash outflows and inflows do not coincide. The cash outflows resulting from payment of current liabilities are relatively predictable. The cash inflow are however difficult to predict. The more predictable the cash inflows are, the less net working capital will be required.

The concept of working capital was, first evolved by **Karl Marx**. Marx used the term óvariable capitalô means outlays for payrolls advanced to workers before the completion of work. He compared this with óconstant capitalô which according to him is nothing but ódead labourô. This óvariable capitalô is nothing

ocked in terms of financial management, in work-operating expenses until it is released through sale of finished goods. Although Marx did not mentioned that workers also gave credit to the firm by accepting periodical payment of wages which funded a portioned of W.I.P, the concept of working capital, as we understand today was embedded in his óvariable capitalô.

1.4) Type of working capital

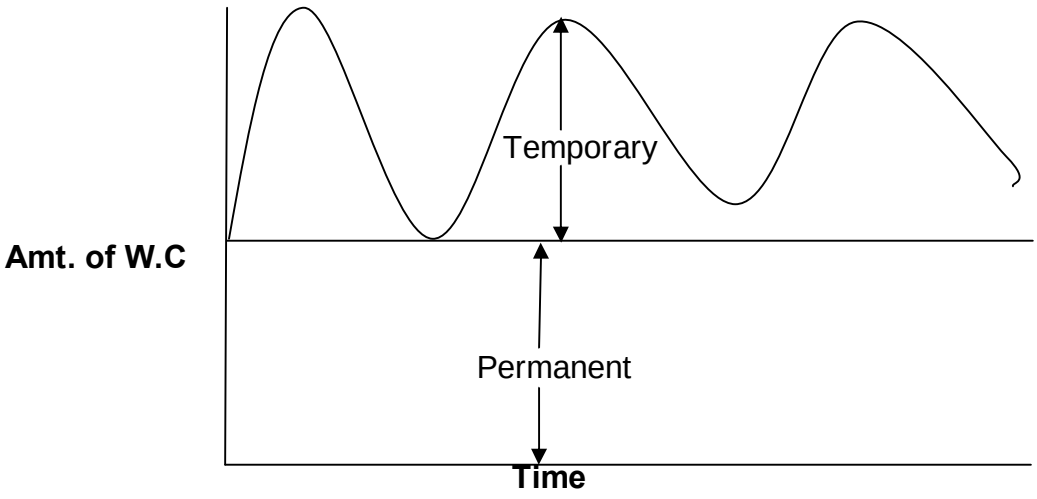
The operating cycle creates the need for current assets (working capital). However the need does not come to an end after the cycle is completed to explain this continuing need of current assets a destination should be drawn between permanent and temporary working capital.

1) Permanent working capital

The need for current assets arises, as already observed, because of the cash cycle. To carry on business certain minimum level of working capital is necessary on continues and uninterrupted basis. For all practical purpose, this requirement will have to be met permanent as with other fixed assets. This requirement refers to as permanent or fixed working capital

2) Temporary working capital

Any amount over and above the permanent level of working capital is temporary, fluctuating or variable, working capital. This portion of the required working capital is needed to meet fluctuation in demand consequent upon changes in production and sales as result of seasonal changes



anent level is fairly castanet; while temporary g in the case of an expanding firm the permanent working capital line may not be horizontal.
This may be because of changes in demand for permanent current assets might be increasing to support a rising level of activity.

1.5) Determinants of working capital

The amount of working capital is depends upon a following factors

1. Nature of business

Some businesses are such, due to their very nature, that their requirement of fixed capital is more rather than working capital. These businesses sell services and not the commodities and that too on cash basis. As such, no founds are blocked in piling inventories and also no funds are blocked in receivables. E.g. public utility services like railways, infrastructure oriented project etc. there requirement of working capital is less. On the other hand, there are some businesses like trading activity, where requirement of fixed capital is less but more money is blocked in inventories and debtors.

2. Length of production cycle

In some business like machine tools industry, the time gap between the acquisition of raw material till the end of final production of finished products itself is quit high. As such amount may be blocked either in raw material or work in progress or finished goods or even in debtors. Naturally there need of working capital is high.

3. Size and growth of business

In very small company the working capital requirement is quit high due to high overhead, higher buying and selling cost etc. as such medium size business positively has edge over the small companies. But if the business start growing after certain limit, the working capital requirements may adversely affect by the increasing size.

4. Business/ Trade cycle

If the company is the operating in the time of boom, the working capital requirement may be more as the company may like to buy more raw material, may increase the production and sales to take the benefit of favorable market, due to increase in the sales, there may more and more amount of funds blocked in stock and debtors etc. similarly in the case of depressions also, working capital may be high as the sales terms of value and quantity may be reducing, there may be unnecessary piling up of stack without getting sold, the receivable may not be recovered in time etc.

5. Terms of purchase and sales

Some time due to competition or custom, it may be necessary for the company to extend more and more credit to customers, as result which more and more amount is locked up in debtors or bills receivables which increase the working capital requirement. On the other hand, in the case of purchase, if the credit is offered by suppliers of goods and services, a part of working capital requirement may be financed by them, but it is necessary to purchase on cash basis, the working capital requirement will be higher.

6. Profitability

The profitability of the business may be vary in each and every individual case, which is in turn its depend on numerous factors, but high profitability will positively reduce the strain on working capital requirement of the company, because the profits to the extend that they earned in cash may be used to meet the working capital requirement of the company.

7**) Operating efficiency**

If the business is carried on more efficiently, it can operate in profits which may reduce the strain on working capital; it may ensure proper utilization of existing resources by eliminating the waste and improved coordination etc.

CHAPTER II

Research Methodology

1) Introduction
2) Types of research methodology
3) Objective of study
4) Scope and limitations of study

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying now research is done systematically. In that various steps, those are generally adopted by a researcher in studying his problem along with the logic behind them.

It is important for research to know not only the research method but also know methodology. òThe procedures by which researcher go about their work of describing, explaining and predicting phenomenon are called methodology.ò Methods comprise the procedures used for generating, collecting and evaluating data. All this means that it is necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem.

Data collection is important step in any project and success of any project will be largely depend upon now much accurate you will be able to collect and how much time, money and effort will be required to collect that necessary data, this is also important step.

Data collection plays an important role in research work. Without proper data available for analysis you cannot do the research work accurately.

2.2) Types of data collection

There are two types of data collection methods available.

1. Primary data collection
2. Secondary data collection

which is collected fresh or first hand, and for first time which is original in nature. Primary data can collect through personal interview, questionnaire etc. to support the secondary data.

2) Secondary data collection method

The secondary data are those which have already collected and stored. Secondary data easily get those secondary data from records, journals, annual reports of the company etc. It will save the time, money and efforts to collect the data. Secondary data also made available through trade magazines, balance sheets, books etc.

This project is based on primary data collected through personal interview of head of account department, head of SQC department and other concerned staff member of finance department. But primary data collection had limitations such as matter confidential information thus project is based on secondary information collected through five years annual report of the company, supported by various books and internet sides. The data collection was aimed at study of working capital management of the company

Project is based on

1. Annual report of JISL 2002-03
2. Annual report of JISL 2003-04
3. Annual report of JISL 2004-05
4. Annual report of JISL 2005-06
5. Annual report of JISL 2006-07

2.3) OBJECTIVES OF THE STUDY

Study of the working capital management is important because unless the working capital is managed effectively, monitored efficiently planed properly and reviewed periodically at regular intervals to remove bottlenecks if any the company can not earn profits and increase its turnover. With this primary objective of the study, the following further objectives are framed for a depth analysis.

1. To study the working capital management of Jain Irrigation Systems Ltd.
2. To study the optimum level of current assets and current liabilities of the company.
3. To study the liquidity position through various working capital related ratios.
4. To study the working capital components such as receivables accounts, cash management, Inventory position
5. To study the way and means of working capital finance of the Jain Irrigation System Ltd.
6. To estimate the working capital requirement of Jain Irrigation System Ltd
7. To study the operating and cash cycle of the company.

2.4) SCOPE & LIMITATIONS OF THE STUDY

The scope of the study is identified after and during the study is conducted. The study of working capital is based on tools like trend Analysis, Ratio Analysis, working capital leverage, operating cycle etc. Further the study is based on last 5 years Annual Reports of Jain Irrigation Systems Ltd. And even factors like competitorôs analysis, industry analysis were not considered while preparing this project.

Limitations of the study

Following limitations were encountered while preparing this project:

1) Limited data:-

This project has completed with annual reports; it just constitutes one part of data collection i.e. secondary. There were limitations for primary data collection because of confidentiality.

2) Limited period:-

This project is based on five year annual reports. Conclusions and recommendations are based on such limited data. The trend of last five year may or may not reflect the real working capital position of the company

3) Limited area:-

Also it was difficult to collect the data regarding the competitors and their financial information. Industry figures were also difficult to get.

CHAPTER III

Introduction of company

1) Corporate Philosophy
2) Corporate History
3) Current Financial Highlights
4) Products Profile

Plastic Park, Jalgaon

PHILOSOPHY

Mission

Leave this world better than you found it.

Vision

Establish leadership in whatever we do at home and abroad.

Credo

Serve and strive through strain and stress;
Do our noblest, that's success.

Goal

Achieve continued growth through sustained innovation for total Customer satisfaction and fair return to all other stakeholders. Meet this objective by producing quality products at optimum Cost and marketing them at reasonable prices.

Guiding Principle

Toil and sweat to manage our resources of men, material and Money in and integrated, efficient and economic manner. Earn profit, keeping in view commitment to social responsibility and Environmental concerns.

Quality Perspective

Make quality a way of life.

Work Culture

Experience: 'Work is life, life is work.'

HISTORY OF JAIN GROUP

The beginning of the road to successé é é é é é é é é

THE ROOTS

The journey of Jain Irrigation Systems Ltd. Began in 1987 when their forefather left the desert of Rajasthan, their home state, in search of water and food, reached WAKOD, at the foothills of world famous Ajanta caves. They started farming as a means of livelihood.

In 1963, young graduate, Shri. Bhavarlal Jain use to sell kerosene in pushcart. Gradually on that he founded business. It was a family partnership firm with a meager 7000/- rupees as capital which was the accumulated savings of three generations. Soon Bhavarlal Jain took the agencies for two wheelers, auto vehicles and automobile accessories were established in quick succession. These were the roots of todayôs Jain group.

THE STORY OF SUCCESS

Shri. Bhavarlal Jain was inspired by the quote ñAgriculture, a profession with great future.ò So he added the dealership of Tractors, sprinkler systems, PVC pipes and other farm equipments. In order to expand the agri-business, he took the agency for farm inputs such as fertilizers, seeds, pesticides etc. were also added. The sales of their business grew from Rs. 1 million in 1963 to Rs. 110 million in 1978, registering a phenomenal increase of 110 times. These formative years helped him to build a unique and lasting enterprise.

This was achieved through consistent high standard performance and personal behavior on one hand and a strong sense of commitment for meeting targeted volumes and for payment of debts in time on the other. The main contributing factors towards building these attitudes were their principles and this helped the company to come to be recognized as reputable, trustworthy and prestigious house.

ll for an entry into the industrial ventures.

TAKEOVER OF PAPAIN PLANT

The company took over a 14 year old sick Banana powder plant in April 1978 at a high auction price of Rs. 3 million while they just had Rs. 2 million as investible surplus. Then the plant was quickly modified for the production of papain from papaya latex. In December 1978, the founder traveled to New York in search of customers for Jain papain. The competition for purchase of raw material at home and for sale of papain abroad was stiff; however company developed purified papain through ceaseless in-house Research & Development and emerged as the no.1 supplier of the highest purity refined papain. Thus papain put the company on the international map.

PVC PIPES

In 1980 he started manufacturing of PVC pipes with a small annual capacity of 300 MTs, which was increased to 35,600 MTs per annum by 1997, making the company the single largest producer of PVC pipes in the country. A close-knit dealer distribution network in the rural areas coupled with continuous automation and up gradation of product facilities and in-house R & D for maximum capacity utilization has kept the company at the forefront. This further helped to the company to expand the range to casing and screen piping systems thereby continuing to contribute to the growing export volumes.

'STEMS (MIS)

In the beginning of 1989, company toiled and struggled to pioneer the water management through micro irrigation in India. The company has successfully introduced some hi-tech concepts to Indian agriculture such as ôIntegrated System Approachô, ôOne Stop Shop for Farmersô, ôInfrastructure Status to Micro Irrigation and Farm as Industryô. All in all the company has a long way.

ENTRY INTO FOOD PROCESSING

In 1994 company set up the world class food processing facilities for Dehydration of onion, vegetables, production of fruit purees, concentrates and pulp. These plants are ISO: 9001 and HACCP certified and meet the international FDA statute requirements combining the modern technologies of the west with the east. It consist mostly untapped agriculture resources of India, using the local human resource and inculcating the culture of excellence in quality and total customer service. The company has set themselves a goal ôto become a major and reliable global supplier of food ingredients of finest qualityô.

Today with over 4000 committed employees strength worldwide company have established their leadership in diverse products like micro and sprinkler irrigation systems, agro inputs, agro-processed products, plastic pipes and sheets.

