

**AN INDEPTH STUDY OF WORKING CAPITAL POLICY AND
MANAGEMENT OF SELECTED TEXTILE MANUFACTURING
COMPANIES IN GUJARAT**

*A thesis submitted to
The Maharaja Sayajirao University of Baroda
For the Degree of
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In Accounting and Financial Management*

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MAY - 2013**

Dedicated to

My Guide

&

My Parents

CERTIFICATE

This is certified that the work incorporated in the thesis titled “**AN INDEPTH STUDY OF WORKING CAPITAL POLICY AND MANAGEMENT OF SELECTED TEXTILE MANUFACTURING COMPANIES IN GUJARAT**” submitted by Shri Rakesh Kumar Manjhi (S/O – Sadhu Prasad Manjhi) comprises the result of independent and original study carried out by the candidate under my supervision. The material that has been collected and used from the different sources has been duly acknowledged in the thesis.

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DECLARATION

I hereby, declare that this thesis entitled “**AN INDEPTH STUDY OF WORKING CAPITAL POLICY AND MANAGEMENT OF SELECTED TEXTILE MANUFACTURING COMPANIES IN GUJARAT**” submitted by me to the Department of Accounting and Financial Management, The Maharaja Sayajirao University of Baroda, Vadodara, for the award of degree of Doctor of Philosophy in Accounting and Financial Management is original and it has not been submitted earlier wholly or partially to any other University or Institution for the award of any degree or prizes or diploma.

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ABBREVIATIONS

ADEL	– Aarvee Denims and Exports Limited
ANOVA	– Analysis of Variance
CA	– Current Assets
CAG	– Comptroller and Auditor General
CCC	– Cash Conversion Cycle
CL	– Current Liabilities
CMIE	– Centre for Monitoring Indian Economy
CV	– Coefficient of Variation
DTR	– Debtors Turnover Ratio
GDP	– Gross Domestic Product
GSML	– Garden Silk Mills Limited
LTA	– Total Long Term Assets
Ltd.	– Limited
LTF	– Long Term Funds
MPBF	– Maximum Permissible Bank Finance
MTL	– Minaxi Textiles Limited
NA	– Not Available
PBMPL	– P B M Polytex Limited
r	– Correlation Coefficient
ROACE	– Return on Average Capital Employed
ROS	– Return on Assets
ROS	– Return on sales
SD	– Standard Deviation
SDML	– Shri Dinesh Mills Limited
SNSTL	– SNS Textiles Limited
STF	– Short Term Funds
STML	– The Surat Textile Mills Limited
TA	– Total Assets
TF	– Total Funds

CHAPTER – I

INTRODUCTION

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Chapter-I

Introduction

1.1 Historical Background of Textile Industry in India and Gujarat

India is well known for its textile manufacturing since very ancient times. The traditional textile industry of India was almost atrophied during the colonial regime. However, the modern textile industry sprouted in India in the early nineteenth century when the first textile manufacturing mill in the country was set up at Fort Gloster near Calcutta (now known as Kolkata) in 1818.¹ The cotton textile industry, even so, made its real beginning in Bombay, in 1850s. The first cotton textile mill of Bombay was established in 1854 by a Parsi cotton merchant, Cowasji Nanabhai Davar,² and then engaged in internal trade and overseas.

“The Indian Textiles Industry has an overwhelming presence in the economic life of the country. Apart from providing one of the basic necessities of life, the textiles industry also plays a pivotal role through its contribution to industrial output, employment generation, and the export earnings of the country. Currently, it contributes about 14 percent to industrial production, 4 percent to the GDP, and 17 percent to the country's export earnings. It provides direct employment to over 35 million people, which includes a substantial number of SC/ST, and women. The Textiles sector is the second largest provider of employment after agriculture. Thus, the growth and all round development of this industry has a direct bearing on the improvement of the economy of the nation.”³

Gujarat plays very important role in growth of Indian textiles. Precise profile of Gujarat given by CAG (Comptroller and Auditor General) – “Gujarat comprising about six per cent of India's geographical mass, is its seventh largest State. It is situated on the west coast of India, bounded by the Arabian Sea in the west, Rajasthan in the north, Madhya Pradesh in the east and Maharashtra in the south. The State also shares an international border with Pakistan at the north western fringe. It has a coast line of about 1600 kilometres, which is one third of India's mainland coastline. It is one of the most prosperous states of the country owing to its booming economy and industry. Gujarat State has shown a relatively high economic growth in the past decade as the Compound Annual Growth Rate (CAGR) of its Gross State Domestic Product (GSDP) for the period

¹ Dr. P. Chellamy and N.Sumathi,(2008), Indian Textile Industry, *Fibre to Faishion*, p.2

² Soonni Taraporevala (2001), Parsis - the Zoroastrians of India, *The-South-Asian*, p.5

³ Annual Report 2010-11, Ministry of textiles, *Government of India*, p. 3.

