

**WORKING CAPITAL MANAGEMENT
OF
JAGDAMBA STEEL PRIVATE LIMITED
SIMRA-BARA
NEPAL**

**Submitted By:
NIRANJAN MAHATO
Thakur Ram Multiple Campus
Campus Roll No.41/2063
T.U.Regd.No.7-2-439-14-2002**

**A thesis submitted to
Office of the Dean
Faculty of Management
Tribhuvan University
Nepal**

**In the partial fulfillment of the requirements for the degree of
Masters of Business Studies (M.B.S)
Birgunj, Parsa**

September, 2010

Recommendation

This is to certify that the thesis

Submitted By:

NIRANJAN MAHATO

T.U Regd.No.7-2.439-14-2002

Entitled

Working Capital Management

Of

Jagdamba Steel Private Limited

Has been prepared as approved by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

.....
Mr. Rajeshwar Pd. Acharya
(Associate Professor, Thesis
Supervisor & Chairperson
Research Committee)

.....
Campus Chief,
(T.R.M.Campus, Birgunj)

Date:.....

Viva-Voce Sheet

We have conducted the viva-voce examination of the thesis

Submitted by
NIRANJAN MAHATO
T.U. Reg. 7-2-439-14-2002

Entitled
Working Capital Management
Of
Jagdamba Steel Private Limited, Simra Bara - Nepal

And found the thesis is original work of the student and written according to the prescribed format of Faculty of Management, Tribhuwan University. We recommended the thesis to be accepted as partial fulfillment of the requirements for

Master's Degree in Business Studies (M.B.S)
Viva-Voce Committee

Chairperson (Research Committee).....

Member (Thesis Supervisor).....

Member (External Expert).....

Date:

Declaration

I hereby declare that the research work entitled “Working Capital Management of Jagdamba Steel Private Limited.” Submitted to Faculty of Management, Thakur Ram Multiple Campus, Tribhuwan University partial fulfillment of the requirement of Master’s of Business Studies (MBS) is my work prepared under the guidance and Supervision of Mr.Rajeshwar Prasad Acharya, Associate Professor of T.R.M.Campus, Birgunj.

Date: September 2010

.....
Nirajan Mahato
T.U. Regd.No.7-2-439-2002
Thakur Ram Multiple Campus,
Birgunj, Parsa.

Acknowledgement

This is really an appreciable curriculum of T.U because it helps to the students to express their theoretical concept gained during the study period in the practical field. So, being concerned to thesis, I have also got a chance to express my theoretical concept gained from class and library study to this practical field. The present study focus upon the “Working Capital Management of Jagdamba Steel Private Limited.” which has been prepared for the partial fulfillment of the requirement for Master’s Degree in Business Studies of T.U.

JSPL is selected for this research for viewing present planning premises, existing strength weaknesses and possible threats and opportunities within the limitation of the research topic as well as the time and resources available to me.

For the completion of the thesis, at first, I would like to place my honor and respect to Mr.Rajeshwar Pd. Acharya, Associate Professor of Thakur Ram Multiple Campus, Birgunj, and also like to express my gratitude that he had taken the responsibility of my thesis supervision and provided necessary and valuable advices along with necessary guidance and suggestion to carryout this research study. I am extremely grateful to General Manager Mr.BabuLal Sethiya with his supportive personnel like Basanta Gupta of A/C Department, Gautam Dage of Sales Department Prakashkant of HR Department, Rabindra Pandey of Administration Department, Girdhari Verma of Stock Department of Jagdamba Steel Private Limited as well as other staff who cooperate me for the necessary reference materials, data, information and ideas.

At last, but not the least, my warm thanks go to my friend Shiv Kumar Das (Computer technician) and Jeewan Chaudhary for the kind cooperation, encouragement and support at the time of preparing this thesis report.

NIRANJAN MAHATO

Table of contents

Contents	Page No.
Recommendation	I
Viva Voce Sheet	II
Declaration	III
Acknowledgement	IV
Table of contents	V
List of tables	VIII
List of charts	IX
List of figures	X
List of appendices	XI
Abbreviation	XII

Chapter-One (Introduction)

1.1 Background of the study.....	1
1.1.1 Public Enterprises in Nepal	2
1.1.2 Quality Control.....	5
1.1.3 Organizations Brief.....	6
1.2. Focus of the study.....	10
1.2.1 Working Capital Practices.....	10
1.3 Statement of the Problem.....	11
1.4. Objectives of the Study.....	12
1.5 Need and Significance of the Study.....	13
1.6 Limitation of the Study.....	14
1.7 Organization of the Study.....	14

Chapter-Two (Review of Literature)

2.1 Introduction.....	16
2.2 Review of Text Books.....	16
2.2.1 Meaning and Concept of Working Capital.....	16
2.2.2 Requirement of Working Capital.....	21
2.2.3 Cost Trade –off.....	22
2.2.4 Liquidity versus Profitability.....	24
2.2.5 Need for Working Capital.....	24
2.2.6 Working Capital Policies.....	26
2.2.6.1 Current Assets Investment Policies.....	27
2.2.6.2 Current Assets Financing Policies.....	28
2.2.7 Determining Financing Mix.....	30
2.2.8 Financing Working Capital	31
2.2.9 Adequacy and Inadequacy of Working Capital.....	34
2.2.10 Determinants of Working Capital.....	35
2.2.11 Sources and Application of Working Capital.....	37
2.2.12 Classification of Working Capital.....	39
2.3. Review of Journals and Articles.....	39

2.4 Review of Dissertation.....	42
---------------------------------	----

Chapter- three (Research Methodology)

3.1 Introduction.....	47
3.2 Research Design.....	47
3.3 Nature and Sources of Data.....	48
3.4 Population and Sample.....	49
3.5 Procedure and Analysis.....	49
3.6 Tools for Analysis Data.....	49
3.6.1 Financial Analysis.....	50
3.6.1.1 Ratio Analysis.....	50
3.6.1.2 Importance of Ratio Analysis	50
3.6.1.3 Limitation of Ratio Ratio	51
3.6.1.4 Composition of Working Capital.....	52
3.6.1.5 Turnover Analysis.....	54
3.6.1.6 Profitable Position Analysis.....	56
3.6.1.7 Liquidity Position.....	58
3.6.2 Statistical Analysis.....	59
3.6.2.1 Standard Deviation.....	59
3.6.2.2 Co-efficient Variation (CV).....	60
3.6.2.2 Co-relation of Coefficient.....	60
3.6.2.3 Probable Error	61

Chapter- Four (Presentation and Analysis of Data)

4.1 Introductions.....	62
4.2 Position of Current Assets and Current Liabilities.....	62
4.3 Composition of Working Capital.....	65
4.3.1 Percentage of Current Assets to Total Assets.....	65
4.3.2 Percentage of Current Assets to Fixed Assets.....	67
4.3.3 Percentage of Cash and Bank Balance to Current Assets.....	69
4.3.4 Percentage of Cash and Bank Balance to Total Assets...	71
4.3.5 Proportion of Inventory to Current Assets.....	73
4.3.6 Proportion of Inventory to Total Assets.....	75
4.3.7 Proportion of Receivable to Current Assets.....	76
4.3.8 Proportion of Receivable to Current Assets.....	78
4.4 Turnover Position.....	79
4.4.1 Gross Working Capital Turnover.....	79
4.4.2 Net Working Capital Turnover.....	82
4.4.3 Cash Turnover Ratio.....	84
4.4.4 Receivable Turnover Ratio.....	85
4.4.5 Inventory Turnover Ratio.....	88
4.5 Liquid Position.....	90
4.5.1 Current Position.....	90
4.5.2 Acid Test Ratio.....	92

4.6 Profitability Positions.....	94
4.6.1 Gross Profit Margin.....	94
4.6.2 Net Profit Margin.....	96
4.6.3 Operating Expenses Turnover.....	98
4.6.4 Return on Total Assets.....	100
4.6.5 Return of Net Worth.....	102
4.6.6 Return on Gross Working Capital	104
4.6.7 Return on Net Current Assets.....	106
4.7 Co-efficient of Correlation Analysis.....	108
4.8 Major Findings.....	109

Chapter-Five (Summary, Conclusion and Recommendations)

5.1 Summary.....	112
5.2 Conclusions.....	113
A. Major Findings of Working Capital Position.....	113
B. Major Findings of Turnover Position.....	113
C. Major Findings of Liquidity Position.....	114
D. Major Findings of Profitability.....	114
E. Major Findings of Statistical Data.....	115
5.3 Recommendation.....	117

Bibliography

Appendices

List of Tables

Table. No	Particulars	Page No.
1.	Total current assets.....	63
2.	Total current liabilities.....	64
3.	Level of net current assets.....	64
4.	Percentage of current assets to total assets.....	66
5.	Percentage of current assets to fixed assets.....	68
6.	Percentage of cash and bank balance to current assets.....	70
7.	Percentage of cash and bank balance to total assets.....	72
8.	Position of inventory to current assets.....	73
9.	Position of inventory to total assets.....	75
10.	Position of receivable to current assets.....	77
11.	Position of receivable to total assets.....	78
12.	Gross working capital turnover.....	80
13.	Net working capital turnover.....	82
14.	Cash turnover ratio.....	84
15.	Receivable turnover ratio.....	86
16.	Inventory turnover ratio.....	88
17.	Current ratio.....	91
18.	Acid test ratio.....	93
19.	Gross profit margin	95
20.	Net profit margin	97
21.	Operating expenses turnover ratio.....	99
22.	Return on total assets.....	101
23.	Return on net worth	103
24.	Return on gross working capital	105
25.	Return on net working capital	107
26.	Statistical data analysis.....	109

List of chart

Chart No.	Particulars	Page No.
1.	Position of current assets.....	63
2.	Position of current assets and current liabilities....	65
3.	Position of current assets to total assets.....	66
4.	Percentage of current assets to fixed assets.....	68
5.	Percentage of cash & bank balance to current assets..	70
6.	Percentage of cash and bank balance to total assets..	72
7.	Position of inventory to current assets.....	74
8.	Position of inventory to total assets.....	75
9.	Position of receivable to current assets.....	77
10.	Position of receivable to total assets	79
11.	Gross working capital turnover.....	81
12.	Net working capital turnover.....	83
13.	Cash turnover ratio.....	85
14.	Receivable turnover ratio.....	87
15.	Inventory turnover ratio.....	89
16.	Current ratio.....	91
17.	Acid test ratio.....	93
18.	Gross profit margin.....	95
19.	Net profit margin.....	97
20.	Operating expenses turnover ratio.....	99
21.	Return on total assets.....	101
22.	Return o net worth.....	103
23.	Return on gross working capital.....	105
24.	Return on net working capital.....	107

List of Figures

Figure. No.	Particular	Page.No
1	Cash conversion cycle.....	22
2.	Cost trade-off.....	23
3.	Alternative current assets investment policies.....	27
4.	Aggressive financing policy.....	29
5.	Conservative financing policy.....	29
6.	Moderate financing policy.....	30
7.	Sources and applications of working capital.....	38

List of Appendices

App.No.	Particulars	Page.No.
1.	Correlation of coefficient between current assets and total assets	
2.	Correlation of coefficient between current assets and fixed assets	
3.	Correlation of coefficient between cash & bank and current assets	
4.	Correlation of coefficient between inventory and current assets	
5.	Correlation of coefficient between receivable and current assets	
6.	Correlation of coefficient between gross working capital and sales	
7.	Correlation of coefficient between net working capital and sales	
8.	Correlation of coefficient between receivable and sales	
9.	Correlation of coefficient between inventory and sales	
10.	Correlation of coefficient between current assets and current liabilities	
11.	Correlation of coefficient between quick assets and current liabilities	
12.	Correlation of coefficient between gross profit and sales	
13.	Correlation of coefficient between net profit and sales	
14.	Correlation of coefficient between operating expenses and sales	
15.	Correlation of coefficient between net profit and total assets	
16.	Correlation of coefficient between net profit and net worth	
17.	Correlation of coefficient between net profit and gross working capital	
18.	Correlation of coefficient between net profit and net working capital	
19.	profit and loss a/c JSPL	
20.	Balance sheet of JSPL	
21.	Organizational structure of JSPL	

Abbreviations

JSPL	- Jagdamba Steel Private Limited
WC	- Working Capital
TA	- Total Assets
CA	- Current Assets
F/Y	- Fiscal Year
PEs	-Public Enterprises
SD	- Standard Deviation
PE	-Probable Error
ROA	- Return on Assets
BOD	- Board of Directors

Chapter-One

1. Introduction

1.1 Background of the study

Every business organization needs capital for two purposes. First one is for long term purpose and it is also known as fixed capital. Such funds are required to create production facility. Investment in plants, machinery, land, building etc comes under the production activity. Investment in these assets represents that part of firm's capital which is block on a permanent or fixed basis. Such assets are not purchased with the objective of resale.

The second one required another type of capital which is known as Short Term Capital or Working Capital to operate the business firm. The fund required for purchase of raw material, payment of wages and other day to day expenses etc, is known as Working Capital. Similarly, the investment required for work-in-progress, raw material, finished goods, sundry debtor, and bills receivable etc. also comes under working capital.

The investment for the working capital may be transformed into cash within a short period. Therefore it is also known as Circulating capital or Revolving Capital.

All the countries in the world either developed or under developed have accepted the existence of the industries for the socio-economic development either they are manufacturing and trading. In this age, role of industrial sector plays a crucial role. Available resources should be optimally utilized as well as proper study; right evaluation and favorable environment are the essence of industrial development. Manufacturing industries are the backbone of the economy that touches overall sector of the country. A country cannot be developed itself without development of industrial sectors. It largely depends upon the quality, quantity and productivity of manufacturing sectors. The growth of industrial sector remains struggling in Nepal despite of the availability of resources. It is also because of improper mobilization failure investment policy and geographical obstacle etc.

Industrialization is the major instrument of progress, modernization and social development of Nepal. The economy of Nepal is based on Agriculture, the industrial development is important for economic prosperity because it helps the country in the various ways; it contributes to National Income, provide employment, lessens the dependence of imports and promotes exports.

After Nepal's Government started planned economic development effort to obtain rapid economic growth. Then the development of modern industries in the public sector started with planned economic development and various manufacturing companies have been established and developed through government efforts. At present 10th plan is running but due to poor performance negative return, lack of efficiency, inefficient in management, government has emphasized on privatization, so that public enterprises could be competitive, efficient and profitable. By the help of private companies, the government will reduce investment in public sector, which are incurring continuously at loss. More enterprises are in the pipeline for privatization in the government policy and programs. So, industrialization in Nepal has arisen with the evolution of Public Enterprises.

The term of PE has two directions namely 'public' and 'enterprise'. The term public considered as 'public ownership' implies that major decision would rest on distinctive social criteria to the exclusion of any personal interest. Similarly, the surplus would not accrue to private group or individuals and it involves social accountability. Likewise, the term 'Enterprises' as business enterprise implies that the government expects a return on the capital invested in public enterprises and the goods and services are made available for a price, which may be adjusted from time to time to cover the cost of inputs. The business character is more likely to be found in the area of economic activity such as industrial, trading services, social, utilities, finance etc.

"Public enterprise is an institution operating a services of an economic or social character on behalf of the government, but as independent legal entity, largely autonomous in its management through responsible to the public, through government and parliament and subject to some direction by the government, equipped on the other hand with independent and separate funds of its own legal and commercial attribute of a commercial enterprises." –Friedman

1.1.1 Public Enterprises in Nepal

Public enterprise is a recent phenomenon in Nepal, Nepal is primarily an agricultural country and public sector enterprise has occupied a dominant role in the economy. Public enterprises constitute a large and rapidly growing sector of the economy in the majorities of countries in the world today, including Nepal.

Public enterprises are established for rapid socio- economic development of the country. Public enterprises in Nepal constitute a vital instrument for socio- economic development. It enjoys a strategic and crucial position in our mixed economy. They have been established in many sectors for the overall development of the country with different goals and objectives. Public enterprises can be classified as follows:

- A) Manufacturing enterprises
- B) Commercial enterprises
- C) Financial enterprises
- D) Public enterprises engaged in social services
- E) Development or services enterprises

Role and objectives of public enterprises in Nepalese economy

-) To substitute the rate of economic growth
-) Development of infrastructure
-) Success of economic planning
-) Regional and balanced development
-) Supply of essential commodities
-) Generate employment opportunities
-) Development of big industries
-) Attaining social justice and social welfare
-) Saving foreign exchange strengthening economic stability
-) Maintaining economic stability
-) Acting as model entrepreneur
-) Initiate research and development activities
-) Provision of public utilities

Since, the development of Industries begins after the democracy of 2007 B.S. During, the Rana regime Biratnagar Jute Mills, Nepal Bank Ltd, Juddha Match Factory and Morang Cotton Mill comes into existence. Realizing the need of industrialization after the establishment of democracy at 2007 B.S, government established 'Udyog Parishad' to encourage industrialization and started getting regular attention of the government under the fifth year

‘Development plans’. After some years, it changed its name into ‘Cottage and Village Private Department’ and hence, began the development of industries. As a result, Nepal witnessed the development of quite a large of manufacturing industries in public sector particularly in the areas like sugar, leather paper, cigarettes, brick & tiles, agricultural tools and textiles with the financial and technical assistance of the USSR, China and India. This process continued until the end of the sixth Five-year Plan (2039-2044). Those establishments helped to facilitate industrialization in Nepal to some extent.

In 2048 B.S, the democratic government of Nepal adopted the policy of economic liberalization and embarked upon a hold program of privatization of the pressure of donor, especially World Bank, US aid, United Nations development program had extended . Its association to the government for formulating privatization act came in to force. After themed of 1980, government changed industrial and economic development policy from close market to open market economy and liberalized economy. As a result, 16 public enterprises were privatized under in different modalities and in different phases. 1 some of them are Bhrikuti pulp and paper Nepal Ltd, Hari Siddhi Brick and Tiles, Bansbari chhala, Jutte Udhyog, Raghupati Jute Mills, Lumbini Sugar etc among which two are liquidated. Now, many enterprises are under the process of privatization. At present, there are 38 public Enterprises in different sector in Nepal and some of them are not in operation due to various reasons such as Birgunj Sugar Factory, Birgunj; Himal Cement, Chovar etc. Nepal encourages foreign investment in the country and many multinational companies entered in different sector like manufacturing banking and other service sectors.

Realizing the importance of industrialization in the country H.M.G of Nepal has given due emphasis to the industrial sector. The Economic Survey Report (1990/ 91) focus that “The emphasis on industrialization for the creation of enough job opportunities for the people and for raising their economic levels through a sizeable increase in GDP appears quite relevant, at a time, when the growth of population of the country is pushing the rural economy down to the subsistence level.”²

Developments plans of Nepal are prioritizing the development of industries in both Public and private sectors. Government impressed to private sector to contribute in industrial development and declare the partner relationship between public and private sector. With the beginning of Seventh Plan (2045-2049 B.S), government took policy to privatize the public owned industries and declared that the government’s role as a facilitator not the owner.

After the government policy was changed to open market economy, individuals also started to found manufacturing industries based in iron, and

steel, textiles and agro based companies such as the Golchha organization, the Chaudhary Group, the Panchakanya Group, the kediyas, the Dugars and Jyoti Group etc.

1.1.2 Quality Control

The company requires some of the steel-based raw materials and chemicals for its production, which are imported mainly from India as well as other third countries. For quality control, testing and inspection process of company include both incoming of raw materials and systematic inspection at every manufacturing stage as well as finished products, it has set up its own well- equipped laboratory and expert technicians. Through a series of chemical and mechanical tests, the quality of finished products is ensured to meet required standards.

At present (2064/65), there is a team of Human Resource strength, altogetherPersons are involved in Jagdamba steel at different levels. Out of them In the administration, are technical andare laborers?

The organizational structure of the company is given in appendix. Some of the major steels industries in Nepal producing Iron Sheets, Iron Pipes and G.I Fitting are as follows:

- Hulas Steel Ind. Ltd.
- Jagadamba Steel Pvt. Ltd.
- Bhagawati Steel Ind Ltd
- Aarati Strips Ind. Ltd
- Apollo Steels
- Rajesh Metal and Crafts, etc

Aims and objectives of Jagadamba Steel Ind. Ltd

- To produce and distribute of quality steel products in reasonable fair price to the Public in way that will lead the country towards self-sufficiency in essential Steel materials
- To produce new varieties of products as per the market demand and deliver them in time.
- To replace foreign steel products by promoting the self produced products such

As billets, Torkari, Ingots, Special Steel, CRT, Section, G.I. Wires, H.B Wires, Nails, Panel Pin, Wire Rods, Structural, T.M.T, Barbed Wire, GPI sheet, GCI sheet, CCI sheet low cost housing materials. Expanded metal

- To help the other social industries by using their products.
- To pay more amount in National Economy by selling of goods in large volume

1.1.3 Organization Briefs

Jagdamba Steel Private Limited is the No.1 steel company of Nepal. It has successfully produced Ms Prime quality and structural steel for the first time in Nepal. This has not only success and achievement for Jagdamba but also has raised the bar of quality steel production in Nepal.

Our study occurs in the Jagdamba Steel Private Limited which is number steel company in an around the Nepal. This steel company is located at Simra, Bara, Nepal. It is completely sole trading concern. Its authorized share capital was Rs.53.03 million. It's sole trading organization. That's why Mr. Shankar Agrawal is the major owners of this group. According to his command and direction the industry runs.

In the year 1994, Jagdamba steel started its first steel production facility in Simra, Bara, Nepal. At the time across country mill was set up for the production of CRT bars with a production capacity of 50M/T per day. The very next year Jagdamba doubled its capacity from 50M/T per day to 100M/T per day and upgraded its rolling mill from a manual cross country to semi automatic mill. The same year Jagdamba Steels started producing wire nail and H.B. Wire with the highest quality standards. Since, the Jagdamba steel has diversified in to various steel products and expanded its capacities simultaneously. In the year 2001, Jagdamba set up its own melt shop to produce steel ingots with 40M/T per day. It assists Jagdamba to be self-sufficient on its raw material requirements to a certain extent.

Mr. Shankar Agrawal is the owner of the Shankar Groups of Industries. Shankar groups of industries consist of

1. JAGDAMBA WIRES (P) LTD
2. SHANKAR SYNTHETICS (P) LTD
3. JAGDAMBA ENTERPRISES (P) LTD
4. JMJ INDUSTRIES (NEPAL) (P) LTD
5. JAGDAMBA SYNTHETIC (P) LTD
6. JAGDAMBA CHEMICALS (P) LTD
7. LAXMI OVERSEAS TRADING CONCERN
8. JAGDAMBA SPINNING MILLS (P) LTD
9. JAGDAMBA CEMENT IND. (P) LTD
10. JAGDAMBA FOODS (P) LTD
11. JAGDAMBA ROTOPACKING (P) LTD

12. NAKASU MOTORS
13. FORCE L&T MOTORS
14. SAURABH PHOTO INTERNATIONAL
15. UNITECH DEVELOPERS (P) LTD
16. SUBH SHREE J CEMENT
17. JAGDAMBA DEVELOPERS (P) LTD

VISION

Our vision is to be a major part Nepal's development. Further to present Nepal's Steel and Powder Company in the Global Frontier.

MISSION

Jagdamba Steels mission is to create a company which can deliver all kinds of steel products under one roof with high quality standard at the most reasonable and affordable prices to all its consumers abroad. It will also like to create and distribute electricity across Nepal and neighboring nations like India and China.

GOALS

- ❖ To explore and set up its own Iron mine in Nepal.
- ❖ To be the first company to produce Wire Roads in Nepal.
- ❖ To explore and set up its own Hydro Project in Nepal

PRODUCTS TYPE: - Following are the major of products of JAGDAMBA STEEL PVT. LTD.

1. BILLETS: - Capacity 160000 M/T per annum.

With the first facility to produce billets in Nepal, Jagdamba can produce billets ranging from 100.sq.mm. Billets can be produce in mild steel, alloy steel and also corrosion registrant's steel.

These billets can further be used to produce structural steel, TMT bars, Forged components and automobile parts as well as wire rods.

2. INGOTS-Capacity 80000 M/T per annum

With different ranges of furnaces from 1.5 ton per hour to 3.5 ton per hour, Jagdamba can produce mild steel and carbon steel ingots. These furnaces can be utilized to produces ingots from 50.sq. mm up to 125 sq. mm. These ingots can further be used from mall cross country mills to medium sized automatic mills to reproduce section, section, shapes, rounds, squares and CRT bars.

3.SPECIAL STEEL- Capacity 15000 M/T per annum.

(C.R.S & alloy Steel can be produced as per requirement) as Nepalese markets are going to mature further, requirements for alloy steel for various uses as well as corrosion registrants steel will grow. These products can be produced at Jagdamba as per the requirements with various shapes and sizes.

4. TORKARI- Capacity 15000 M/T per annum

Torkari is another product used in the construction industry for fencing, binding or even in cottage industries to produce Drainage RCC pipes. Torkari is the most high strength bars with low elongation commonly produced and used in 4.75mm or 7mm. this kind of bars can also be produced upto 12mm but are not very popular in the context of Nepal.

5.C.R.T- Capacity 50000M/T per annum

CRT bars are normally produced by hot rolling and then cold twisting, which adds strength to the bars. These bars are produced in 415 grades for its Ultimate Tesile Strength. These bars are normally used where the bending at site still uses the conventional methods, as the bars are lower strength the elgoation is found to be higher.

6.SECTION-Capacity 24000 M/T Per Annum

Different sections are produced as per order ranging from rounds from 8mm to 32 mm, squares from 8mm to 16 mm, gate channels, angles from 25 mm to 65 mm, channels from 25 mm to 50 mm and flats from 20mm to 50mm. these products can further be used in various cottage industries for fabrications of doors, windows, truck bodies and shutter etc.

7. G.I .Wire-Capacity 12000 M/T Per Annum

G.I. Wire is a very important product especially in the context of Nepal. Widely used in the protection works in the hilly terrain for Nepal to have some kind of protection form natural calamities like landslides or earthquakes. These are also further processed to produce Barbed Wire commonly used in fencing of our walls for security reasons. These wires come in various quality and sizes ranging from commercial to heavy and 8 gauges to 16 gauges.

8.H.B. Wires – Capacity2000 M/T Per Annum

H.B. wires also commonly known as binding wire is also a very important part of construction industry. This type of wire is required for the binding and tying of bars with each other. At Jagdamba these wires are produced to maintain its softness.

9.Nails- Capacity 8000 N/T Per Annum

These are a very common tool required mostly for all furnishing or wood works. In Jagdamba, it is produced in various sizes ranging from 0.25 inch to 4 inch. Again these nail are produced in such a fashion that rejection is maintained at the lowest sites because of the sharpness of the ends.

10. Panel Pin Capacity 500 M/T Per Annum

These pins, which are similar to Nails, are commonly used in the furniture making process or any kind of wood work.