Key products

3.3) PRESENT STATUS WITH FINANCIAL HIGHLIGHTS

1. **Pioneers** of Micro Irrigation Systems in India.
2. The only manufacturer of complete drip irrigation systems **in the world.**
3. The **largest producer** of Plastic Pipes in India.
4. The **only manufacturer** producing widest range of Plastic Sheets (PC & PVC) under one roof.
5. Annually Processing over 1, 00,000 MT of different polymers.
6. The **largest Processor** of Fruits & Vegetables in India.
7. The largest Mango Pulp Processor in the organized sector with built capacity of about 58000 - 60000 MTs per annum.
8. All divisions of the company are **ISO-9001-2001** accredited by **RWTUV, Germany.**
9. Irrigation, Plastic Piping & Plastic Sheet divisions are ISO-9001:2001 & ISO-14001:2004 accredited by RWTUV, Germany.
10. JISL food **division** has achieved certifications of **HACCP, SGF & KOSHER**.
11. Achieved **Rs. 4, 0722 lacks exports** in the financial year 2006-2007 from the toughest markets in the world.
12. JAIN is India's only one-stop high-tech integrated agricultural shop.
13. The **largest producer** of Tissue culture Banana Plants in India.

ncial Highlights for year 2005-06

(Rs. In lakhs, except per share data)

PARTICULARS	Year2006-07	Year 2005-06
Domestic sales	1,10,355	80,281
Export sales	40,720	29,029
Other operating income	681	336
Less: Operating Exp.	24,332	18,623
Sales & operating income	**1,27,424**	**91,023**
Operating profit (PBDIT)	**22,654**	**15527**
Interest & finance charges	6,558	4,711
Depreciation , amortization, written off	3,136	2,625
Profit before taxation (PBT)	**12,960**	**8,191**
Provision for tax		
- Current	84	
- Deferred(assets)/ liability	(2830)	(128)
- Fringe benefit	115	70
Profit for the year (PAT)	**9,911**	**6,716**
Earnings per share (Rs.)		
-Basic	16.19	10.79
-Diluted	16.19	10.78

ROFILE

able 3.2 Product Profile

Product	Brand Name	Uses & Application
Drip Irrigation System	Jain Drip	Farm Irrigation & Landscape
Sprinkler Irrigation Systems	Jain Sprinkler	Farm Irrigation & Landscape
PVC Pipes	Jain Pipe	Water Supply, Farm Irrigation, Plumbing, Cable Ducting
High Density Poly-Ethylene (ñPEò) Pipes Distribution	Jain PE Pipe	Water, Sewage, Effluents, Cable Ducting, Gas Distribution
PVC Sheets - Free Foam - Integral Foam - Rigid	Ex-Cel	Trim, Display, Sign Boards, Marine Ind., Advertising, Ind. Application, Interiors
Poly Carbonate (PC) Sheets - PC Compact - PC Corrugated	Ex-Cel	Building, Transport, Greenhouse, Roofing
Dehydrated Onions	Farm Fresh	Processed Food, Soups
Fruit Puree And Concentrates	Farm Fresh	Juices, Foods & Confectionary
Tissue Culture Plants	Jain Tissue Culture	Agriculture Plantation
Solar Water Heating & Photo-Voltaic	Jain Sun Watt Jain Jyot	Domestic & Industrial Uses

CHAPTER IV

Working Capital level and analysis

1) Working capital level.
2) Working capital trend analysis.
3) Current assets analysis.
4) Current liability analysis.
5) Changes of working capital
6) Operating cycle
7) Working capital leverage

4.1) Working capital level

The consideration of the level investment in current assets should avoid two danger points excessive and inadequate investment in current assets. Investment in current assets should be just adequate, not more or less, to the need of the business firms. Excessive investment in current assets should be avoided because it impairs the firmôs profitability, as idle investment earns nothing. On the other hand inadequate amount of working capital can be threatened solvency of the firms because of itôs inability to meet itôs current obligation. It should be realized that the working capital need of the firms may be fluctuating with changing business activity. This may cause excess or shortage of working capital frequently. The management should be prompt to initiate an action and correct imbalance

Table 4.1- Size of working capital

(Rs. In Lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
A) Current assets					
Inventories	9180	10827	15437	18373	27430
Sundry Debtors	13346	16200	22304	28305	44051
Cash & Bank Balance	2228	1378	1127	22619	3566
Other Assets	1556	349	329	571	1010
Loan & Advances	7765	7341	7271	7577	10751
Total of A(Gross W.C.)	**34075**	**36095**	**46468**	**77445**	**86808**
B) Current liabilities					
Current liabilities	14515	16572	20019	30789	43203
Provisions	138	308	369	3018	2594
Total of B	**14653**	**16880**	**20388**	**33807**	**45797**
Net W.C.(A-B)	**19422**	**19215**	**26080**	**43638**	**41011**

ital trend analysis

In working capital analysis the direction at changes over a period of time is of crucial importance. Working capital is one of the important fields of management. It is therefore very essential for an annalist to make a study about the trend and direction of working capital over a period of time. Such analysis enables as to study the upward and downward trend in current assets and current liabilities and itôs effect on the working capital position.

In the words of S.P. Gupta ñThe term trend is very commonly used in day-to-day conversion trend, also called secular or long term need is the basic tendency of population, sales, income, current assets, and current liabilities to grow or decline over a period of timeò

According to R.C.galeziem "The trend is defined as smooth irreversible movement in the series. It can be increasing or decreasing.ò

Emphasizing the importance of working capital trends, **Man Mohan** and **Goyal** have pointed out that ñanalysis of working capital trends provide as base to judge whether the practice and privilege policy of the management with regard to working capital is good enough or an important is to be made in managing the working capital funds.

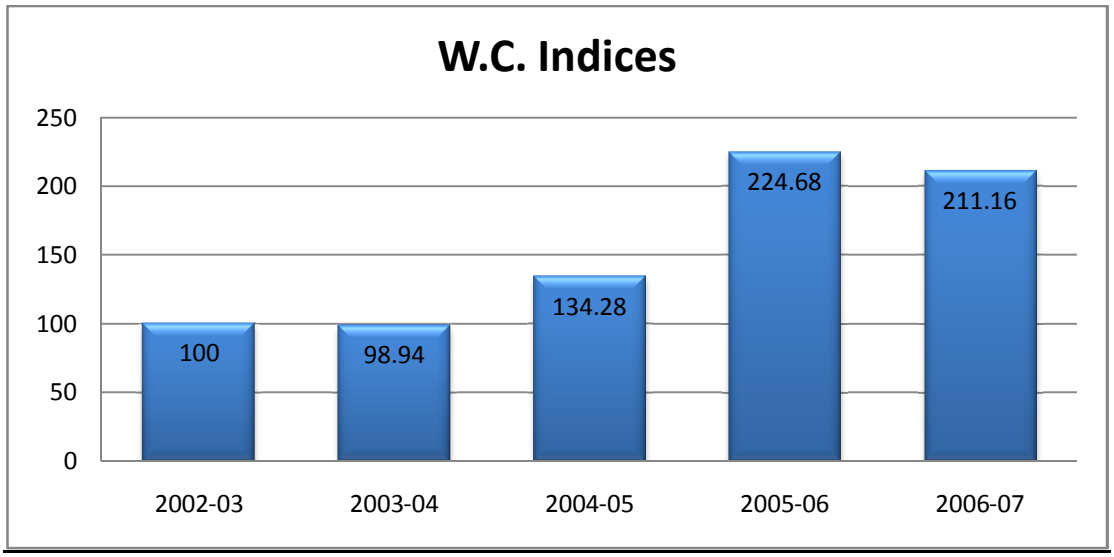
Further, any one trend by it self is not very informative and therefore comparison with
Illustrated their ideas in these words, ñAn upwards trends coupled with downward trend or sells, accompanied by marked increase in plant investment especially if the increase in planning investment by fixed interest obligationò

Table 4.2-Working capital size

(Rs. In Lakhs)

Years	2002-03	2003-04	2004-05	2005-06	2006-07
Net W.C.(A-B)	19423	19217	26081	43640	41013
W.C. Indices	100	98.94	134.28	224.68	211.16

Chart4.1- Working capital indices



Observations

It was observed that major source of liquidity problem is the mismatch between current payments and current receipts from the Comparison of funds flow statements of JISL for five years. It was observed that in the year 2004-05 current assets increased by around 29% and current liabilities increased only by 19% which affect as working capital increased by 35%. In the year 2005 to 2006 net working capital increased to Rs 4364 million from Rs. 2608 million, the increase in working capital is close to 67%. While current assets increased by 66% and current liabilities by 65%. It shows that management is using long term funds to short term requirements. And it has fallen to Rs.4101 million in the year 2007 because current assets gone up by only 12%, current liabilities grown by 35%. This two together pushed down the net working capital to the present level. The fall in working capital is a clear indication that the company is utilizing its short term resources with efficiency.

ts

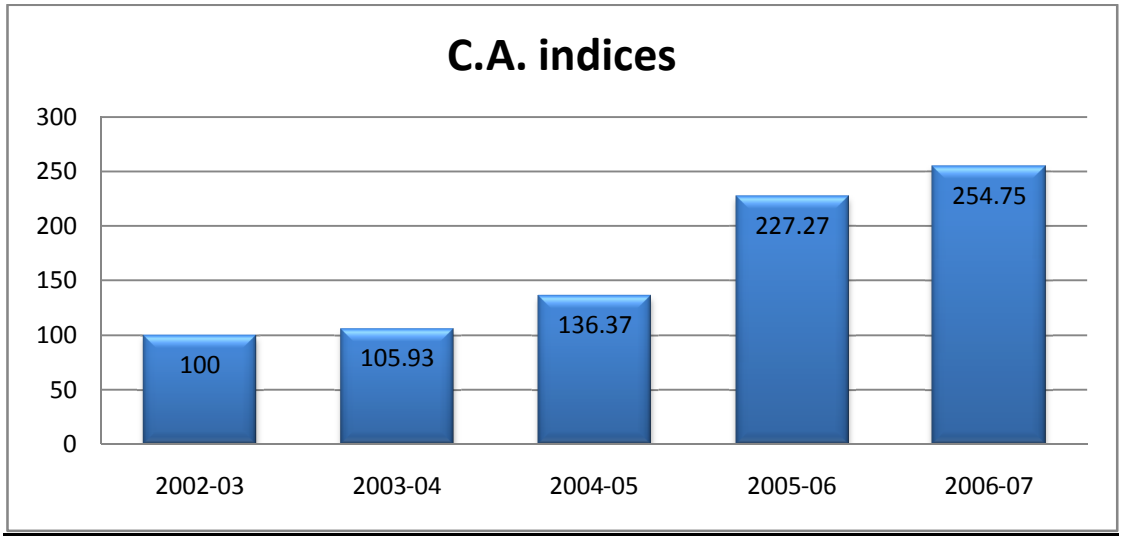
Total assets are basically classified in two parts as fixed assets and current assets. Fixed assets are in the nature of long term or life time for the organization. Current assets convert in the cash in the period of one year. It means that current assets are liquid assets or assets which can convert in to cash within a year.

Table 4.3-Current assets size

(Rs. In Lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Inventories	9180	10827	15437	18373	27430
Sundry Debtors	13346	16200	22304	28305	44051
Cash & Bank Balance	2228	1378	1127	22619	3566
Other Assets	1556	349	329	571	1010
Loan & Advances	7765	7341	7271	7577	10751
Total of C.A.	**34075**	**36095**	**46468**	**77445**	**86808**
C.A. indices	**100**	**105.93**	**136.37**	**227.27**	**254.75**

Chart4.2- C.A. Indices



ent assets

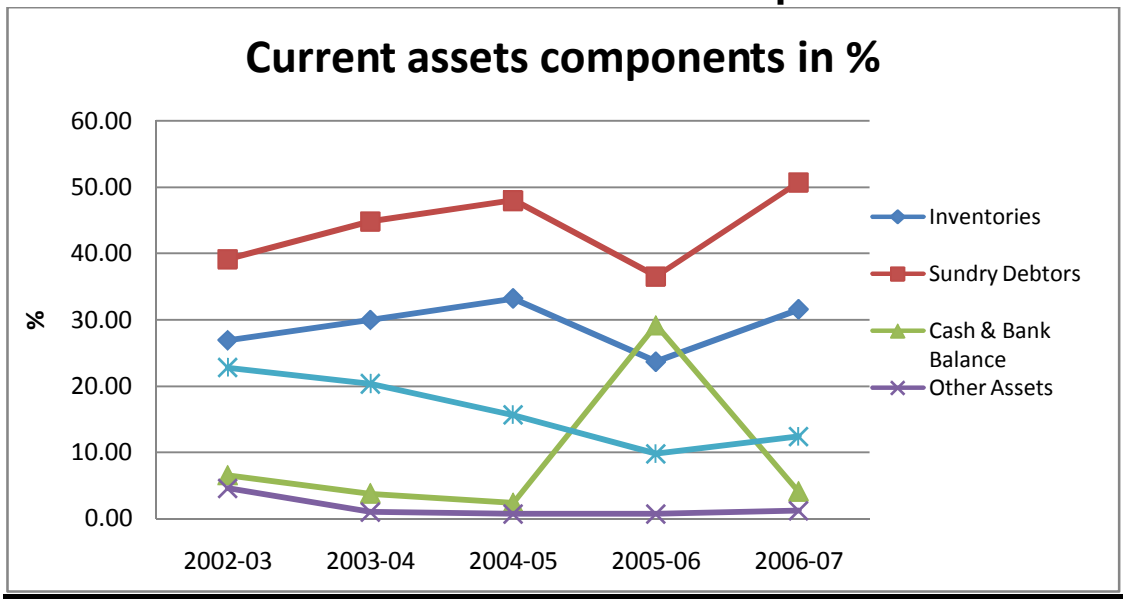
components enable one to examine in which components the working capital fund has locked. A large tie up of funds in inventories affects the profitability of the business or the major portion of current assets is made up cash alone, the profitability will be decreased because cash is non earning assets.

Table 4.4- composition of current assts

(No. in %)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Inventories	26.94	29.99	33.22	23.72	31.60
Sundry Debtors	39.16	44.88	48.00	36.55	50.74
Cash & Bank Balance	6.54	3.82	2.43	29.21	4.11
Other Assets	4.57	0.97	0.71	0.74	1.16
Loan & Advances	22.79	20.34	15.65	9.78	12.39
Total of C.A.	**100**	**100**	**100**	**100**	**100**

Chart4.3- Current assets components



of current assets is increasing with increases in the sales. The excess of current assets is showing positive liquidity position of the firm but it is not always good because excess current assets then required, it may adversely affects on profitability. Current assets include some funds investments for which company pay interest. The balance of current assets is highly increased in year 2005-06, because of increase in cash balance. Cash balance of the company increased in the same year because company got some encashment of deposits in the schedule Banks as current account Rs.439 million and fixed deposits (out of ZCCB funds) Rs.1785 million. Current assets components show sundry debtors are the major part in current assets it indicates that the inefficient collection management. Over investment in the debtor affects liquidity of firm for that company has raised funds from other sources like short term loan which incurred the interest.