2001-02 to 2010-11 has been 17.16 per cent as compared to 14.68 per cent in Other General Category States (Andhra Pradesh, Bihar, Chhatisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal).”⁴

The first cotton mill in Gujarat was established by Ranchhodlal Chhotalal at Ahmedabad in 1861, Ranchhodlal Chhotalal (1823–1898) was a pioneer of the textile industry in Ahmedabad,⁵ which was subsequently to emerge as a rival centre to Bombay mill. The spread of the textile industry to Ahmedabad was largely due to the Gujarati trading class. One of the major factors behind the success of the textile industry in Gujarat is that the state has managed to preserve its old tradition and culture. “Part of an expansive material culture that is the product of local ingenuity, religious diversity and a long history of cross-cultural influences.”⁶ Some of India’s most precious handlooms originated here, from Ahmedabad’s velvets and brocades, Surat’s tanchoi and jari-work, to double ikat silk weaves from Salvi weavers or patola from Patan.

The textile industry in Gujarat involves quite a sizable chunk of the population. Brands like Arvind Mills, Ashima Group, Garden Silk Mills Limited, and Aarvee Denims belong to Gujarat. More than 90% of the polyester used in India is produced in Surat. The two major textile manufacturing cities in Gujarat are Ahmedabad and Surat. Both these cities together account for almost half of the total textiles produced in Gujarat, popularly termed as the textile cities of India, Gujarat has one of the most flourishing textile industries in the country. Also said to be the Denim Capital of India.⁷

Gujarat is one of the leading industrial states in India and textile industry, in particular, had contributed in a significant way to the industrialisation of the State. In fact, development of many industries like Foundry, Dyestuff, Chemicals, and Cotton farming is an exclusively dependent on textile sector. The State is well known for development of Hi-breed cotton, Spinning units, Ginning, Powerlooms, Composite mills, and Independent processing houses.

Textile Industry in organized sector has suffered from financial problems, labour problem etc. all over the country in the recent past. Gujarat was not an exception to this setback.

⁴ CAG Audit Report No.1 (State Finance), Year Ended 31st March 2011, p. 1.

⁵ Makrand Mehta (1991), Indian merchants and entrepreneurs in historical perspective. *Academic Foundation*. p. 171.

⁶ Eiluned Edwards (2011), Textiles and Dress of Gujarat, *Mapin Publishing*, Ahmedabad.

⁷ Swati Bharadwaj-Chand (7 Jan 2006), A'bad is world's denim capital, *The Times of India*, Ahmedabad.

However, growth is prominently observed in decentralised sectors e.g. Powerloom and Textile Processing, mainly in Surat and Ahmedabad. Overall economic growth of the state is very much dependent on this sector.

According to Vibrant Gujarat 2011, 24% to 28% of fixed investment, production value and employment of the SSI sector are from textiles alone. Further, 23% of GSDP (Gross State Domestic Product) contributed by textile sector in the State, Gujarat cultivates cotton in 16% of the cultivated land area of the state and Gujarat is the largest cotton producer in the country. Gujarat represents about 30% of woven fabric from organised sector and 25% of decentralised powerloom sector of the country. Large Fabric Process Houses are concentrated in Ahmedabad (250 approximately) and Surat (350 approximately) in the State. Surat is the largest Centre of Art Silk Fabric, producing over 40% of the Art Silk fabric produced in the country. The State accounts for 12% share of the total textile exports of the country. A large number of Garment Units and Garment Processing Units are developed in urban areas of the State.⁸

Recognizing the need, State Government has taken active step in developing Apparel Park, one at Ahmedabad and other at Surat under active support of Union Ministry of Textile. Jetpur, a Centre of Saree Printing, has been already marked out for setting up a Textile Park in near future.

Textile industry generally manufactures cotton-based fabrics in the state of Gujarat. The major reason of manufacturing cotton based fabric is easy availability of the basic raw material in the State, i.e. cotton. Similarly, many spinning units were established in the state, producing 100% cotton yarns. The State happened to be more conservative with cotton textile products mainly in organised sector. Independent processing units process synthetic blended and cotton fabrics. Clusters of processing units are located at Surat, Ahmedabad (Narol) and Jetpur. Though these units fall under decentralised sector, some of them operate on medium scale production capacity, having good capability of processing wide range of fabrics.⁹

In early 1990s, Gujarat saw a dramatic change in its textile industry scenario where quite a few textile mills started manufacturing denim. Companies like Arvind Mills, Ashima Textiles, Aarvee Denim etc. started manufacturing denim products. So many mills at a