11.Wire Rods- Capacity 15000 M/T Per Annum

Wire Rod in Jagdamba are produced in various sizes ranging from 5.5 mm to 12 mm. these wire rods can also be produced with high carbon mainly used for conducting purposes even though the most common use in Nepal would be mild steel wire rods, used in fencing, cottage industries and binding purposes. Wire rods of 5.5 mm and 8 mm further are drawn to various sizes to produces Torkari, G.I Wire or even H.B.Wires.

12.Structurals – Capacity 60000 M/T Per Annum

Mild steel Structural ranging from 40 mm angles up to 150 mm angles, 75 mm channels to 350 mm channels and up to 150mm H beams are produced. All angles and channels can be straightened precisely for uses in construction of tele- communication towers to bridges and industrial sheds.

13.T.M.T- Capacity 300000 M/T Per Annum.

It uses thermax technology to produce its TMT (Thermo Mechanically Treated bars) in Nepal. This is one of the world leading copyright technologies to produce T.M.T bars. These bars can be produced in various sizes and strengths ranging from 6mm to 32mm and 415 grades to 350 grades, with 500 grades to 350 grades, with 500 grade most commonly used in normal structures. These bars are certified by N.S for Public use.

14. Barbed Wires-Capacity 800M/t Per Annum

It is another wire product basically form Eire rod are galvanized ad converted into barbed wire. These barbed wires are commonly used in Nepal for fencing purpose in private, government, public areas and boundaries.

1.2 Focus of the study

Working capital mean sum of all current assets minus current liabilities used in the business for day-to-day operation. Current assets deal with those kinds of assets, which can be converted into cash and nearly cash within a financial year such as amount invested in inventory, sundry debtors, bills receivable, marketable securities, bank, and cash in hand and other short-term investment. Current liabilities deal with those kinds of liabilities, which can be settled/matured within a financial year includes sundry creditors, bank overdrafts, bills payables, outstanding expenses and other short-term loans. Effective handling of working capital ensures business firms to the success as well as high profitability and failure planning of working capital ensures company suffering from low profitability.

It needs to maintain liquidity to purchase raw materials and pay expenses such as wages, salaries, other manufacturing, administrative and selling expense and taxes. There is hardly a matching between cash inflows and outflows. Cash is also held to meet future exigencies. Stocks of raw material, work in progress and finished well are kept to ensure smooth production, sales and to guard against non availability or meet the demand of customers on continuous basis and sudden demand from some customers. Book debts are created because goods are sold on credit for marketing and competitive reasons. Therefore, every firm makes adequate investment in inventories and book debts for a smooth as well as continuous production and sales.

The study is focused on analysis of how is Jagadamba Steel Industries Ltd maintaining its current assets and current liabilities therefore the company is able to exist in profitable condition. The study also attempts to point out some of reasonable matters that might be cause of reduction on profitable situation.

1.2.1 Working Capital Practices

Working capital management practices in Nepalese manufacturing enterprises provide totally a different picture. The past trend of many manufacturing companies had given emphasis in fixed asset. Therefore, they are facing financial problem all the time. The government policy to concentrate more in fixed assets has overlooked the financing of working capital. So, in order to create the culture of risk bearing ability through commercial prudence and professionalism, the aspect of working capital should be treated in the same way as fixed capital. While deciding the structure of the manufacturing companies, recently short-term financial decision has never received much attention in the literature of finance. Because of earlier emphasis of financial management was more long-term financial decision, which led growth and

development of many useful theories concerning these decisions compared to short-term financial decision.³

Working capital is lifeblood of enterprises. The inefficient management of working capital will lead to loss of profits in the short-run, but it will lead to down fall of the enterprises in the long –run. A deeper understanding of the importance of working capital and its satisfactory provisions can lead to not only material saving as well as economic use of capital but can also assert in furthering the ultimate aim of business.

So maintaining the optimal level of working capital is the crux problem as it is strongly related to the trade off between risk and return. The aspect of determining appropriate proportion of working capital in the structure of total assets comes under the preview of working capital policy. The unnecessary blocking of working capital, administrative negligence in day-to- day operation and serious liquidity problem are the main causes to failure the manufacturing companies are operating in loss though they are following aggressive approach of working capital management.

In most Nepalese enterprises, the management of working capital has been misunderstanding as the “Management of Money” and the managers are found over conscious about the working of money rather than its efficient utilization.. At the same time they never think of the source of working capital and usually depend on Government for some of Enterprises have used depreciation fund and utilized surplus to overcome the scarcity of working capital.

1.3 Statement of Problem

Working capital is the management of all current assets and all current liabilities used in the business. It plays vital role in the manufacturing company as well as trading company for smooth production and market operation.

The large holding of current assets consumes more funds, which cannot be used for other purpose and thus involve high opportunity cost but strengthens firm’s liquidity position, reduces risk and overall profitability, as idle investment earns nothing. Where as inadequate investment incurrent assets looses some profitable opportunities and can threaten solvency of the firm because of its inability to meet some obligation that to be matured in shot period as well, should bear bad image in market. Both excessive ad inadequate level of working capital is mot desirable because excessive carryi8ng costs and the risk of liquidity. Inadequate level of working capital obstructs the flow of production as well as market operation. So the both situation should be avoided by maintaining optimum level of working capital.

Fixed assets and current assets depend upon expected sales but it is only current assets, which can be adjusted with sales fluctuation in the short run. Investment in current assets should be just adequate, neither more or less to the

needs of business firm. It should be realizes that the working capital needs of the firm may fluctuating with changing business activity or for any other reasons, arrangement should made quickly. Similarly, if suddenly some surplus funds arise, they should not be allowed to remain idle, but should be invested in short-term securities.

For the success of any industry, working capital management takes important role because the cost of working capital directly related with the profitability of industry,. In Nepal, it is found that least attention has been given to this important segment. Working capital management in Nepal is probably the weakest aspect of manufacturing companies. It is not in common practice in Nepalese industries for controlling physical as well as financial dimension of working capital.]

Jagadamba Steel Industries Ltd is manufacturing company, so the company may suffer from working capital management problems. Therefore, this study aims to present and analyze the working capital position and shows out the problems facing by this.

Company by analyzing the following queries:

-) What are the major components of current assets of the company?
-) Is the company adopting appropriate working capital financing and investment policy? (Adopting proportion of long term and short term funds to finance on current assets.)
-) What are the sources of financing of current assets of the company?
-) Is working capital position of JSIL effective?
-) Is this company's investment in current assets appropriate to its total assets?
-) Is there proper investment in each type of working capital?
-) Is there proper liquidity position?
-) Is company utilizing its working capital at optimum level?
-) What are the effects of Working Capital on profitability of the Company?

1.4 Objectives of the study

Working capital is one of the most important determinants of the smooth operation of an Organization. The need of working capital should be managed in such a way that the business firm should bear neither excess nor shortage of cash, because both excess and shortage of working capital are harmful for business. In any business firm, the major portion of the total fund is invested in working capital so the firm give more emphasize on management of working capital. So, this study attempts to raise the importance of management of working capital.

The basic study of the study is to analyze and evaluate the working capital position of Jagadamba Steel Industry Ltd. The following are the specific objectives, which the study wants:

1. General objectives:

-) To fulfill the partial fulfillment of the requirement of Master of Business Studies
-) To spread the knowledge of student and make acquainted with real business environment

2. Specific objectives:

-) To study and present the working position, liquidity position and system followed by Jagadamba Steel Ind. Ltd.
-) To analyze the level of inventories, receivable, cash, other advances, creditors, Overdrafts, other outstanding etc maintained by Jagadamba Steel Pvt. Ltd at different time period
-) To study the relationship between sales and debtors, purchase and creditors and other variables of working capital
-) To present the role and important of working capital in manufacturing industries
-) To provide appropriate suggestions and recommendations and to improve the management matter of working capital in JSPL.

1.5 Need / significance of the study

Working capital management is a major function of any business firm. Organizations cannot be successfully operated without effective handling of working capital in manufacturing and trading organization as well thus to achieve its goals. Effective handling of working capitals helps the organization reduce its operation costs.

We can notice that most of business firms invest huge amount of their capital in current assets but systematic and scientific management of current assets is rarely found. As a result, the firm has to bear inadequate holding cost of current assets and face sometime over costs (under utilization) and sometime unable to meet even short needs situation and misses excellent opportunities. Both of such situations are harmful to the firm.

It is all known that investment in working capital is significant; Enterprises are severely affected by the poor working capital management system. So, Jagadamba Steel Industries Ltd is selected for the study topic. The study is centered on analysis of the system followed and situation faced by Jagadamba Steel Industry Limited in current assets and current liabilities management as well as to provide valuable some facts that the company might give more emphasis.

The present study focused upon the Working Capital Management of the JSPL. This study will be significant in the following ways:

-) A large proportion of the financial manager's time is allocated to Working Capital Management.
-) More than half of the total assets are typically invested in Current assets
-) The relation between the increment in sales and investment in Current Assets
-) Investment in fixed assets may be reduced by resting or leasing, but inventories and receivable is usually unavoidable.

1.6 Limitation of the study

The study is simply concerned with the management of current assets and current liabilities (Working Capital Management) of Jagadamba Steel Industries Limited and has been conducted for the partial fulfillment of the requirement for the degree of Master's of Business Studies. It may not be reliable and valid for other area of study as it is prepared purely for academic purpose. This study is not an exception of the University of Limitation. Each research study has its own limitation; the study will have following limitations:

-) This study will be concerned only with the working capital management function of the JSPL and ignores other managerial functions.
-) Basically that of financial statement provided by the JSPL are used in analysis, hence they are secondary in nature. Some how the researcher has tried to analyze the primary data as received form direct interview with related personnel of JSPL.
-) The study period is limited for only five fiscal years from 2061/62.....to...2065/66.....B.S
-) The study will be highly dependent in the data given by the concern persons of the JSIL.
-) The study focuses mainly on financial and statistical tools are embodied for analyzing the Working Capital Management of JSIL.
-) The method, theories, standards employed in the study will have its own limitation and assumptions.

1.7 Operation of the Study(chapter scheme)

The study has been organized into five chapters, they are as follows

Chapter -1 Introduction: The study includes the general background of the introduction of Jagadamba steel industries Limited, statement of the problems, objectives of the study, need of the study, and limitation of the study and organization of the overall study.

Chapter -2 Review of Literature: It had been divided into two parts. The first is concerned with the reviews the concept and theory of working capital management frame work form various books journals articles. The second part reviews previous related studies and will be reviewed the thesis related to working capital management.

Chapter -3 Research Methodologies: It deals with the introduction, research design, nature and source data, data collecting method and analytical techniques employed.

Chapter – 4 Presentations and Analysis of Data: This is the main part of the study which deals with the presentation and analysis and data through the way to designed methodology and interpreted by the help of available data, various tools and techniques. The major findings of the data analysis are also presented in this chapter.

Chapter -5 Summary, Conclusion and Recommendations: It includes summary, conclusion and recommendation of the study that have been presented.

Chapter –Two

Review of Literature

2.1. Introductions

Review of literature refers to the reviewing of the past studies in the concerned field. Such studies could be thesis/dissertation that are written earlier, books articles, journal and any sort of other publication concerning the subject matter, which were written prior by a person or an organization. The purpose of this literature review is to be acquainted with what is yet to be accomplished. In other words, it helps to find what actually is to be studied and foretells worthiness' of the study being undertaken.

A number of studies have been carried out from different management experts, professionals' authors, and students of different levels of Master Degree. The purpose of this chapter is to review the available literature on working capital position and management on the context of the Nepalese industries including available information of Jagadamba Steel Ind. Ltd. A short description of literature referred in the study is given below that support to make the study purposeful.

2.2 Review of Text Books

2.2.1 Meaning and Concept of Working Capital

In any business organization, working capital is just like livelihood in human body an works as a central nerve of a living organization. For the successful day-to-day operation management of current assets and current liabilities f business organization is highly essential. It is very detrimental on the success and failure of organization.

Business organization needs various types of assets in order to carry out its operation. Some assets are required to meet the needs of regular production and some others are required especially to meet day-to-day expenses and short-term obligation.

The cash and marketable securities are respectively considered purely liquid and near liquid assets, whereas account receivables and inventories are not. However, they can be liquidated as and when necessary within a period of less than one year. Ina like manner, the current liabilities comprising sundry debtors, trade creditors, accounts payable, short-term bank loan and outstanding expenses etc. must be paid within one year as they become due.

Working capital management is not only concerned with the management of total current assets and the excess of current assets over current liabilities but it is concerned with all kinds of problems that arise in attempting to manage the current assets, current liabilities and the interrelationships that exist between them.⁶ The meaning of the term ‘working capital’ should not be allowed to limit either the gross or the net concept of working capital only. It is true that very often-working capital is interpreted as circulating capital as it keeps on circulating in the course of business transactions. The circulating capital is highly a descriptive and meaningful term. Working capital is constantly flowing and changing its form as the enterprise accomplishes its objectives and performs its operations .In a broader sense, both fixed and current assets circulate but the current assets have a much greater velocity or turnover rate.⁷ Current assets are assets like cash, stock, debtors or short-term investments, which are either readily available cash or are convertible into cash within a short time relatively during the normal course of business. Current liabilities on the other hand are liabilities, which will fall due for payment within a relatively shorter period. Such periods vary from one month to twelve months. Instances are creditors, provisions for taxation and dividend claims.

Different elements of working capital may be summarized as:

- 1 Cash on hand and in the bank
2. Easily convertible securities held for short terms
- 3 Raw material stocks
- 4 Finished goods stocks
- 5 Sundry work in progress stocks
- 6 Debtors

The study of gross and net concept of working capital in Nepalese public enterprises assumes greater significance. It is not known what the position of investment in gross and net working capital including their components in these and whether there has any significant changes taking place in their size and structure over a period of time.

Gross concept

Gross concept in working capital mean the firm’s investment in current assets. Current assets are the assets, which can be converted into cash within an accounting year (operating cycle), and include cash, short term securities, debtors, (account receivable or book debts) bills receivable and stock (inventory). Adam Smith called “**circulating principle**” for current assets. In the word of Adam Smith “the goods of the merchant yield him no revenue in profit till he sells them for money and the money yields him a little till it is again exchanged for goods. His capital is continuously going from him in once

shape and returning him in another and its only y means of such circulation's or successive exchange that can yield very him any profit. Such capital therefore may properly be called circulating capital.⁸ RS Pradhan and K.D Koirala express their view about gross concept working capital "if all the expenses needed to run the day to day operation of business such as amount to be invested in the form of cash, finished goods, receivable etc are put together, it is called working capital. This working capital and total current assets are synonyms".⁹

Net Concept

According to net concept, net working capital refers to the difference between current assets and current liabilities. Current assets and current liabilities both play a vital role in operation cycle of business, so all the current liabilities must be considered rather than current assets alone. Since working capital is current assets, it includes all those assets, which in the normal course of business return to the firm, as cash with in a short period. Ordinary investments, which may be readily converted into cash upon need, are also current assets. The current liabilities include those debts that mature within a year. If public enterprises fail to consider current liabilities, the management of working capital gives misleading results.

The view of net working capital is supported by distinguished authorities like Lincon, Davis and Gitman. They have defined net working capital as that portion of firm's current assets; the company in turn has current liabilities. As against the current, the company in turn has current liabilities like credit facilities through its accounts payable or sundry creditors.

As expressed by American Institute of Certified Pubic Accountants USA working capital sometimes called net working capital, is represented by the excess of current assets over current liabilities and identifies the relatively liquid position of total enterprise capital which constitutes a margin suffers for maturing obligations within the ordinary operation cycle of the business and shows the ability to pay its creditors

Dr. Radhe Shyam Pradhan has published a book on management of working capital in Nepalese Public Enterprises. In this study, he has dealt with various issues for example type of working capital policy followed by those public Enterprises liquidity position, structures of working capital, utilization, demand, components with change in volume of sales in these public enterprises. He revealed that most of the most of the selected enterprises achieved a tradeoff between risk and return, thereby following neither an aggressive nor a conservative approach.

Almost all the selected public enterprises had a positive net working capital and much of the of the growth in net working capital might, however,

be attributed to inflation as the growth in net working capital capital at defaulted prices has been much lower. In most of Nepalese Public Enterprises the liquidity measure should a poor liquidity position. It has been noticed that the enterprises had either negative cash flows or earning before tax or they had excessive net current debts, which could not be paid within a year.¹⁰

Proper management of Working Capital must ensure adequate amount of working capital as per need of business firms. It should be in good health and efficiently circulated. To have adequate, healthy and efficient circulation of working capital, necessary that working capital must be properly determined and allocated to its various segments, effectively controlled and regularly reviewed. In the opinion of well-known Indian professor I.M Pandey, there are specially two concepts of working capital i.e. gross concept and net concept. The term Gross Working Capital simply called as working capital; refer to the firm's investment in current assets. Current assets are the assets, which can be converted into cash within an accounting year (or operating cycle) and include cash, short-term securities, debtor, bills receivable and stock (inventory).

The term 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 can be positive or negative. A positive net working capital occurs when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets.

The two concepts of working capital-Gross and Net-are not exclusive, rather they have equal significance from management viewpoint. The gross working capital concept focuses attention on two aspects of current assets management:

- a) Optimum investment in current assets and financing of current assets.
- b) The net working capital, being the difference between current assets and current liabilities, is a qualitative concept. It emphasizes on liquidity position of firm and suggests some to which working capital needs may be financed by permanent sources of funds.

It may be emphasized that both gross and net concepts of working capital are equally important of are the efficient management of working capital. There is no precise way to determine the exact amount of gross or net working capital for any firm. The data and problems of each company should be analyzed to determine the amount of working capital. There is no specific rule as to how current assets should be financed. It is not feasible in practice to finance current assets by short-term sources only. Keeping in view the constraints of the individual company, a judicious mix of long-term finances

should be invested in current assets. Since current assets involve cost of funds, they should be put to productive use.¹¹

James c. Van Horne emphasizing liquid assets as important component of working capital says:

The term liquid assets are used to describe money and asset that are readily convertible into money. Different assets may be said to exhibit different degrees of liquidity. Money itself by definition the most liquid of assets, other assets have varying degree of liquidity, depending on the ease with which they can be turned into cash. For asset other than money, liquidity has two dimensions : (1) the time necessary to convert the assets into money, and (2) the degree of certainty associated with the conversion ratio or price realized for the assets.”¹²

In this way, he focuses in time and certainty factors of liquidity of current assets. In the consecutive chapters, he describes other components of working capital such as cash and marketable securities, account receivable and inventories, short financing, secured loans and term financing.

Fred Weston and F. Bugene Brigham have given the concept of working capital as: the term working capital originated at a time when most industries were closely related to agriculture, processors would buy crops in the fall, process them, sell the finished product and end up just before the next harvest with relatively low inventories. Bank loan with maximum maturities of one year were used to finance both the purchase and the processing cost and these loans were retired with proceeds from the sale of the finished products.¹³

Dr.R.S Pradhan and Dr.K.D Koirala jointly prepared a research study on the “aspect of working capital management in Nepalese corporations “during 031/32 to 035/36. they found that investment of current assets had declined over the period in both manufacturing and non-manufacturing corporations was to provide a reserve for routine outflows of cash and for holding inventories was to facilitate smooth operation production and sales. The inventory in manufacturing corporations and cash and receivables in non- manufacturing enterprises were more problematic to manage.

With the reference to the above problems and findings, they recommended that the need to control investment in working capital as a whole for manufacturing corporations as the average proportion of working capital to sales increased over time. Since the manufacturing and non-manufacturing corporations had trying to control investment in cash and inventory. However, manufacturing corporations should pay attention to controls the investment in inventory. They concluded that the investment in current assets had decline over the period in both type of corporations. Due to more liberal and less consistent credit policies; the manufacturing Public Enterprises had

consistently more investment in cash and receivables as compared to non-manufacturing corporations. Inventory management is of great importance to manufacturing enterprises and cash and receivable to non-manufacturing enterprises.

Mr. N K Agrawal, Working capital management is the just like the lifeblood in human beings on any business firms. The management of working capital plays a vital role for successful existence of enterprises. It is the centre on the routine of day-to-day administration of current assets and current liabilities. Therefore, working capital management in public enterprises is very important mainly for four reasons. Firstly, public enterprises must need to determine the adequacy of investment in current assets otherwise' it could seriously erode their liquidity base. Secondly, they must select the type of current assets, suitable for investment to raise their operational efficiency. Thirdly, they are required to ascertain the turnover of current assets, which determine the profitability of the concerns. Lastly, they must find out the appropriate resources of funds to finance the current assets.

Proper management of working capital must ensure adequate amount of working capital as per the need of business firms, it should be in good health and circulated. To have adequate healthy and efficient circulation of working capital it is necessary that working capital be properly determined an allocated to its various segments, effectively controlled and regularly reviewed.

2.2.2 Requirement of working capital

There is a difference between current and fixed assets in terms of their liquidity. Affirm requires many years to recover the initial investment in fixed assets such as plant and machinery or land and buildings. On the contrary, investment in current assets is turned over many times in a year. Investment in current assets such as inventories and book debts (account receivable) is realized during the firm's operating cycle, which is usually less than a year. The most of manufacturing firm involves following cash conversion cycle.

Inventory conversion Period (ICP) is the length of time required to converts into (resources) into output (finished goods)

$$\text{ICP} \times \frac{\text{Current Assets}}{\text{Fixed Assets}} \text{ or } \frac{360 \text{ days}}{\text{Inventory Turnover Ratio}}$$

Receivable conversion Period (RCP) is the length of time required to collect outstanding amount from customers.

OR

Payable Deferral period (PDP) is the length of time taken by company for able to defer payment on various credit purchases of vendors.

If the Depreciation is excluded from expenses, the of ICP and RCP minus PDP is referred as Cash Conversion Cycle (CCC), such as

$CCC = ICP + RCP - PDP$ (Days)

Requirement of working capital = $CCC \times$ working capital needed per day

The Cash Conversion Cycle can be shown in a figure:

Figure: 1-CashConversionCycle

2.2.3 Cost Trade-off

Different way of looking into the risk return trade-off is in terms of the cost of operating a particular level of current assets. There are two types of cost involved: the cost of liquidity and the costs of liquidity. If the firm's level of current assets is very high, its return on assets will be low, as funds

Tied up in idle cash and earn nothing and high levels of debtors reduce profitability. Thus, the cost of liquidity (though low rates of return) increase with the level of current assets.

The cost of liquidity is insufficient current assets. The firm will not be in a position to honor its obligations if it carries too cash. This may force the firm to borrow at high rates of interest. This will also adversely affect the credit worthiness of the firm and it will face difficulties in obtaining funds in future. All this may force the firm into insolvency. Similarly, the low level of stocks will result in loss of sales and customers may shift to competitors. In addition, low level of book debts may be due to tight credit policy, which would impair sales further. Thus, the level of current assets involves costs, which increase as this level falls.

Minimum Cost

Cost of Liquidity

Optimum Level Level Of Current Assets
Of Current Assets

Figure-2

Cost Trade - Off

In determining the optimum level of current assets, the firm should balance the profitability-solvency tangle by minimizing total costs (cost of liquidity and liquidity), this is given in figure that high level of current assets increases cost of liquidity while cost of liquidity decreases and vice-versa. The firm should maintain its current assets at that level where the sum of these two costs is minimized. The minimum cost point indicates the level of current assets in figure-2

2.2.4 Liquidity versus Profitability (Risk and Return)

Almost all financial decisions involve some sort of risk return trade off but this is more so in the case of working capital decisions. To take an example, the lower the cash balances held on hand, the higher would be the expected return, but at the same time, the enterprise will have to assume the greater risk of running out of cash. The higher return is due to the less money tied up in non-income earning assets and the higher risk is due to the possibility of shortage of cash in the event of urgency. Thus, a low is associated with high rates of return. However, it doesn't mean that low liquidity is in the best interest of shareholders. No doubt, profitability has to do with goal of shareholder's wealth, but liquidity has to do with ensuring that enterprise is able to satisfy all its current financial obligations.¹⁴ The firm would make just enough investment in current assets if it was possible to estimate working capital needs exactly. Under perfect certainty, current assets holdings would be at minimum levels. A larger investment in current assets holding would mean a low rate of return investment for the firm, as excess investment in current asset would not earn enough return. A smaller investment in current assets, on the other, would mean interrupted production and sales, because of frequent stock-outs and liability to pay to creditors in time due to restrictive policy. As it is not possible to estimate working capital needs accurately, the firm must decide about levels of current asset to be carried. The current assets holdings of the firm will depend upon its working capital policy. The company may follow either conservative or aggressive policy.

It doesn't mean that larger the working capital, the better it is. Regarding the size of working capital to be held in the business, there is likely to be some position or range of positions that is best. If the investment in fixed assets is held constant, then the benefits resulting from an additional increase in working capital will be subject to diminishing returns. If the objective of working capital management is to maintaining high liquidity in the business, it means a reduced return to shareholders and a lower risk of becoming technically insolvent. All working capital policies ranging from low to high liquidity policies but are not equally favorable. The extremely high and low liquidity policies are not at all favorable as the required rate of return or cost of capital is higher than expected rate of return is higher than the required rate of return or cost of capital. These policies have different risk and return implications.

2.2.5 Need for working capital

The management of working capital has been regarded as one of the conditioning factors in the decision making issue. It is no doubt, very difficult to point out as to how much working capital is needed by a particular company, but it is very essential to analyze and find out the solution to make an efficient use of funds for minimizing the risk of loss to attain profit objectives. Thus goes the importance of working capital moving rapidly. Thus, it is also lead

circulating capital or a moving capital. the transmutation of a company's working capital into income and profits and back into working capital is one of the most dynamic and vital aspects of business operation. And only this movement of current assets keeps the business alive. A fully equipped factory without the supply of materials to process and without cash to pay bills and store without stock to sell is of no use. These circumstances emphasize the importance of working capital in a business firm.

The need for working capital or current assets cannot over emphasize. The objective of financial decision making is to maximize the shareholder's wealth. To achieve this, it is necessary to generate sufficient profits; the extents to which profit can be earned will naturally depend upon the magnitude of the sales among other things. A successful sales program is in other words, necessary form earning profit by any business extremes. However, sales do not convert into cash instantly; there is invariably a time lag between the sales of goods and receipt of cash.

There is, therefore, a need for working capital in the form of current assets to deal with the problem arising out of the lack of immediate realization of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sale activity. Technically, this is referred to as the operating or cash cycle. The operating cycle can be said to be at the near of the need for working capital. Operating cycle is the time duration required to convert sales, after the conversion of resources into inventories into cash.

Most of the firms aim is maximizing to wealth of shareholders. The firm should earn sufficient return from its operation. The extent to which profits can be earned naturally depends upon the magnitude of sale of sale among the other things. For constant operation of the business, every firm need to hold the working capital components like cash, receivable, inventories etc. therefore, every firm needs working to meet the following motive.