4.4) Current liabilities

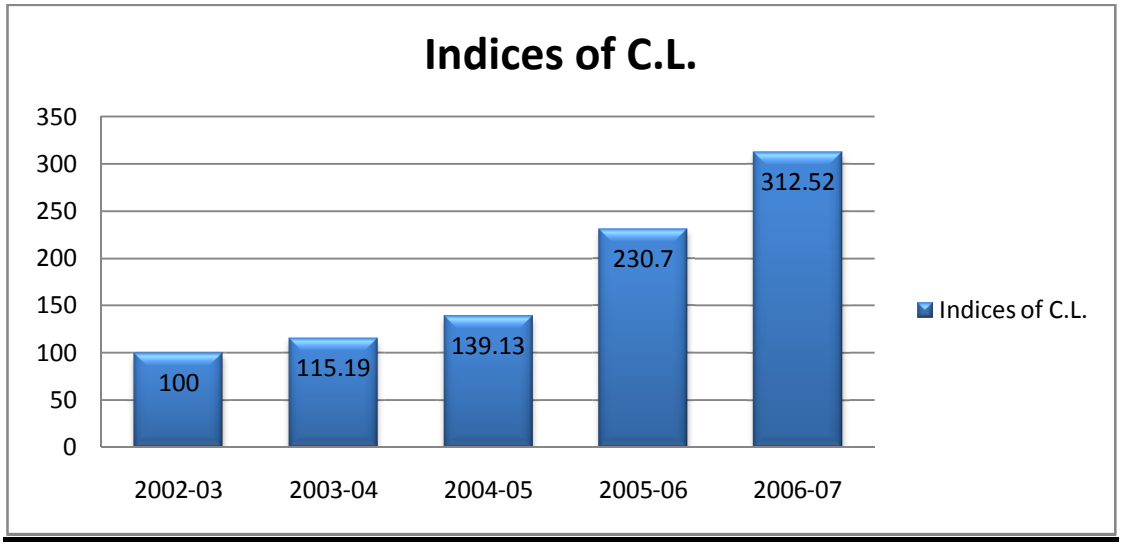
Current liabilities mean the liabilities which have to pay in current year. It includes sundry creditorôs means supplier whose payment is due but not paid yet, thus creditors called as current liabilities. Current liabilities also include short term loan and provision as tax provision. Current liabilities also includes bank overdraft. For some current assets like bank overdrafts and short term loan, company has to pay interest thus the management of current liabilities has importance

Table 4.5-Current liabilities size

(Rs. In Lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Current liabilities	14515	16572	20019	30789	43203
Provisions	138	308	369	3018	2594
Total of C.L	**14653**	**16880**	**20388**	**33807**	**45797**
Indices of C.L.	**100**	**115.19**	**139.13**	**230.7**	**312.52**

Chart4.4



Observations

Current liabilities show continues growth each year because company creates the credit in the market by good transaction. To get maximum credit from supplier which is profitable to the company it reduces the need of working capital of firm. As a current liability increase in the year 2006-07 by 35% it reduce the working capital size in the same year. But company enjoyed over creditors which may include indirect cost of credit terms.

4.5) Changes in working capital

There are so many reasons to changes in working capital as follow

1. Changes in sales and operating expanses:-

The changes in sales and operating expanses may be due to three reasons

1. There may be long run trend of change e.g. The price of row material say oil may constantly raise necessity the holding of large inventory.
2. Cyclical changes in economy dealing to ups and downs in business activity will influence the level of working capital both permanent and temporary.
3. Changes in seasonality in sales activities

4. Policy changes:-

The second major case of changes in the level of working capital is because of policy changes initiated by management. The term current assets policy may be defined as the relationship between current assets and sales volume.

5. Technology changes:-

The third major point if changes in working capital are changes in technology because change sin technology to install that technology in our business more working capital is required

A change in operating expanses rise or full will have similar effects on the levels of working following working capital statement is prepared on the base of balance sheet of last two year.

(Rs. In Lakhs)

Table 4.6- **Statement of changes in working capital**

Particulars	2005-06	2006-07	Changes in W.C.	
			Increase	Decrease
A) Current assets				
Inventories	18373	27430	9057	
Sundry Debtors	28305	44051	15746	
Cash & Bank Balance	22619	3566		19053
Other Assets	571	1010	439	
Loan & Advances	7577	10751	3174	
Total of A	**77445**	**86808**		
B) Current liabilities				
Current liabilities	30789	43203		12414
Provisions	3018	2594	424	
Total of B	**33807**	**45797**		
W.C.(Total A- Total B)	**43638**	**41011**		
Net Decrease in Working Capital		**2627**	**2627**	
Total	**43638**	**43638**	**31467**	**31467**

Observations

Working capital decreased in the year 2006 to 2007 because

1. Sales increased by around 35%, where cost of raw material purchased increased by 42% and manufacturing expanses increased by 51%.
2. Cost of material and manufacturing expanses increased because of inflation, which was 6.63% in Feb. 2007 increased from 4%in 2006.

4.6) Operating Cycle

The need of working capital arrived because of time gap between production of goods and their actual realization after sale. This time gap is called ñOperating Cycleò or ñWorking Capital Cycleò. The operating cycle of a company consist of time period between procurement of inventory and the collection of cash from receivables. The operating cycle is the length of time between the companyôs outlay on raw materials, wages and other expanses and inflow of cash from sales of goods.

Operating cycle is an important concept in management of cash and management of cash working capital. The operating cycle reveals the time that elapses between outlays of cash and inflow of cash. Quicker the operating cycle less amount of investment in working capital is needed and it improves profitability. The duration of the operating cycle depends on nature of industries and efficiency in working capital management.

Calculation of operating cycle

To calculate the operating cycle of JISL used last five year data. Operating cycle of the JISL vary year to year as changes in policy of management about credit policy and operating control

Table 4.7- Operating cycle (No. of Days)

Year	2002-03	2003-04	2004-05	2005-06	2006-07
ADD.					
Raw mat. Holding period	70	66	58	54	58
WIP period	2	4	3	2	1
Finished goods holding period	51	58	47	39	36
Receivable collection period	155	133	116	107	109
Gross operating cycle	**278**	**261**	**224**	**202**	**204**
LESS.					
Creditors payment period	169	178	122	130	130
Net operating cycle	**109**	**83**	**102**	**72**	**74**

Chart4.5

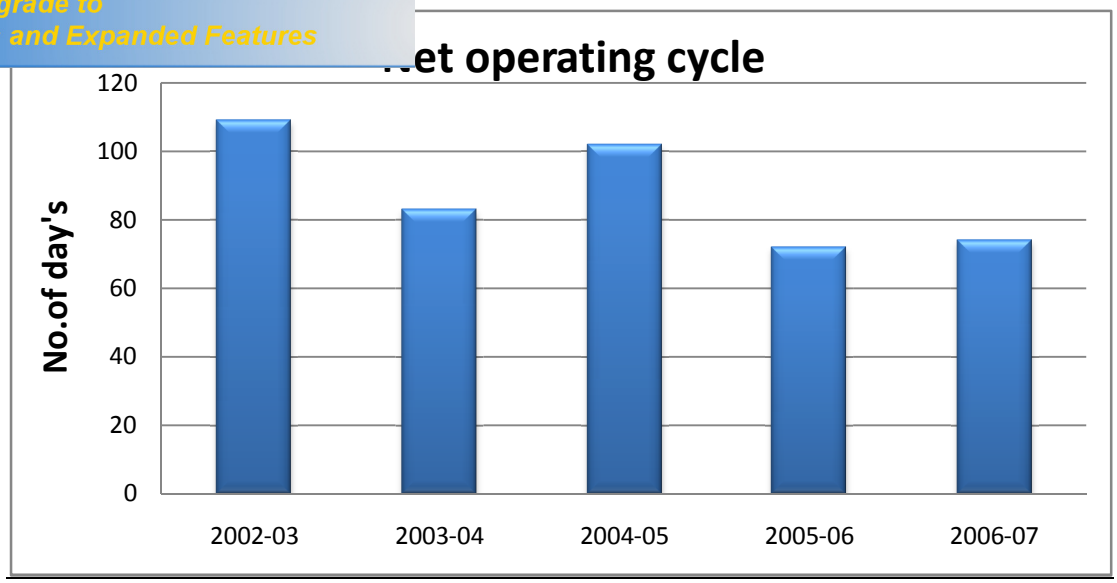
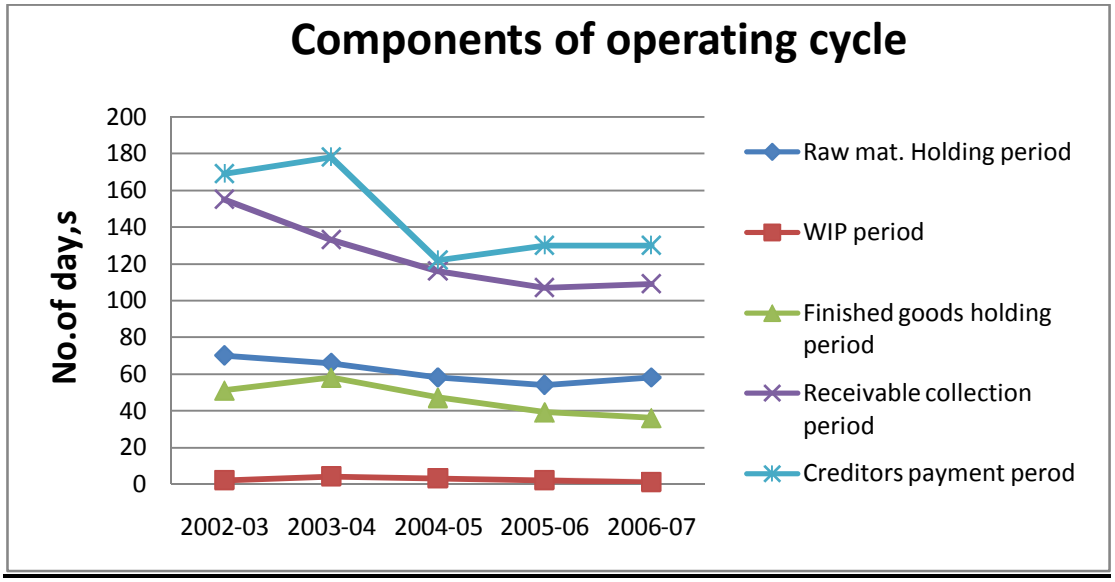


Chart4.6



Observations

Operating cycle of JISL shows the numbers of day are decreasing in recent year it is reflect the efficiency of management. Days of operating cycle shows period of lack of funds in current assets, if no of day are more than it increases the cost of funds as taken from outside of the business. In 2004-05 shows the high no. of days because of reduced of creditors holding period.

4.7) Working capital leverage

ectives of working capital management is by el of investment in current assets and by reducing the level of investment in current assets and by reducing the level of current liabilities the company can minimize the investment in the working capital thereby improvement in return on capital employed is achieved. The term working capital leverage refers to the impact of level of working capital on companyôs profitability. The working capital management should improve the productivity of investment in current assets and ultimately it will increase the return on capital employed. Higher level of investment in current assets than is actually required means increase in the cost of Interest charges on short term loans and working capital finance raised from banks etc. and will result in lower return on capital employed and vice versa. Working capital leverage measures the responsiveness of ROCE (Return on Capital Employed) for changes in current assets. It is measures by applying the following formula,

$$\text{Working capital leverage} = \frac{\%\ \text{Changes in ROCE}}{\%\ \text{Changes in current assets}}$$

$$\text{Return on capital employed} = \frac{\text{EBIT}}{\text{Total assets}}$$

The working capital leverage reflects the sensitivity of return on capital employed to changes in level of current assets. Working capital leverage would be less in the case of capital intensive capital employed is same working capital leverage expresses the relation of efficiency of working capital management with the profitability of the company.

Table 4.8-Calculation of working capital leverages.

Year	**2003-04**	**2004-05**	**2005-06**	**2006-07**
ROCE %	12.32	14.89	15	18.48
% Changes in ROCE	36.88	20.86	0.745	23.2
% Changes in C.A	5.93	28.83	65.99	12.09
W.C. Leverages	**6.22**	**0.72**	**0.011**	**1.92**