⁸ Gujarat: The Textile Hub (2011), *Diplomatist Magazine*, p.15

⁹ Industrial Extension Bureau, Government of Gujarat, Accessed on June 25, 2011, http://www.gujexim.com/about_indexbtb.htm

time fetched a new name for Ahmedabad: "Denim City of India" whereas city of Surat became "Silk City of India".¹⁰

1.2 Rationale of the Present Study

Gujarat textile industry has a significant presence in the Gujarat economy as well as in the Indian economy. The information available from Vibrant Gujarat source (2011), Gujarat textile contributes 6% of the total industrial production in Gujarat. Gujarat state produces approximately 35% of total cotton in the country and it exports approximately 60% of total cotton production in the country, its denim production is 3rd largest in the world and largest in India (approximately 70%). Over 24% to 28% of fixed investment, production value and employment of Small Scale Industries are from textile sector.¹¹

However, textiles companies have a lot of variation in their financial structure. They have been struggling since long time due to price hike in factors of production like higher interest rate, rent, labour cost etc. Higher cost of production decreases the margin of profit of the textile companies. As working capital is employed in the production process and it acts like life line of any business, so company needs to manage it deftly.

Table 1.1, indicates number of closed textile mills in India due to financial difficulties (57.65%), lockout (3.57%), strike or labour trouble (11.22%) and other reason (27.56%). The most number of textile mills (226) closed in India just because of lack of financial management.

Table 1.1: Number of Closed Textile Mills in India

(As on 31.01.2009)

Reason of Closure	No. of Mills	Reason wise % of Total
Financial difficulties	226	57.65
Lockout	14	3.57
Other reason	108	27.56
Strike/Labour trouble	44	11.22
Total	392	100

Source: CMIE

¹⁰ Gujarat: The Textile Hub (2011), op.cit.

¹¹ Vibrant Gujarat Reports (2011), Government of Gujarat, *Industrial Extension Bureau*, p.10.

Mr. L.G. Kulkarni in his study on, “Finance for Textile – Today and Tomorrow” clearly stated that the crisis in cotton textile industry is mainly due to the problem of financing in addition to the other structural problem.¹²

Table 1.2 shows Selected State-wise Number of Closure of Cotton/Man-Made Fibre Textile Mills in India. As on 31/10/2011, in Tamil Nadu out of 35 mills, 33 mills closed due to financial problem. In Maharashtra, 22 textile mills closed due to financial problem. Number of mills closed in Uttar Pradesh is 12, one due to lockout and rest due to financial problem. Gujarat had 11 closed textile mills and each mill had the same reason of closure, i.e. financial problem.

Table 1.2: Selected State-wise Number of Closed Cotton/Man-Made Fibre Textile Mills in India

(As on 31.01.2012)

States/UTs	No. of Mills Closed	Reason for Closure		
		Labour Problem	Lock Out	Financial Problem
Andhra Pradesh	4	0	0	4
Bihar	2	0	0	2
Dadra and Nagar Haveli	1	0	0	1
Daman and Diu	1	0	0	1
Gujarat	11	0	0	11
Haryana	6	0	0	6
Himachal Pradesh	1	0	0	1
Karnataka	6	0	0	6
Kerala	2	0	0	2
Madhya Pradesh	6	0	0	6
Maharashtra	22	0	0	22
Odisha	1	0	0	1
Punjab	7	0	0	7
Rajasthan	3	0	0	3
Tamil Nadu	35	2	0	33
Uttar Pradesh	12	0	1	11
West Bengal	3	1	0	2
India	123	3	1	119

Source: CMIE

A reasonable rate of return on investment and a good reputation in the business world can be identified as two meaning criteria for viewing the efficiency of a business enterprise. In earning a reasonable return, the working capital plays a life-sustaining role in

¹² Kulkarni L.G. (1987), Finance for the Cotton Textile Industry – Today and tomorrow, *State Bank of India Monthly Review*, Vol. XXVI No. 2, February, p. 57.

business.¹³ It is therefore important on the part management to pay special attention to the planning and control of working capital, it may be regarded as the blood circulatory system of any business, its effective management can do much to ensure the success of a business, while its inefficient management can lead not to a decline in profits but also to an ultimate downfall of the concern. A better understanding of the importance of working capital policy and management can help in cost cuttings and maximizing financial return on the minimum capital employed.¹⁴ The rationale of the study is emphasized by the fact that the way of management of working capital determines the success or failure of the operation of a business. Surveys indicated the largest portion of a financial manager's time is devoted to day to day internal operation of the firm i.e. working capital management.¹⁵

A number of research studies have been carried out by many researchers on various industries highlighting the different aspect of working capital management. The studies undertaken by them in inventory management¹⁶, working capital management in Fertiliser Corporation of India and Gujarat State Fertiliser Corporation¹⁷, the quality of trade credit,¹⁸ financing working capital,¹⁹ working capital policy,²⁰ inflation and working capital,²¹ working capital management and availability of bank credit,²² trade credit and their significance,²³ cash planning and management²⁴ etc. Not a single doctoral dissertation regarding working capital management and its policy of Gujarat textile manufacturing industry has been undertaken in detail, however numbers of small studies have been carried out concerning working capital management.