The transactional motive

According to transaction motive, a firm holds cash and inventories to facilitate smooth production and sales operation in regular. Thus the firm needs the working capital to meet the transaction motive

The precautionary motive

Precautionary motive is the need to hold cash and inventories to guard against the risk of unpredictable change in demand and supply forces and supply forces and other factors such as strike, failure of important customer, unexpected slow down in collection of accounts receivable, cancellation of

some order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet any contingencies in future.

The speculative motive

Speculative motive refers to the desire of a firm to take advantages of following opportunities;

-) Opportunities of profit making investment
-) Opportunities of purchasing raw materials at a reduced price on payment of immediate cash
-) Speculate on interest rate and
-) Make purchases at favorable price etc

Thus the firm need the working capital to meet the above three motives.

2.2.6 Working capital policies

A firm's net working capital position is not only important as an index of liquidity but it is also used as measure of the firm's risk. Risk, in this regard, means changes chances of the firm being unable to meet its obligations on due date (Pandey, 1989:738). Working capital management involves deciding upon the amount and composition of current assets and how to finance these assets.

The decision involves trade of between risk and profitability. The greater the relative proportion of liquid assets, the lesser the profitability as well as the risk of running out of cash all other things being equal.; the longer the composite maturity schedule of securities used to finance the firm, the lesser the risk of cash insolvency all other things being equal.

Again the profits of the firm are likely to be less. Resolution of the trade off between risk and profitability with respect to these depends upon the risk preferences of management.

Working policy refers to the firm's basic policies reading target level of each category of current assets and how current assets will be financed (Weston, 1996page 333). So, first of all, the firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policy according to the financial manager's attitude towards the risk return trade off. One of the most important decision of final manager is how much current liabilities should be used to finance current assets. Every firm has to find out the different sources of funds for working capital.

2.2.6.1 Current Assets Investment Policy

Current assets investment policy refers the policy regarding the total of current assets to be carried to support the given the level of sales. There are three alternative current assets investment policies Fat Cat, Loan and Mean and Moderate Policy (Weston etc all, 1996 page 334).

Fat cat policy

This is known as known as Relaxed Current Assets Investment Policy. In this policy, the firm holds relatively large amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy creates longer receivable collecting period due to the liberal credit policy. Thus this policy provides the lowest expected return on investment.

Lean and Mean policy

This is also known as Restricted Current Assets Investment Policy. In lean and mean policy, a firm holds the minimum amount of cash, marketable securities. inventory and receivable conversion to support a given sales. This policy tends to reduce the

Moderate Policy

In moderate policy, a firm holds the amount of current asses in between the relaxed and restrictive policies. Both risk and return are moderate in this policy.

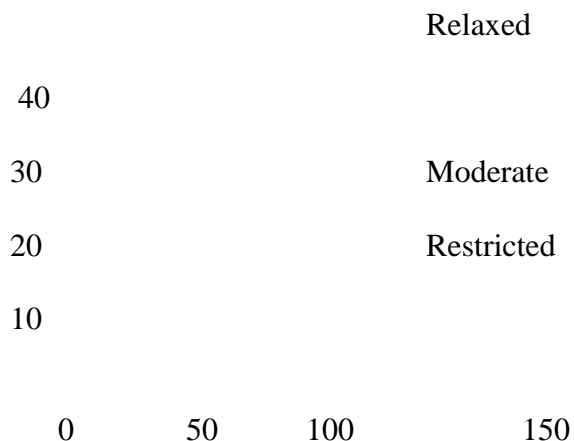


Figure-3

Alternative Current Assets Investment Policies (in thousand Rs.)

The above figure shows that level of current assets as per different Policies used to support sales of Rs. 110.

Policies current assets to appear support given level of sales Rs 110

Relaxed Rs 30

Moderate Rs 20

Ristricted Rs 10

Source: Weston, Besley & Brigham, Essentials of Managerial Finance,P-345

2.2.6.2 Current assets financing policy

It is the manner in which the permanent and temporary current assets are financed; current assets are financed with funds railed from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing. There are three variants aggressive, conservative and matching policies of current assets financing.

) Aggressive policy

In as aggressive policy, the firm finances a part of its permanent current assets with short term financing and rest with long financing. In other words, the firm finances not only temporary current assets but also a part of permanent current assets with short t term financing finance 50% of the permanent current assets.

In general, interest rate increases with time, lower the interest rate. It is because lenders are risk adverse and risk finally increases with the length of lending period. Thus, under financing rather than long term financing on the other side, if the firm finances its permanent current assets by short term finance, then it runs the risk of renewing the borrowing again. This continued financing exposes the firm to certain risk. It is because, in future the expenses will fluctuate wide and also, it may be difficult for the firm to raise the fund during the stringent periods. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

1 2 3 4 5 6 7

Time Period

Figure—4

Source: Weston, Besley and Brigham, Essentials of Management Finance p-347

Conservative policy

In this policy, the firm uses long term financing to finance not only fixed assets and permanent assets but also a part of the temporary current assets. This policy leads to high level of current assets, with long conversion cycle low level of current liabilities and higher interest cost. The risk and return are lower one. The risk adverse management follows this policy.

Conservative financing policy

1 2 3 4 5 6 7

Time period

Figure ---5

Source: Weston, Besley & Brigham, Essential of Mgmt finance P-347

Moderate Policy

In this policy the firm finances the permanent current assets with long term financing and temporary with short term financing. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets nor current and current liabilities. Figure- 6 temporary working capital is financed by short term financing and long term –term financing. Thus working capital is zero under this policy.

1 2 3 4 5 6 7
TIME PERIOD

2.2.7 Determining Financing Mix

A study of determining the financing mix also gives an idea of risk- return tradeoff to be achieved in working capital management. Deciding how current liabilities should be used to finance current assets is one of the most important decisions concerning working capital management. It is necessary to understand here that short- term funds are not available to financed fixed assets, for short-term lenders generally do not lend funds for financing long-term assets. The problem is therefore whether to limit the use of long-term funds to finance long-term assets only or they should be also to finance current assets in addition to long-term assets. Determining an appropriate financing mix is again a matter of risk return tradeoff. A number of financing mixes is available to a financial manager ranging from low liquidity high- profitability policies to high- liquidity low-profitability policies and his job is to pick the one the properly balances profitability and liquidity. Out to them, three approaches to financing mixes of different extremes are described in the following ways;

1. Aggressive approach

The first approach refers to the aggressive financing mix, which is quite risky leading to high profitability and liquidity. The approach would be to finance seasonal requirement of funds by short-term sources and permanent by long term sources under this approach, the risk of technical insolvency would be high as the net working capital is a lower level. The profitability in this approach would be high as the cost of fund flow is low.

2. Conservative approach

The second approach refers to a financing mix, which is less risky leading to low profitability and high quality. The approach would be to finance all funds required from long- term funds. The risk is considered low here because even if the total requirement of funds actually turns out to be more, the enterprise can expect to meet it from short-term sources easily as it has been not using them.

3. Moderate approach

This third approach refers to a finance mix, which is neither too risky nor least risky; ti lies in between a low liquidity high profitability case and a high liquidity low profitability case. In other words, this approach aims at achieving a trade off in real life would however; depend upon management's capability to take risk.

From the above discussion it is clear that higher the liquidity, lower the risk leading to lower profitability and vice-versa. Working capital management, therefore, ultimately aims at achieving some sort of a risk- return tradeoff. Moreover, this kind of tradeoff would fundamentally be a matter of management's attitude towards risk.

2.2.8 Financing working capital

The firm's working capital assets policy is never set in vacuum: it is always established in conjunction with the firm's working capital financing policy. Every manufacturing concern or industry requires additional assets whether they are in stable or growing conditions the most important unction of financial manager is to determine the level of working capital and to decide how it to be financed. Financing of any assets s concerned with two major factors-cost and risk. Therefore, the financial management must determine an appropriate financing mix or decide how current liabilities should be used to finance current assets.

However, a number of financing mixes are available to the financial manager. He can resort generally three kinds of financing.

) **Long term financing**

Long-term financing has high quality and low profitability. Ordinary share, debenture, preference share, debenture preference share, retained earning and long term debts of financial institution are major sources of long term financing.

) **Short-term financing**

A firm must arrange its short term credit in advance. The sources of short-term financing of working capital are trade credit and banking borrowing.

Trade credit

It refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms have not to pay cash immediate for the purchase is called Trade Credit. It is mostly an informal arrangement and is granted on an open account basis. Another form of trade credit is bills payable. It depends upon the term of trade credit. (Van Horne, 1994, P-471)

Bank credit

Bank credit is the primary institution sources for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimated by the borrowers and banks are approach with the necessary supporting data.

Lastly, Company determines the maximum credit based on the margin requirement of the security. The types of loan provided by commercial banks are loan arrangement overdraft arrangement, commercial papers etc.

) **Spontaneous financing**

Spontaneous financing arises from the normal operating of the firms; the two major sources of such financing are trade credit (i.e. credit and bills payable) and accruals. Whether trade credit is free of cost or not actually depends upon the terms of trade credit. (Pradhan, 2000, page-147).

Financing manage of the firm would like to finance its working capital with spontaneous sources as much as possible. In practice, the real choice of current assets financing is either short term or long term sources. Hence, the financing of working capital depends upon the working capital policy, which is perfectly dominated by management attitude towards the risk return.

There are three basic approaches for determining an appropriate working capital financing mix.

) Matching approach

It is also known as heading approach. If the firm attempts to match assets and liability maturities, the working capital financing policy is termed as moderate (maturity matching of self liquidity) policy. Heading approach is a method of financing where each asset would be offset with a financing instrument of the same approximately maturity.

With the matching approach, long-term financing will be used to finance fixed assets and permanent component of current assets as well as short-term financing is used to finance temporary or variable current assets or seasonal variations in current assets. The firm's fixed assets and permanent current assets are financed with long-term funds and as the level of these assets increases, the long-term financial level increases. The temporary or variable current assets are financed with short-term funds and as their level increases, the level of short-term financing increases. Under matching plan, no short-term financing will be used if the firm has a fixed current assets need only. However, due to the uncertainty of expected lives of assets exact matching is not always possible. With a hedging approach to finance the borrowing and payment schedule for short-term financing current assets less spontaneous financing (Van Horne & Wachowicz 2000, page-209)

) Conservative approach

The financing policy of firm is said to be conservative when it depends more on long term fund for financing needs. Under a conservative plan, the firm finances its permanent assets and a part of temporary current assets with long term financing. In the period when the firm has no need for temporary current assets, the idle long-term funds can be invested in the tradable securities to conserve liquidity. The conservative plan relies heavily on long-term financing and therefore, the firm has less risk of facing the problem of shortage of funds (Pandey, 1989, page-570).

This approach heavily relies on long term financing. Permanent capital is used to finance all permanent assets requirements or also to meet some or all of the seasonal demands (Weston & Brigham, 1996, page-348)

) **Aggressive approach**

An aggressive policy is said to be followed when it used more short-term financing than warranted by the matching plan. Under an aggressive policy, the firm finances a part of its permanent Current Assets with short term financing. The relatively more use of short term financing makes the firm risky (Pandey, 1989, page-751)

2.2.9 Adequacy and in-adequacy of working capital

It is important to maintain a sound working capital position. It should have adequate working capital to run its business operations. Both excessive as well as inadequate working capital position are dangerous from the firm's point of view. Excessive working capital means idle funds, which earn no profits for the firm. Paucity of working capital not only impairs firm's profitability but also results in production interruptions and inefficiencies. The danger of excessive working capital is as follows:

-) It results in unnecessary accumulation of inventories. Thus, chances of inventory mishandling, waste, theft and losses increase.
-) It is an indication of defective credit policy and slack collection period. Consequently, higher incidence of bad debt results, which adversely affects profits.
-) Excessive working capital makes management complacent, which degenerates into managerial inefficiency.
-) Tendencies of accumulating inventories are to make speculative profits grow. This may tend to make dividend policy liberal and difficult to cope with in future when the firm is unable to make speculative profits.

In-adequacy of working capital is also bad and has the following dangers:

-) It becomes difficult for the firm to undertake profitable projects by non-availability of working capital funds.
-) It becomes difficult to implement operating plans and achieving the firm's profit target.
-) Operating inefficiencies creep in when it becomes difficult even to meet the day-to-day commitments.
-) Fixed assets are not efficiently utilized for the lack of working capital funds. Thus, the firm's profitability would deteriorate.
-) Lack of working capital funds renders the firm unable to avail attractive credit opportunities etc.
-) A firm loses its reputation when it is not in position to honor its short-term obligations. As a result, the firm faces tight credit terms.

Therefore tightened management should maintain a right amount of working capital on continuous basis.

2.2.10 Determinants of working capital

There is no set rules or formulate to determine the working capital requirement of the firm. The importance of efficient working capital management is an aspect of overall financial management. Thus firm plastic operations with adequate working capital requirement or it should have neither too excess nor too inadequate working capital. a number of factors affect different firm in different ways. Internal polices and environment changes also affect the working capital, manufacturing and trading enterprises need different volume of working capital as compared to public utility enterprise can hardly be set due to the following environment that affects working capital needs of particular enterprises.

A) Nature and size of business: The working capital requirement of a firm depends upon the nature and size of business. Manufacturing or trading and small or large business firm vary on requirement of working capital. Trading and small business need less WC and vice-versa.

B) Manufacturing cycle: It refers to the time involved to make the finished goods form the raw materials. It has a great impact on the Working Capital needs because the shorter the manufacturing periods and efficiency in production, the lesser the need of Working Capital to finance in working capital and longer the production cycle the funds are tied-up.

C) Business fluctuation: Business fluctuation also affects the requirement of working capital. The situation whether an enterprise is operating in the boom or recession and depression period also determines the working capital needs of the enterprise.

d) Production policy: The production policy adopted by the firm also affects its working capital requirement. The policy whether to follow uniform and level production plan or varying production plan determines the working capital needs of the individuals enterprise. Naturally a firm following uniform production policy requires higher amount or working capital and vice- versa.

E) credit policy and availability of credit: Credit policy and availability of credit is another important factor that affects the working capital requirement. If funds are readily and easily available from banks with favorable conditions and the creditors provide a liberal credit terms or credit facilities as well as the firm follows conservative sales policy then such firm needs lesser amount of working capital and vice-versa.

F) Growth and expansion activities: The volume of assets or sales as well as expansion activities of the enterprises has direct bearing upon the needs of working capital. However, it is difficult to precisely determine the relationship between the growth and expansion of the firm needs and working capital requirement. The trend of growth is higher as well as increasing expansion activities, the higher the need of working capital and vice-versa.

G) Turnover or circulating capital: Turnover and circulating capital also affect the requirement of working capital. How frequently and rapidly the working assets are converted into cash also determines the need of working capital and such turnover is determined by demand and sales policy of the particular enterprise.

H) Competitive conditions: It is also an important determinant that plays the vital role for determination the requirement of working capital. an enterprise dominating in the market without having keen competition may be in a favorable situation for keeping less amount of working capital.

I) Price level change: Price level changes also affect the requirement of working capital of a firm. Generally, rising price levels will require a firm to maintain higher amount of working capital due to same level of current assets will need more investment when price increases. In conclusion, the implications of changing price level o working capital position will vary to fir depending on the nature and other relevant consideration of the operation of the concerned firms.

J) Operating efficiency: It is also the important factor, influences the working capital requirements of the firm. It refers to the efficient utilization of available resources at minimum cost. Thus, financial can contribute to strong working capital position through operating efficiency lower will be working capital requirement and vice-versa.

K) Profit Margin: The level of profit margin differs on firm to firm. It depends upon the nature land quality of products, marketing management and monopoly power in the market. If the firm deals with the high quality product and has a sound marketing management and enjoyed the monopoly power in the market then it earns quite high profit and vice-versa. Profit is the source of working capital because it contributes towards the working capital as a pool by generating more internal funds.

L) Level of Taxes: The level of taxes also influences working capital requirement of a firm. The amount of taxes to be paid in advances is determined by the prevailing tax regulations. But the firms profit is not constant, or cannot be predetermined. Tax liability in sense of short term liquidity is payable in cash. Therefore, the provision for tax amount is one of

the important aspects of working capital planning. If tax liability increases, it needs to increase the working capital and vice-versa.

A number of studies have been carried out concerning working capital management on different natures of manufacturing enterprises of Nepal. Some of the views and findings made by some students and professionals have been reviewed in this section. The dissertations are related to public and private limited enterprises, I believe, those findings relevant in the study.

2.2.11 Sources and applications of working capital

Generally, the sources of working capital are as follows:

A. Funds from Operations: The major sources of working capital are the funds from operations, which refer to those funds which are generated by carrying out the central operations of a business.

B. Proceed from the sale of non-current assets: Sale of non-current assets tantamount to conversion of non-current assets to current assets and is a source of funds regardless of the fact whether the assets are sold for a gain or loss.

C. Long Term Borrowing: Long term borrowing such as issue of debenture and convertible bonds results in the increase of current assets (cash) and therefore an increase in the working capital. In case of short-term borrowing, the increase of current assets is offset by an increase in the current liability and therefore results in no change in working capital.

D. Issue of share for cash: Issue of shares results in an inflow of current assets and is, therefore, a source. In the case of sole proprietorship concerns additional capital introduced is a source of funds.

E. Non-Operating Income: Income like dividends, interest received from operations outside the framework of the central operation of a business results in an inflow of current assets and, therefore, to be shown as a source.

,

Application of working capital

The working capital can be used in the following activities

A. purchase of fixed asset

The purchase of long-term assets, such as plant & equipment, land & building either reduces current assets and or increase current liabilities. Consequently, the working capital is reduced.

B. Redemption or payment of long-term debt

Repayment of short –term debt is not considered as the uses of funds, since both current assets and current liabilities are reduced by the same amount. But the payment of a long-term results in the reduction of a current assets and, is therefore, use of fund.

C. Redemption of preference share or investment made

When cash is paid to redeem preference share or to purchase securities as investment, working capital is reduced and therefore is use of fund.

E. Loss from operations

Any loss from the operation results in more outflows of funds as compared to inflow of funds and is, therefore use of funds.

F. Payment of Dividend, tax etc

Any dividend or tax amount paid in cash results outflows of current assets, therefore, an application of funds.

Sources and application of table

Source

FIGURE-7

APPLICATIONS

Sources: Weston, Beasley and Brigham, Essentials of Mgmt Finance, page-347

2.2.12 Classification of Working Capital

Working capital can be classified into two categories

- ✓ Permanent or Fixed Working Capital
- ✓ Variable or Temporary or Fluctuating working capital

Permanent working capital refers to that level of current assets which is required on a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital. Therefore, a manufacturing concern holds certain minimum amount of Working Capital to ensure uninterrupted production and sales function. This portion of working capital is directly related to the firm's expansion of operation capacity. (srivastav, 1984;-484)

Variable working capital refers to that portion of Working Capital, which is required over permanent working capital. Therefore, this portion of Working Capital depends upon the nature of firm's production; relation between labor and management. If a firm has sound management of this portion of working capital it can easily win other competitors in the cut-throat of the market.

2.3 Review of Journal/ Articles

Article, journals and bulletins are of great significance of thesis writing; so various published articles by different management experts and journals/bulletins relating to working capital have been considered.

With reference to this, Dr. Manohar K. Shreshtha, in an article, has considered 10 selected public enterprises and studied the working capital management in those public enterprises. He has focused on the liquidity, turnover and profitability position of those enterprises. In this analysis, he found that four public enterprises had excessive and the remaining four had failed to maintain desirable liquidity position. On the turnover side, two public Enterprises had negative working capital turnover, four had adequate turnover, one had high turnover and the remaining three had not satisfactory net working capital. Six Public Enterprises were in losses out of ten Public Enterprises. Dr. Shreshtha had brought certain policy issues such as lack of suitable financial planning, negligence of working capital management, deviation between liquidity and turnover of assets and liquidity to show positive relationship between turnover and return on networking capital. At the end, he had made some suggestive measures to overcome from the above policy issues. Viz. identification of needed funds, development of management information

system, positive attitude towards risk and profit and determination of right combination of short term and long- term sources of funds to finance working capital needs.

Another article by Dr. K Acharya focused on working capital management of Nepal Tea Development Corporation (NTDC) for eight years from 1975 /76 to 1982/83 AD. In the study he found that the net working capital of NTDC was negative due to increase in current liabilities. Inventory held the largest portion and it was accumulating in the corporation. The size of receivables of NTDC had also been increasing trend where as cash balance held by the corporation was insufficient to meet the routine work of the corporation. At the same time, the liquidity position was very poor since current asset were less than the current liabilities. The turnover of inventory, receivable and current assets were below average. The break-even analysis revealed that the NTDC had been selling mostly behind the break- even point. Even variable cost was higher than selling price. Dr. Acharya gave some suggestions regarding this were: proper planning of production and sales, new credit policy, action against the delinquent dealers, obtaining loans from any individual or financing institutions.

A comparative study of **“problems in management of WC in Nepalese enterprise”** has been conducted by Acharya states that of Nepalese enterprises the management of money and managers are found over conscious about receiving of money rather than its efficient utilization. Thus, the existing problems in the finance are mostly directed towards the management of working capital rather than in any area. In his number of studies it has been repeatedly found that the gross inefficiency in the operation of public enterprises. He has stressed on high cost of production, which have left these PES in less secured position. Thus, further added the cost of reduction is the only possible measure for smooth operation and long –term existence of the public enterprises in Nepal. The cost reduction program is highly associated with the optimization of working capital he has focused some operational and organizational problems of Nepalese Public Enterprises not to follow traditional norm 2: between their current assets and current liabilities, low rate of inventory, change in WC in relation to fixed capital has very low impacts over the profitability and not following conventional rule of debt to equity as 1:1, transmutation of capital employed into sales management information, ineffective use of performance evaluation tools and techniques and WC management has never been considered as a managerial job. Similarly, he has suggested that Public Enterprises finance staff must be acquainted with the modern scientific tools used for the presentation and analysis of data. He further suggests avoiding the system of crisis decision, which prevailed frequently in their operation. They have to follow system and method for decision making. Lastly, he has given emphasis to emphasize the level of investment at a point of time. Neither excess nor lower investment of WC is desired by the management of enterprise. Both of these situations will erode the

efficiency of the concern. This study is descriptive in nature. He has not used any data and research tools. The study has covered Nepalese PES (but not mentioned the name of PES). Each selected enterprise does not represent the entire industry in which it fails.

Dr. Radhe S. Pradhan in his study aims at examining the various aspects of management of WC in selected manufacturing PES of Nepal. The specific objectives undertaken in his study are-

- ❖ To conduct risk return analysis of liquidity of working capital position.
- ❖ To assess the short-term financial liquidity position of the enterprises.
- ❖ To assess the structure and utilization of WC.
- ❖ To estimate the transactions demand function of working capital

His study has mentioned the following findings:

1. It has found that most of the selected enterprises have been activating a tradeoff between risks and return there by following neither an aggressive nor a conservative approach.
2. It has showed a poor liquidity of most of the enterprises. This poor liquidity position has been noticed as the enterprises have either negative cash flows or negative earnings before tax or they have excessive net current debts, which cannot be paid within a year.
3. The Nepalese manufacturing PES has on an average half of their total assets in the form of current assets. Of all the different components of current assets, the share of inventories in total assets, on an average, is largest followed by receivables and cash in most of the selected enterprises?
4. The economies of scale have been highest for inventories followed by cash and gross WC, receivables and net WC.
5. The regressions results also show that the level of WC and its components and enterprises desires to hold depend not on sale but on holding cost also.

His study is concerned with interrelationship that exists between managing current assets and current liabilities. The study manages to focus on net working capital concept. The study has employed ratio analysis, discriminate analysis and econometric model for its analysis. This study does not cover all the PES in manufacturing sector. Each selected enterprises does not represent the entire industry in which it falls. The manufacturing PES selected for the study differs in its working and nature. The study period covers ten years period from 1973 to 1982. He has mentioned only findings and conclusion in his study but not recommended any suggestions to solve the findings problems.

These studies show that WC management is the weakest or neglected part of financial management in most of the public Enterprises in Nepal. It seems that Nepalese firms are following conservative approach in financing as well as in investing working capital.

The study of Smith relate to profitability versus liquidity tradeoff in working capital management. The study suggests that parallel monthly forecasts of liquidity and profitability can be useful in evaluating tradeoff between these two goals. Besides, such forecasters can also be useful in estimating the impact of certain working capital policies on those goals, and in reflecting the uncertainty of the future. The study illustrated the suggested procedures with a scenario of Smith products, a wholesale firm. The study, however, did not employ any kind of new procedures suggested by other studies concerning working capital management.

The study by Smith discussed individual and collective effects of accounts, receivable, inventories, account payable, and other accruals on profitability and liquidity. Based on the several assumptions made, the study mainly observed as follows for Smith Products:

1. A tightened inventory policy reduces necessary borrowing to a lower level than does faster collection of receivables or slower payments of current liabilities.
2. Profitability increases only slightly, a result only of lower interest expenses from lower levels of needed borrowing.
3. The necessary borrowing can be reduced if receivables, payables and inventory policies are tightened.

The finding of current assets also involves a tradeoff between risk and return. A firm can choose from short or long –term sources of finance. If the firm uses more of short-term funds for financing both current and fixed assets, its financing policy is considered aggressive and risky. Its financing policy will be considered conservative if it makes relatively more use of long-term funds in financing its assets. A balanced approach is to finance permanent current assets by long- term sources and temporary current assets by short- term sources of finance.

2.4 Review of Dissertations

Besides review of available books and research studies, a number of studies have been made by students of MBS/MBA relating to working capital management in different public enterprises of Nepal. This section, hence will review some of those dissertation.

Mr. Munish Lamichhane

A study “an Evaluation of Working Capital on Shree Bhrikuti Pulp and Paper Nepal Ltd” at 2006 taking 5 year duration for the evaluation from 58/59 to 62/63. he has recommended to improve the liquidity position of the company that investment on cash and bank is too low followed by level of inventory and receivable as a result current assets is lower than current liabilities in some of the years it was found that the investment in working capital was in negative and gradually improving to the end of the study period. The level of current assets with respect to total assets is in decreasing trends. The credit and collection policies were not sound during the study period. The fluctuating turnover ratio has indicated the inappropriate utilization of current assets. He concluded that company was finally suffering from losses every year that Return on Assets was in negative in most of the study period. From these findings Mr.Lamichhane suggested that the company should have proper planning to estimate cash receipt and payments and should follow as definite credit and collection policies. The management should be more conscious in the debt portion to maintain it as a proper level to reduce the high possibility of risk.

The company should give due attention to the minimization of administrative and non-operating expenses such as interest and depreciation. However, he has missed to use an important tool i.e. correlation Coefficient in order to test the significance and relationship between the components of working.

Ghimire (2003) has conducted research on “Working Capital Management of Selected Manufacturing Companies Listed on Nepal Stock Exchange Limited”. This study has analyzed seven selected manufacturing companies. The objective of the study were to analyze the working capital practices, variable affecting management, determined the issue and gaps in working capital Management of listed manufacturing companies.