t4.7- W.C. Leverage

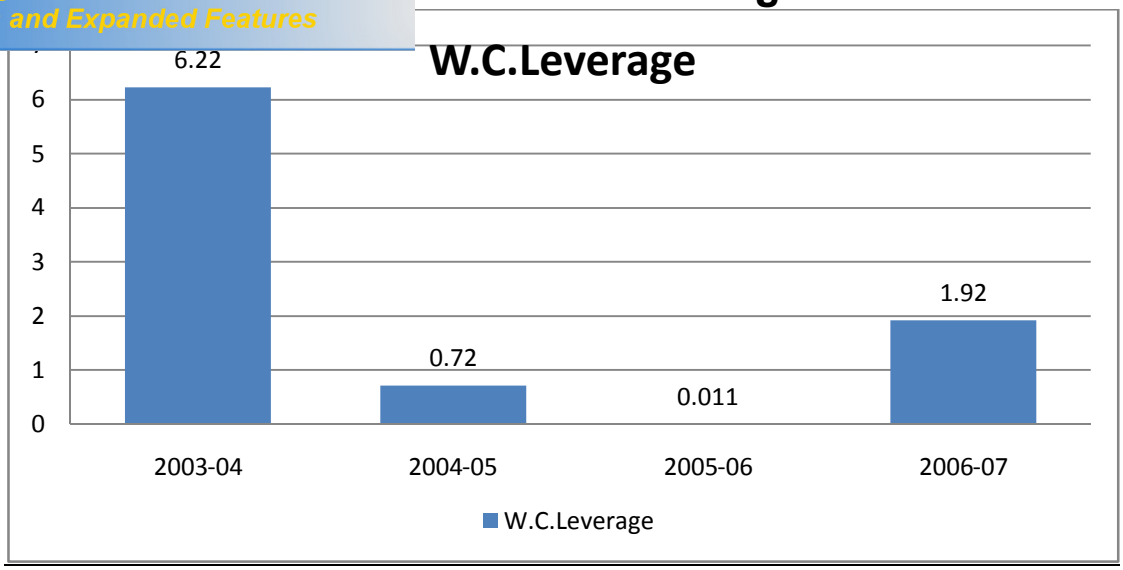
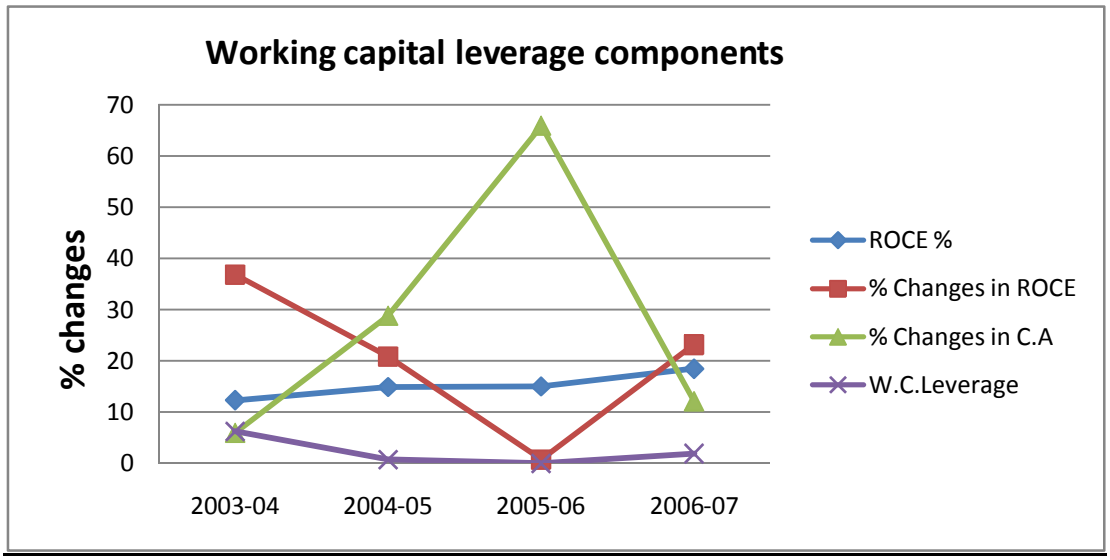


Chart4.8-



Observations

Working capital leverage of the company has decreased in the year 2007 as compare to the year 2003-04 reduction in working capital shows the inefficient current assets management. In the year 2004-05 and 2005-06 the current assets has increased by high rate of 28% and 65% respectively. It adversely affects on ROCE, which increased by only rate of 20.86% and 0.74% respectively, that resulted in push down the working capital leverage to 0.72 and 0.011 respectively. When investment in current assets is more than requirement that increases the cost of funds raised from short term sources may be bank loans, which affected on profitability of the JISL.

CHAPTER V

Working Capital Ratio analysis

1) Introduction
2) Role of ratio analysis
3) Limitations of ratio analysis
4) Classifications of ratios
5) Efficiency ratio
6) Liquidity ratio

tool of financial statements analysis. A ratio is define as ñthe indicated quotient of two mathematical expressionsò and as ñthe relationship between two or more thingsò. The absolute figures reported in the financial statement do not provide meaningful understanding of the performance and financial position of the firm. Ratio helps to summaries large quantities of financial data and to make qualitative judgment of the firmôs financial performance

5.2) Role of ratio analysis

Ratio analysis helps to appraise the firms in the term of there profitability and efficiency of performance, either individually or in relation to other firms in same industry. Ratio analysis is one of the best possible techniques available to management to impart the basic functions like planning and control. As future is closely related to the immediately past, ratio calculated on the basis historical financial data may be of good assistance to predict the future. E.g. On the basis of inventory turnover ratio or debtorôs turnover ratio in the past, the level of inventory and debtors can be easily ascertained for any given amount of sales. Similarly, the ratio analysis may be able to locate the point out the various arias which need the management attention in order to improve the situation. E.g. Current ratio which shows a constant decline trend may be indicate the need for further introduction of long term finance in order to increase the liquidity position. As the ratio analysis is concerned with all the aspect of the firmôs financial analysis liquidity, solvency, activity, profitability and overall performance, it enables the interested persons to know the financial and operational characteristics of an organization and take suitable decisions.

5.3) Limitations of ratio analysis

1. The basic limitation of ratio analysis is that it may be difficult to find a basis for making the comparison
2. Normally, the ratios are calculated on the basis of historical financial statements. An organization for the purpose of decision making may need the hint regarding the future happiness rather than those in the past. The external analyst has to depend upon the past which may not necessary to reflect financial position and performance in future.
3. The technique of ratio analysis may prove inadequate in some situations if there is differs in opinion regarding the interpretation of certain ratio.
4. As the ratio calculates on the basis of financial statements, the basic limitation which is applicable to the financial statement is equally

echnique of ratio analysis also i.e. only facts which ancial terms are considered by the ratio analysis.

5. The technique of ratio analysis has certain limitations of use in the sense that it only highlights the strong or problem arias, it dose not provide any solution to rectify the problem arias

5.4) Classification of working capital ratio

Working capital ratio means ratios which are related with the working capital management e.g. current assets, current liabilities, liquidity, profitability and risk turnoff etc. these ratio are classified as follows

1. Efficiency ratio

The ratios compounded under this group indicate the efficiency of the organization to use the various kinds of assets by converting them the form of sale. This ratio also called as activity ratio or assets management ratio. As the assets basically categorized as fixed assets and current assets and the current assets further classified according to individual components of current assets viz. investment and receivables or debtors or as net current assets, the important of efficiency ratio as follow

1. Working capital turnover ratio
2. Inventory turnover ratio
3. Receivable turnover ratio
4. Current assets turnover ratio

5. Liquidity ratio

The ratios compounded under this group indicate the short term position of the organization and also indicate the efficiency with which the working capital is being used. The most important ratio under this group is follows

1. Current ratio
2. Quick ratio
3. Absolute liquid ratio

tio

1) Working capital turnover ratio

It signifies that for an amount of sales, a relative amount of working capital is needed. If any increase in sales contemplated working capital should be adequate and thus this ratio helps management to maintain the adequate level of working capital. The ratio measures the efficiency with which the working capital is being used by a firm. It may thus compute net working capital turnover by dividing sales by working capital.

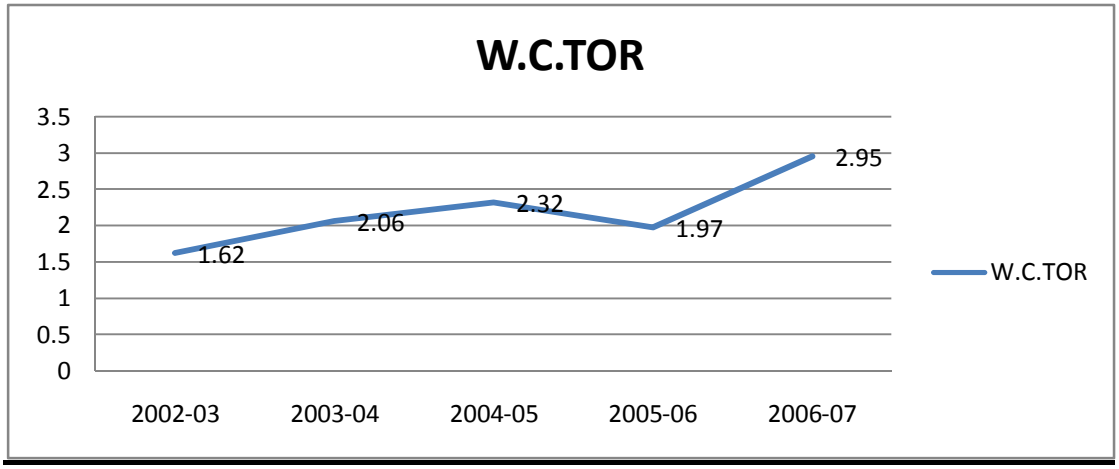
$$= \frac{\text{Sales}}{\text{Net working capital}}$$

Table 5.1 - W.C turnover

(Rs. In Lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
sales	31402	39612	60481	85901	120848
Net W.C.	19422	19213	26081	43646	41019
W.C.TOR	**1.62**	**2.06**	**2.32**	**1.97**	**2.95**

Chart No. 5.1



indicates the capability of the organization to achieve maximum sales with the minimum investment in working capital. Companyôs working capital ratio shows mostly more than two, except for the year 2005-06 because of excess of cash balance in current assets which occurred due to encashment of deposits. In the year 2007 the ratio was around 3, it indicates that the capability of the company to achieve maximum sales with the minimum investment in working capital.

2) Inventory turnover ratio

Inventory turnover ratio indicates the efficiency of the firm in producing and selling its products. It is calculated by dividing the cost of good sold by average inventory:

$$\text{Inventory TOR} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

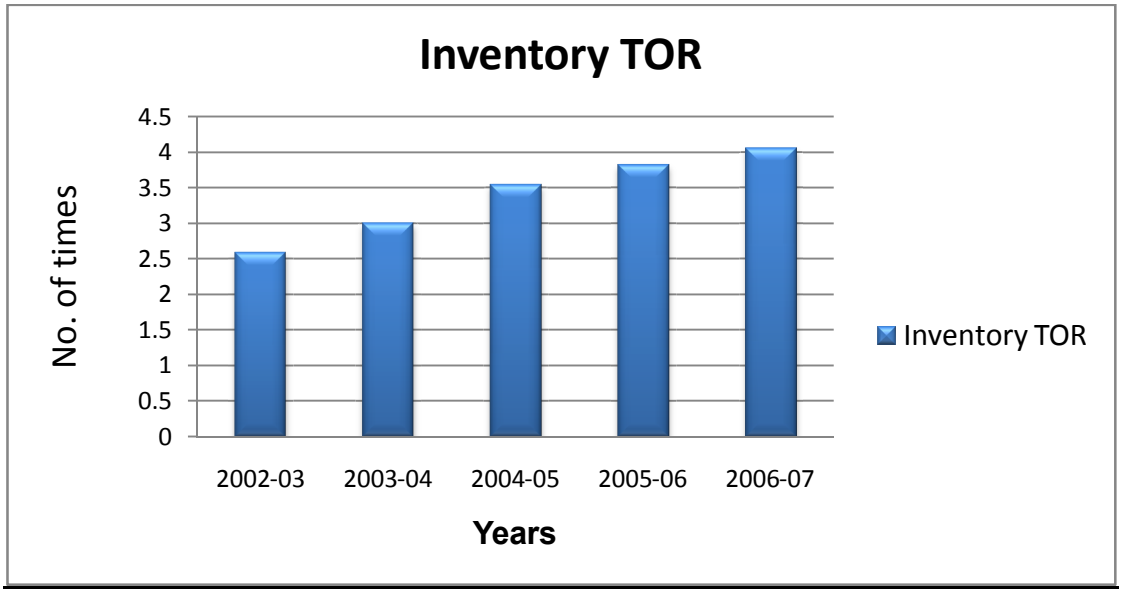
The average inventory is the average of opening and closing balance of inventory in a manufacturing company like JISL inventory of finished goods is used to calculate inventory turnover ratio

Table 5.2- inventory turnover

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Cost of goods sold	23770	30030	46490	64590	92890
Average inventory	9180	10000	13140	16900	22900
Inventory TOR	**2.59**	**3.00**	**3.54**	**3.82**	**4.05**

Chart no. 5.2-



Observations

It was observed that Inventory turnover ratio indicates maximum sales achieved with the minimum investment in the inventory. As such, the general rule high inventory turnover is desirable but high inventory turnover ratio may not necessary indicates the profitable situation. An organization, in order to achieve a large sales volume may sometime sacrifice on profit, inventory ratio may not result into high amount of profit.

3) Receivable turnover ratio

The derivation of this ratio is made in following way

$$\text{Receivable turnover ratio} = \frac{\text{Gross sales}}{\text{Average account receivables}}$$

Gross sales are inclusive of excise duty and scrap sales because both may enter in to receivables by credit sales. Average receivable calculate by opening plus

2. Increasing volume of receivables without a reflected by a low receivable turnover ratio. It is indication of slowing down of the collection system or an extend line of credit being allowed by the customer organization. The latter may be due to the fact that the firm is loosing out to competition. A credit manager engage in the task of granting credit or monitoring receivable should take the hint from a falling receivable turnover ratio use his market intelligence to find out the reason behind such failing trend.

Debtor turnover indicates the number of times debtors turnover each year. Generally the higher the value of debtorôs turnover, the more is the management of credit.

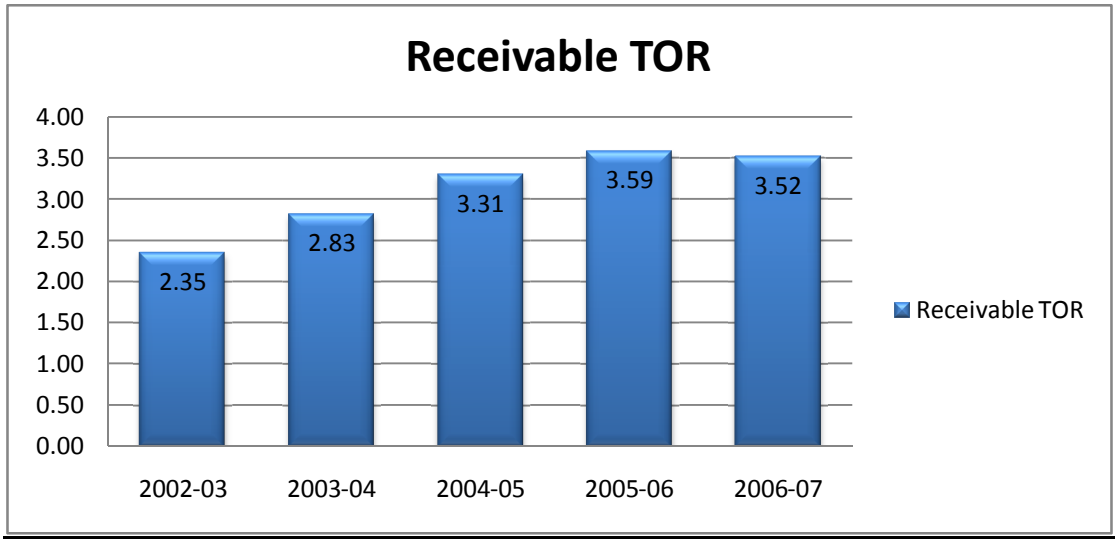
$$\text{Debtorôs turnover ratio} = \frac{365 \text{ days}}{\text{Receivable turnover ratio}}$$

Table 5.3- **Calculation of debtor's turnover ratio**

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Gross sales	31410	41760	63640	91020	127420
Avg. Debtors	13350	14780	19250	25370	36180
Receivable TOR	2.35	2.83	3.31	3.59	3.52

Chart no. 5.3



Observations

able turnover ratio that receivables turned around mes. The actual collection period was more than normal collection period allowed to customer. It concludes that over investment in the debtors which adversely affect on requirement of the working capital finance and cost of such finance.