¹³ Mishra R. K. (1975), Problems of Working Capital Management in India, *Somaiya Publication Private Limited*, New Delhi, p. 12.

¹⁴ John W. Park Colin and Gladson (1963), Working Capital, *The Macmillan Co.* New York, p.189.

¹⁵ Westan J. F. and Brigham E. F. (1962), Management Finance, *Holt Rine and Winston*, New York, p.123

¹⁶ Chadda R. S. (1964), Inventory Management in India, *Allied Publisher*, Mumbai.

¹⁷ Sinha K.P, Sinha A.K and Singh S.C (1988), Management of Working Capital in India. *Janki prakashan*, New Delhi, pp.1-33

¹⁸ Seiden Martin H. (1964), The Quality of Trade Credit, Occasional Paper 87, *National Bureau of Economic Research*.

¹⁹ Natrajan Sunder (1980), Working Capital Management and Finance, *Economic and Political Weekly*, Vol. XV, pp.25-31.

²⁰ Braj Kishor (1978), Working Capital Policy-A General Framework of Analysis, *Lok Udyog*, Vol. XI, No. 11, pp.9-16.

²¹ Zahir Ahmed (2002), Inflation and Working Capital Management, *Unpublished Thesis*, CH. Charan Singh University, Meerut, pp.42-52

²² Ambegoonkanar Nalini (1969), Working Capital Requirement and Availability of Bank Credit, *RBI Bulletin*, Vol. XXIII, pp.1535-1553.

²³ Raman Maitreyi (1976), Trade Credits-Their Significance in the Finance of Indian Companies, *RBI Bulletin*, Vol. XVII, No.7, pp. 240-265.

²⁴ Parmeshwaran N. (1978), Cash Management in Public Sector Undertaking, *Lok Udyog*, Vol. XII, No. 9, pp.15-18.

Moreover, it is believed that an indepth study on working capital management and its policy should be limited to specific industries located in homogenous territory. It is likely that working capital management and its policy of manufacturing and service companies would be different. Hence, only textile manufacturing companies have been selected as sample units.

The present study has been carried out in order to make an effort to understand relevance in working capital management and policy adequacy of textile industry as well as to find out the best optimum profitable policy of the firm under different combination of current assets investment approach and financing approach.

It could enable management to understand the intricate aspect of working capital management and its policy. It will be first of its kind, significant and valuable research on working capital policy and management of selected textile manufacturing companies in Gujarat. Thus, the proposed work will surely contribute to the field of working capital management of textile companies in particular and the Accounting and Financial Management in general.

1.3 Profile of Selected Textile Manufacturing Companies

For the purpose of an indepth study and analysis of various aspects of working capital policy and management ten textile manufacturing companies have been selected which are registered in Gujarat jurisdiction under Ministry of Corporate Affairs and engaged in manufacturing any kind of garment that comes under textile sector as public limited company. In addition to this, availability of data from 1999-2000 to 2010-2011 was also one of the influencing factor for selecting the textile companies. The profiles of textile manufacturing companies selected for the purpose of the present study are as follows –

1.3.1 Arvind Limited

The Lalbhai brothers (Kasturbhai, Narottambhai and Chimanbhai Lalbhai) incorporated Arvind Ltd. in the year 1931. It is the Flagship Company of the Lalbhai Group. Arvind N Lalbhai is the Chairman of the company. The registered office of the company is in Ahmedabad (Gujarat) and its manufacturing units are in Khatreji, Santeji (Mahesana) and Ahmedabad in Gujarat. Arvind Mills commenced with a share capital of Rs 2,525,000 with 52,560 ring spindles, 2552 doubling spindles and 1122 looms. The company has two main products viz. Fabrics and Garments. The fabrics division

manufactures Denim, Shirtings, Khakhis, Knitwear and Voiles in various shades, casts and finishes like Peach, Wrinkle Free etc. The Garments division is further divided into the Garment Exports Division with Shirts Division and Jeans Division and the Arvind Brands division. The Arvind Brands manages its own brands Flying Machine, Newport and Ruf & Tuf in Jeans and Excalibur in Shirts. And has licenses from reputed International brands like Arrow, Lee, Wrangler and Tommy Hilfiger for the Indian market. Arvind is a nominated supplier of fabrics to Nike Golf, Marks & Spencer, Arnold Palmer, Eddie Bauer, Calvin Klein and Columbia Sportswear. Precise details are given in table 1.3