The major findings of the study are as follows:

- ❖ Most of the selected manufacturing companies have followed a moderate working capital policy.
- ❖ The companies having average negative net working capital have followed aggressive approach of working capital policy. Yet there is negative return as well as negative turnover on net working capital. it means that risk return tradeoff is not matched in Nepalese manufacturing companies.
- ❖ The ratio to current assets is widely varied among the manufacturing companies during the study period from 1997 to 2001. Maximum

holding ratio of cash to current assets is 0.089 of BNT and minimum holding ratio is 0.005 of JSM.

- ❖ The overall average of inventory conversion period is 68 days, out of seven companies, four companies have higher conversion period than average and three have lower. The highest conversion period is 140 days of NLOL and lowest is 21 days of NL Ltd.
- ❖ The co-relation co-efficient between current assets and current liabilities is highly positive. Similarly, the current assets and sales receivable, sales and inventory, net profit to net working capital and operating cycle to cash conversion cycle are also positively correlated.

Shreshtha (2002) has conducted the research on “a study on working capital Management with respect to National Trading Corporation Ltd”. Her basic objective of the study is to study is to evaluate the relationship between selected variables regarding working capital and to examine the management of working capital NTL and STCL. The major findings of the study as follows:

1.The analysis shows that the correlation coefficient between current assets and current liabilities is fairly positive in both companies. There is significant relationship between current assets and current liabilities.

2.Correlation between current assets and sallies of NTL and STCL -0.015 and 0.76 respectively which indicates NTL has insignificant relationship and STCL has significant relationship. So there is no correlation in NTL.

3.Similarly, correlation between sales and receivable shows NTL has negative coefficient of correlation and insignificant relationship but STCL has positive correlation and significant relationship. The analysis shows that STCL has relatively high degree of coefficient.

4.In the same way, correlation between sales and inventory also shows NTL has negative coefficient of correlation and insignificant relationship and STCL has relatively high degree of positive coefficient of correlation and significant relationship.

5.Correlation between Net Profit and Net Working Capital is negative in both cases with insignificant relationship because the correlation of coefficient of both NTL and STCL are less than 6 PEs. This implies that Net Profit and Net Working Capital are not correlated.

Mr. Narayan Prasad Bhandari

The study “Working Capital Management in Nepalese Manufacturing Enterprises”. A case study of Jagadamba Steel Ind. Ltd” has been carried out at 2006 AD by taking five years data from 2057/058 to 2061/062. He has emphasized on working capital management is the integral part of the company. The company cannot avoid an optimum level of working capital for its successful operation.

The study has focused on analysis of level of investment and utilization of current assets. The major findings of his study are as follows;

- ❖ It shows the proportion of current assets with respect to total assets and net fixed assets is high. High proportion of current assets is due to the higher amount of investment in inventory and receivable as well as balance of bank. The proportion of working capital to sales is an average of 1.71 times, which means it takes about 213 days to turn its working capital into sale and the negative correlation between working capital and sales indicates that working capital is not being utilized properly.
- ❖ The receivable turnover ratio of the company is 7.11 times and receivable collection period is about 51 days, which cannot be taken as favorable.
- ❖ The positive and insignificant relationship between CA and CL shows weak condition to meet immediate obligations. The ratios of the company indicates the strong liquidity position due to enough investment in inventory and receivable but some how risky in case of liquid assets i.e. cash and bank due to its decreasing trends.
- ❖ High level of investment in Inventories and Receivable as well un-utilization of those assets has influenced the profitability.

By the analysis of return on assets and return on net worth, the company has will possibility of improve profitability by reducing huge level of inventory and setting effective credit policy though scientific inventory and receivable control techniques.

The above review of Literature form various books and case studies related to working capital management in different firms and institution shows that one of the major problem in Nepalese manufacturing industries due to unhealthy and unsound situation and improper planning of working capital management. We know, it is just like main root of a tree that success and failure of any enterprises is dependent upon the efficient and effective management of working capital. In this study, an attempt has been made to analyze the efficiency and effectiveness of working capital management of Jagadamba Steel Industries Ltd. Even a study has already carried out on

management of working capital of this company, some important issues are not included in the study even they might influence the company's working capital activities such as working capital investment and financing policies, risk and return analysis, cost trade-off, credit, cash, inventory management policies etc.

Mr.Bhandari has analyzed just based on available data from 2057/058 to2061/062 on 2006 A.D. hence this study attempts to analyze the working capital management of Jagadamba Steel Ind. Ltd by taking five-year data from 2059/060 to 2063/064 and estimated values of fiscal year 2064/065 and other available information for observation with the help of Research Methodology.

Chapter-Three

Research Methodology

3.1 Introduction

Human nature is always curious to learn, understand or investigate about the phenomenon by raising question like why, how what when etc. The knowledge has come thing to do with knowing. And this knowing may be through acquaintance or through the description of characteristics of certain things unknown. The things with which we can be acquainted are the things of which we are directly aware of direct awareness may come through perception and sensation.

Research refers to the acquisition of new knowledge upon new specific task force. It is a systematic, careful inquiry, continuous effort to discover new information or verify existing knowledge for some specific purpose. It describes the scientific and systematic procedure applied in entire study for solving the given problem or for spreading some knowledge. The research essentially requires the various steps to be adopted by a researcher in a studying a problem with certain objectives. So a research methodology should be carried out with the pre-determined objective of the study. It is a sequential procedure and methods to be adopted in a sequential method to be adopted in scientific research study.

This research study attempts to analyze relationship between the variables of working capital. So, the chapter involves the entire research methodology followed, used and adopted in this study. It basically highlights on Research Design, Nature and Source of Data, procedure employed for collection and arrangement of data with the help of various analytical statistical tools financial and non-financial subject matter. The research methodology, which will be followed to achieve the basic objectives of this research work, is as stated below:

3.2 Research Design

An architect prepares a blueprint before he/she approve a construction. An army prepares a strategy before launching an attack. An artist makes design before he/she executes his/her ideas. So also the researcher makes a plan of his/her study before undertaking the research work. This will enable to save time and resources. Such a plan of study or blue print for study is called a research design or (strategy).

Thus, a research design is a plan the collection and analysis of data. It presents a series of guide posts to enable the researcher to progress in the right direction in order to achieve the goal. The design may be a specific presentation of the various step so in the research process. These steps include the selection of a research problem, presentation of the problem, formulation of the hypothesis, conceptual clarity, methodology, survey of literature and documentation, bibliography, data collection, testing of the hypothesis, interpretation, presentation and report writing .generally, a common research design possesses the basic elements viz (a) selection of the problem (b) methodology (c) data gathering (d) data analysis and (e) report writing. The research design asks, what approach to the problem should be taken, what method will be used, what strategies will be effective? Etc. identification, selection and formulation of a research problem may be considered as planning stage of a research and the remaining activities refer to the designs, operation, and completion of the research study.

Research design focuses to the way of ascertaining the basic objectives of the study. It highlights the process of ascertaining the basic objectives of the study. It is conceptual structure which involves the framework for adequate tests of the relations among variables. It includes definite procedures and techniques, which guide to the way for analyzing evaluating the study. “Research design is the arrangement of conditions for conditions for collection and analysis of data in a manner that aims to combine relevancy to the research purpose with economy in procedure.” This study attempts to compare and establish relationship between two or more variables of working capital of JSIL with in a certain criteria that guides to achieve the pre-stated objective.

The design applied in this study is based on descriptive as well as analytical. This study is an examination and evaluation of working capital management practice in the operation of Jagadamba Steel Private Limited. The information and data are presented in an analytical method. Five-year data JSIL are collected and analyzed by using various statistical tools to provide analytical insights and to achieve prescribed results. But the qualitative aspect of the research, such as effectiveness of working capital management, view of personal of the enterprise and theoretical dimensions are explained in words whenever necessary.

3.3 Nature and source of data

The data used in this study are basically secondary in nature. However, the ideas and information about policy and system employed in the company are collected through personal interviews and discussion with the financial and accounting officers as required of the study. So, the sources of data or the study are primary as well as secondary. Primary data are collected through conducting interviews with the officials of company and the secondary data are collected through.

The study contains income statement and balance sheet of the fiscal year

- Auditor's reports and conclusion
- Study analyzing available unpublished records of the company.
- Studying published and unpublished official's records, Booklets and broucheres of the company.
- Reports and data available from planning
- Unpublished findings and dissertations of the students, other newspaper, articles and documents.

3.4 Population and sample

There are 63 public manufacturing enterprises in Nepal, out of them Jagadamba Steel Ind. Ltd is one of them. Therefore, the existing number of public manufacturing enterprises in Nepal refers to the population and Jagadamba Steel Ind. Ltd is the sample. Similarly, all the employees of Jagadamba Steel Industries are the population. Out of the m, only 5% to 7% employees are taken as a sample.

3.5 Procedure of analysis

To achieve the pre-determined objective of the study, some of the secondary data are used which include audited financial statement (the balance sheets, income statements and profit and loss account) of the Jagadamba Steel Industries Limited for 5 years period from 2059/2060 to 2063/2064 are collected for the convenience of the study. Then all the raw data (information and ideas) are properly arranged, synthesized, tabulated, processed and presented in tabular form in accordance with the requirement of the study with the help of simple arithmetic rules. Mast of the data have been compiled in one form, processed, and interpreted as per the need of the study. The secondary type of data is presented for the analytical purpose after the tabulation of the data.

3.6 Tools for Analysis Data

To achieve the objectives of the study, various financial and statistical tools have been used in this study. For analyzing the data, different items from the balance sheet and other statements are tabulated. Simple analytical statistical tools such as Karl Pearson's coefficient of correlation are adopted in this study. The ratio analysis is the major tools for analysis of the study. They established the quantitative relationship between two variables of the financial statements. Following are the brief introduction of the financial and statistical tools used in this study:

3.6.1 Financial analysis

3.6.1.1 Ratio Analysis

Ratio analysis is the major and widely used tool in the interpretation and evaluation for the financial statement. It is defined as the systematic use of ratio to interpret the financial statement so that the strength and weakness of the firm as well as its historical performance and current financial condition can be determined. The literature on financial statement analysis has discussed continuously the use of ratio analysis. Besides this, the accounting and finance text books which can be expected to report the more important analysis techniques in chapter on external analysis of financial statements also emphasize the use of ratio analysis (Connor, 1973, page-339)

An arithmetical relationship between two figures is known as ratio. It is computed by dividing one item of relationship with the other. Ratio simply means one number expressed in term of another. It is the relationship between financial variables contained in the financial statements (i.e. balance sheet, profit and loss account and income statements). It helps the related parties to spot out the financial strength and weaknesses of he firm.

3.6.1.2 Importance of Ratio analysis

Ratio analysis is the most vital tool of financial analysis. The various groups of users of financial statement having different interests are engaged in analyzing the financial information. The importance of ratio analysis can be summarized for the various groups interested as under:

a. Short-term creditors: The creditor in the short run like suppliers of materials, goods and bankers can determine the firm's ability to meet current liabilities with the help of liquidity ratios and current ratio.

b. Long-term Creditors: The creditor in the long run like debenture holders and other lending financial institutions can determine the firm's long-term financial and ultimately survival strength with the help of financial solvency ratios such as Debt Equity Ratio, Debt to capital ratio etc.

The long term creditors will seek answers to the following queries:

What are the various sources of long term finances employed by an enterprise?

Is there any risk any risk to the solvency of the firm due to the employment of excessive long -term debts?

Will the enterprise be able to repay the principle as well as the interest thereon?

c. Management

The management has an important job of managing the different resources available with the enterprise efficiently and effectively. They can determine the operational efficiency with which the firm is utilizing its various assets in initiating sales with the help of activity ratio like, stock turnover ratio, capital employed turnover ratio, assets turnover ratio etc. besides this, the management can carry out comparative analysis and form meaningful judgments about the performance by comparing the actual ratios with the standard ratios of the previous period ratios of the Private it belongs and national average.

d) Investors

The investor can determine the extent of profitability, its earning capacity and the capacity to pay dividends so that they cash form judgments whether to hold, sell or purchase the shares and the prospective investor can decide whether or not to buy the shares.

3.6.1.3 Limitation of Ratio analysis

a) Ignore Quantitative Aspects

although quantitative factors may be more important than the quantitative factors, the ratio analysis ignores the qualitative aspects as it is basically a quantitative analysis, for example, while deciding whether to sell goods to a customers on credit or not, the ratio analysis relies on the financial statements submitted by him and his character or intention to pay will not form part of the analysis which, in fact could be the most important factor.

b) False Report

The quality of the ratio depends upon the qualities of the accounts on the basis of which there are established. The ratios can only be accurate, if the books of accounts are correctly drawn up. This is because the ratios are based in the information provided by the financial statement. For example, if the closing stock is over valued, both the financial position profitability will be shown better than what they actually are.

c) Absence of Universal Standard

No fixed standards can be laid down for ideal ratios. There cannot be a single standard ratio, which can indicate the true performance of the business at all times and in all circumstances. For example, current ratio s generally considered to be ideal if current assets are twice of the current liabilities.

However, in case of those concerns which have adequate arrangements with their bankers for providing funds when they require, it may be perfectly ideal if current assets are equal to or slightly more than current liabilities

d) Ignore price-level changes

The comparability of ratios suffers, if the prices of the commodities in two different years are not the same. In reality prices do not remain the same and ratio analysis does not have an in built mechanism to adjust the changing prices. A ratio can be accurately interpreted only if the effect of changes in prices, which may have taken place, is adjusted in the figures used in the ratio.

e) Historical Analysis

Ratios are only indicators, they cannot be taken as final regarding good or bad financial position of the business, are historical in nature less the ratio analysis is based on the projected financial statements prepared to plan the future.

f) Ratios Alone Are Not Adequate

Ratio are only indicators, they cannot be taken as final regarded as good or bad, it may be an indication that a firm is weak or strong, but it must never be taken as proof of either one.

It may, therefore, be concluded that ratio analysis, if done mechanically, is not only misleading but also dangerous. It is needed a double-edged sword which requires a great deal of understanding and sensitivity of the management process rather than mechanical skill.

Similarly, ratio analysis is also very helpful for decision making on any financial activity. The different kinds of ratios calculated are as follows:

3.6.1.4 Composition of working capital

The composition of working capital is analyzed through following ratios:

1. Current Assets to Total Assets (CATA)

The ratio of current assets to total assets indicates that percentage of the company's total assets invested in the form of current assets. It is calculated as:

$$\text{Current Assets to Total Assets} \times \frac{\text{Current Assets}}{\text{Total Assets}} \times 100\%$$

2. Current Assets to Fixed Assets

This ratio shows the relationship between the current assets and assets. It is calculated as:

$$\text{Current Assets to Fixed Assets} \times \frac{\text{Current Assets}}{\text{Fixed Assets}} | 100\%$$

3. Cash and Bank to Current Assets (CBCA)

This ratio shows the relationship between cash and bank to level of current assets. It also indicates the percentage of current assets invested in form of cash and bank. The working capital directly affected by the level of cash and bank balance. As the ratio decrease causes increase in efficiency and management of cash and bank and vice-versa. It is calculated as:

$$\text{Cash and Bank to Current Assets} \times \frac{\text{Cash and Bank}}{\text{Current Assets}} | 100\%$$

4. Cash and Bank to Total Asset

This ratio shows the percentage of total assets invested in the form of cash and Bank. As the ratio increase causes decrease in profitability and risk of company and increase in working capital and vice-versa

5. Inventories to Total Assets (ITA)

This ratio indicates the percentage of total assets invested in form of inventory. Inventory is major part of current assets so the ratio affects the level of working capital. The increase in the ratio also indicates the liberal inventory or blocking of materials in stock. It is calculated as:

$$\text{Inventories to Total Assets} \times \frac{\text{Inventory}}{\text{Total Assets}} | 100\%$$

6. Inventories to Current Assets

This ratio shows the percentage of current assets in the form of inventory. Inventory affect the working capital directly so increase in this indicates increase in working capital volume and the company is following

liberal inventory policy. If the ratio is small the firm has lower volume of working capital. It is calculated as:

$$\text{Inventories to Current Assets} \times \frac{\text{Inventory}}{\text{Current Assets}} | 100\%$$

7. Receivable to Total Assets (RTA)

This ratio shows percentage of total assets invested in form or receivable. Increase in this ratio indicates the company is following liberal credit policy. This ratio also affects the working capital since receivable is also the part of current assets. It is calculated as:

$$\text{Receivable to Total Assets} \times \frac{\text{Receivable}}{\text{Total Assets}} | 100\%$$

8. Receivable to Current Assets

The ratio shows the portion of current assets invested in form of receivable. It is calculated as:

$$\text{Receivable to Current Assets} \times \frac{\text{Receivable}}{\text{Current Assets}} | 100\%$$

3.6.1.5 Turnover Analysis

Turnover analysis measures the effectiveness with which a firm uses its available resources in form of inventories. By calculating following ratios, the efficiency is analyzed

1. Current assets turnover (CAT)

This ratio shows the numbers of times of the current assets are turned over during the year. It is computed by dividing sales by current assets.

As the ratio increases indicates the well utilization of current assets and optimum volume of working capital and low ratio indicates the company has great volume of working capital and un-utilization of current assets. It is calculated as:

$$\text{Net working capital Turnover} \times \frac{\text{Sales}}{\text{Current Assets}}$$

2. Net Working Capital Turnover

This ratio shows the relationship between sales and net working capital. It is computed by dividing sales by net working capital i.e. current assets minus current liabilities:

Higher ratios show the well utilization and management of net working capital and vice-versa. It is calculated as:

$$\text{Net working capital Turnover} \times \frac{\text{Sales}}{\text{Net working capital}}$$

Where, Net working capital = Total current assets – Total current liabilities

3. Cash turnover (CT)

The ratio shows the relation between sales and cash. It is calculated by dividing sales by cash balance. It measures the numbers of cash moves in operation during the period. It indicates the number of times the average cash balance turned over during the year. It is calculated as:

$$\text{Cash Turnover} \times \frac{\text{Sales}}{\text{Cash Balance}}$$

4. Receivable Turnover (RT)

This ratio establishes a relationship between credit sales and receivables. It is computed dividing net credit sales by average receivables to determine the efficiency with which the debtors are managed. It is calculated as:

$$\text{Receivable Turnover Ratio} \times \frac{\text{Net Credit Sales}}{\text{Receivable}}$$

It indicates the number of times the receivable are turned over during the year and efficiency of the investment in receivable as well as staffs entrusted with the collection of books debts. It provides the general measurement of productivity of the receivable investment. The higher ratio indicates improving the management of receivable or debts are being collected more promptly and vice-versa.

For the computation of this ratio there is a ratio called receivable (Average) collection period RCP, which indicates the number of days within which in average the receivable amount should be collected. It is collected by dividing 360 days by Receivable Turnover Ratio or as:

$$\text{Receivable Turnover Ratio} \times \frac{\text{Receivable}}{\text{Net Credit Sales}} \mid 360 \text{day OR } \frac{360 \text{ days}}{\text{Receivable Turnover Ratio}}$$

5. Inventory turnover (IT)

The ratio establishes the relationship between sales and inventory and used in the firm. It is computed dividing sales by cost of goods sold or inventory to measure the ability of firm to utilize the inventory. It indicates the speed with which the inventory is converted into sales. It is calculated:

$$\text{Inventory Turnover Ratio} \times \frac{\text{Cost of goods sold(sales)}}{\text{Average Inventory}}$$

Generally, a high turnover ratio indicates either the same volume of sales has been maintained with lower investment in inventory or the volume of sales has increased without any increase without any increase in the amount of stock (effective inventory management system) and vice-versa.

3.6.1.6 Profitability Position Analysis

The objective of the any business firm is to earn maximum profit. Profit is an indication of the efficiency with which the operations of the firm are carried on. Profitability measures the overall effectiveness of management as shown by returns generated a sales and investment. The position of the profitability of the company is analyzed with of following ratios.

1. Gross profit margin

This ratio establishes a relationship between gross profit and sales. It is computed dividing gross profit by net sales, to determine the efficiency with which purchase of production operations are carried out. It is calculated as:

$$\text{Gross profit margin} \times \frac{\text{Gross Profit}}{\text{Net Sales}} \mid 100\%$$

The higher ratio indicates the better efficiency of the production or purchase operation and vice-versa.

2. Net Profit Margin (NPM)

This ratio establishes a relationship between net profits to net sales; it is computed dividing net profit by net sales to determine the overall operational efficiency of the management. It is calculated as:

$$\text{Net profit margin} \times \frac{\text{Net Profit}}{\text{Net Sales}} \mid 100\%$$

It indicates the net margin earned of sales of a rupee. High the ratio, the more efficient is the operation of the management.

3. Operating Expenses Ratio (OR)

This ratio establishes a relationship between total operating expenses and sales. It is computed dividing total operating expenses by sales. It is an important ratio that explains the change in the Gross Profit and Net Profit Margin Ratio. It is calculated by:

$$\text{Operating exp. Turnover Ratio} \times \frac{\text{Total oper. Exp}}{\text{Net Sales}} | 100 /$$

Higher ratio indicates higher operating costs and lower efficiency of the management means small amount of operating income to meet non-operating expenses (Interest and Dividend)

4. Return on Assets (ROA)

This ratio studies a relationship between net profit and total assets. It is computed dividing net profit after tax by total assets to determine how efficiently the total assets have been used by the management. It is calculated by:

$$\text{ROA} \times \frac{\text{Net Profit After Tax}}{\text{Total Tax}} | 100\%$$

It indicates the firm's ability of generating profit on total assets. It measures profitability on all financial resources invested in the firm's assets. Higher the ratio, the more efficient is the operation system of the management and vice-versa.

5. Return on Net worth (RONW)

This ratio measures a relationship between net profit after tax and Net Worth, it is computed dividing net profit after tax by net worth (shareholder's fund), to determine how efficiently the funds supplied by shareholders have been used. It is calculated by:

$$\text{RONW} \times \frac{\text{NPAT}}{\text{Shareholders fund (Net worth)}} | 100\%$$

Where, NPAT=net profit after tax

It indicates the return to the shareholders that how well the firm has the resources of owners. It judges whether the firm has earned satisfactory return for its owners or not. Higher the ratio shows the more efficient the management (higher return to shareholders) and utilization of shareholder's fund.

6. Return on Current Assets (ROCA)

This ratio measures a relationship between Net Profit after tax and assets. It is computed dividing NPAT by current assets to determine the profit with respect to current assets. It is calculated:

$$\text{ROCA} \times \frac{\text{NPAT}}{\text{Current Assets}} | 100\%$$

Higher ratio indicates higher utilization of current assets as well as higher return with respect to current assets and vice-versa.

3.6.1.7 Liquidity Position

This is the most important ratio, which indicates whether the firm would be in a position to meet short-term obligations in time. This ratio shows the short-term solvency of the firm. The liquidity position of JSIL is analyzed by computing following two ratios:

This ratio establishes a relationship between current assets and current liabilities. A relatively high value of current ratio is considered as an indication that the firm is liquid and has the ability to pay its bills. As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. It is calculated by dividing current assets by current liabilities.

1. Current Ratio (CR)

This ratio establishes a ratio between current assets and current liabilities. It is computed dividing current assets by current liabilities to measure the short-term safety margin available for current obligations. A relatively high value of current ratio is considered as an indication that the firm is liquid and has the ability to pay its bills. As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. It is calculated as

$$\text{Current Ratio} \times \frac{\text{Current Ratio}}{\text{Current liabilities}}$$

It indicates the availability of rupees of current assets for every rupee of current liabilities. Higher the ratio means greater the margin of safety for meeting short-term obligations and vice-versa.

2. Quick (Liquid) Ratio (QR)

This ratio establishes a relationship between liquid assets and current liabilities. It is computed dividing quick assets by current liabilities. It measures the ability to convert its current assets into cash or its equivalent at a short time so as to meet its immediate current liabilities. It is calculated as:

$$\text{Quick Ratio} \times \frac{\text{Quick assets}}{\text{Current liabilities}}$$

It indicates the availability of a rupee liquid asset for every rupee of current liabilities. Higher the ratio means greater the margin of safety for current liabilities and vice-versa. Generally, a liquid ratio of 1:1 is considered to be satisfactory ratio and higher the better.

3. Absolute Liquid Ratio (ALR)

Although current assets like Receivable, marketable securities etc. can be changed into cash as required; it takes a time and cost to be changed. It means it is not absolute liquid. The absolute liquidity ratio measures the liquidity of a firm in Absolute term. It is calculated as:

$$\text{ALR} \times \frac{\text{Cash}}{\text{Current liabilities}}$$

3.6.2 Statistical Analysis

The help of statistical tool is essential to measure the relationship of two or more variable. In this study, the following statistical tools are used:

3.6.2.1 standard deviation (SD)

Standard deviation is the most popular and most useful measures of dispersion and gives uniform, correct and stable result. The chief characteristic of Standard Deviation is based in mean. Mean doesn't give the clear picture about two distributions with same average because scatter ness may differ in those distributions. Therefore a standard deviation is superior to the Mean Deviation. Quartile Deviation and Range be use for the further use in the mathematical treatment. It is the positive square root of average sum of square of deviation of observation from Arithmetic Mean of the distribution. The formula of standard deviation is as follow:

$$\text{Standard Deviation}(\dagger) \times \sqrt{\frac{\sum fX^2 - \frac{(\sum fX)^2}{N}}{N}}$$

3.6.2.2 Co-efficient of Variation (CV)

Standard deviation is the absolute measure of dispersion. The relative measure of dispersion based on the standard deviation is known as the co-efficient of Standard Deviation. The percentage of measure of co-efficient of Standard Deviation is called Co-efficient Variation. It is calculated as:

$$CV = \frac{\sigma}{X} \times 100\%$$

3.6.2.3 Correlation Coefficient (r)

Correlation coefficient is defined as the association between the dependent variable and independent variable. It is a method of determining the relationship between these two variables. If the two variables are so related the change in the value of independent variable causes the change in value of dependent variable then it is said to have correlation coefficient.

“Correlation is the statistical tools that we use to describe the degree to which one variable is linearly related to another.” The coefficient of correlation measures the degree of relationship between two sets of sigma. Among the various methods of finding out coefficient of correlation, Karl Pearson’s method of finding out coefficient of correlation is always between -1 to +1. When $r = +1$ means there is perfect relationship between two variables and vice-versa. When $r=0$ it means there is no relationship between two variables. It is calculated as:

Correlation coefficient(r)

$$r = \frac{\sum \frac{dx \cdot dy}{N}}{\sqrt{\sum \frac{dx^2}{N} \sum \frac{dy^2}{N}}}$$

or

$$r = \frac{\sum dx \cdot dy}{\sqrt{\sum dx^2 \sum dy^2}}$$

Where,

X= the first variable

N=no. of years (observation period)

Y=the next variable

Dx=deviation from mean of the first variable

Dy=deviation from mean of the next variable

Interpretation:

For the purpose of decision-making, interpretation is based on following term:

When $r=+1$, there is perfect positive correlation
 When $r=-1$, there is perfect negative correlation
 When $r=0$, there is no correlation i.e. no relationship between variables
 When 'r' lies between 0.7-.9999 or -0.7 to -0.9999, there is a high degree of positive or negative correlation.
 When 'r' lies between 0.5 to 0.6999 or -0.5 to -0.6999 that means there is moderate correlation.
 When 'r' is less than 0.5, there is low degree of correlation.