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4) Current assets turnover ratio

Current assets turnover ratio is calculate to know the firms efficiency of utilizing the current assets .current assets includes the assets like inventories, sundry debtors, bills receivable, cash in hand or bank, marketable securities, prepaid expenses and short term loans and advances. This ratio includes the efficiency with which current assets turn into sales. A higher ratio implies a more efficient use of funds thus high turnover ratio indicate to reduced the lock up of funds in current assets. An analysis of this ratio over a period of time reflects working capital management of a firm.

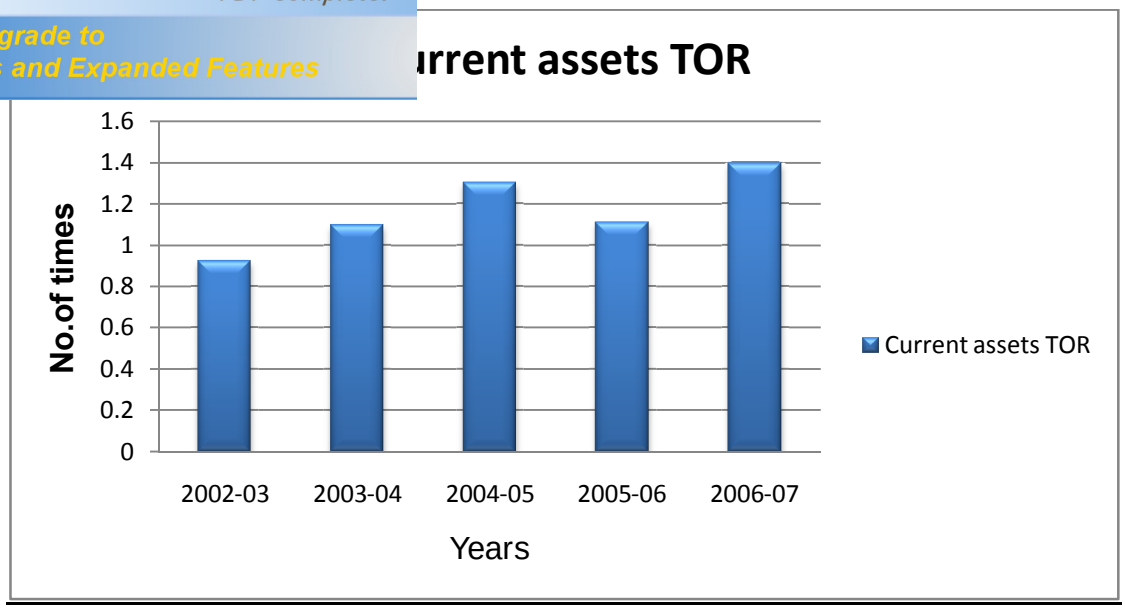
$$\text{Current assets TOR} = \frac{\text{Sales}}{\text{Current assets}}$$

Table 5.4-Calculation of current assets turnover ratio

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
sales	31400	39610	60480	85880	120840
current assets	34080	36100	46470	77450	86810
Current assets TOR	**0.92**	**1.10**	**1.30**	**1.10**	**1.39**

Chart No.5.4



Observations

It was observed that current assets turnover ratio does not indicate any trend over the period of time. Turnover ratio was 0.92 in the year 2002-03 and increase to 1.10 and 1.30 in the year 2004 and 2005 respectively, but it decreased in the year 2005-06, because of high cash balance. Cash did not help to increase in sales volume, as cash is non earning asset. In the year 2006-07 company increased its sales with increased investment in current assets, thus current assets turnover ratio increased to 1.39 from 1.1 in the year 2005-06

5.6) Liquidity ratio

1) Current ratio

The current is calculated by dividing current assets by current liabilities:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

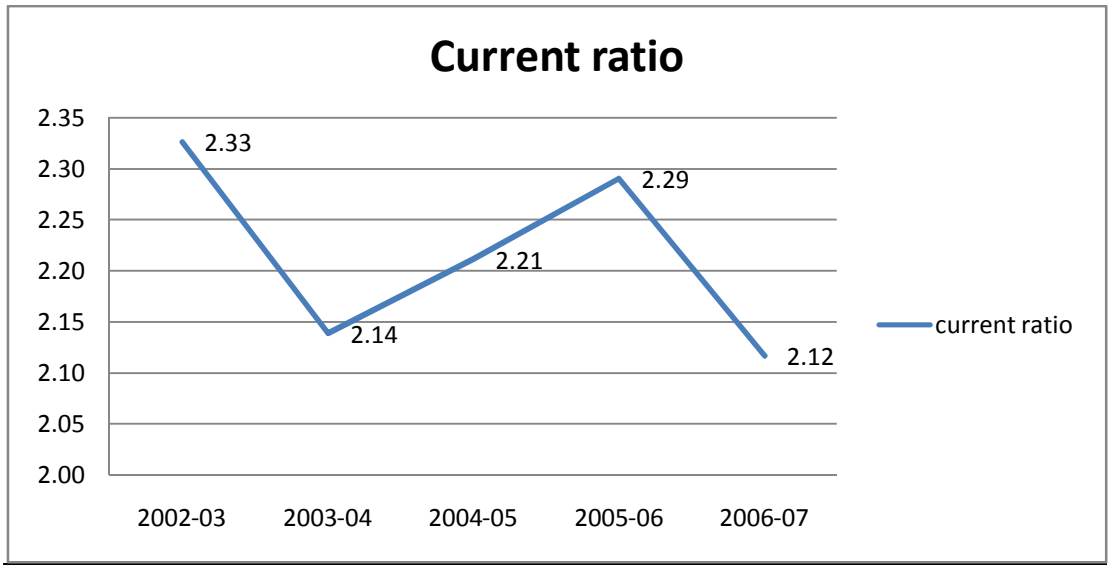
nd those assets which can be converted in to cash etable securities, debtors and inventories. All obligations within a year are include in current liabilities. Current liabilities include creditors, bills payable accrued expenses, short term bank loan income tax liabilities and long term debt maturing in the current year. Current ratio indicates the availability of current assets in rupees for every rupee of current liability.

Table5.5-Current ratio

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
current assets	34080	36100	46470	77450	86810
current liabilities	14650	16880	21010	33810	41010
Current ratio	**2.33**	**2.14**	**2.21**	**2.29**	**2.12**

Chart No.5.5



Observations

The current ratio indicates the availability of funds to payment of current liabilities in the form of current assets. A higher ratio indicates that there were sufficient assets available with the organization which can be converted in cash, without any reduction in the value. As ideal current ratio is 2:1, where current ratio of the firm is more than 2:1, it indicates the unnecessarily investment in the current assets in the form of debtor and cash balance. Ratio is higher in the year 2005-06 where cash balance is more than requirement which came through encashment of deposits of ZCCB funds.

2) Quick ratio

Quick ratios establish the relationship between quick or liquid assets and liabilities. An asset is liquid if it can be converting in to cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset .other assets which are consider to be relatively liquid and include in quick assets are debtors and bills receivable and marketable securities. Inventories are considered as less liquid. Inventory normally required some time for realizing into cash. Their value also be tendency to fluctuate. The quick ratio is found out by dividing quick assets by current liabilities

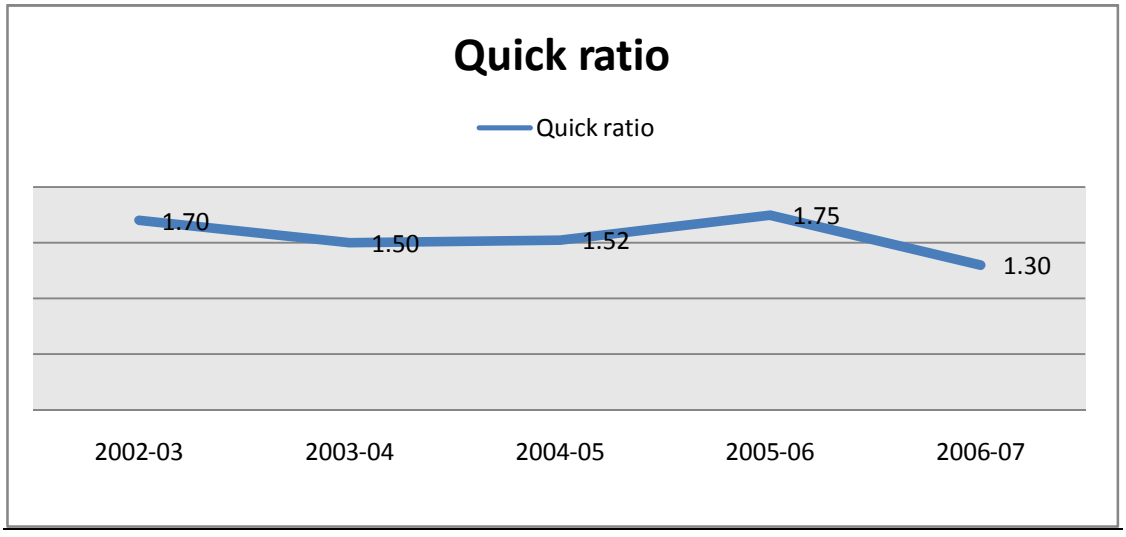
$$\text{Quick ratio} = \frac{\text{Current asset ï Inventory}}{\text{Current liabilities}}$$

Table 5.6- Quick Ratio

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Liquid current assets	24901	25273	31032	59071	5938
Current liabilities	14650	16883	20392	33810	4580
Quick ratio	**1.70**	**1.50**	**1.52**	**1.75**	**1.30**

Chart No.5.6



Quick ratio indicates that the company has sufficient liquid balance for the payment of current liabilities. The liquid ratio of 1:1 is suppose to be standard or ideal but here ratio is more than 1:1 over the period of time, it indicates that the firm maintains the over liquid assets than actual requirement of such assets. In the year 2006-07 company had Rs.1.79 cash for every 1 rupee of expenses; such a policy is called conservative policy of finance for working capital, Rs. 0.79 is the ideal investment which affects on the cost of the fund and returns on the funds.

3) Absolute liquid ratio

Even though debtors and bills receivables are considered as more liquid then inventories, it can not be converted in to cash immediately or in time. Therefore while calculation of absolute liquid ratio only the absolute liquid assets as like cash in hand cash at bank, short term marketable securities are taken in to consideration to measure the ability of the company in meeting short term financial obligation. It calculates by absolute assets dividing by current liabilities.

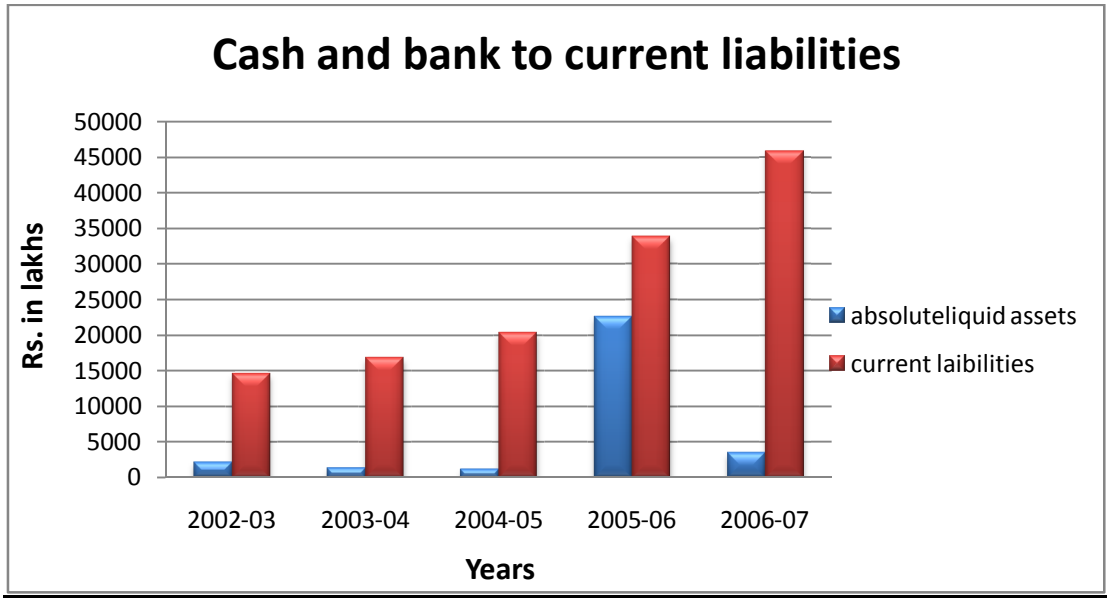
$$\text{Absolute liquid ratio} = \frac{\text{Absolute liquid assets}}{\text{Current liabilities}}$$

Table 5.7- Absolute liquid ratio

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Absolute liquid assets	2221	1372	1220	22611	3562
current liabilities	14650	16881	20392	33810	45800
Quick ratio	**0.156**	**0.081**	**0.059**	**0.668**	**0.077**

Chart No.5.7



Observations

Absolute liquid ratio indicates the availability of cash with company is sufficient because company also has other current assets to support current liabilities of the company. In the year 2005-06 absolute liquid ratio increased because of company carry more cash balance, as a cash balance is ideal assets company has to take control on such availability of funds which is affect on cost of the funds.