Table 1.3: Details of Arvind Limited

Company Name	ARVIND LIMITED
Corporate Identity Number (CIN)	L17119GJ1931PLC000093
ROC Code	RoC-Ahmedabad
Registration Number	93
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	6,650,000,000.00
Paid up capital (in Rs.) as on 31st March 2011	2,544,000,000.00
Date of Incorporation	1-Jun-1931
Address	NARODA ROAD, AHMEDABAD, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.1.1 Financial Performance of Arvind Limited

Table 1.4 Summarised Financial Performance of Arvind Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	26140.00	26548.00	25558.00	27330.00	26010.00	23955.00	25440.00
Total capital employed (Rs. in Lakh)	296357.00	337332.00	332134.00	337626.00	322451.00	329058.00	360763.00

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
EBIT (Rs. in Lakh)	24721.00	27171.00	17797.00	16155.00	17517.00	20747.00	32939.00
Net profit / (Loss) (Rs. in Lakh)	13125.00	12716.00	11956.00	2790.00	(4882.00)	5200.00	13480.00
Percentage of return on capital employed	8.33	8.02	5.34	4.78	5.43	6.28	9.10
Turn-over (Rs. in Lakh)	167886.00	158869.00	184491.00	217081.00	229770.00	225409.00	260761.00
Working capital (Rs. in Lakh)	133034.00	164885.00	116977.00	112224.00	99656.00	103920.00	116756.00
Current Ratio (in times)	5.90	6.72	3.58	4.22	2.67	3.36	2.83
Return on Net Worth in %	10.24	8.30	8.62	1.90	(4.07)	3.66	7.51
Growth Rate in %	8.15	6.35	8.36	1.70	nil	3.60	7.51

Source: Calculated from annual reports of Arvind Limited.

The company raised its equity share capital on 15 December 2010 by Rs. 188500000. The table 1.4 shows that the performance of company was low in year 2007-08 and 2008-09. Return on capital employed was the lowest in 2007-08. Company's growth rate was nil in the year 2008-09. Its net profit was falling from 2004-05 to 2008-09, and then again increased to Rs.13480.00 lakh in 2010-11. Return on net worth was 7.51% in the year 2010-11, it shows better performance after 2008-09. Growth rate 7.51% in 2010-11 also reveals that company has recovered its growth rate after 2008-09. Current ratio was above the standard of 2:1 in spite of being in decreasing trend. Working capital of company increased from Rs. 99659.00 lakh in the year 2008-09 to Rs. 116756.00 lakh in the year 2010-11. Liquidity of the company was satisfactory.

1.3.2 Aarvee Denims and Exports Limited

Aarvee Denims and Exports Ltd (ADEL) is a leading global player in the textile industry. It is being backed by experienced promoters, the company is spreading its wings all over the world at a very fast pace. It was established in 1988 by Arora & VB

Group, which has been involved in textile trade for over 50 years, they are the forces behind this dynamic organization.

Earlier ADEL was known as Amtex India Private Limited, that was incorporated on 28th March 1988 and the commercial production of Denim fabric was started in 1989. The company was converted into a Public Limited company and the name was changed to Amtex India Limited in compliance with special resolution passed u/s 21,31,44 (2)(b) at the Companies Act, 1956 on 2.4.1992 and later, the company obtained a fresh certificate of incorporation, consequent to the change of name to Aarvee Denims & Exports Limited on 7.4.1994. Vinod P Arora is the Chairman & Managing Director of the company. ADEL is mainly Denim manufacturer. More details are given in table 1.5

Table 1.5: Details of Aarvee Denims and Exports Limited

Company Name	AARVEE DENIMS AND EXPORTS LTD
Corporate Identity Number (CIN)	L17110GJ1988PLC010504
ROC Code	RoC-Ahmedabad
Registration Number	10504
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	500,000,000.00
Paid up capital (in Rs.)	234,598,000.00
Date of Incorporation	28-Mar-1988
Address	RANIPUR VILLAGE, AHMEDABAD, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.2.1 Financial Performance of Aarvee Denims and Exports Limited

Table 1.6: Summarised Financial Performance of Aarvee Denims and Exports Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	1799.00	3831.50	3845.11	3845.11	3845.11	2345.98	2345.98
Total capital employed (Rs. in Lakh)	14222.92	22708.28	28012.13	38711.01	41064.98	42357.50	48410.86

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
EBIT (Rs. in Lakh)	4379.10	5553.45	4096.96	1805.83	1381.19	4523.24	6234.01
Net profit / (Loss) (Rs. in Lakh)	2680.19	3418.71	3043.74	503.36	246.96	2315.56	3343.88
Percentage of return on capital employed	30.79	24.46	14.63	4.66	3.36	10.68	12.88
Turn-over (Rs. in Lakh)	23681.02	27627.23	24783.17	24296.60	31956.42	37477.47	48751.98
Working capital (Rs. in Lakh)	2884.50	7255.69	(35.05)	6969.85	9257.54	11934.00	13749.54
Current Ratio (in times)	1.66	2.93	1.00	2.89	2.46	3.24	2.53
Return on Net Worth in %	40.28	23.03	16.78	2.85	1.52	14.12	16.83
Growth Rate in %	35.66	18.45	14.06	2.85	1.52	8.80	16.14

Source: Calculated from annual reports of Aarvee Denims and Exports Limited.