3.6.2.4 Probable Error (PE)

The probable error is measured for testing the reliability of an observed value of correlation coefficient r . after computing the value of correlation coefficient; P.E. r is computed to find the extent to which it is dependable. It is calculated by:

$$PE = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

Probable Error is used to interpret whether the calculated value of r is significant or not.

If $r < PE$, is insignificant i.e. There is no evidence of correlation.

If $r > PE$, is significant

If $PE < r < 6PE$, nothing can be concluded with certainty and correlation is not at all significant.

Chapter –Four

Presentation and Analysis of Data

4.1 Introduction

This chapter highly focuses upon the presentation and analysis of collection of data in detail. And the main objective of this study is to analyze the working capital management of Jagdamba Steel Private Limited. The essential financial facts and figures as well as descriptive information are generated through the financial statement. It include major variable for the study are cash, receivable and inventories, in this current assets turnover position, profitability position and liquidity position have been analyzed. These all are presented in detail in the tabular form.

4.2 Position of current assets and current liabilities

To operate the day to day business activity the organization required current assets. As the blood circulate around the whole, in the same way, for the smooth of business activity working capital is necessary for business activity. Any firm needs cash to purchase raw material and pay expenses. This is because of not perfect matching between cash inflow and outflow. The stocks of raw material are kept in the order to ensure smooth production and to protect the risk of non-availability of raw materials. To meet this obligation also cash is needed. Any business organization aims to maximize return on shareholders investment. In order to accomplish this objective the business organization should earn sufficient return for its operations. Earning a steady amount of profit requires successful sales. As the sales do not converted into cash instantly, the extra amount of working capital is needed. The major components of current assets are cash, receivable, inventories etc. hence, he proper management of these current assets is necessary to achieve the principle objective of any business organization, to earn maximum profit and ultimately to maximize shareholders wealth.

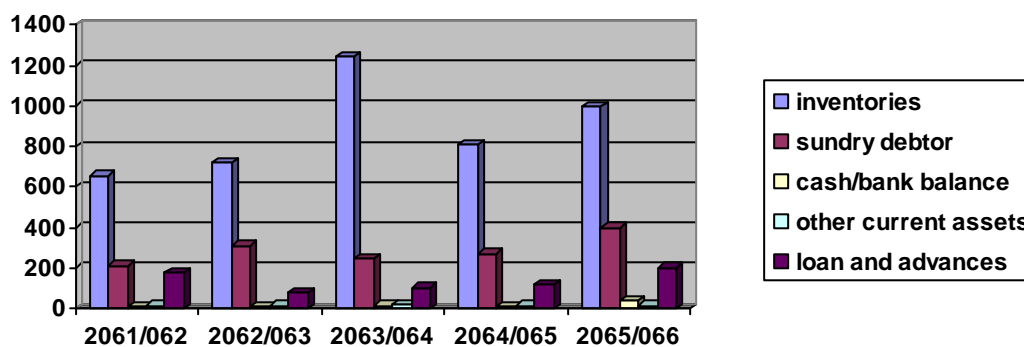
The following table-1 presents the level of Total Current Assets

Table No: - 1
Jagadamba Steel Private Limited
Total Current Assets

	Rs. In				
million					
Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Inventories	653.5	720.93	1244.66	811.08	998.95
Sundry debtors	210.2	308.06	246.11	270.4	398.06
Cash and bank balances	8.09	7.13	13.14	5.04	38.01
Other current assets	14.78	14.1	18.2	13.8	12.1
Loans and advances	175.36	78.05	100	115.05	202.07
Total current assets	1061.93	1128.27	1622.11	1215.37	1649.19

Note: other current assets include provident fund, gratuity fund, fixed deposits, investment in government securities, and Deposits in Medical Benefit accounts. Similarly, loans and advances include L/C deposits, prepaid Expenses, advances to the staffs, interest receivable, advance taxes and special fees, duty drawback claims, advances to the transporters and other deposits.

The above figures also can be shown in a diagram, which is as follows



Above table overall represent the position of the current assets. It also represents the investment pattern of current assets of Jagadamba Steel Industries Limited. It further indicates the major portion of gross working capital invested in Inventories and then debtors. Cash and bank balances other current assets and loan and advances occupy successively lower portion of investment in current assets.

The following table-2 presents the level of Total Current Liabilities

Table No:-2
Jagadamba Steel Private Limited

Rs million					
Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Provisions	106.06	68.6	52.1	48.51	37.5
Current Liabilities	765	788.1	998.78	877.6	1025.5
Total Current Liabilities	871.06	856.7	1050.88	926.11	1063

In the above table, every year provision is in decreasing order where as current assets increases to the 2063/64 and once decreases to the next year and again it increases in the following year. That represents the utilization of current in the last five year respectively.

NOTE: Current liabilities include short term loans, sundry creditor, L/C payable, dealership deposits, expenses payable, TDS payable, dividend payables and other provisions. Similarly, provisions include provision for bonus, housing, tax depreciation, employee's provident fund and other provisions.

The following table-3 presents the level of Net Current Assets

Table No:-3
Jagadamba Steel Private Limited

Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Total current liabilities(b)	871.06	856.7	1050.88	926.11	1063
Total current assets (a)	1061.93	1128.27	1622.11	1215.37	1649.19
Net working Capital(a-b)	190.87	271.57	571.23	289.26	586.19

Above table shows the net working capital position in the third year increases in the fiscal year and in the third year the working decreases and in the fifth year it had been increases in the net in the Jagadamba Steel Private Limited.

Table No:-3 can be shown in the below diagram, which is as follow

Position of current assets and current liabilities

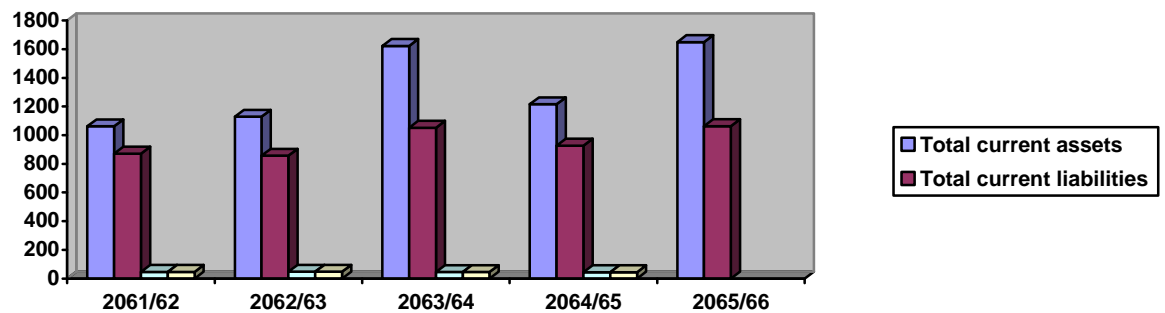


Chart No:-2

4.3 Composition of working capital

It is analyzes with the assistance of ratios between various components of working capital, which are as follows.

4.3.1 Percentage of current assets to total assets

The following Table-4 presents the proportion of Current Assets to Total Assets.

Jagadamba Steel Private Limited
Percentage of Current Assets to Total Assets

Table No:-4

Particulars	Rs in Million			
	Current Assets	Total Assets	Ratio %	% change
2061/62	1061.93	1681.56	63.15	
2062/63	1128.27	1702.4	66.28	3.13
2063/64	1622.11	2064.36	78.58	12.3
2064/65	1215.37	1756.1	69.21	-9.37
2065/66	1649.19	2624.86	62.83	-6.38
Total	6676.87	9829.28	67.93	
Average	2225.623333	3276.426667	67.93	-0.69

**The above figure can also be shown in a diagram, which is as follow
Position of Current Assets to Total Assets Ratio**

Year

Chart No:-3

The ratios in the above table shows the proportion of Total Assets invested in form of Current for the last five years of Jagadamba Steel Industries Limited. The ratios of investment in Current Assets to Total Assets are fluctuating.

In the F/y2061/62, the volume of current assets is Rs. 1061.93 million and the ratio of current assets upon total assets is 63.15% and in the year2062/63 percentage change upon current asset to total assets is 3.13% and in the third year is 12.30% which is highest in the year 20634/64 which current assets and total assets is Rs. 1622.11 million and Rs. 2064.36 million respectively. Likewise, current assets and total assets of Jagadamba Steel private Limited is Rs 1215.37 million and Rs. 1756.10 million respectively, which ratio is 69.21% and the percentage is -9.37 %. Finally in the 2065/66 the current assets and total asset is Rs 1649.19 million and Rs 2624.86 million respectively, where the ratio is 62.83 and the percentage change is -6.38%. On an average it had given negatively impact -0.69%.

For the test of significance, Karl Pearson' correlation co-efficient (r) is computed in appendix no. 1 and the consequence is as below.

$$\begin{aligned} \text{Correlation Coefficient (r)} &= 0.8786 \text{ or } 87.86\% \\ \text{Probable Error (PE)} &= 0.687 \end{aligned}$$

The above figure shows the correlation coefficient between current assets and total assets in the study period is 0.8786 or 87.86% which highly significant and r is six times more than PE or ± 0.5 therefore is considered highly significant.

4.3.2 Percentage of Current Assets to Fixed Assets

It shows the relationship between the current assets and fixed asset in the investment. It also assists the organization to evaluate the relationship between current assets and fixed asset.

Table -5 presents the proportion of current assets to fixed assets

Table no:-5

Jagadamba Steel Pvt Limited

Percentage of Current assets to fixed assets

Rs in Million

Years	Current Assets	Net Fixed Assets	Ratio in 100 %	Changes
2061/62	1061.93	650.3	163.2984776	
2062/63	1128.27	699.7	161.2505359	-2.04
2063/64	1622.11	680.6	238.3352924	77.08
2064/65	1215.37	690.88	175.9162228	-62.42
2065/66	1649.19	765.55	215.4255111	39.51
Total	6676.87	3487.03	0	
Average	1335.37	697.406	191.4767008	52.13

Note: Net Fixed Assets include gross value of fixed assets after deducting depreciation, capital work-in-progress and Long term Investment in form of Equity Shares in Subsidiary Companies and in Government Securities.

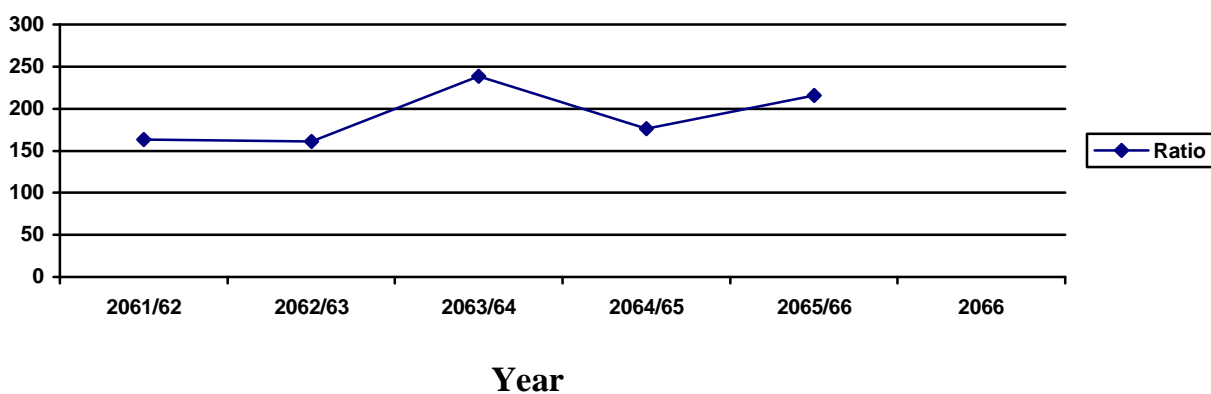


Chart No:-4

The above table shows the fluctuating proportion of current assets to fixed assets during the study period. In the fiscal year 2061/62 the ratio is 163.29 % but in the next year it is decreased by 2.04% in the fiscal year 2062/63. In the year 2063/64 the ratio of current assets to fixed assets is 238.33% and it is increased by 77.08%, similarly in the year 2064/65 the ratio is 175.91% which is decreased by 62.42% and the final year it is 215.42% which increase by 39.51%. The average investment in current in current assets to fixed assets is 191.47 % and average in the ratio is increased by 52.13%.

To evaluate the relationship between current assets and fixed assets of Jagadamba Steel Private Limited, Karl Pearson's correlation coefficient (r) is calculated in Appendix-2 and the consequences is as under:

$$\begin{aligned} \text{Correlation coefficient (r)} &= 0.6273 \\ \text{Probable Error (PE)} &= 0.1829 \end{aligned}$$

The coefficient correlation between current assets and fixed assets is 0.6273 which is higher than ± 0.5 which represent the moderate degree of correlation between current assets and fixed assets but Probable Error (PE) is less than six times its PE which shows the non considerable significance.

4.3.3 Percentage of Cash and Bank Balance to Current Assets

Cash and bank balance is an essential liquid component of working capital. every business firm should hold cash with a view to perform day-to-day activities, to meet immediate payments and for precautionary as well as speculative motives. The following g table-6 presents the proportion of cash and bank balance to current assets.

Table No:-6
Jagadamba Steel Private Limited
Percentage of Cash and Bank Balance to Current Assets

Rs in Million

Years	Current Assets	Cash & Bank	Ratio %	% Change
2061/62	1061.93	9.37	0.88	
2062/63	1128.27	7.1	0.62	-0.25
2063/64	1622.11	15.3	0.94	0.31
2064/65	1215.37	7.8	0.64	-0.3
2065/66	1649.19	36.36	2.2	1.56
Total	6676.87	75.93	5.3	
Average	1335.37	15.186	1.137	1.32

The above figures can also be shown in the diagram, which is as follow

The above table shows the proportion of cash and bank balance with respect to investment in current assets. The ratios show that investment in cash and bank balance are fluctuating during the study period. The cash and bank balance held by the JSPL is Rs.9.37 million in the fiscal year 2061/62 and it is 0.88% of its current assets. The ratio slightly decreased by 0.25% in the fiscal year 2062/63 and in the year 2063/64 it is increased by 0.31% and in the next year 2064/65 it is decreased by 0.30%, finally in the fiscal year 2065/66 it is increased by 1.56%.

The above table express that the cash and bank balance held by the company in the year 2065/66 is Rs. 36.36 million, which is the highest balance during the study period and in the fiscal year 2064/65 the cash and bank balance held by the company is the lowest is Rs.7.8 million. Here, the average ratio of cash balance to current assets is 1.137. As the ratio of holding cash and bank balance is dispersed from the average holding, it indicates there are weak points in cash management system. It is an indicator of sound management of working capital. In order to evaluate the relationship between cash and bank balance and current assets of Jagadamba, Karl Pearson's correlation coefficient (r) is calculated in appendix- 3 and the consequences are as under.

$$\begin{aligned}\text{Correlation coefficient (r)} &= 0.7891 \\ \text{Probable Error (PE)} &= 0.1138\end{aligned}$$

Calculated correlation coefficient showed 0.7891 which is considered as high degree of positive correlation and higher than six times of its PE, so the relationship is considered significant.

4.3.4 Proportion of Cash and Bank Balance to Total Assets

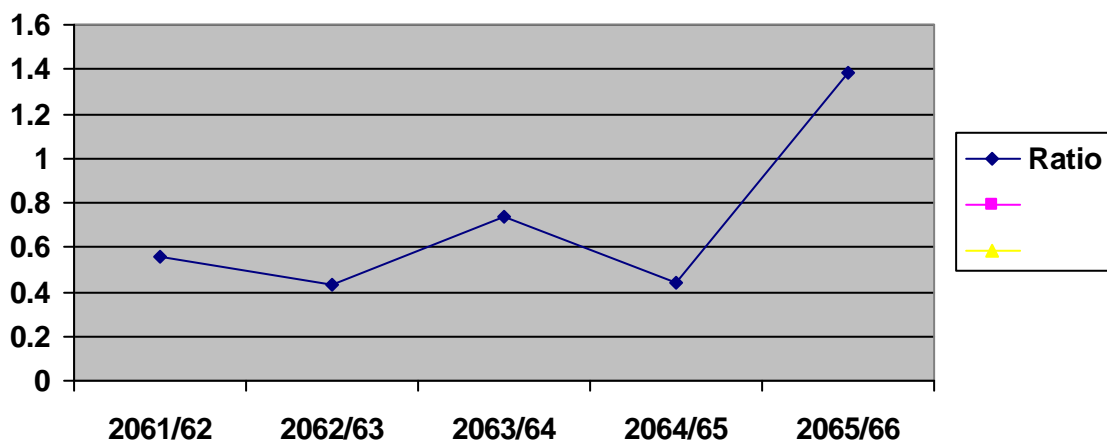
The proportion of cash and bank balance to total assets is analyzed to assess the investment in cash with respect to Total Assets. It helps to identify the risk. The high ratio decreases the risk and provides more working Capital but holding of excess Cash balance would affect the profitability because idle cash earns nothing.

Table-7 presents the proportion of cash and Bank Balance to Total Assets

Table-7
Jagadamba Steel Private Limited
Percentage of Cash and Bank Balance to Total Assets
Rs in Million

Year	Cash/Bank	Total Assets	Ratio %	%Changes
2061/62	9.37	1681.56	0.56	
2062/63	7.1	1702.4	0.43	-0.13
2063/64	15.3	2064.36	0.74	0.31
2064/65	7.8	1756.1	0.44	-30
2065/66	36.36	2624.86	1.38	0.94
Total	75.93	9829.28		
Average	15.186	3276.42	0.46	0.82.

The above figures also can be shown in a diagram, which is as follow
Ratio of Cash and Bank Balance To Total Assets



The above table shows the proportion of amount invested in cash and Bank Balance with respect to Total assets of Jagadamba Steel Private Limited during the

study period. The ratios are found fluctuating, however, in fiscal year 2065/66 it is increased suddenly. In the fiscal year 2061/62 the ratio is 0.56% and in the next year it is decrease by the 0.13% and in the year2062/63 it is increased by 0.31%, then after, it is decreased by 0.30% in the fiscal year and finally in the year 2065/66 it is increased by 0.94%. In average, overall holding of cash and Bank Balance of the company is 0.46% of its Total Assets.

4.3.5 Proportion of Inventory to Current Assets

Inventory is an essential component of Current assets. Auxiliary raw material is the inventory raw material of the manufacturing company like Jagadamba Steel Private Limited. Work-in-progress and spare parts are important. The shortage of any kinds of inventory consequents irregular production, high manufacturing costs etc. in the other hand, excess inventory causes unnecessary holding of working capital, which earning nothing. So, the level of inventory holding should be optimum so that it arises to neither excess nor shortage of inventory problem.

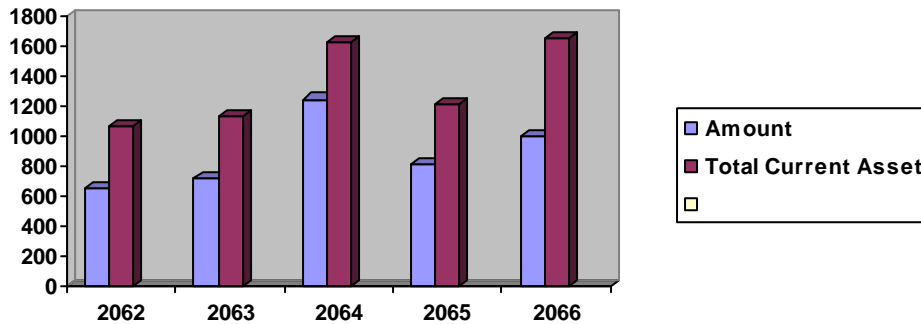
Table-8 presents the proportion f inventory to Current assets

Table-8
Jagadamba Steel Private Limited
Percentage of inventory to Current Assets

Year	Inventory	Total Current Assets	Ratio %	% change
2061/62	653.5	1061.93	61.53	
2062/63	720.93	1128.27	63.9	2.37
2063/64	1244.66	1622.11	76.73	12.83
2064/65	811.08	1215.37	66.74	-9.99
2065/66	998.95	1649.19	60.57	-6.17
Total	4429.12	6676.87		
Average	85.82	1335.37	66.34	-1.96

The above figure can also be shown in the diagram

Position of Inventory to Current Assets



The above figures in the table show the proportion of inventories to its Current Assets. In the fiscal year 2061/62 the ratio is 61.53%. then it is found increase in the year 2062/63 by 2.37% and again it is increase in the year 2063/64 by 12.83% where the ratio was 76.73% but in the next fiscal year 2064/65 it had been decreased by 9.99% where the ratio is 66.74% similarly in the fiscal year 2065/66 it is also decreased by 6.17% where the ratio is 60.57%. the highest ratio is in the mid year which is 2063/64 and the ratio is 76.73%.

The average ratio of Inventory to Current Assets, is invested is 66.34% which shows the huge level of capital, a major portion of current assets, is invested in form of Inventory every year, by Jagadamba Steel Private Limited and invested pattern in Inventory is decreasing by 1.96% during study period.

To evaluate the relationship between inventory and Current Assets of Jagadamba Steel Private Limited, Karl Pearson's Correlation Coefficient (r) is calculated in the Appendix-4 and the consequences are as under.

$$\begin{aligned} \text{Correlation Coefficient (r)} &= 0.917 \\ \text{Probable Error (PE)} &= 0.0479 \end{aligned}$$

Here, the Correlation Coefficient between Inventory and Current Assets is 0.917 which is very high significant therefore it shows the higher degree of positive correlation between Inventory and Current assets and calculated value of r is higher than six times of its PE, so the relationship is considered significant.

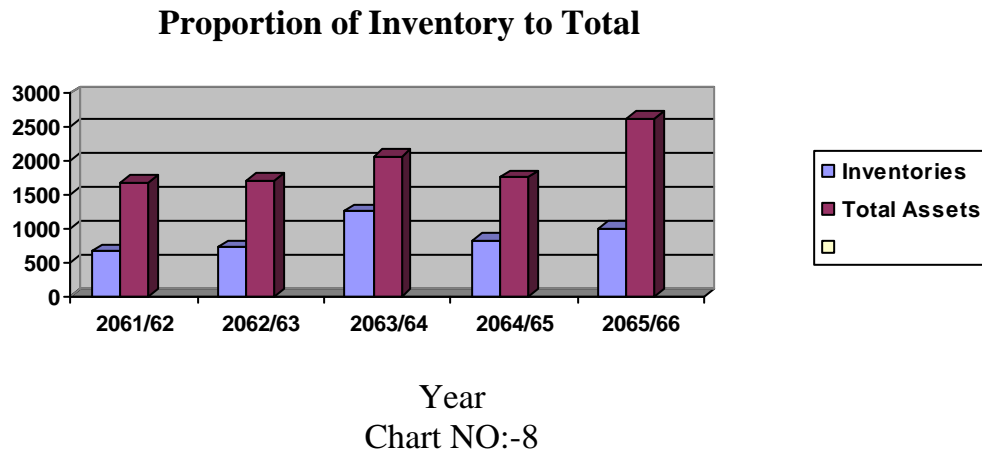
4.3.6 Proportion of Inventory to Total Assets

This ratio expresses the relationship between inventories to the total assets.

Table No:-9
J Jagadamba Steel Private Limited
Percentage of Inventory to Total Assets

Year	Inventories	Total Assets	Rs in Million	
			Ratios	% change
2061/62	653.5	1681.56	38.8627227	
2062/63	720.93	1702.4	42.3478618	3.49
2063/64	1244.66	2064.36	60.2927784	17.94
2064/65	811.08	1756.1	46.1864359	-14.19
2065/66	998.95	2624.86	38.0572678	-8.13
Total	4429.12	9829.28		
Average	885.82	3276.42	27.04	-0.89

The above figure can also be shown in the diagram, which is as follow



The above table shows that the investment Inventory with respect to Total Assets is increased to the mid fiscal year and again decreased in the same trend. The value of inventory is Rs.653.5 million which is 38.86% of Total assets in the year 2061/62. In the second year 2062/63 it is increased to 42.34% and further increased and reach to 60.29 in the Year 2063/64. Thereafter it decreases to 46.19% and 38.06% respectively in the year 2064/65 and 2065/66.

4.3.7 Proportion of Receivables to Current Assets

A credit sale plays an important role in this throat- cut competition of market situation. We must sell in credit because our competitors sell on credit is applied, now days. It is necessary that the management should adopt credit sales policy to increase the sales volume. The company cannot earn desired profit and maximize the shareholder's wealth without increasing sales volume. Lo, credit sales is necessary that the company should formulate the provision regarding the credit standard, maturity , terms and condition etc in order to avoid the problem of deficiency of receivable amount, which is a part of Working Capital. The degree of receivable should be optimum to avoid the problem of working capital shortages. Higher degree of receivables cause undesired holding of Working Capital and low degree might bring negative results in sales.

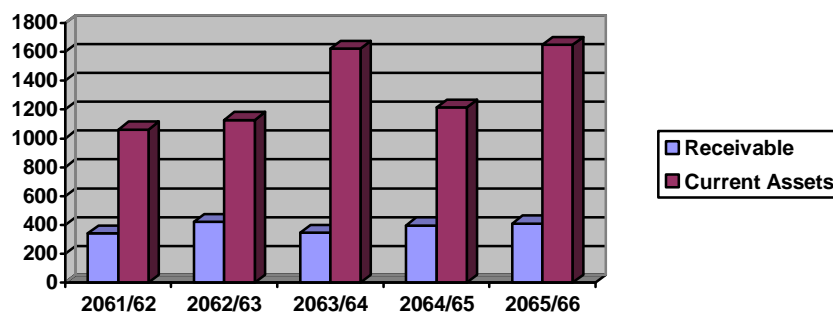
Table-10 presents the proportion of Receivable to Current Assets

Table No:-10
Jagadamba Steel Private Limited
Percentage of Receivable to Current Assets

Year	Receivable	Current Assets	Ratio%	% Changes
2061/62	340.1	1061.93	32.0265931	
2062/63	420.56	1128.27	37.2747658	5.24
2063/64	345.55	1622.11	21.3025011	-12.41
2064/65	396.36	1215.37	32.6122909	11.31
2065/66	410.2	1649.19	24.8728164	-3.06
Total	1912.77	6676.87		
Average	359.17	1335.37	28.65	1.08

The above figures can also be shown in the diagram, which as follow

Receivable of Receivable to Current Assets



Year
 Chart No:-9

The above table shows that the receivables ratio to Current Assets is the highest in the fiscal year 2062/63 which is 37.27% and the lowest is 21.30% in the year 2063/64. The fluctuating trend of receivables in different years indicates that the company has adopted the credit policy according to the market situation. The average investment ratio of Receivable to Current Assets is 28.65%.