CHAPTER VI

Working Capital management Components

1) Recevables Management
2) Inventory Management
3) Cash Management

6.1) Receivables Management

Receivables or debtors are the one of the most important parts of the current assets which is created if the company sells the finished goods to the customer but not receive the cash for the same immediately. Trade credit arises when firm sells its products and services on credit and dose not receive cash immediately. It is essential marketing tool, acting as bridge for the movement of goods through production and distribution stages to customers. Trade credit creates receivables or book debts which the firm is expected to collect in the near future. The receivables include three characteristics

1) It involve element of risk which should be carefully analysis.
2) It is based on economic value. To the buyer, the economic value in goods or services passes immediately at the time of sale, while seller expects an equivalent value to be received later on
3) It implies futurity. The cash payment for goods or serves received by the buyer will be made by him in a future period.

Objective of receivable management

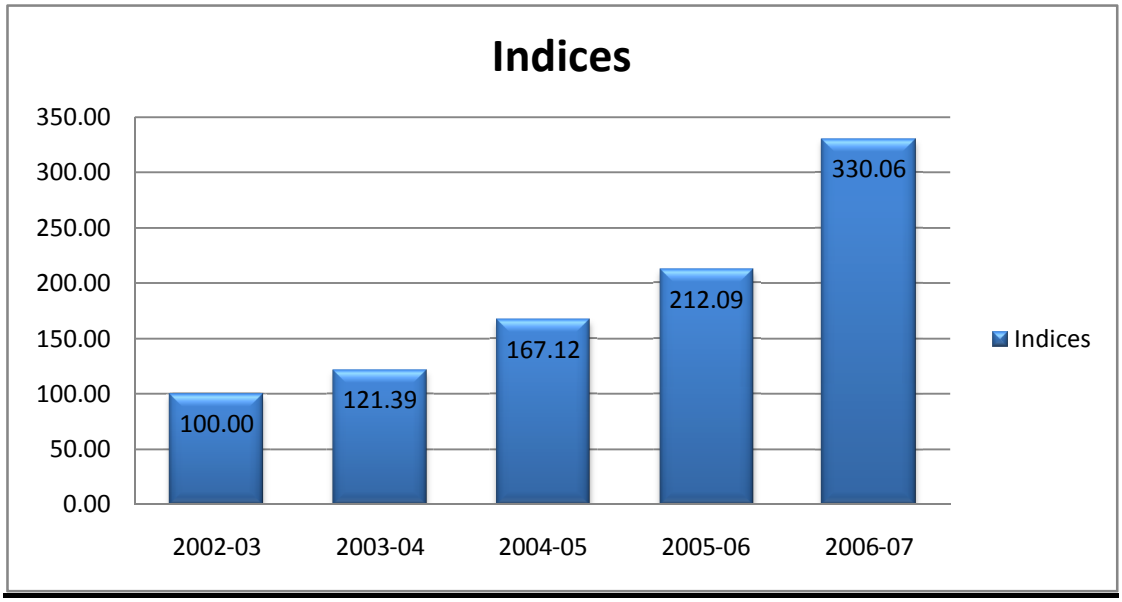
The sales of goods on credit basis are an essential part of the modern competitive economic system. The credit sales are generally made up on account in the sense that there are formal acknowledgements of debt obligation through a financial instrument. As a marketing tool, they are intended to promote sales and there by profit. However extension of credit involves risk and cost, management should weigh the benefit as well as cost to determine the goal of receivable management. Thus the objective of receivable management is to promote sales and profit until that point is reached where the return on investment in further funding of receivables is less .than the cost of funds raised to finance that additional credit

Table 6.1-Size of receivables of JISL

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Sundry Debtors	13346	16200	22304	28305	44051
Indices	100.00	121.39	167.12	212.09	330.06

Chart6.1-



Average collection period

The average collection period measures the quality of debtors since it indicate the speed of there collection. The shorter the average collection period, the better the quality of the debtors since a short collection period implies the prompt payment by debtors. The average collection period should be compared against the firmôs credit terms and policy judges its credit and collection efficiency. The collection period ratio thus helps an analyst in two respects.

1. In determining the collectability of debtors and thus, the efficiency of collection efforts.
2. In ascertaining the firmôs comparative strength and advantages related to its credit policy and performance.

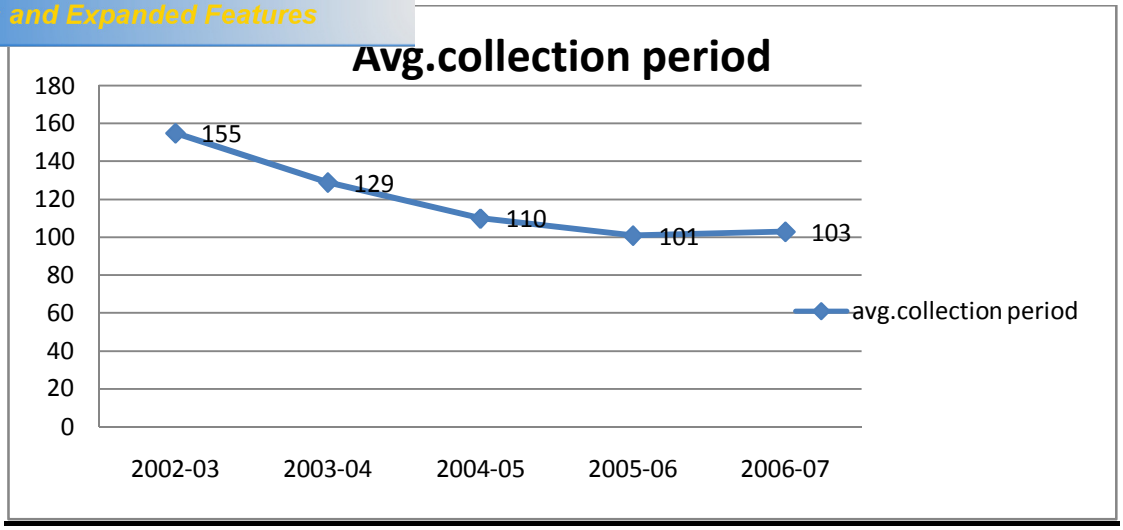
The debtorôs turnover ratio can be transformed in to the number of days of holding of debtors.

Table 6.2- avg. collection period

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Gross sales	31410	41760	63640	91020	127420
Avg. Debtors	13350	14780	19250	25370	36180
Receivable TOR	2.35	2.83	3.31	3.59	3.52
Avg. collection period (days)	155	129	110	101	103

Chart No.6.2



Observations

The size of receivables are staidly increasing it indicates that the company was allowing more credit year to year, but it was not bad signal because as receivables were supporting to the increase in the sales. Average collection period are reducing to present situation, but as compare with the normal collection period allowed to customer by JISL of 90 dayôs, it was clear that the company required to increase our efficiency of collection of receivables. All the above factors directly or indirectly affects in the debtors turnover ratio, current ratio and working capital ratio. For effective management of credit, the firm should lay down clear cut guidelines and procedure for granting credit to individual customers and collecting individual accounts should involve following steps: (1) Credit information (2) Credit investigation (3) Credit limits (4) Collection procedure.

6.2) Inventory Management

The term óinventoryô is used to designate the aggregate of those items of tangible assets which are

1. Finished goods (ósaleableô)
2. Work-in-progress (óconvertibleô)
3. Material and supplies (óconsumableô)

In financial view, inventory defined as the sum of the value of raw material and supplies, including spares, semi-processed material or work in progress and finished goods. The nature of inventory is largely depending upon the type of operation carried on. For instance, in the case of a manufacturing concern, the inventory will generally comprise all three groups mentioned above while in the case of a trading concern, it will simply be by stock- in- trade or finished goods.

ntory management

In company there should be an optimum level of investment for any asset, whether it is plant, cash or inventories. Again inadequate disrupts production and causes losses in sales. Efficient management of inventory should ultimately result in wealth maximization of ownerôs wealth. It implies that while the management should try to pursue financial objective of turning inventory as quickly as possible, it should at the same time ensure sufficient inventories to satisfy production and sales demand. The objectives of inventory management consist of two counterbalancing parts:

1. To minimize the firms investment in inventory
2. To meet a demand for the product by efficiently organizing the firms production and sales operation.

This two conflicting objective of inventory management can also be expressed in term of cost and benefits associated with inventory. That the firm should minimize the investment in inventory implies that maintaining an inventory cost, such that smaller the inventory, the better the view point .obviously, the financial manager should aim at a level of inventory which will reconcile these conflicting elements. Some objective as follow

1. To have stock available as and when they are required.
2. To utilize available storage space but prevents stock levels from exceeding space available.
3. To maintain adequate accountability of inventories assets.
4. To provide, on item ï by- item basis, for re-order point and order such quantity as would ensure that the aggregate result confirm with the constraint and objective of inventory control.

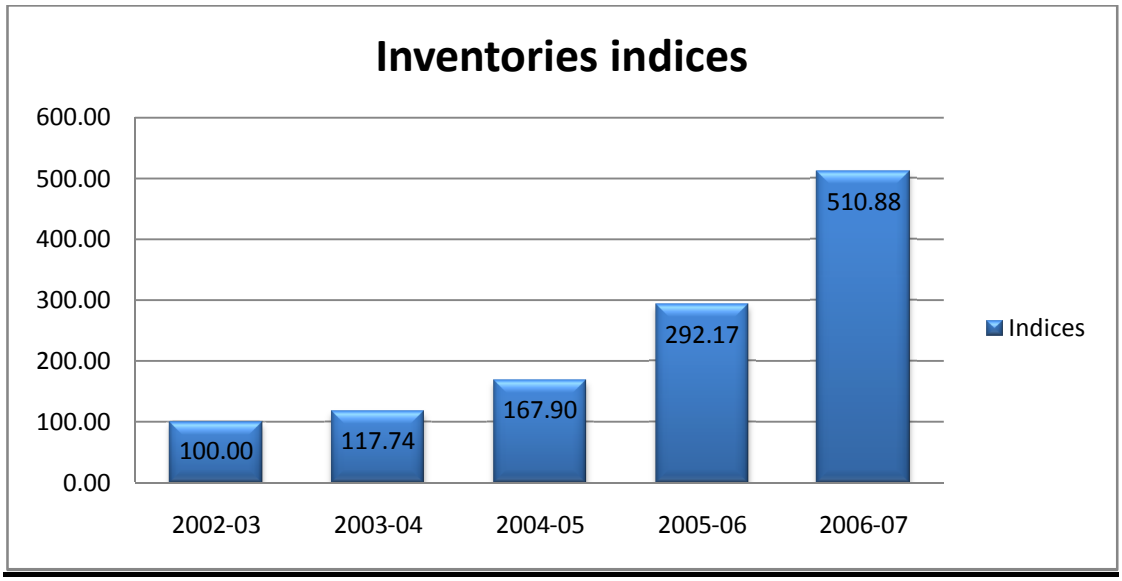
To keep low investment in inventories carrying cost an obsolesce losses to the minimum.

Table 6.3-Size of inventory

(No. of days)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Raw material	3582	4182	6343	8213	14052
W.I.P	13	43	31	22	113
Finished goods	4424	4671	6354	15013	22963
other inventories	1181	1932	2710	3613	9831
Total	9110	10828	15438	26861	46959
Indices	100.00	117.74	167.90	292.17	510.88

Chart No.6.3



Inventory components

The manufacturing firmôs inventory consist following components

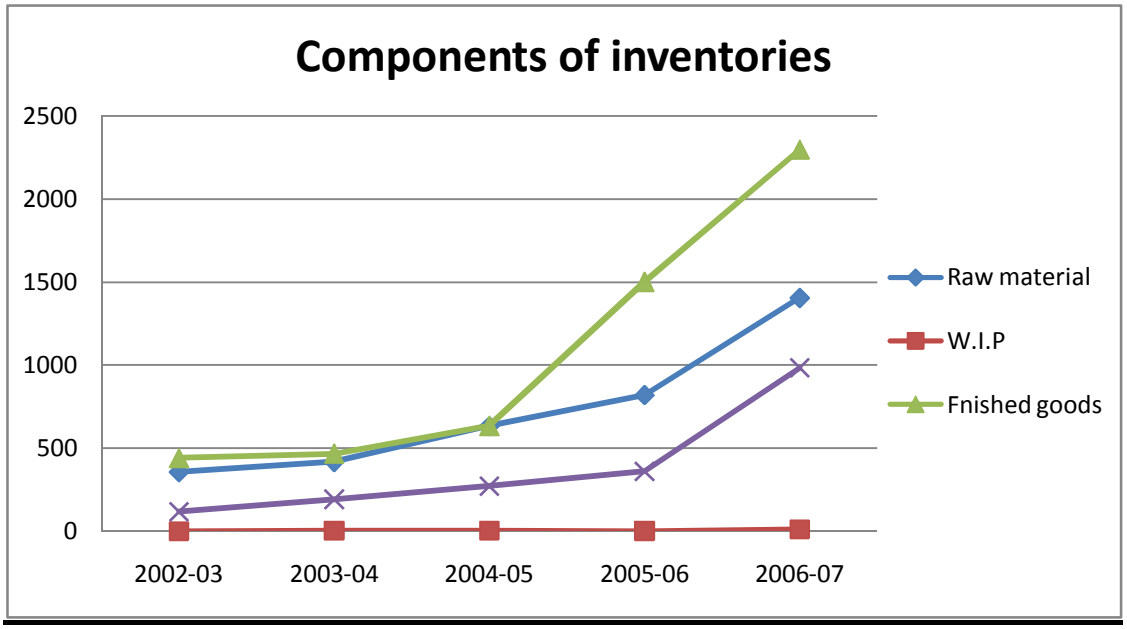
I) Raw material

ii) Work- in-progress

iii) Finished goods

To analyze the level of raw material inventory and work in progress inventory held by the firm on an average it is necessary to examine the efficiency with which the firm converts raw material inventory and work in progress into finished goods.