In order to increase the Dyeing and Weaving capacity from 21.60 lakh metres and 7.02 lakh metres respectively to 81.60 lac metres and 41.68 lakh metres respectively, the company came out with a Public issue in November 1992. Table 1.6 shows that total capital employed increased from Rs.14222.92 lakh in year 2004-05 to Rs. 48410.86 lakh in year 2010-11. Company's sales were increased from Rs. 23681.02 lakh in 2004-05 to Rs. 48751.98 lakh in 2010-11.

Return on capital employed in 2010-11 was 12.88%. The company had negative working capital in the year 2006-07, which indicated its poor liquidity position in 2006-07. However, working capital of ADEL was increased from Rs. 2884.50 lakh in 2004-05 to Rs. 13749.54 lakh in 2010-11. Current ratio was not satisfactory in the year 2006-07 but they improved their liquidity position thereafter. Return on net worth was 40.28% in 2004-05 which declined to 16.83% in year 2010-11. The growth rate was decreased from 35.66% in 2004-05 to 1.52% in 2008-09, and again recovered 16.14% in 2010-11. The overall performance of the company was satisfactory.

1.3.3 Ashima Limited

An Ashima Group Company, was incorporated as a private company as Ashima Syntex Ltd [ASL] in 1982 in Gujarat and was subsequently converted into a public company on August 26, 1988. The company's name was changed to Ashima Ltd on 3 December 1999. Equity shares of the company were listed on the Bombay Stock Exchange (BSE) on 28 October 1993 and on the National Stock Exchange (NSE) on 10 May 1995. The registered office of the company is situated at Texcellence Complex, Khokhara-Mehmedabad in Ahmedabad, Gujarat.

The company is part of the Ashima group and was initially promoted Sanjay S Lalbhai and Chintan N Parikh. Later Sanjay S Lalbhai disinvested his stake in the company in favour of Chintan N Parikh and his family. Chintan N Parikh is the Chairman and Managing Director of the company. The other key executives of the company are Atul Kumar Singh, Hiren Mahadevia and Shrikant Pareek. The group is into textile manufacturing business since 1982. Ashima Ltd. is engaged in manufacturing of textile products like denims, ready to stitch fabric, grey fabric, shirting and garment products. The products are marketed under the brand name 'ICON' for fabrics and 'Frank Jefferson' for garments²⁵. Group Ashima is one of India's leading 100% cotton fabric manufacturers. It offers the most inclusive range of cotton textile products, encompassing each and every need of the garment industry. More details are given in table 1.7.

Table 1.7: Details of Ashima Limited

Company Name	ASHIMA LIMITED
Corporate Identity Number (CIN)	L99999GJ1982PLC005253
ROC Code	RoC-Ahmedabad
Registration Number	5253
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	1,000,000,000.00
Paid up capital (in Rs.)	538,687,870.00
Date of Incorporation	17-Jun-1982
Address	KHOKHARA MEHMEDABAD, AHMEDABAD, GUJARAT

²⁵ CMIE PROWESS, Ashima Limited, Company Background.

Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.3.1 Financial Performance of Ashima Limited

Table 1.8: Summarised Financial Performance of Ashima Limited

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	5386.88	5386.88	5386.88	5386.88	5386.88	5386.88
Total capital employed (Rs. in Lakh)	43661.31	40959.58	32499.76	30108.54	25608.07	25126.99
EBIT (Rs. in Lakh)	2476.35	(642.95)	(1716.44)	(1491.58)	(885.83)	(276.20)
Net profit / (Loss) (Rs. in Lakh)	(6525.21)	(2159.12)	(4310.49)	(2823.30)	(4327.28)	(524.24)
Percentage of return on capital employed	5.67	(1.57)	(5.28)	(4.95)	(3.46)	(1.10)
Turn-over (Rs. in Lakh)	44900.89	23613.73	22320.88	20819.97	22476.97	25935.72
Working capital (Rs. in Lakh)	9424.89	8900.44	3788.72	4008.65	4262.80	5260.00
Current Ratio (in times)	3.34	3.41	1.99	2.22	2.45	2.78
Return on Net Worth in %	(30.67)	(10.15)	(16.07)	(10.52)	(16.19)	(2.00)
Growth Rate in %	nil	nil	nil	nil	nil	nil

Source: Calculated from annual reports of Ashima Limited.