In order to evaluate the relationship between Receivables and Current Assets of Jagadamba Steel Private Limited, Karl Pearson's Correlation Coefficient (r) is computed in Appendix—5 and the results is as under:

$$\begin{aligned} \text{Correlation Coefficient (r)} &= 0.1335 \\ \text{Probable Error (PE)} &= 0.2963 \end{aligned}$$

The above figure shows that Correlation Coefficient between Receivable and Current Assets is 0.1335 which is in between 0 to 0.25 and got the relation insignificant (very low) but the calculated value of r is lower than six times of its PE, so the relationship is not considered significant.

4.3.8 Proportion of Receivables to Total Assets

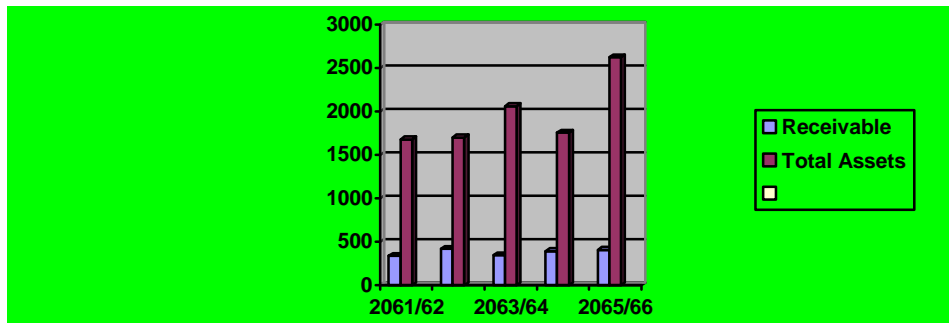
Table-11 presents the proportion of Receivable to Total Assets.

Table N: - 11
Jagadamba Steel Private Limited
Percentage of Receivable to Total Assets

Year	Receivable	Total Assets	Ratio %	% changes
2061/62	340.1	1681.56	20.22526701	
2062/63	420.56	1702.4	24.70394737	4.48
2063/64	345.55	2064.36	16.738844	-7.96
2064/65	396.36	1756.1	22.57046865	5.83
2065/66	410.2	2624.86	15.62750013	-6.94
Total	1912.77	9829.28		
Average	382.55	3276.42	11.68	-4.59

Chart No:-10

The above can also be shown in the diagram, which is as follow



The above table shows the portion of Receivable with respect to Total Assets. The highest ratio in the fiscal year 2062/63 is 24.70% and lowest ratio in the fiscal year is 15.63%. The fluctuating decreasing trend of receivable to Total Assets in different years indicates that the company has adopted the credit policy according to the market situation even amount invested in Receivables is increasing due to highly investment in other assets than in Receivables. The average investment ratio of Receivable to Total Assets is 11.68%.

4.4 Turnover Position

The company's turn over position is calculated by analyzing Current Assets, Net Working capital, Cash, Receivables and Inventory through the relationship with sales. The analysis of turnover ratio helps to identify how many times the components of Working capital are turned in terms of Sales. A sale comprises of only the sales of finished goods and does not include resalable sales, other income and sales of assets.

4.4.1 Total Current Assets Turnover or Gross Working Capital Turnover

A sale is the most important activity for manufacturing enterprises like Jagadamba Steel Private Limited. Sales are the major determinants of survival and growth of the company. Availability of resources and market demands are the factors depending on which the company determines its sales policy. The sales policy directly affects the production policy and the production policy affects the financial policy i.e. the requirement of Total Assets and Working capital to run the company as per its stated plan. Therefore, there should always co-ordination in between sales policy, production policy and financial policy. Increases of sales certainly demand s increase in productions that require more input (raw materials). Adequate amount of Working capital is required to keep the high level of Input. Hence, sales policy affects the amount of Working Capital as well.

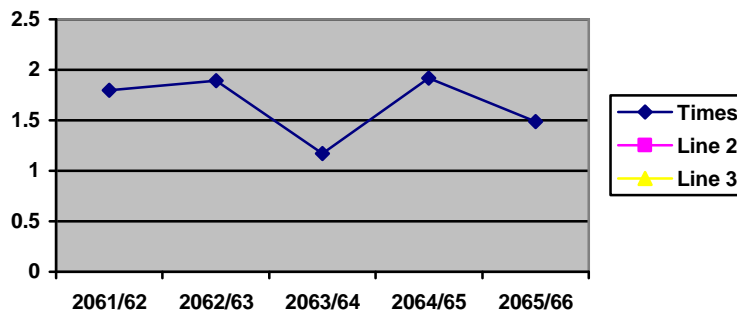
Table No: - 12 present the Total Current Assets Turnover or Gross Working Capital Turnover during the study period of Jagadamba Steel Private Limited, which is as follow:

Table No:-12
Jagadamba Steel Private Limited
Current Assets Turnover or Gross Working Capital Turnover

Rs in Million

Year	Sales	Current Assets	Times	Changes
2061/62	1915.58	1061.93	1.803866545	
2062/63	2131.42	1128.27	1.889104558	0.09
2063/64	1902.01	1622.11	1.172553033	-0.72
2064/65	2332.66	1215.37	1.919300295	0.75
2065/66	2453.78	1649.19	1.487869803	-0.43
Total	10735.45	6676.87		
Average	2147.09	1335.37	1.61	-0.31

The above figures can also be shown in the diagram, which is as follows:



Year
Chart No:-11

The above table indicates that the sales are 1.80 times of current assets in the fiscal year 2061/62 with sales 1915.58 millions and current assets is Rs. 1061.93 million. The turnover ratio is increased to 1.89 times due to increase in sales and increase in current assets in some extent in the fiscal year 2062/63 but the ratio decreased in the third fiscal year by 0.72 times in same way fiscal year 2064/65 it had been increased by 0.75 times and sales here is 2332.66 million with Rs. 1215.37 million; in the last study period it is decreased by 0.43 times where the sales is Rs 2453.78 million and current assets is 1649.19 million. In an average, the current assets and sales of Jagadamba Steel Private Limited, Karl Pearson's correlation Coefficient (r) is calculated in Appendix-6 and the consequences.

Correlation coefficient (r) = 0.2551
Probable Error (PE) = 0.2819

The above figure shows the correlation between Current Assets and Sales which is very lower therefore there is less positive correlation and computed value is also lower than six times of its PE so the correlation is not considered as significant.

4.4.2 Net Working Capital Turnover

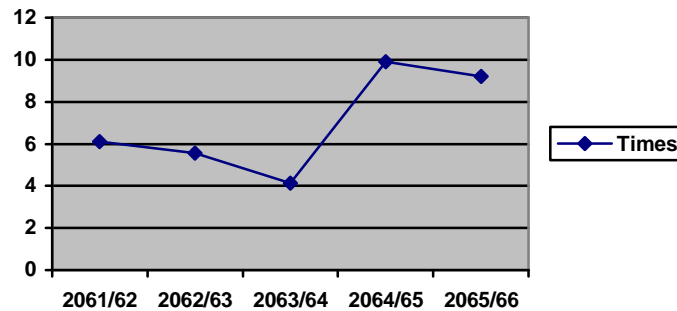
Net working capital is the excess amount of Current Assets over Current Liabilities. In other words, Net Working Capital is the amount of Net Current Assets, which is presented in Table-3. It is the margin of safety maintained by the company. In manufacturing companies, the size of working capital depends upon the production cycle and business cycle, it is comparatively more in manufacturing enterprises than trading, and services oriented organizations. The net working capital position maintained by JSPL and its turnover ratio is given in the following Table-13

Table No:-13
Jagadamba Steel Pvt Ltd
Net Working Capital Turnover

Rs In Million					
Year	Sales	Net Working Capital	Times	Changes	
2061/62	1915.58	313.47	6.11		
2062/63	2131.42	382.89	5.56		-0.54
2063/64	1902.01	460.74	4.12		-1.44
2064/65	2332.66	235.63	9.89		5.77
2065/66	2453.78	266.36	9.21		-0.69
Total	10735.45	1659.09			
Average	2147.09	331.82	6.47		3.1

The above figures can also be shown in the diagram, which is as follow

Net Working Capital Turnover



The above table expresses the net working capital turnover ratio during the study period. The ratio is 6.11 times with sale value Rs 1915.58 million and net working capital is Rs.313.47 million in fiscal year 2061/62. The times are fluctuating over the period. The highest times are 9.9 in the fiscal year 2064/65 because of sales Rs. 2332.66 million and lowest net working capital is Rs. 235.63 million. In this year, the level of inventory is decreased causes decrease in net current assets. All the changes of net working capital turnover ratio are due to the fluctuation in sales activities. The average net working capital turnover ratio is 6.47 times during the study period.

To evaluate the relationship between Net Current Assets and Sales of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in Appendix-7 and the result is under;

In order to evaluate the relationship between Net Current Assets and Sales of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in appendix – 7 and the result is as under;

$$\begin{aligned} \text{Correlation Coefficient (r)} &= -0.74 \\ \text{Probable Error (P E)} &= 0.14 \end{aligned}$$

The above figure shows that correlation coefficient between Net Current Assets and sales is -0.74 i.e. lower than its PE or ± 0.5 , so, there is moderate degree of

negative correlation and calculated value of r is also lower than six times of its PE, so, the relationship is not considered significant.

4.4.3 Cash Turnover Ratio

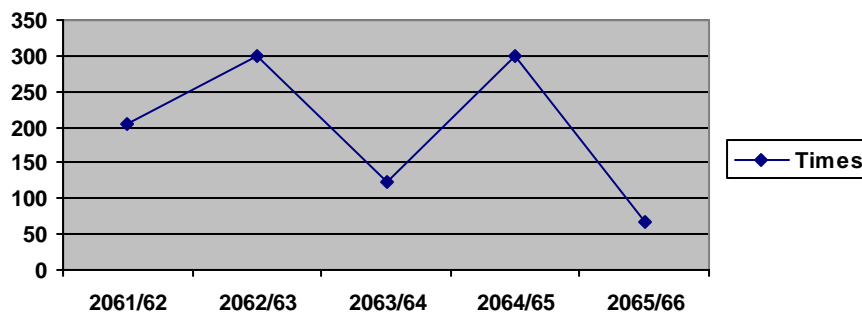
Cash is the major parts of Working Capital, which is required to meet the current obligations that arise in the business. Cash turnover measures the relationship between level of cash and volume of sales over a period of time, the greater the sales volume, the better would be the cash turnover. It should be just adequate to run business and excess cash has no meaning as it earns nothing.

The cash turnover position maintained by JSPL and its turnover ratio is given in the following table-14

Table No:-14
Jagadamba Steel Pvt. Ltd.
Cash Turnover Ratio

					Rs in
Million	Year	Sales	Cash/Bank	Times	Changes
	2061/62	1915.58	9.37	204.4375667	
	2062/63	2131.42	7.1	300.2	95.76
	2063/64	1902.01	15.3	124.3143791	-175.88
	2064/65	2332.66	7.8	299.0589744	174.7446
	2065/66	2453.78	36.36	67.48569857	-231.57
	Total	10735.45	75.93		
	Average	2147.09	15.186	141.39	136.95

The above figures can also be shown in a diagram, which is as follow



The above table shows that Cash Turnover Ratio of JSPL is fluctuating over the study period. The ratio is 204.44 times in the fiscal year 2061/66 with sales value of Rs 1915.58 million and cash balances is Rs 9.37 million and it is increased to 300.2 times in the fiscal year 2062/63 , then the ratio is drastically decreased due to increase in cash balance in the year 2063/64. The sales value is increased and Cash Balance is decreased in the year 2064/65 and the ratio is reached to the level of 299.06 times and the times is lowest in the year 2065/66 because cash balance is comparatively is low level of sales volume. The average turnover position of the company is 141.39 times and average Cash Conversion Cycle of the JSPL is calculated as:

$$\begin{aligned}
 &= 365 / \text{Average Cash Turnover Ratio} \\
 &= 365 / 141.39 \\
 &= 2.58 \text{ days i.e. 3 days.}
 \end{aligned}$$

The company is able to maintain Cash Conversion Cycle of 3 days i.e. the company is able to convert its Sales in 3 days. It can be judged as good performance.

4.4.4 Receivable Turnover Ratio

Business activities of an enterprises increase when sale volume increases. Sales volume increases when firm is able to offer better options of sales to its customers. Various tools can be used to attract the customers. Credit facility is on of

the most popular tool to increase the sale volume. When products are sold on credit, the value of the products becomes receivable to the firm. Therefore, the receivables are one of the major components of Working Capital.

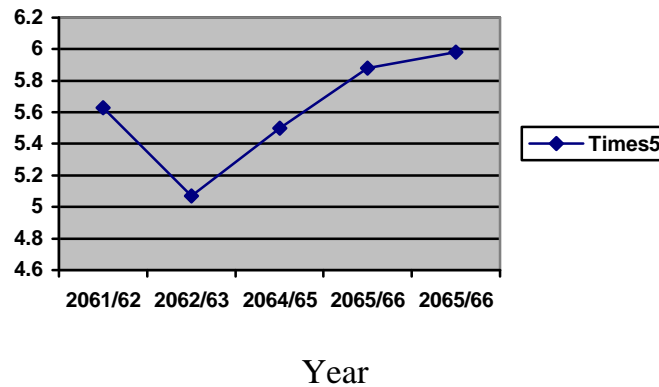
The following table shows the receivable Turnover Ratio of JSPL and Average Collection Period (ACP) of its customers.

Table – 15
Jagadamba Steel Pvt Limited
Receivable Turnover Ratio

Year	Sales	Receivables	Times	Changes
	Rs in Million			
2061/62	1915.58	340.1	5.632402235	
2062/63	2131.42	420.56	5.068052121	-0.56
2063/64	1902.01	345.55	5.504297497	0.43
2064/65	2332.66	396.36	5.885205369	0.38
2065/66	2453.78	410.2	5.981911263	0.1
Total	10735.45	1912.77		
Average	2147.09	382.554	5.6125	0.15

The above figure can also be shown the diagram, which is given below.

Receivable Turnover Ratio



In the above diagram it shows that the receivable turnover and the average collection period during the study period. Generally, Receivable Turnover Ratio is found in decreasing trend to third year and after third year it is increased year to year. In the fiscal Year 2061/62 the ratio is 5.63 times with sales value Rs 1915.58 million and receivable is Rs 340.10 million and decrease to 5.07 times million in the year 2062/63. the ratio slightly increase further by 0.43 times and it goes on decreasing further by 0.38 times in the year 2064/65 and 0.10 times in the year 2065/66.

The highest sales value is in the year 2065/66 which is Rs 1915.58 million and the highest sales value also lies in the same year 2065/66 i.e. Rs 410.20 million. Finally, the Average Receivable Turnover Ratio is 5.6125 times. The Average Collection Period of Credit Sales has been found fluctuating over the period caused by change in volume of sales and receivable in different years. In an average, the collection period of the JSPL is 65 days ($365/5.6125$). Higher turnover ratios indicate shorter collection period. In conclusion, the company is able to collect its credit sales in short period of the company is able to maintain higher turnover ratio.

In order to evaluate the relationship between sales and receivable of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in appendix-8 and the result is as under:

$$\begin{aligned} \text{Correlation Coefficient (r)} &= 0.79 \\ \text{Probable Error (PE)} &= 0.11 \end{aligned}$$

Since, the correlation coefficient of between sales and receivable is 0.79 and the probable error is 0.11. Here, $6PE < r$, therefore it represents high level of significance.

4.4.5 Inventory Turnover Ratio

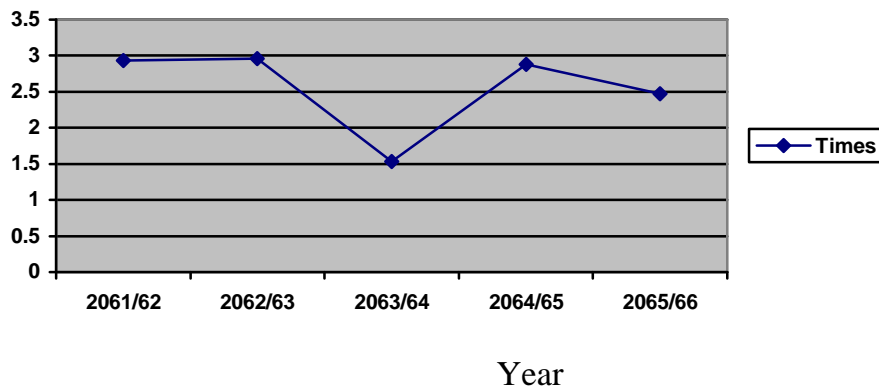
Inventory is an essential component of Working Capital, which should be maintained effectively and efficiently. Inventory comprises of stock of raw materials. So the stock of raw material should be kept to meet the requirement of optimum production level so that the company can meet its production and sales target. Level of Inventory, production and sales are interrelated.

Table-16 will show the inventory turnover ratio of JSPL, during the study period.

Table No: - 16
Jagdamba Steel Pvt Ltd.
Inventory Turnover Ratio

in Million	Rs				
Year	Sales	Inventory	Times	Changes	
2061/62	1915.58	653.5	2.931262433		
2062/63	2131.42	720.93	2.95648676	0.03	
2063/64	1902.01	1244.66	1.528136198	-1.43	
2064/65	2332.66	811.08	2.875992504	1.35	
2065/66	2453.78	998.95	2.456359177	-0.41	
Total	10735.45	4429.12	2.423833628		
Average	2147.09	85.82		-0.46	

The above figure can also be shown in the diagram, which is as follows.



The above table shows the Inventory Turnover Ratio or number of times Inventory replaced during the particular year. The ratio 2.96 is the highest in the fiscal year 2062/63 and the organization can keep the stock for 123.31 days ($365/2.96=123.31$). The ratio then decreased to 1.53 times the sales revenue is Rs 2131.42 and inventory level is Rs 7.92 million and the changes occur by -1.43 times. In the fourth fiscal year 2064/65 the sales revenue along with inventory also increases to 2332.66 and 811.08 million respectively. And the ratio increases 2.88 times and in the last fiscal year 2065/66 the sales revenue is increases but not in the comparison of last fiscal year.

The lowest ratio is 1.53 times and in this the organization has to keep the inventory of 238.56 days ($365/1.53$) which is the longest period of the study. During the study it is known that the ratio is in fluctuation nature. The average Inventory Turnover Ratio is 25.01 and inventory conversion period is 14.59 days ($365/25.01$).

To compute the relationship between Inventory and Sales of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in Appendix-9 and the result is as under:

$$\begin{aligned} \text{Correlation Coefficient (r)} &= -0.0456 \\ \text{Probable Error (PE)} &= 0.3010 \end{aligned}$$

Since the correlation coefficient between Inventory and Sales is -0.0456 which shows the less negative relation and $r < PE$ therefore, it is insignificant, i.e. there is no evidence of correlation.

4.5 Liquidity Position

Liquidity position shows ability to pay the bills. Liquidity fulfills the current need of money. The most important objective of adopting appropriate and optimum liquidity is to enable the company to meet current or short-term obligations when they become due for payment. Liquidity is a pre-requisite for the avoidance of technical insolvency and ultimately for the survival of the company. Here, liquidity ratios are observed to the ability to meet short-term obligations of JSPL. Current Ratio and Quick Ratio are observed for these purposes:

4.5.1 Current Ratio

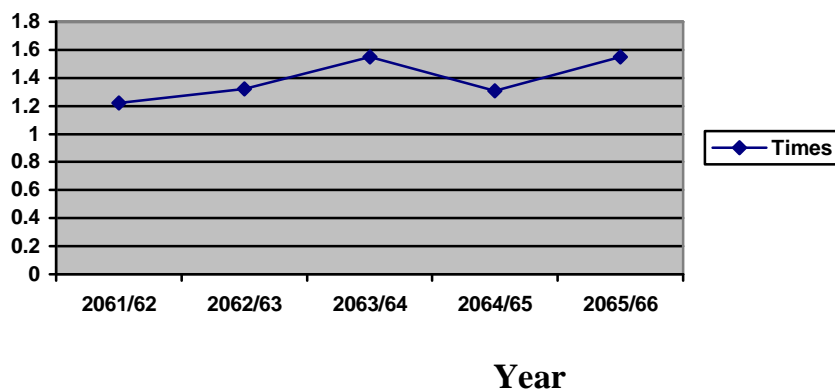
The current ratio shows the ability for payment of current debt and current assets. It measures the liquidity position of the company. "The ratio must be regarded as a crude measure of liquidity however, because it does not take into account the liquidity of the individual components of the Current Assets." It is the simple relationship of current assets to current liabilities. As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. The higher the current ratio means greater the margin of safety and the larger the amount of current assets in relation to current liabilities, the more the firm's ability to meet its obligations and strong working capital position.

Table-17 presents the Current Ratio during the study period of JSPL, which is as follows:

Table No: - 17
Jagdamba Steel Pvt. Ltd.

year	Current Assets	Current liabilities	Times	Rs. in Million
				Changes
2061/62	1,061.93	871.06	1.22	-
2062/63	1,128.27	856.70	1.32	0.10
2063/64	1,622.11	1,050.88	1.54	0.23
2064/65	1,215.37	926.11	1.31	(0.23)
2065/66	1,649.19	1,063.00	1.55	0.24
Total	6,676.87	4,767.75	-	-
Average	1,335.37	953.55	1.40	0.33

The above figures can also be shown in the diagram, which is as follows.



The above table shows that the highest ratio is 1.55 which is in the two study period i.e. 2063/64 and 2065/66 and the lowest ratio is in the beginning year 2061/62.

However, the ratio fluctuates in the increasing order to the third fiscal year 2063/64. The average current ratio is 1.4:1 indicates that the ratios are less than standard, so the firm solvency position is considered to be not satisfactory.

To evaluate the relationship between Current Assets and Current Liabilities of JSPL, Karl Pearson's Correlation Coefficient (r) is computed in appendix-10 and the result is as under:

$$\begin{aligned} \text{Correlation Coefficient (} r \text{)} &= 0.99 \\ \text{Probable Error (PE)} &= 0.02 \end{aligned}$$

Since the correlation coefficient between current assets and current liabilities is 0.99 which is six times higher than the PE, therefore it is considered as high significant.

4.5.2 Acid Test/Quick Ratio

Quick ratio or Acid test ratio is the relationship between quick assets and current liabilities. It is the measurement of company's ability to convert its current assets, quickly into cash in order to meet its immediate liabilities. It mainly concentrates mainly on cash, marketable securities and receivables in relation to current obligations and thus provides more reliable measure of liquidity than the current ratio does. Higher current ratio may not be regarded better because holding of more amount of inventories may bring shortage of cash and the company may hindered of paying current obligations. This ratio should be greater than one for the sound liquidity position of the company.

Table- 18 presents the quick ratio during the study period of JSPL, which is as follows:

Table No. 18

Jagdamba Steel Private Limited
Quick Ratio

million					Rs. in
year	Quick Assets	Current Liabilities	Times	Changes	
2061/62	456.32	871.06	0.52		
2062/63	411.12	856.7	0.48	(0.04)	
2063/64	401.11	1050.88	0.38	(0.10)	
2064/65	398.78	926.11	0.43	0.05	
2065/66	501.3	1063	0.47	0.04	
Total	2168.63	4767.75			
Average	433.726	953.55	0.45	(0.05)	

The above figures can be shown in a diagram, which is as follow:

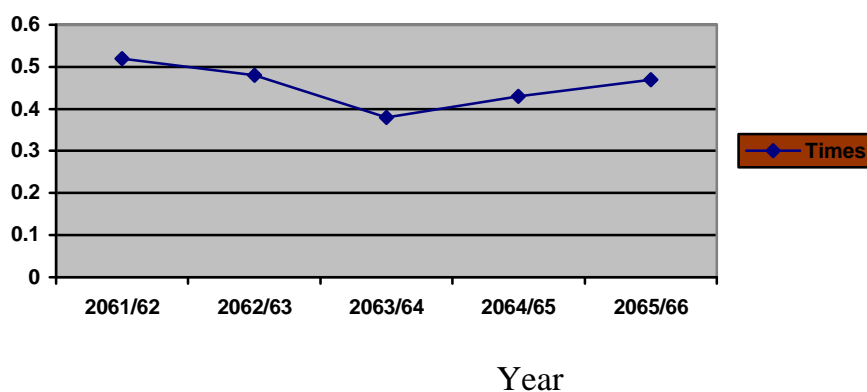


Chart No: -1

The above table shows the solvency position of JSPL. The Quick ratio is perfect when Quick Assets to Current Liabilities i.e. quick ratio of 1:1. Thus higher is the ratio, the better is the bill paying capacity. The ratio indicates that Quick Ratio of

the company is not favorable in any of the study period because ratios are lower than one. In fiscal year 2061/62, the ratio is 0.52:1 and it is decreasing year after year. Such decreasing trend suggests that the Private ability to meet immediate payments is weakening. The average Quick Ratio of the study period is 0.45:1. So the Quick Ratio of the company may not be considered favorable. This is all owing to the holding of more amounts of Inventories. Hence, the company should reconsider on this matter.

In order to evaluate the relationship between Quick Assets and Current Liabilities of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated an appendix-11 and the result are as under.

$$\begin{array}{ll} \text{Correlation Coefficient (r)} & =0.0291 \\ \text{Probable Error (PE)} & =0.30 \end{array}$$

Since, the correlation coefficient of Quick Assets and Current Liabilities is 0.0291 which is lower than ± 0.5 therefore it represents the less degree of positive relation. Here, $r < 6PE$ therefore it represent no significant.

4.6 Profitability Position

Earning profit or maximizing the return on investment is one major objective of the establishment a business firm. Profit is the indicator of efficient operation of the company, in order to measure the profitability position of the JSPL. The profitability position of a firm can be measured by analyzing the profitability ratios. There are two kinds of profitability ratios in relation to its sales and investment. These ratios together indicate the firm's efficiency of the operation. Profitability position can be analyzed by computing following different ratios:

4.6.1 Gross Profit Margin

Gross profit margin ratio indicates the efficiency of operation of management as well as how products are priced is analyzed. Higher the ratio considered the better efficiency of the management and vice-versa.