Chart No.6.4



Inventory holding period

The reciprocal of inventory turnover gives average inventory holding in percentage term. When the numbers of days in year are divided by inventory turnover, we obtain days of inventory holding (DIH).

Table 6.4- inventory holding period

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Inventory TOR	2.59	3.00	3.54	3.82	4.06
Days of inventory holding	141	122	103	96	90
Raw material turnover	5.07	5.58	6.31	6.76	5.85
Raw material holding period	72	65	58	54	62

Chart No.6.5

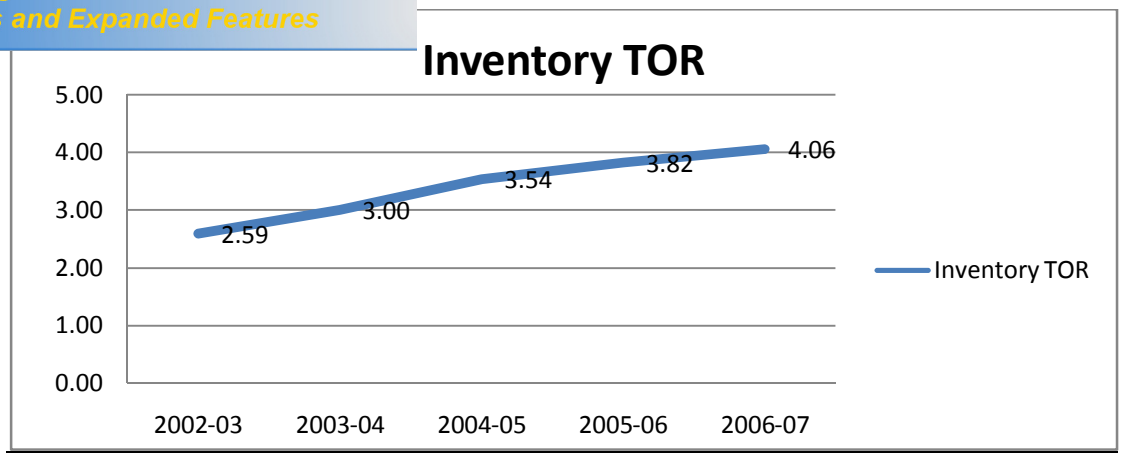
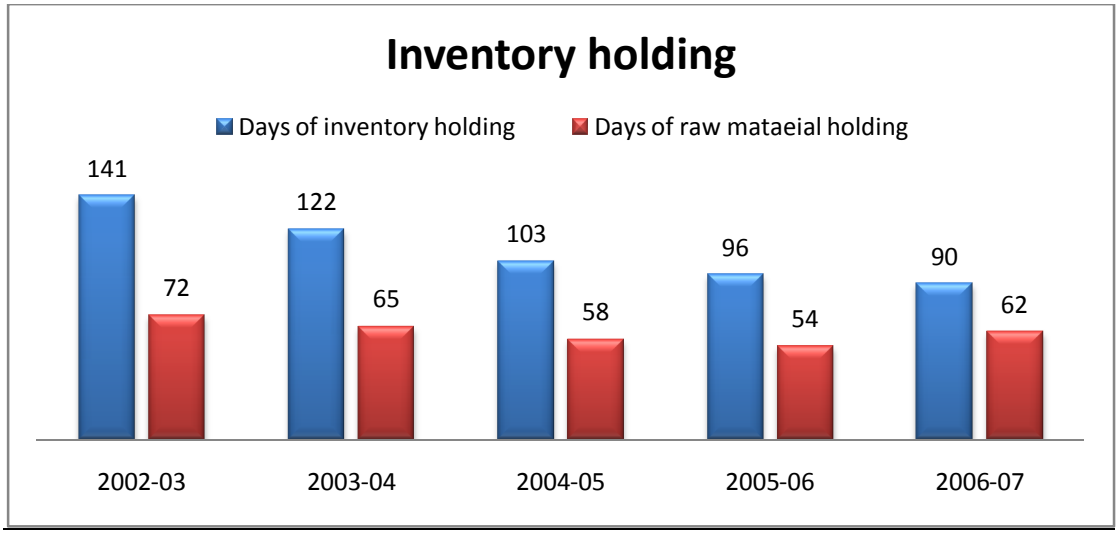


Chart6.6-



Observations

Size of inventory of JISL was increasing with the increase the sales. The inventory size was increasing because of increment in the finished goods stock; it indicates that the company reduced the liquidity of finished goods. High inventory turnover ratio is showing that the maximum sales turnover is achieved with the minimum investment in the inventories. Raw material turnover has reduced in the year 2007 it indicates that company are investing more in raw material purchasing; thus raw material holding period has increased in the same year to 62 days from 54 days in the previous year 2006. Overall inventory holding period has reduced because of increases in the inventory turnover and sales volume.

t of Cash

power or medium of exchange. As such, it forms the most important component of working capital. The term cash with reference to cash management is used in two senses, in narrow sense it is used broadly to cover cash and generally accepted equivalent of cash such as cheques, draft and demand deposits in banks. The broader view of cash also induce hear- cash assets, such as marketable sense as marketable securities and time deposits in banks. The main characteristics of this deposits that they can be really sold and convert in to cash in short term. They also provide short term investment outlet for excess and are also useful for meeting planned outflow of funds. We employ the term cash management in the broader sense. Irrespective of the form in which it is held, a distinguishing feature of cash as assets is that it was no earning power. Company have to always maintain the cash balance to fulfill the dally requirement of expenses. There are four primary motive for maintain the cash as follow

Motive of holding cash

There are four motives for holding cash as follow

1. Transaction motive
2. Precautionary motive
3. Speculative motive
4. Compensating motive

Transaction motive

Cash balance is necessary to meet day-to-day transaction for carrying on with the operation of firms. Ordinarily, these transactions include payment for material, wages, expenses, dividends, taxation etc. there is a regular inflow of cash from operating sources, thus in case of JISL there will be two-way flow of cash- receipts and payments. But since they do not perfectly synchronize, a minimum cash balance is necessary to uphold the operations for the firm if cash payments exceed receipts.

Always a major part of transaction balances is held in cash, a part may be held in the

form of marketable securities whose maturity conforms to the timing of anticipated payments of certain items, such as taxation, dividend etc.

Cash flows are somewhat unpredictable, with the degree of predictability varying among firms and industries. Unexpected cash needs at short notice may also be the result of following:

1. Uncontrollable circumstances such as strike and natural calamities.
2. Unexpected delay in collection of trade dues.
3. Cancellation of some order for goods due unsatisfactory quality.
4. Increase in cost of raw material, rise in wages, etc.

The higher the predictability of firmôs cash flows, the lower will be the necessity of holding this balance and vice versa. The need for holding the precautionary cash balance is also influenced by the firmôs capacity to have short term borrowed funds and also to convert short term marketable securities into cash.

Speculative motive:

Speculative cash balances may be defined as cash balances that are held to enable the firm to take advantages of any bargain purchases that might arise. While the precautionary motive is defensive in nature, the speculative motive is aggressive in approach.

However, as with precautionary balances, firms today are more likely to rely on reserve borrowing power and on marketable securities portfolios than on actual cash holdings for speculative purposes.

Advantages of cash management

Cash does not enter in to the profit and loss account of an enterprise, hence cash is neither profit nor losses but without cash, profit remains meaningless for an enterprise owner.

1. A sufficient of cash can keep an unsuccessful firm going despite losses

2. An efficient cash management through a relevant and timely cash budget may enable a firm to obtain optimum working capital and ease the strains of cash shortage, fascinating temporary investment of cash and providing funds normal growth.

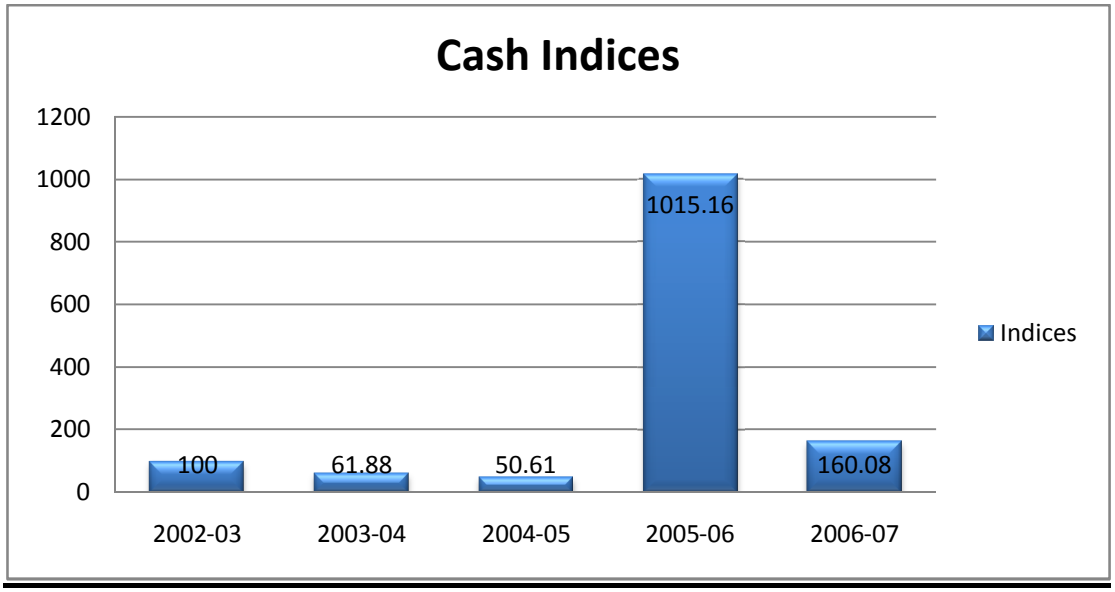
3. Cash management involves balance sheet changes and other cash flow that do not appear in the profit and loss account such as capital expenditure.

...nd indices of cash in JISL

(Rs. In lakhs)

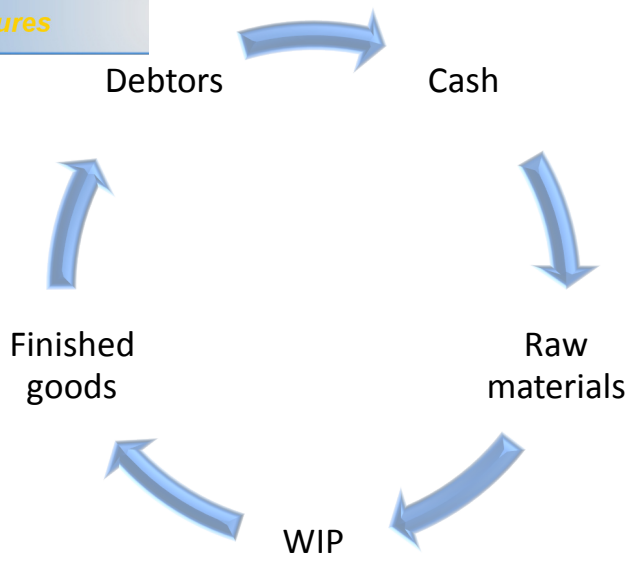
Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Cash and bank bal.	2228	1378	1127	22619	3566
Indices	**100**	**61.88**	**50.61**	**1015.16**	**160.08**

Chart No.6.7



Cash cycle:-

One of the distinguishing features of the fund employed as working capital is that constantly changes its form to drive ôbusiness wheelô. It is also known as ôcirculating capitalô which means current assets of the company, which are changed in ordinary course of business from one form to another, as for example, from cash to inventories, inventories to receivables and receivables to cash.



Basically cash management strategies are essentially related to the cash cycle together with the cash turnover. The cash cycle refers to the process by which cash is used to purchase the row material from which are produced goods, which are then send to the customer, who later pay bills. The cash turnover means the number of time firms cash is used during each year.

Table 6.6

(Days)

Particulars	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**
Inventory Holding Period	123	128	108	95	95
(+) Acc. receivable Period	155	133	116	107	109
(-) Acc. payable period	169	178	122	130	130
Cash cycle	**109**	**83**	**102**	**72**	**74**

The size of the cash in the current assets of the company indicates the miss cash management of the company. The cash balance in the year 2005-06 was extremely increased; because of encashment of deposits from schedules bank of ZCCB funs. Company failed to proper investment of available cash.

After the study of cash management it mentioned above it can be conclude that management of cash involve three things: a) Managing cash flow into and out of the firm. b) Managing cash inflow within the firm, c) Financial deficit or investing surpluses cash and thus controlling cash balance at a point of a time. The firm should hold an optimum balance of cash and invest any temporary excess amount in short term marketable securities such as **treasury bills, commercial papers, certificates of deposit, bank deposits and inter corporate deposit.** The high portion of cash balance in the current assets it adversely affected on profitability of the company as cash is ideal asset; it reduced the working capital leverage.

CHAPTER VII

Working Capital Finance and Estimation

1) Introduction
2) Sources of working Capital Finance
3) Working capital loan and interest
4) Estimation of working capital

Funds available for period of one year or less is called short term finance. In India short term finance are used as working capital finance. Two most significant short term sources of finance for working capital are trade credit and bank borrowing. Trade credit ratio of current assets is about 40%, it is indicated by Reserve Bank of India data that trade credit has grown faster than the growth in sales. Bank borrowing is the next source of working capital finance. The relative importance of this varies from time to time depending on the prevailing environment. In India the primary source of working capital financing are trade credit and short term bank credit. After determine the level of working capital, a firm has to consider how it will finance. Following are sources of working capital finance.