Table 1.8 shows that the performance of the company is quite low. It showed that turnover of the company was desirable but net profit was all in negative due to high interest cost and manufacturing cost. Working capital of the company was more than Rs. 3700.00 lakh all the years. Current ratio was above the standard norm 2:1 in every year except 2007-08. Though, it can be concluded that the liquidity position of the company was satisfactory. Company's growth rate is nil in every year due to negative net profit.

1.3.4 Garden Silk Mills Limited

Garden Silk Mills Limited was incorporated on 23 July 1979 as Vareli Weaves Pvt. Ltd. On 13 April 1987, through a scheme of amalgamation, Garden Silk Mills Pvt. Ltd., Prabhat Silk & Cotton Mills Co. Ltd., Garden Print Centre Pvt. Ltd. and Special Weaves Ltd. all got merged with Vareli Weaves Pvt. Ltd. The amalgamated company was renamed as Garden Silk Mills Pvt. Ltd. and a fresh certificate of incorporation

was issued by the Registrar of Companies (ROC) on 4 June 1987. The company was converted into a public limited company and the word 'private' was deleted from the company's name on 17 July 1987.

The company is promoted by Praful A Shah. He is the Chairman and Managing Director of the company. His son Alok P Shah is the Joint Managing Director and his other son Suhail P Shah is the Executive Director. His wife Shilpa Shah and his brother's son Sanjay Shah are also Executive Directors in the company. S J Bhesania is also a Executive Director.

The firm is engaged in manufacturing of synthetic textiles. The synthetic yarn range includes polyester fibre yarn, polyester yarn & partially oriented yarn and polyester filament yarn, draw warped yarn, draw twisted yarn, draw wound and draw texturised yarn. Under Fabrics, it manufactures fine filament and micro filament polyester fabrics like georgette, chiffon, jacquards - both dyed and printed mainly used for polyester sarees and dress material.²⁶ With current annual sales exceeding Rs. 36500 million, the company has been profitable company consistently year after year. More details are given in table 1.9

Table 1.9: Details of Garden Silk Mills Limited

Company Name	GARDEN SILK MILLS LIMITED
Corporate Identity Number (CIN)	L17111GJ1979PLC003463
ROC Code	RoC-Ahmedabad
Registration Number	3463
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	600,000,000.00
Paid up capital (in Rs.)	382,905,600.00
Date of Incorporation	23-Jul-1979
Address	SAHARA GATE, SURAT, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

²⁶ CMIE PROWESS, Garden Silk Mills Limited, Company Background.

1.3.4.1 Financial Performance of Garden Silk Mills Limited

Table 1.10: Summarised Financial Performance of Garden Silk Mills Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	3829.06	3829.06	3829.06	3829.06	3829.06	3829.06	3829.06
Total capital employed (Rs. in Lakh)	95998.49	103194.22	111999.38	128525.66	144254.23	163572.97	199491.75
EBIT (Rs. in Lakh)	2601.92	7207.82	10158.48	12575.95	11697.46	16625.86	20997.02
Net profit / (Loss) (Rs. in Lakh)	878.96	2210.45	2325.97	4000.37	4958.47	6320.47	8786.56
Percentage of return on capital employed	2.71	6.98	9.07	9.78	8.11	10.16	10.53
Turn-over (Rs. in Lakh)	75429.66	107923.89	151341.92	182338.89	138475.35	266233.59	366741.39
Working capital (Rs. in Lakh)	16669.71	20902.05	26842.62	41873.27	40212.82	41650.37	60948.89
Current Ratio (in times)	3.81	4.06	4.82	4.97	3.54	2.26	2.45
Return on Net Worth in %	2.69	6.46	6.48	10.20	11.40	12.89	15.41
Growth Rate in %	0.69	4.54	4.61	8.49	9.85	11.25	14.01

Source: Calculated from annual reports of Garden Silk Mills Limited.

Table 1.10 shows that growth rate and return on net worth of Garden Silk Mills Limited were in increasing trend. Growth rate went up from 0.69% in 2004-08 to 14.01% in 2010-11. Similarly, return on net worth increased almost six times in 2010-11, compared to 2.69% in 2004-05. Net profit of the company was Rs. 878.96 lakh in 2004-05, which increased to Rs. 8786.56 lakh in 2010-11. It has increased ten times in 2010-11. Percentage of return on capital employed was moving upward in every year, except 2008-09. Liquidity position of company was also satisfactory. The current ratio was above the standard norm 2:1 in every selected year. Working capital of GSML was Rs. 16669.71 lakh in 2004-05 which increased to Rs. 60948.89 lakh in 2010-11 i.e. by 265.63%. Overall performance of company is also satisfactory. An improvement of the company is admirable.