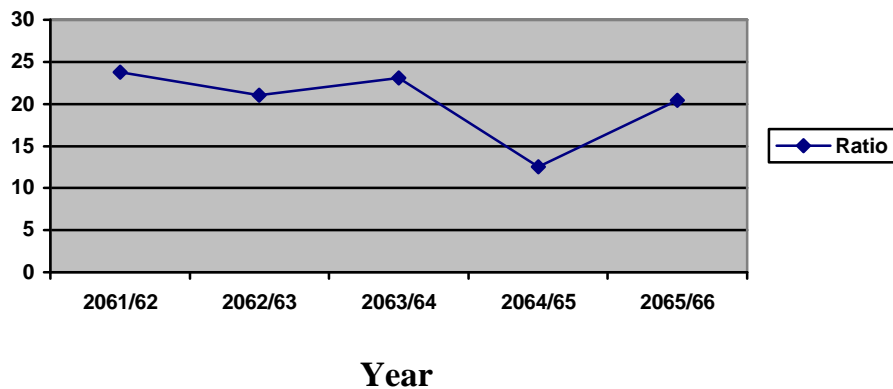
Table-19 presents the Gross Profit Margin during the study period of JSPL, which is as follows:

Table No: - 19
Jagdamba Steel Private Limited
Gross Profit Margin

year	Gross Profit	Sales	Ratio	% Change
2061/62	456.11	1915.58	23.81	
2062/63	449.1	2131.42	21.07	(2.74)
2063/64	439.2	1902.01	23.09	2.02
2064/65	291.55	2332.66	12.50	(10.59)
2065/66	501	2453.78	20.42	7.92
Total	2136.96	10735.45		
Average	427.392	2147.09	19.91	(3.39)

Note: Sales include total income of the company and Gross Profit is calculated by deducting cost of goods sold from the Total Income.

The above figures can also be shown in the diagram, which is as follows.



The above table shows the gross profit margin trend of JSPL over the study period. The company is found most efficient in the fiscal year 2061/62, which is its highest margin i.e. 23.81 ratio and the lowest margin is 12.50 in the fiscal year 2064/65. The average Gross Profit Margin of the company is 19.91% which can be said satisfactory not well.

In order to evaluate the relationship between Gross Profit Margin and Sales of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in Appendix-12 and the result is as under:

$$\begin{aligned} \text{Correlation Coefficient (r)} &= -0.16 \\ \text{Probable Error (PE)} &= 0.007 \end{aligned}$$

Since, the correlation coefficient between Gross Profit Margin and Sales is -0.16 which represents the very low negative relation. Here $r < PE$ therefore it is insignificant

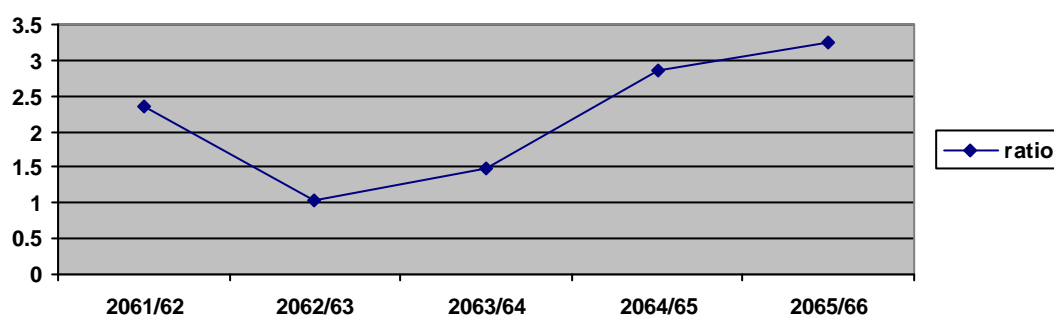
4.6.2 Net Profit Margin

Net Profit Margin is obtained by deducting Operating and Administrative expenses and income tax from Gross Profit. Net Profit Margin is the ratio relationship on Net Profit After Tax to Sales. The ratio indicates the relative efficiency of the firm after taking account of all expenses and income taxes. Operating expenses and tax rates affect the Net Profit Margin of the company.

Table No: - 20 presents the Net Profit Margin during the study period of JSPL, which is as follows:

Table No: - 20
Jagdamba Steel Private Limited
Net Profit Margin

Rs. in million					
Year	Net Profit Margin	Sales	Ratio %	% Changes	
2061/62	45.26	1915.58	2.36		
2062/63	22.23	2131.42	1.04	(1.32)	
2063/64	28.1	1902.01	1.48		0.43
2064/65	-66.66	2332.66	(2.86)		(4.34)
2065/66	79.69	2453.78	3.25		6.11
Total	108.62	10735.45			
Average	21.724	2147.09	1.01		0.88



The above tables show the fluctuating condition of net profit margin during the study period. In fiscal year 2061/62 the ratio is 2.36% where net profit is 45.26 million and the sales is Rs. 1915.58 million, in the fiscal year 2061/63 the ratio is 1.04% where net profit margin is 22.23 million and the sales revenue is Rs. 2131.42. It had got negative change by 1.32%. In the third year 2063/64 the ratio is slightly change positively by 0.43%. This year got

net profit by Rs.28.1 million where sales revenue is Rs. 1902.01 million. And in the year 2064/65 instead of net profit there is net loss and the sales revenue is Rs.2332.66 million. It ratio falls by 4.34% from 1.48%. In the last fiscal year the net profit is 79.69% and the sales revenue is Rs. 2453.78 million with 3.25% ratio and increased by6.11%. the average change in Net Profit Margin is in increasing trend by 0.88% over the period.

To evaluate the relationship between Net profit and Sales of JSPL, Karl Pearson's Correlation Coefficient (r) is computed in Appendix -13 and the result is as under:

$$\begin{aligned} \text{Correlation Coefficient (r)} &= -0.11 \\ \text{Probable Error (PE)} &= 0.30 \end{aligned}$$

Since the correlation coefficient between Net Profit Margin and Sales is -0.11 which shows very low significance. In this $r < 6PE$ therefore nothing can be concluded.

4.6.3 Operating Expenses Turnover Ratio

Operating expenses are essential factors for affecting Gross Profit and Net Profit Margin. Operating ratio helps as to gain considerable insight into the operations of the firm. It measures the efficiency of the firm as regards to minimizing costs. Operating Ratio thus is an indicator of operational efficiency. The higher the operating Turnover Ratio, the better is the efficiency and vice-versa. Minimum operation costs results into the higher level of Gross Profit and Net Profit and the Net Profit Margin.

Table No: -21 present the operating during the study period of JSPL, which is as follows:

Table No: -21
Jagdamba Steel Private Limited
Operating Expenses Ratio

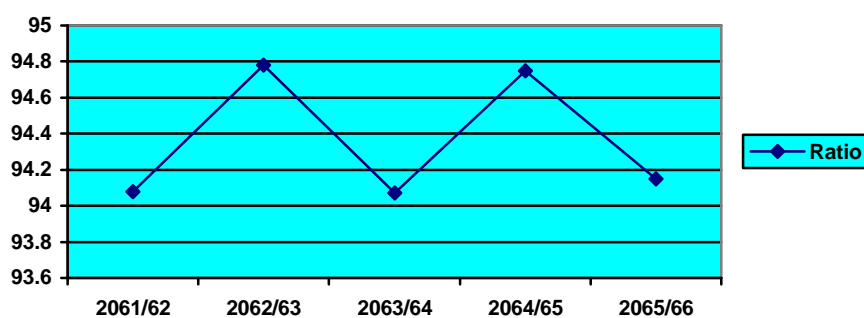
Rs. in

million

Year	Operating Exp.	Net Sales	Ratio %	Change %
2061/62	1802.24	1915.58	94.08	
2062/63	2020.13	2131.42	94.78	0.70
2063/64	1789.15	1902.01	94.07	(0.71)
2064/65	2210.25	2332.66	94.75	0.69
2065/66	2310.34	2453.78	94.15	(0.60)
Total	10132.11	10735.45		
Average	2026.42	2147.09		0.07

Note: Operating expenses include cost of goods sold and other operating indirect expenses.

The above figures also can be shown in a diagram, which is as follows:



Year

The above table shows that the Operating Expenses ratio with respect to Sales Value during the study period, which is in fluctuating and increasing trend. The first fiscal year 2061/62 shows 94.08% along with operating

expenses and net sales Rs.1802.24 and 1915.58 million respectively. The ratio moves upward in the next year 2062/63 by 0.70 % that means operating expenses is increased in this period. In the third fiscal year 2063/64 the operating expenses is reduced along with the net sales also. The ratio falls by 0.71% that is positive sign. In the forth year it is increased by 0.69% and then also decreased 0.60%.

To evaluate the relationship between operating expenses and sales of JSPL, Karl Pearson's Correlation Coefficient (r) is computed in appendix-14 and the result is as under:

$$\begin{array}{ll} \text{Correlation Coefficient} & = 0.990 \\ \text{Probable Error} & = 0.005 \end{array}$$

Since, the correlation coefficient between operating expenses and sales is 0.99 which is very much to the perfect correlation to each other. In this $r > 6PE$ therefore it represent significant.

4.6.4 Return on Total Assets

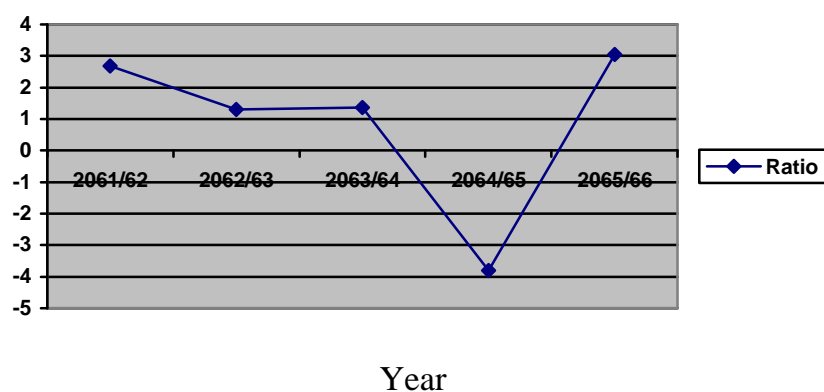
It measures the percentage of Return on Total Assets employed for every business activity of the company. It gives an insight into the profit earning efficiency of the company with respect to the Total Assets used. So, it is the tool to measure the efficiency of assets that are utilized by the company to earn profit.

Table No: -22 present the return on total assets during the study period of JSPL, which is as follows:

Table No: -22
Jagdamba Steel Private Limited
Return on Total Assets

Year	Net Profit Margin	Total Assets	Ratio	Rs. in million	
					%Changes
2061/62	45.26	1681.56	2.69		
2062/63	22.23	1702.4	1.31	(1.39)	
2063/64	28.1	2064.36	1.36		0.06
2064/65	-66.66	1756.1	(3.80)		(5.16)
2065/66	79.69	2624.86	3.04		6.83
Total	108.62	9829.28			
Average	21.724	3276.42	0.66		0.34

The above table can also be shown in the diagram, which is as follow



The above table shows that the return on its total assets during study period. The ratio is 2.69% in fiscal year 2061/62 where the company has employed Rs.1681.56 million in Total Assets where net profit margin is Rs.45.26 million. The ratio is decreased by 1.39% in the year 2062/63 and the company has employed high amount

in Total Assets i.e.Rs.1702.40 million but net profit decreased by due to increase in cost of goods sold and interest. The ratio 3.8 % is in negative in the year 2064/65 since net profit margin is negative i.e. Rs 66.67 million due to proportionate increase in cost of goods sold than that of sales, interest cost, and indirect expenses. In the fiscal year 2065/66 is heavily increased by 6.83% though the company has employed high amount of Total Assets i.e. Rs. 2624.86 million and net profit is Rs. 79.69 million which is due to increase in sales and reduction in the cost of goods sold and interest cost. Decreasing tendency of return on total assets is mainly because of the decreasing amount of Net Profit after Tax. The highest return is found in the fiscal year 2065/66 and the lowest return in the fiscal year found 3.04% and (3.8) % respectively. And the average return is 0.60, the higher ratio is favorable and lower ratio is non favorable.

In order to evaluate the relationship between Net Profit after Tax and Total Assets of JSPL, Karl Pearson's Correlation Coefficient (r) is calculated in Appendix-15, and the result is as under.

$$\begin{aligned} \text{Correlation Coefficient (r)} &= 0.58 \\ \text{Probable Error (PE)} &= 0.20 \end{aligned}$$

The correlation coefficient between Net Profit after Tax and Total Assets is 0.58 which is higher than ± 0.5 , so there is moderate degree of correlation coefficient and the calculated value of r is not greater than 6PE, since the relationship is not considered to be significant.

4.6.5 Return on Net Worth

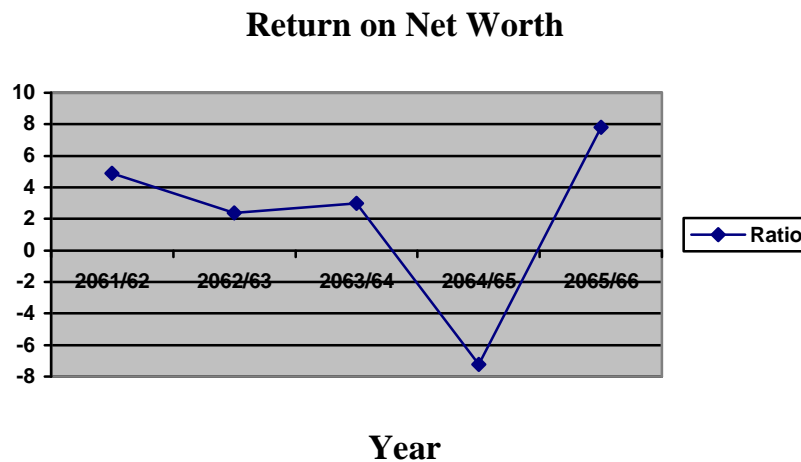
This is the percentage relationship between Net Profit after Tax (NPAT) and the investments of owners as capital. However, net worth includes owner's share capital, share application money and reserves and surplus. The conclusion drawn on the basis of profitability ratio and operating ratio may not give true result because they give profit in terms of sales and total assets only. So return on net worth is necessary to study to gain an insight into the efficiency of owner's investment. It measures the rate of return on owner's capital employment in the business.

Table-23 shows the rate of return on net worth of Jagdamba Steel Private Limited during the study period.

Table No: -23
Jagdamba Steel Private Limited
Return on Net Worth

Year	Rs. in million		Ratio %	% Change
	Net Profit Margin	Net Worth		
2061/62	45.26	926.39	4.89	
2062/63	22.23	931.17	2.39	(2.50)
2063/64	28.1	936.56	3.00	0.61
2064/65	-66.66	920.19	(7.24)	(10.24)
2065/66	79.69	1019.28	7.82	15.06
Total	108.62	4733.59		
Average	21.724	946.718	0.02	2.93

The above figure can also be shown in the diagram, which is as follows:



The above table shows that the rate of return on net worth during the study period. In the fiscal year 2061/62, the ratio is 2.5% with net worth value Rs.926.39 millions but the ratio is decreased by 2.5% in the next fiscal year 2062/63 and slightly increased by 0.61% in the third study period i.e. 2063/64, in the 4th year the ratio is in negative position which is very decreased in the net profit margin. And in the 5th year the study shows the positive changes in the ratio which is 7.82% where net profit is Rs.79.69% along with net worth Rs. 1019.28 million. The highest ratio in the study is 15.06% and lowest ratio is (7.24) %. The changes in the 5th year were drastic i.e. 15.06. In an average, the Private is able to maintain 0.02% of rate of return on net worth.

To evaluate the relationship between Net Profit after Tax and Net worth of Jagdamba Steel Private Limited, Karl Pearson's Correlation Coefficient (r) is calculated in Appendix- 15 and the consequences is as under:

Correlation Coefficient (r) =0.67
 Probable Error (PE) =0.17

The correlation coefficient between Net Profit after Tax and Net Worth is 0.67 which is higher than ± 0.5 so there is moderate positive correlation and calculated value of r is not higher than 6PE therefore, the relation is not considered to be significance.

4.6.6 Return on Gross Working Capital

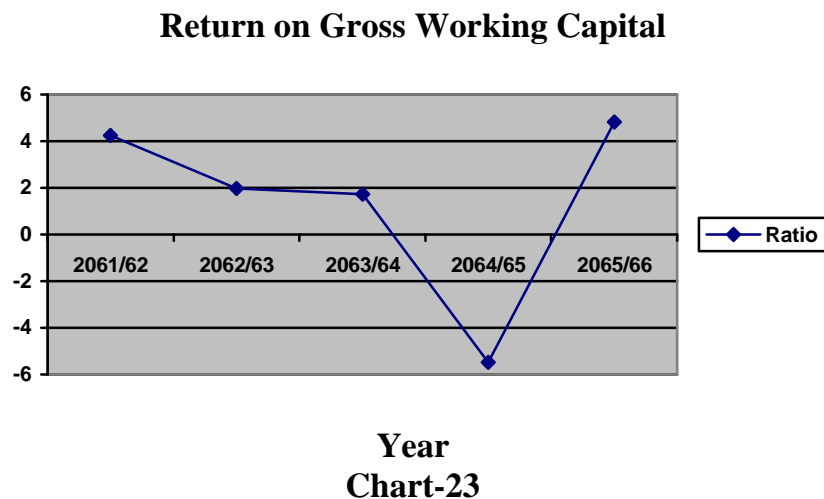
This is the simple relationship of Net Profit after Tax in relation to current assets employed by the company. It measures the profit with respect to its working capital i.e. total current assets. It helps to give an insight into how effectively and efficiently the current assets are employed to earn the profit. Lo, the higher is the ratio of return; the better is the efficiency of the working capital and vice-versa.

Table – 24 presents the relationship between Net Profit after Tax and Total Current Assets of JSPL during the study period.

Table No: -24
 Jagdamba Steel Private Limited
 Return on Gross Working Capital
 Rs in million

Year	Net Profit Margin	Gross Working Capital	Ratio %	% Changes
2061/62	45.26	1,061.93	4.26	
2062/63	22.23	1,128.27	1.97	(2.29)
2063/64	28.1	1,622.11	1.73	(0.24)
2064/65	-66.66	1,215.37	(5.48)	(7.22)
2065/66	79.69	1,649.19	4.83	10.32
Total	108.62	6,676.87		
Average	21.724	1,335.37	1.63	0.57

The above figure can be shown in a diagram, which is as follows



The above table shows the percentage return on gross working capital employed by JSPL. The Company is able to earn Rs.45.26 million in the year 2061/62 where the

Gross working Capital was Rs 1061.93. it is decreased by 2.29 % in the fiscal year 2062/63 where net profit margin is Rs. 22.23 million and working capital is Rs 1128.27 million. Again in the next year the ratio is decreased by 0.24 % where the net profit margin is Rs. 28.10 million and Gross working capital was 1622.11 million. In the fourth year i.e. 2064/65 the net profit falls to (66.66) million and Gross working capital decreased Rs.1215.31 million and the ratio goes in negative condition. Therefore in the last fiscal year, we got highest ratio in the study where net profit margin is Rs.79.69 million. In fiscal year, there is lowest ratio i.e.-5.48%.

To evaluate the relationship between Net Profit after tax and Total current assets of JSPL, the Karl Pearson's Correlation Coefficient (r) is calculated in Appendix-17

Correlation Coefficient (r) =0.40
Probable Error (PE) =0.25

Since, the correlation coefficient between Net Profit after Tax and Gross Working Capital is 0.40 which is less than ± 0.5 ; therefore it shows the Low positive direction. Here calculated $r < 6PE$ therefore it is not considered to be significant.

4.6.7 Return on Net Current Assets

This is the relationship between Net Profit after Tax in relation to Net Current Assets Employed by the company. It also measures the efficiency and effectiveness of company through profit in respect to Net Working Capital and how current assets and current liabilities are managed. Higher the rate of return, the better is the performance of the company and vice-versa.

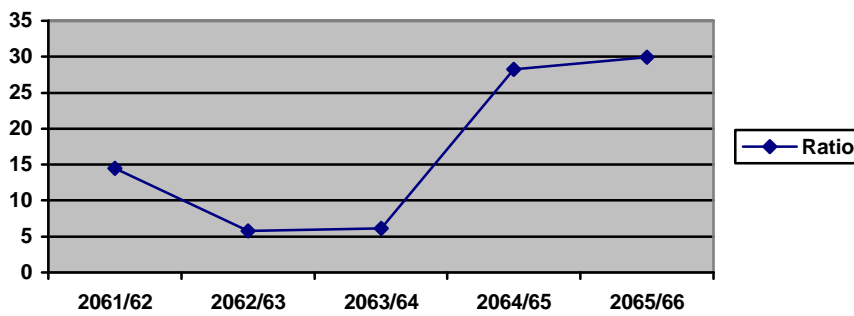
Table-25 presents the relationship between Net Profit after Tax and Net Current Assets of JSPL during the study period.

Table-25
Jagdamba Steel Private Limited
Return on Net Working Capital

Year	Million		Ratio	Rs.in	
	Net Profit Margin	Net Working Capital		%	
2061/62	45.26	313.47	14.44		
2062/63	22.23	382.89	5.81	(8.63)	
2063/64	28.1	460.74	6.10	0.29	
2064/65	-66.66	235.63	(28.29)	(34.39)	
2065/66	79.69	266.36	29.92	58.21	
Total	108.62	1659.09		15.48	
Average	21.724	331.818		15.48	

The above figure can also be shown in a diagram, which is as follows:

Return on Working Capital



Year
 Chart-24

The above table shows the relationship between Net Profit after Tax and Total Current Assets employed by the company. The ratio is 14.44% in the 1st fiscal year 2061/62 with Rs. 45.26 million net profit margins and Rs.313.47 million. And in the second study period ratio falls by 8.63% where the net profit is Rs. 22.23 million and

net working capital. Similarly, in the 3rd, it is raised by 0.29% and in the 3rd study period it had occurred loss Rs. 66.66 million where the ratio is also with negative direction. Finally in the 5th year i.e. 2065/66 ratio moves towards the highest position with net profit increased along with Rs.266.36 million.

In order to evaluate the relationship between Net Profit after Tax and Net Current Assets of Jagdamba Steel Private Limited, Karl Pearson's Correlation Coefficient (r) is calculated in the Appendix -18 and the result is as under:

Correlation Coefficient (r) = 0.85
Probable Error PE = 0.08

The correlation coefficient between Net Profit after Tax and the Current Assets is 0.85 which lies in between +0.75 to +1 means it had got very high significant. In this $r > 6PE$ therefore, it is considered to be very significant.

4.7 Correlation Coefficient Analysis (r)

In this analysis, Karl Pearson's Coefficient of Correlation has been used to find out the relationship between variables, which is a widely used mathematical method of Correlation Coefficient between two variables. Correlation analysis describes the positive and negative relationship between variables. It helps to determine whether there is:

- ❖ A positive or negative relationship exists.
- ❖ The relationship is significant or insignificant and
- ❖ Establish cause and effect relation if any

The statistical tool, correlation analysis is preferred in this study to identify the relationship between variables, whether the relationship is significant or not.

4.8 Major Findings

The major findings of this study during the five years period in JSPL, from the above data presentation and analysis are summarized below:

1. Almost every year, inventory holds the major portion of the current assets. In the year 2061/62 the total current assets is Rs.1061.93 million. The major current assets and their percentage of inventory, sundry debtors, cash/bank balance, other current assets, loans and advances are 61.53%,17.79% 0.76% 1.39% 16.51% respectively in the year 2061/62.in an average the percentage inventory is 66.33%, sundry debtor is 21.45% cash/bank balance is 1.06% and other current assets is 1.09%.(See table 1)
2. The proportion of Current Assets on Total Assets is Fluctuating during the period of study. The largest ratio is 78.85% and the lowest ratio is 62.83 %. The average ratio of holding Current Assets with respect to Total Assets is 67.93 %, which indicates that the investment in Current Assets is considerably high.(Table No: 4)
3. Cash and Bank balances hold small part of Current Assets and 1.13% in an average with respect to Total Assets. It is found that the trend is fluctuating year by year. These kinds of fluctuation in Cash and Bank balances are due to optimization in Cash Management as well as investment of cash in loans and advances, Provident Fund, Gratuity Account etc.(Table No. 6)
4. Inventory holds a large portion with respect to Current Assets. The percentage of holding is ranging from 76.73% to 60.57 % in fluctuating trend with an average holding 66.34 %. The fluctuation of the level of investment in inventories is due to change in the level of Sales volume followed by different sales policies. (Table No: 8)
5. The receivable position with respect to Current Assets in JSPL is fluctuation with average holding of 28.65% during the study period. The highest inventory ratio is in the 2062/63 is 37.27% whereas the lowest ratio is 21.30%. Similarly, the position of receivables to Total Assets is also fluctuating in order. So, the fluctuation in investment amount of Receivable is due to change in sales volume and credit policy adopted by the company. (Table No. 10)
6. The gross working capital Turnover is ranging from 1.92 times to 1.17 times with an average of 1.61 times. Similarly, the Net Working Capital Turnover is

ranging from 9.21 to 4.13 times in fluctuating trend with an average of 6.47 times. (See Table No.13)

7. The cash turnover ratio is ranging from 300.2 times to 67.486 times with various fluctuations with an average 141.39 times. The company has been able to maintain its cash conversion cycle of about 2.58 i.e. days. It indicates that the company is able to maintain a satisfactory matching of sales and cash and bank balances. (See Table No: 14)

Receivable turnover ratio is found fluctuated during the five year period. The ratio found 5.98 times, which is the highest, in fiscal year 2065/66 caused by low level of receivables amount and the lowest ratio is 5.07 times in fiscal year 2064/65 because of proportionate increase in Credit Sales than the volume of receivables. However, the Average Receivable Turnover Ratio is 5.61 times. The average collection period of credit sale has been found fluctuating over the period caused by change in volume of sales and receivables in different years. Receivable collection period s ranging from 71.99 days to 61.03 days with an average, the collection period of the JLPL is 5.61 times i.e. 65.06 days shows poor management of Receivable. Higher turnover ratio indicates shorter collection period.

8. The liquidity position of the company is analyzed with the help of Current ratio and Quick Ratio. Quick Ratio of the company is ranging from 0.52 times to 0.38 times with an average of 0.45 times, shows the company is not able to maintain it Quick Ratio. It indicates unfavorable liquidity position of the JSPL.

9. Profitability measures the efficiency of performance of a business firm. The profitability position of JSPL is analyzed from the angles of Gross Profit and Net profit Margin. The range of gross profit margin from 23.21% to 12.50 % with an average of 19.91%. In the other hand, the Net Profit margin is found in decreasing trend which ranges from 3.25 % to 1.04% with an average of 1.01%. It shows that JSPL is not so efficient in maintaining Profitability.

Operating expenses ratio is also analyzed to measure the profitability position of any company. So it is also applied in context of JSPL. The operating ratio is found ranging from 97.71 to 92.83% with an average of 94.25%. The wide difference between gross profit margin and net profit margin for the corresponding years and also the considerably high level of operating ratio indicates not so better operating efficiency of JSPL.

The return on total assets of JSPL is in fluctuating trend which ranges from (3.80) % to 3.04 % with an average return of 0.60%. The lowest return is in fiscal year 2064/65 due to negative NET profit and the highest return in fiscal year 2065/66 due to drastic increment in Net Profit after Tax.