7.2) Sources of working Capital Finance

1) Trade credit
2) Bank Finance
3) Letter of credit

1) Trade credit

Trade credit refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms do not have to pay cash immediately for the purchase made. This deferral of payments is a short term financing called trade credit. It is major source of financing for firm. Particularly small firms are heavily depend on trade credit as a source of finance since they find it difficult to raised funds from banks or other sources in the capital market. Trade credit is mostly an informal arrangement, and it granted on an open account basis. A supplier sends goods to the buyers accept, and thus, in effect, agrees to pay the amount due as per sales terms in the invoice. Trade credit may take the form of bills payable. Credit terms refer to the condition under which the supplier sells on credit to the buyer, and the buyer required to repay the credit. Trade credit is the spontaneous source of the financing. As the volume of the firmôs purchase increase trade credit also expand. It appears to be cost free since it does not involve explicit interest charges, but in practice, it involves implicit cost. The cost of credit may be transferred to the buyer via the increased price of goods supplied by him.

king capital

source of working capital finance in India. After trade credit, bank credit is the most important source of financing working capital in India. A banks considers a firms sales and production plane and desirable levels of current assets in determining its working capital requirements. The amount approved by bank for the firmôs working capital is called credit limit. Credit limit is the maximum funds which a firm can obtain from the banking system. In practice banks do not lend 100% credit limit; they deduct margin money.

Forms of bank finance:-

1. Term Loan
2. Overdraft
3. Cash credit
4. Purchase or discounting of bills

1) Term Loan

In this case, the entire amount of assistance is disbursed at one time only, either in cash or the companyôs account. The loan may be paid repaid in installments will charged on outstanding balance.

2) Overdraft

In this case, the company is allowed to withdraw in excess of the balance standing in its Bank account. However, a fixed limit is stipulated by the Bank beyond which the company will not able to overdraw the account. Legally, overdraft is a demand assistance given by the bank i.e. bank can ask repayment at any point of time.

3) Cash credit

In practice, the operations in cash credit facility are similar to those of those of overdraft facility except the fact that the company need not have a formal current account. Here also a fixed limit is stipulated beyond which the company is not able to withdraw the amount.

4) Bills purchased / discounted

This form of assistance is comparatively of recent origin. This facility enables the company to get the immediate payment against the credit bills / invoice raised by the company. The banks hold the bills as a security till the payment is made by the customer. The entire amount of bill is not paid to the company. The company gets only the present worth of amount of bill from of discount charges. On maturity, bank collects the full amount of bill from the customer.

In this case the exporter and the importer are unknown to each other. Under these circumstances, exporter is worried about getting the payment from the importer and importer is worried as to whether he will get goods or not. In this case, the importer applies to his bank in his country to open a letter of credit in favor of the exporter whereby the importers bank undertakes to pay the exporter or accept the bills or draft drawn by the exporter on the exporter fulfilling the terms and conditions specified in the letter of credit.

Banks have been certain norms in granting working capital finance to companies. These norms have been greatly influenced by the recommendation of various committees appointed by the Reserve Bank of India from time to time. The norms of working capital finance followed by bank since mid-70 were mainly based on the recommendations of the Tondan committee. The Chore committee made further recommendations to strengthen the procedure and norms for working capital finance by banks.

Table 7.1-Working capital loan and interest

(Rs. In lakhs)

Particulars	2002-03	2003-04	2004-05	2005-06	2006-07
Working capital term loan from banks	8152	7622	3527	2670	1967
Consortium of banks					
Working capital demand loan	5482	1919	905	359	728
Foreign Currency demand loan		4965	5383	4451	5286
Cash credit account	6094	3848	1589	4579	5952
Export packaging credit	587	1398	6736	11907	19655
Foreign bill discounted from bank	431	1518	494		
Letter of credit	728				
Total	**21474**	**21270**	**18634**	**23966**	**33588**
Interest on working capital	**1801**	**2060**	**1947**	**1960**	**3549**

Chart7.1-

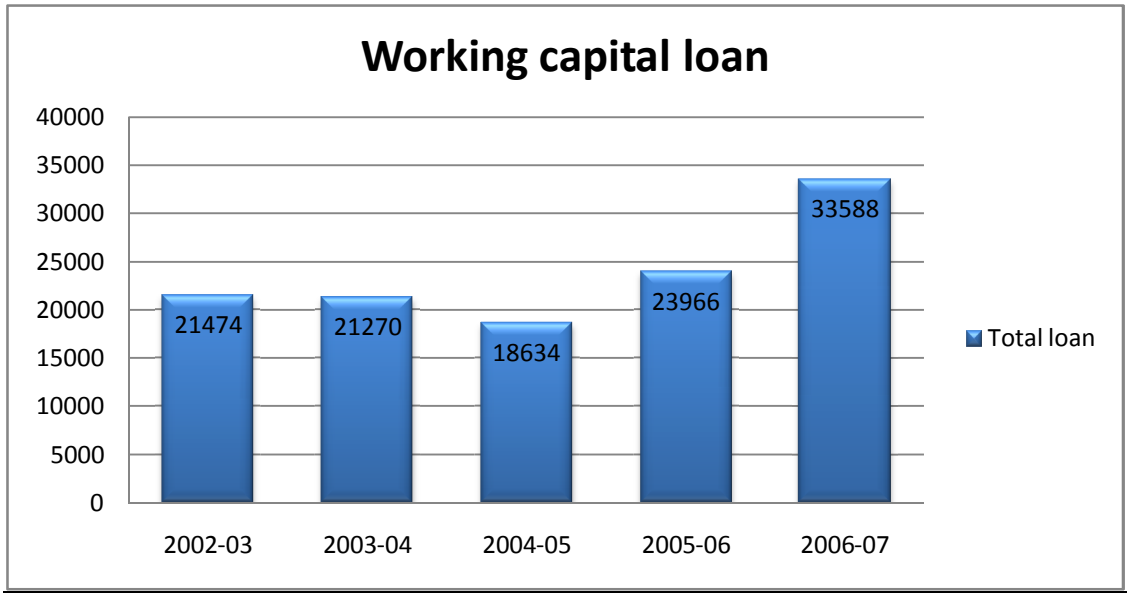
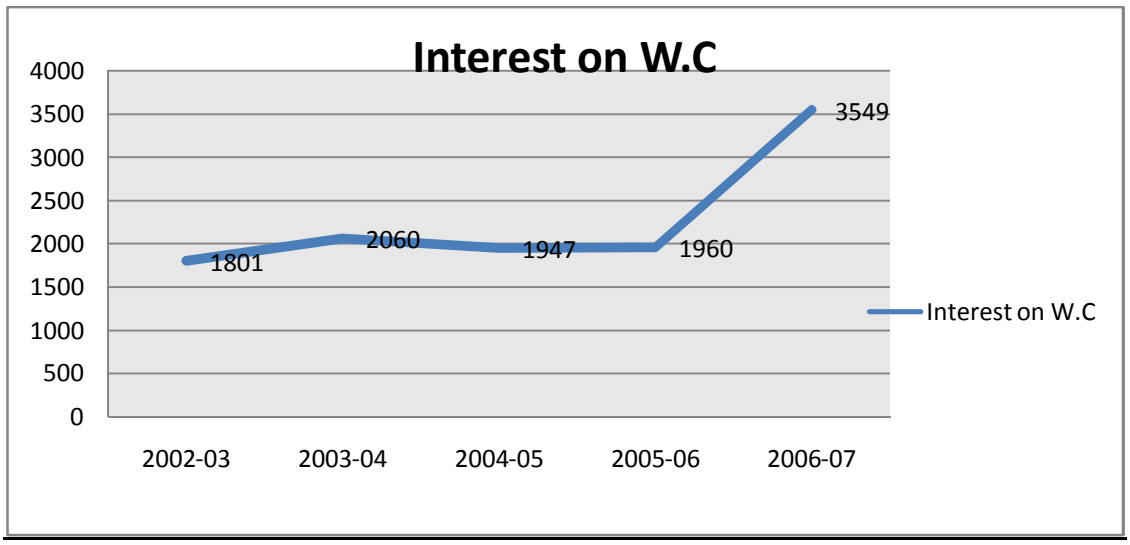


Chart No.7.2



Jain Irrigation System takes huge working capital loan to fulfill the requirement of working capital, thus company had paid huge amount of interest on working capital loan. Company raised the funds for working capital through term loan from bank, and working capital loan from consortium of banks. Jain irrigation system ltd. also used cash credit account but cash credit is not cost free source of working capital because it involves implicit cost. The supplier extending trade credit incurs cost in the form of opportunity cost of funds invested in accounts receivable. The annual opportunity cost of forgoing cash discount can be very high. Therefore Jain Irrigation System Ltd. should compare the opportunity cost of trade credit with the cost of other sources of credit while making its financial decisions.

7.4) Estimation of working capital

After considering the various factors affecting the working capital needs, it is necessary to forecast the working capital requirements. For this purpose, first of all estimate of all current assets should be made, these should be followed by the estimation of all current liabilities. Difference between the estimated current assets and estimated current liabilities will represent the working capital requirements.

The estimation of working capital requirement of Jain Irrigation System ltd. is based on few assumptions such as follows.

1. Gross sales will increase by 40%
2. Receivables collection period will be 90 day as per standards fixed by company.
3. Unnecessary balance of Cash may reduce by finance management.
4. For working capital finance company can use maximum trade credit.
5. Inventory holding period can be 60 days instead of present 95 days.

Table 7.2-Estimation of the working capital

he year 2007-08 for JISL

Particulars	Estimated Amt.Rs.in lakhs.
A) Current assets	
Inventories (Holding Period 60 Days)	40254
Sundry Debtors (Average collection period 90 Days)	50921
Cash & Bank Balance	5666
Other Assets	1345
Loan & Advances	25543
Total of A (Gross W.C.)	**123729**
B) Current liabilities	
Current liabilities(40 % increment)	60484
Provisions (40 % increment)	4632
Total of B	**65116**
Net W.C.(A-B)(Estimated)	**58613**

Observations

Jain irrigation system ltd has good credit in the market because it is No. 2 irrigation solution Company in the world and on 1st position in Asia. Company took benefit of such position to raise the funds for working capital finance. In the year 2002-03 term loan from bank was the major source of finance, but it reduced by 75% it indicate that company changed the finance policy to get benefit sources like term credit (export package credit) which is not directly affect on cost of finance. In the year 2002-03 company used latter of credit but after that company not used such facility from third person, company start own offices in foreign country to transactions. Company used the cash credit account for working capital finance such as cash credit facility provided by co-operative and national banks.

Company required such huge amount for working capital finance because liquidity of the company locked in debtors. Company had around 50 % receivables account of total current assets. Company fixed normal collection period of 90 days, but collection system of the company was not able to collection from debtors within credit term. Company has receivable but not liquidity to payment of creditors thus company took cash credit and credit term, which increased the interest on working capital finance by around 96% from year 2003 to year end 2007. Cash management of the company is more conservative thus company carry huge amount in terms of liquid assets.

CHAPTER VIII

Conclusion and Recommendations

1) Conclusion
2) Recommendations
3) Bibliography

Working capital management is important aspect of financial management. The study of working capital management of Jain Irrigation system ltd. has revealed that the current ration was as per the standard industrial practice but the liquidity position of the company showed an increasing trend. The study has been conducted on working capital ratio analysis, working capital leverage, working capital components which helped the company to manage its working capital efficiency and affectively.

1. Working capital of the company was increasing and showing positive working capital per year. It shows good liquidity position.

2. Positive working capital indicates that company has the ability of payments of short terms liabilities.

3. Working capital increased because of increment in the current assets is more than increase in the current liabilities.

4. Companyôs current assets were always more than requirement it affect on profitability of the company.

5. Current assets are more than current liabilities indicate that company used long term funds for short term requirement, where long term funds are most costly then short term funds.

6. Current assets components shows sundry debtors were the major part in current assets it shows that the inefficient receivables collection management.

7. In the year 2006-07 working capital decreased because of increased the expenses as manufacturing expenses and increase the price of raw material as increased in the inflation rate.

8. Inventory was supporting to sales, thus inventory turnover ratio was increasing, but company increased the raw material holding period.

9. Study of the cash management of the company shows that company lost control on cash management in the year 2005-06, where cash came from fixed deposits and ZCCB funds, company failed to make proper investment of available cash.

ations

Recommendation can be use by the firm for the betterment increased of the firm after study and analysis of project report on study and analysis of working capital. I would like to recommend.

1. Company should raise funds through short term sources for short term requirement of funds, which comparatively economical as compare to long term funds.

2. Company should take control on debtorôs collection period which is major part of current assets.

3. Company has to take control on cash balance because cash is non earning assets and increasing cost of funds.

4. Company should reduce the inventory holding period with use of zero inventory concepts.

Over all company has good liquidity position and sufficient funds to repayment of liabilities. Company has accepted conservative financial policy and thus maintaining more current assets balance. Company is increasing sales volume per year which supported to company for sustain 2nd position in the world and number one position in Asia.

APPENDICES

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Balance sheet

As on 31st march (Rs. In Lakhs)

Particulars	2007	2006	2005	2004	2003
Sources of funds					
Shareholders fund					
Share capital	15028	14944	15188	14653	14141
Reserve and surplus	32569	20435	17656	12646	11596
	47597	**35379**	**32845**	**27299**	**25737**
Loan Funds					
Secured Loans	47819	40170	29502	27074	28720
Unsecured Loans	27150	27283	3717	4431	4673
	74969	**67453**	**33219**	**31505**	**33394**
Total	**121567**	**102832**	**66063**	**58805**	**59131**
Application of Funds					
Fixed Assets					
Gross Block	79912	63930	50516	44750	45749
Less: accumulated Depreciation	27033	23482	19342	16270	14686
Less: provision for impairment					
Net Block	52879	39448	31174	28480	31063
Capital Work-in-Progress	**6457**	**4179**	**1002**	**967**	**163**
Investments	**17744**	**8260**	**820**	**1500**	**1505**
Current assets, loans & advances					
a) Inventories	27430	18373	15437	10827	9180
b) sundry debtors	44051	28306	22442	16200	13346
c) cash and bank balance	3567	22619	1128	1379	2228
d) other current assets	1010	572	329	349	1556
e)Loan & Advances	10752	7578	7319	7341	7766
Total	**8681**	**77448**	**46656**	**36098**	**34077**
Less:					
a)Current Liabilities	43203	30789	20652	16572	14515
b) Provision	2594	3018	369	308	138
	45798	**33807**	**21021**	**16881**	**14654**
Net Current Assets	**41014**	**43640**	**25635**	**19217**	**19422**
Deferred tax assets	**4473**	**73031**	**7432**	**7415**	**6976**
Total	**122567**	**102832**	**66063**	**58805**	**59131**