The return on net worthies in also fluctuating trend with 0.85% positive change, which ranges from -10.84% and 9.21% with an average of 2.03%. It can be analyzed that both return of total assets and return on net worth cannot be considered favorable.

The return on gross working capital and net working capital both are fluctuating with positive change of 0.35% and 3.69% respectively. The rate of return on total current assets ranges from -5.02% to 4.22% with an average return of 0.92% and rate of return on net current assets ranges from -31.74% to 30.89% with an average return of 4.67%. The result shows that the return on both gross working capital and net working capital may not be judged as satisfactory return.

10. It is found that out of total financing, more amount is financed from long term sources of fund i.e. share capital and reserves and surplus and less amount is financed from short term sources of fund i.e. loans against government securities, bank loan against fixed assets, current assets and cash as well as credit loan from bank. The fixed assets, permanent current assets and some portion of temporary current assets are financed from long term fund and other remaining portion of temporary current assets are financed by short-term sources of fund.

Chapter – 5

Summery of Findings, Conclusions and Recommendations

5.1 Summary

The introductory chapter of this study presents the brief introduction of the study, industrialization and its role in Nepal, its importance in and Nepal and Nepalese industrial enterprises and the brief introduction of Jagdamba Steel Private Limited. The theoretical concept of Working capital, role and its importance in manufacturing company like JSPL are also included in this chapter. The statement of problem of this study in light of JSPL, objective of he study and limitation within which the study is circled are also the parts of the first chapter. Lastly the organization the study is prepared according to the chapters that are planned for the study report. The second chapter i.e. review of literatures gives the basic concept of working capital, where different views of various different authors are reviewed, the journals and articles which are available, published by different management experts, are also reviewed in order to fulfill he basic need of study. Further, the available dissertations in the context of management off working capital from different researcher are also reviewed. Main findings and conclusions, tools used for analysis and recommendation are included from the dissertations of the researchers. The review of literatures tries to find out the gap and this study tries to fulfill this gap to some extent.

The basic objective of this study is to examine the management of working capital in Jagdamba Steel Private Limited to fulfill this objective and other specific objectives stated in chapter one, an appropriate research methodology has been developed which includes the ratio analysis as a financial tools and correlation coefficient as a statistical tools. The major ratio analysis consists of the composition of Working Capital Position, turnover position, liquidity position and profitability position. Chapter four includes various ratios under the main ratios of working capital position, turnover position and profitability position. Karl Pearson's correlation is calculated in appendixes in order to test the relationship in between the various components of working capital as well as P.E is calculated to find out the significance of their relationship and the results are analyzed in this chapter.

The necessary data are derived from the balance sheet and profit and loss a/c of JSPL for the period of five years from 2061/62 to 2065/66. These data are presented, tabulated and analyzed in chapter four with the help of methodology described in chapter three. Finally, in chapter five, an attempt has been made to present summery of findings, conclusions and some suggestions for JSPL as recommendations.

5.2 conclusions

Following are the major conclusion:

A. major finding of working capital position

The proportion of current assets with respect to total assets and net assets shows that there is high investment in current assets. Higher portion of investment in current assets implies that greater amount of working capital causes decrease in profitability. The investment made Current Assets of JSPL is high due to the higher amount investment in inventories and sundry debtors (receivable), which is clearly shown by table presented in previous chapter. It can be concluded that there is high degree of Positive correlation between investment in current assets and total assets, could have adverse effects in wealth maximization goal of JSPL in long-run.

Cash management of JSPL is considered to be sound as the cash and cash balance with respect to Current Assets and total Assets are in increasing trend as per data presentation. Furthermore, the company has invested its cash in short-term securities. Since, the company's Cash Conversion Cycle in an average on 3 days, it can generate cash with in a very short period of time, which can be used as good performance.

Inventory should be managed in such a way that they should be neither excess causing unnecessary working capital blockage nor shortage resulting irregular manufacturing process and break-downs. So, inventory should be kept in optimum level. So far JSPL is concerned, has kept higher proportion of inventories. Inventories cover higher level of investment with respect current assets and total assets. Inventories has large tie up of funds in it. It affects the liquidity due to high carrying cost, since inventories it self is the least liquid current assets. Furthermore, there is high degree of correlation that there is not so sound inventory management policy in JSPL.

Receivables are the outcome of credit sales and receivables are inevitable in today's competitive business world. They constitute the integral part of assets of the company. Receivables are occupying ht large potion with respect to current assts and total assets of JSPL. Further, its average collection period is ranging from 16 days to 19 days, which can not be judged as favorable collection period, since there is moderate degree of correlation with insignificant relationship between receivables and current assets. It shows that there is unnecessary tie-up of working capital.

B. Major findings of Turnover Position

Sales measure the performance and efficiency of any business. Working capital is the life blood of sales. So, working capital should be managed in such a way that it generates maximum turnover. The proportion

of working capital with respect to sales in JSPL is an average of 1.61 times with increasing trend during the study period and the company is able to turn its working capital into sales once in 226.71 or 2297 days. (See table-12) Furthermore, there is low degree of positive correlation and relationship is not considered to be significant show un-utilization of working capital properly.

Business enterprise must provide credit facilities to compete and expand sales, which is unavoidable, but it should be managed well that cost of receivable would not be higher than rate of return there on. The average receivable turnover ratio in this company is 5.61 times during the study period which means credit collection period is 65.06 or 65 days in an average. (See table-15) Furthermore, there is high degree of positive correlation between receivable and sales. It should be better for the company to reduce the receivable collection period.

Similarly, inventories play the major role in the manufacturing organization. The inventory turnover ratio is 2.42 times in an average during the study period, which shows that inventory conversion period is 150.82 days or 150 days, which is considered that there is not efficient inventory management system. (See table-16) The insignificant and low degree of positive correlation between inventories and sales indicate the result is not in favor i.e. the company is not as much as efficient in turning its inventories into sales.

C. Major Findings of liquidity Position

The current ratio of JSPL is 1.40 times in an average, but the ratio is in decreasing trend. Inventories and receivables are the major parts of current assets. (See table-17) The significant and high degree of positive correlation between current assets and current liabilities shows there is fine liquidity position but bearing some how risk by the company.

However, the quick ratio of JSPL is 0.45 times in an average which is lower than 1 times shows weak position to face immediate current obligations. The insignificant and high degree of positive correlation between quick assets and current liabilities indicates that the company is not able to adopt better liquidity management system.

D. Findings of profitability

An average gross profit and net profit margin ratio of JSPL is 19.91% and 0.88% during the study period with decreasing trends. (See table-19&20) The insignificant and low degree of positive correlation between gross profit and sales and net profit and sales show poor efficiency of the management of the management towards the margin of safety and profitability. Since, the increasing trend of operating expenses ratio with an average 94.37% indicates the company is either unable to control expenses or increase volume of production and sales revenues.

The return on total assets, net worth and current assets are 0.60%, 2.29% and 0.92% respectively in an average during the study period.(See table 22,23,24). The ratios shows that JSPL is not in will profitable position. It can be said that the company is just serving. The company is somehow failure to utilize its current assets. The over investment in inventories and receivables is the main cause for reducing profitability. The excess of cash should be invested in low risky and short-term securities and special bonds as equity shares in other subsidiary companies to earn further returns as interests and dividends.

F. Findings of Statistical Data

The major findings of statistical analysis are presented below:

Table: -26
List of Statistical Findings

S.N	Variables	Correlation Coefficient (r)	Probable Error (P.E)	Remarks
1	Current Assets & Total Assets	0.87	0.06	Since, the relation is in between +0.75 to 1 which represents significant relation & $r > 6PE$ also.
2	Current Assets & Fixed Assets	0.62	0.18	Since, it had got positive degree of relation because it lies in between +0.5 to +0.75 and $r < 6PE$ it is insignificant.
3	Cash and Bank & Current Assets	0.78	0.11	Since, the relation is +ve and it lies in between +0.75 to 1 and it is significant because $r > 6PE$
4	Inventory & Current Assets	0.917	0.0479	Since, the relation is +ve and it lies in between +0.75 to 1 and it is significant because $r > 6PE$
5	Receivable & Current Assets	0.1335	0.29	It had got very low positive relation and it is insignificant because $r < PE$
6	Current Assets & Sales	0.25	0.28	It had got very low positive relation and it is insignificant because $r < PE$

7	Net Current Assets and Sales	-0.74	0.14	It had got very negative relation because it lies in-0.5 to -0.75; it is insignificant because of $r < 6PE$
8	Receivable & Sales	0.79	0.10	Since, the relation is +ve and it lies in between+0.75 to 1 and it is significant because $r > 6PE$
9	Inventory and sales	-0.046	0.30	It had got very low negative relation and it is insignificant. ($r < 6PE$)
10	Current Assets & Current Liabilities	0.99	0.17	Since, the relation is in between +0.75 to 1 which represents significant relation & $r > 6PE$ also.
11	Quick Assets & Current Liabilities	0.029	0.30	It had got very low positive relation and it is insignificant because $r < 6PE$
12	Gross Profit and Sales	-0.16	0.007	It had got very low negative relation and it is insignificant. ($r < 6PE$)
13	Net Profit & Sales	-0.11	0.30	It had got very low negative relation and it is insignificant. ($r < 6PE$)
14	Operating Expenses and Sales	0.99	0.005	Since, the relation is in between +0.75 to 1 which represents significant relation & $r > 6PE$ also.
15	Net Profit and Total Assets	0.58	0.20	Since, it had got positive degree of relation because it lies in between +0.5 to +0.75 and $r < 6PE$ it is insignificant.
16	Net Profit and Net Worth	0.67	0.17	Since, it had got positive degree of relation because it lies in between +0.5 to +0.75 and $r < 6PE$ it is insignificant.

17	Net Profit After Tax & Gross W.C	0.40	0.25	Since, it had got positive degree of relation because it lies in between +0.5 to +0.75 and $r < 6PE$ it is insignificant.
18	Net Profit After Tax & Current Assets	0.85	0.08	Since, the relation is in between +0.75 to 1 which represents significant relation & $r > 6PE$ also.

5.3 Recommendations

1. It is found that inventories furthermore, raw materials, work-in-progress, finished goods, stores and machinery spares are the major parts of current assets i.e. hold 66.34% of current assets. (See table-8) Therefore, the company should focus its efforts either to reduce the huge level of its inventories or to utilize them in the optimum way that cost of holding could be brought up to minimum level. The company should further adjust its inventory to production as well as production to sales. The company should maintain its level of production and sales as per budgetary methods considering its market situation and the level of competition. JSPL should go with effective sales plan which help for immediate marketability and it certainly decrease the problem of over stocking. Similarly, none performing and absolute items of assets should be discarded to avoid unnecessary blockage of inventory. The management of the company must give attention towards capacity utilization, carrying costs, ordering costs and lead time for effective inventory management.

2. It also advised to the management to implement effective inventory control techniques in order to control cost as per their volume and importance, statistical, financial and accounting tools such as inventory ratio, economic order quantity, raw material budget, production budget, sale budget etc. should be used for determining the current and future requirements of raw materials and finished goods. Such analysis helps to maintain better inventory position in the company. Furthermore, the company can use either restricted or moderate investment policy to less the level of inventory but care should be given to the present scenario of the country and its constraints.

3. Receivables also cover the second largest position of current assets i.e. holds 28.65%.(see table-10) Although credit sales are inevitable in this competitive global business, the management adopting liberal credit policy so that result is not favorable i.e. sales is not as much as increased than that of credit sales. It can be seen, the company may not have any specific policy to control the credit limits and any certain criteria to increase cash sales. Similarly, certain target should be set for credit policy to avoid unnecessary growth on volume of receivables.

4. The credit collection period of JSPL is 53 days(365/5.61) shows the company is liberal in credit sales, which is not considered as favorable.(See table-15)As increase in credit involves chance of increase in bad debts, which is an additional cost for the company. So, it is suggested to the management of company to adopt an attractive package to collect its credits and bring down credit days to 30 days. Restricted working capital policy should be adopted to control credit limits focusing on brand image of the product and considering pace of sales in the market.

5. The portion of current assets on its total assets is 65.04%, which is considered to be high and utilized in optimum ways. The rate of return on current assets is consequently lower i.e. 0.92%. It is recommended that the company should follow effective working capital investment policy (current assets policy) as per the market demand and pace of competition. Not only relaxed and restricted is always better but also Moderate Working Capital Policy should be adopted to improve its profitability in the long – term.

6. There is another important affecting factor, which is directly involved to reduce profitability. The operating expenses ratio is 94.25%, which is very weak point in JSPL. It seems that the company is ignoring the increasing trend of operating expense ratio. The major components of operating costs are works overheads, administrative overheads, selling and distributions overheads and other indirect expenses. The company should maintain both production and sales as increase in operating expenses or control its expenses in reasonable ways. It is recommended to the company to operate in such a way that it can have lesser operating cost which maximizes its profitability and share holder's return.

Bibliography

1. Agrawal, Dr. Govinda (200) "*Dynamics of Human Resources Management in Nepal*" M. K publishers and distributors, Ktm.
2. Ahuja, K.K (1998) "*Industrial relation theory and Practice*" New Delhi Kalyani Publishers.
3. Annual Audit reports, Jagdamba Steel Pvt. Ltd. From 2061/62 to 2065/66
4. Bhandari, Narayan Prasad, "*A Case Study of Working Capital Management of JSPL.*"
5. Dr. Pradhan, Radhe Shyam, "*Management of Working Capital*", New Delhi, National Book Organization, 1986
6. Dr. Pradhan, R.S and Dr.Koirala, K.D, "*An aspect of working capital Management in Nepalese Cooperation*" Instirute of Management T.U. Kirtipur
7. Financial Statements of listed companies, Nepal stock Exchange Ltd. Kathmandu, Nepal Stock Exchange Ltd.
8. Fred, Weston J& F Bgene Brigham, "*Managerial Finance*", Illinois, The Dryden Press.
- 9..Joshi Shyam (2059) "*Business Environment*" Teleju Publication.
10. Kothari, C.R. "*Quantitive Techniques*" Vikas Publishing Housing Pvt. Ltd. New Delhi.
11. Lamichhane, Munish "*An Evaluation of Working Capital Capital on Shree Bhrikuti Pulp ad Pap er Nepal Ltd*" Pokhara university, 2006
- 12 Ministry of Finance, "*The Economic Committee*", Kathmandu, Nepal Government.
13. Nepal Rashtra Bank, *Quarterly Economic Bulletin*, Kathmandu, Nepal Rashtra Bank.
14. Pandey, IM, "*Financial Management*" Vikash Publishing House, 1995.
15. Panta. R.Prem, "*Business Envifronment in Nepal*", Buddha Academic publishers and Distributors Pvt.Ltd, Kathmandu.
- 16 Pradhan, R.S, "*Management of Working Capital*", New Delhi National Book Organization, 1986
17. Smith, Adam, "*The Wealth of Nations*" Modern Lib. Inc., NewYork, 1973.
18. Smith, Keith V., "*An Overview of Working Capital Management*", NewYork, West Publishing Company, 1975

			Appendix - 5				
Year	X	Y	dx=X- 382.554	dx ²	dy=dy- 1335.374	dy ²	dx*dy
2061/62	340.1	1061. 93	-42.454	1802.3421 16	-273.444	74769.4 3	1802.3421 16
2062/63	420.5 6	1128. 27	38.006	1444.4560 36	-207.104	42890.4 1	1444.4560 36
2063/64	345.5 5	1622. 11	-37.004	1369.2960 16	286.736	82289.8 2	1369.2960 16
2064/65	396.3 6	1215. 37	13.806	190.60563 6	-120.004	14400	190.60563 6
2065/66	410.2	1649. 19	27.646	764.30131 6	313.816	98482.9 9	764.30131 6
Total	1912. 77	6676. 87	00000	5571.0011 2	0	312762. 66	5571.0011 2
Average	382.5 54	1335. 37					

		APPENDI X-6					
Year	X	Y	dx=X- 2147.09	dx2	dy=dy- 1335.374	dy2	dx*dy
2061/62	1915.5 8	1061.93	-231.51	53596.88 01	-273.444	74769. 43	63305.02 044
2062/63	2131.4 2	1128.27	-15.67	245.5489	-207.104	42890. 41	3245.319 68
2063/64	1902.0 1	1622.11	-245.08	60064.20 64	286.736	82289. 82	- 70273.25 888
2064/65	2332.6 6	1215.37	185.57	34436.22 49	-120.004	14400	- 22269.14 228
2065/66	2453.7 8	1649.19	306.69	94058.75 61	313.816	98482. 99	96244.22 904
Total	10735. 45	6676.87	00000	242401.6 164	0	312762 .66	70252.16 8
Average	2147.0 9	1335.37					

		APPENDI X -7					
Year	x	y	dx=X- 2147.09	dx2	dy=y- 331.818	dy2	dx*dy
2061/6 2	1915.5 8	313.47	-231.51	53596.88 01	-18.348	336.6491 04	4247.745 48
2062/6 3	2131.4 2	382.89	-15.67	245.5489	51.072	2608.349 184	- 800.2982 4
2063/6 4	1902.0 1	460.74	-245.08	60064.20 64	128.922	16620.88 208	- 31596.20 376
2064/6 5	2332.6 6	235.63	185.57	34436.22 49	-96.188	9252.131 344	- 17849.60 716
2065/6 6	2453.7 8	266.36	306.69	94058.75 61	-65.458	4284.749 764	- 20075.31 402
Total	10735. 45	1659.09	00000	242401.6 164	00000	33102.76 148	-66074
Averag e	2147.0 9	331.818					

		Appendix-8					
Year	X	Y	$dx=X-2147.09$	dx^2	$dy=y-382.554$	dy^2	$dx*dy$
2061/62	1915.58	340.1	-231.51	53596.8801	-42.454	1802.342116	9828.52554
2062/63	2131.42	420.56	-15.67	245.5489	38.006	1444.456036	-595.55402
2063/64	1902.01	345.55	-245.08	60064.2064	-37.004	1369.296016	9068.94032
2064/65	2332.66	396.36	185.57	34436.2249	13.806	190.605636	2561.97942
2065/66	2453.78	410.2	306.69	94058.7561	27.646	764.301316	8478.75174
Total	10735.45	1912.77	00000	242401.6164	00000	5571.00112	29343
Average	2147.09	382.554					

		APPENDI X--9					
year	X	Y	dx=X- 2147.09	dx2	dy=y- 885.824	dy2	dx*dy
2061/6 2	1915.5 8	653.5	-231.51	53596.88 01	-232.324	53974.44 098	53785.32 924
2062/6 3	2131.4 2	720.93	-15.67	245.5489	-164.894	27190.03 124	2583.888 98
2063/6 4	1902.0 1	1244.66	-245.08	60064.20 64	358.836	128763.2 749	- 87943.52 688
2064/6 5	2332.6 6	811.08	185.57	34436.22 49	-74.744	5586.665 536	- 13870.24 408
2065/6 6	2453.7 8	998.95	306.69	94058.75 61	113.126	12797.49 188	34694.61 294
Total	10735. 45	4429.12	00000	242401.6 164	00000	228311.9 045	-10750
Average	2147.0 9	885.824					

		APPENDI X -10					
year	x	Y	dx=X- 1335.37	dx2	dy=Y- 953.55	dy2	dx*dy
2061/6 2	1,061.93	871.06	(273.44)	74,769.4 3	-82.49	6,804.60	22,556.07
2062/6 3	1,128.27	856.7	(207.10)	42,890.4 1	-96.85	9,379.92	20,057.64
2063/6 4	1,622.11	1050.88	286.74	82,219.8 3	97.33	9,473.13	27,908.40
2064/6 5	1,215.37	926.11	(120.00)	14,400.0 0	-27.44	752.95	3,292.80
2065/6 6	1,649.19	1063	313.82	98,482.9 9	109.45	11,979.3 0	34,347.60
Total	6,676.87	4767.75	5,341.50	312,762. 66	3814.2	38,389.9 1	108,162.5 0
Average	1,335.37	953.55	0.00		0		-

APPENDIX - 11							
year	X	Y	dx=X- 433.726	dx2	dy=Y- 953.55	dy2	dx*dy
2061/62	456.3 2	871.06	22.594	510.4888 36	-82.49	6804.60 01	1863.779 06
2062/63	411.1 2	856.7	-22.606	511.0312 36	-96.85	9379.92 25	2189.391 1
2063/64	401.1 1	1050.88	-32.616	1063.803 456	97.33	9473.12 89	3174.515 28
2064/65	398.7 8	926.11	-34.946	1221.222 916	-27.44	752.953 6	958.9182 4
2065/66	501.3	1063	67.574	4566.245 476	109.45	11979.3 025	7395.974 3
Total	2168. 63	4767.75	0	7872.791 92	00000	38389.9 076	5505.989 3
Average	433.7 26	953.55					

APPENDI X-12							
Year	X	Y	dx=X-427.392	dx ²	dy=Y-2147.09	dy ²	dx*dy
2061/6 2	456.1 1	1915.58	28.718	824.72	-231.51	53596.88 01	(6,648.50)
2062/6 3	449.1	2131.42	21.708	471.24	-15.67	245.5489	(340.16)
2063/6 4	439.2	1902.01	11.808	139.43	-245.08	60064.20 64	(2,893.90)
2064/6 5	291.5 5	2332.66	-135.842	18,453.0 5	185.57	34436.22 49	(25,208.20)
2065/6 6	501	2453.78	73.608	5,418.14	306.69	94058.75 61	22,574.84
Total	2136. 96	10735.45	0	25,306.5 8	00000	242401.6 164	(12,515.94)
Average	427.3 92	2147.09					

		APPENDI X -13					
Year	X	Y	dx=X- 21.724	dx2	dy=Y- 2147.09	dy2	dx*dy
2061/6 2	45.2 6	1915.58	23.536	553.94	-231.51	53,596.88	(5,448.82)
2062/6 3	22.2 3	2131.42	0.506	0.26	-15.67	245.55	(7.93)
2063/6 4	28.1	1902.01	6.376	40.65	-245.08	60,064.21	(1,562.63)
2064/6 5	- 66.6 6	2332.66	-88.384	7,811.73	185.57	34,436.22	(16,401.42)
2065/6 6	79.6 9	2453.78	57.966	3,360.06	306.69	94,058.76	17,777.59
Total	108. 62	10735.45	0	11,766.6 4	00000	242,401.6 2	(5,643.20)
Average	21.7 24	2147.09					

		APPENDI X 14					
Year	X	Y	dx=X- 2026.422	dx2	dy=y- 2147.09	dy2	dx*dy
2061/6 2	1802. 24	1915.58	-224.182	50,257.5 7	-231.51	53,596.88	51,900.37
2062/6 3	2020. 13	2131.42	-6.292	39.59	-15.67	245.55	98.60
2063/6 4	1789. 15	1902.01	-237.272	56,298.0 0	-245.08	60,064.21	58,150.62
2064/6 5	2210. 25	2332.66	183.828	33,792.7 3	185.57	34,436.22	34,112.96
2065/6 6	2310. 34	2453.78	283.918	80,609.4 3	306.69	94,058.76	87,074.81
Total	10132 .11	10735.45	0	220,997. 32	00000	242,401.6 2	231,337.37
Average	2026. 422	2147.09					

Year	X	Y	dx=X-21.724	dx2	dy=Y-1965.856	dy2	dx*dy
2061/62	45.26	1681.56	23.54	553.94	-284.296	80,824.22	(6,691.19)
2062/63	22.23	1702.4	0.51	0.26	-263.456	69,409.06	(133.31)
2063/64	28.1	2064.36	6.38	40.65	98.504	9,703.04	628.06
2064/65	66.66	1756.1	(88.38)	7,811.73	-209.756	43,997.58	18,539.07
2065/66	79.69	2624.86	57.97	3,360.06	659.004	434,286.27	38,199.83
Total	108.62	9829.28	0	11,766.64	0	638,220.17	50,542.46
Average	21.724	1965.856					

APPENDI X--16							
Year	X	y	dx=X-21.724	dx ²	dy=Y-946.718	dy ²	dx*dy
2061/6 2	45.2 6	926.39	23.536	553.94	-20.328	413.23	(478.44)
2062/6 3	22.2 3	931.17	0.506	0.26	-15.548	241.74	(7.87)
2063/6 4	28.1	936.56	6.376	40.65	-10.158	103.18	(64.77)
2064/6 5	66.6 6	920.19	-88.384	7,811.73	-26.528	703.73	2,344.65
2065/6 6	79.6 9	1019.28	57.966	3,360.06	72.562	5,265.24	4,206.13
Total	108. 62	4733.59	0	11,766.6 4	00000	6,727.13	5,999.71
Average	21.7 24	946.718					

		APPENDI X--16					
Year	X	y	dx=X- 21.724	dx2	dy=Y- 946.718	dy2	dx*dy
2061/6 2	45.2 6	926.39	23.536	553.94	-20.328	413.23	(478.44)
2062/6 3	22.2 3	931.17	0.506	0.26	-15.548	241.74	(7.87)
2063/6 4	28.1	936.56	6.376	40.65	-10.158	103.18	(64.77)
2064/6 5	- 66.6 6	920.19	-88.384	7,811.73	-26.528	703.73	2,344.65
2065/6 6	79.6 9	1019.28	57.966	3,360.06	72.562	5,265.24	4,206.13
Total	108. 62	4733.59	0	11,766.6 4	00000	6,727.13	5,999.71
Average	21.7 24	946.718					

Appendix 17							
Year	X	Y	dx=X- 21.724	dx ²	dy=Y- 1335.37	dy ²	dx*dy
2061/6 2	45.2 6	1,061.93	23.536	553.94	(273.44)	74,769.43	(6,435.68)
2062/6 3	22.2 3	1,128.27	0.506	0.26	(207.10)	42,890.41	(104.79)
2063/6 4	28.1	1,622.11	6.376	40.65	286.74	82,219.83	1,828.25
2064/6 5	66.6 6	1,215.37	-88.384	7,811.73	(120.00)	14,400.00	10,606.08
2065/6 6	79.6 9	1,649.19	57.966	3,360.06	313.82	98,482.99	18,190.89
Total	108. 62	6,676.87	0	11,766.6 4	0.02	312,762.6 6	24,084.75
Average	21.7 24	1,335.37					

APPENDI X -18							
year	X	Y	dx=X- 21.724	dx2	dy=Y- 331.818	dy2	dx*dy
2061/6 2	45.2 6	313.47	23.536	553.94	-18.348	336.65	(431.84)
2062/6 3	22.2 3	382.89	0.506	0.26	51.072	2,608.35	25.84
2063/6 4	28.1	460.74	6.376	40.65	128.922	16,620.88	822.01
2064/6 5	66.6 6	235.63	-88.384	7,811.73	-96.188	9,252.13	8,501.48
2065/6 6	79.6 9	266.36	57.966	3,360.06	-65.458	4,284.75	(3,794.34)
Total	108. 62	1659.09	0	11,766.6 4	00000	33,102.76	5,123.15
Average	21.7 24	331.818					