1.3.5 Minaxi Textiles Limited

Minaxi Textiles Limited was established in 1995 by Bharatbhai Prabhudas Patel and Kanubhai Somabhai Patel. Plant of the company situated at Chhatral in Gujarat. Company's registered office is at Ahmadabad. It manufactures apparel and textile goods, especially Grey Cloth (Suiting). The Company has split its face value from Rs.10 to Re.1, its chairperson is Kanubhai S. Patel and managing director of the company is Bharatbhai P. Patel. The company is listed on Mumbai Stock Exchange of India. More details are given in table 1.11

Table 1.11: Details of Minaxi Textiles Limited

Company Name	MINAXI TEXTILES LTD
Corporate Identity Number (CIN)	L17119GJ1995PLC025007
ROC Code	RoC-Ahmedabad
Registration Number	25007
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	70,000,000.00
Paid up capital (in Rs.)	49,416,000.00
Date of Incorporation	14-Mar-1995
Address	CHHATRAL, AHMEDABAD, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.5.1 Financial Performance of Minaxi Textiles Limited

Table 1.12: Summarised Financial Performance of Minaxi Textile Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	556.03	556.03	556.03	556.03	556.03	556.03	556.03
Total capital employed (Rs. in Lakh)	576.73	654.58	728.95	769.83	1030.62	1418.30	1829.14
EBIT (Rs. in Lakh)	54.57	78.39	83.56	(5.11)	56.65	124.39	162.14
Net profit / (Loss) (Rs. in Lakh)	28.82	49.66	32.55	(18.33)	29.77	55.05	69.99
Percentage of return on capital employed	9.46	11.98	11.46	(0.66)	5.50	8.77	8.86
Turn-over (Rs. in Lakh)	158.90	157.82	429.46	572.84	825.91	1166.95	1675.56

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Working capital (Rs. in Lakh)	330.27	313.45	390.56	471.30	615.23	748.67	856.84
Current Ratio (in times)	4.00	3.37	3.36	7.02	5.60	4.12	2.31
Return on Net Worth in %	5.17	8.75	5.81	(3.39)	5.21	8.79	10.05
Growth Rate in %	0.12	1.80	(1.41)	(3.39)	5.21	8.79	10.05

Source: Calculated from annual reports of Minaxi Textiles Limited.

Table 1.12 shows that total capital employed increased from Rs. 576.73 lakh in year 2004-05 to Rs. 1829.14 lakh in year 2010-11. It means company has deployed more capital year after year. Percentage of return on capital employed was the lowest in the year 2008-09, i.e. (0.66). However company progressed in 2009-10 and 2010-11 with 8.77% and 8.86% respectively. Company's current ratio was very high in the year 2008-09, and maintained its current ratio above the standard norm 2:1 in every year. Working capital of MTL was increased from Rs. 330.27 lakh in 2004-05 to Rs. 856.84 lakh in 2010-11. Growth rate in 2010-11 was 10.05, which exhibited the fair progress rate of the company.

1.3.6 Nakoda Limited

Nakoda Ltd. was incorporated on 13 August 1984 as Nakoda Textile Industries Pvt. Ltd. The company was converted into a deemed public limited company on 17 August 1989. On 16 September 1991, the company was converted into public limited company. The name was changed to Nakoda Ltd. on 20th February 2010. The company's registered address is at Mandvi in Surat, Gujarat.

It was listed on the BSE on 22 December 1992 and on the NSE on 23rd September 1996. The company is promoted by B G Jain. He is the Chairman & Managing Director of the company. D B Jain is the Joint Managing Director. Nakoda Ltd. is a yarn trader and manufactures partially oriented yarn (POY), fully drawn yarn (FDY) and polyester filament yarn (PFY). The company started operations with trading of yarn and put up its own texturising plant in February 1986 to process polyester yarn like texturising & twisting. More details are given in table 1.13

Table 1.13: Details of Nakoda Limited

Company Name	NAKODA LIMITED
Corporate Identity Number (CIN)	L17111GJ1984PLC045995

ROC Code	RoC-Ahmedabad
Registration Number	45995
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	1,500,000,000.00
Paid up capital (in Rs.)	992,000,000.00
Date of Incorporation	13-Aug-1984
Address	KARANJ TAL MNDVI, SURAT, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.6.1 Financial Performance of Nakoda Limited

Table 1.14: Summarised Financial Performance of Nakoda Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	1100.00	1500.00	1500.00	1578.00	1660.00	6320.00	9920.00
Total capital employed (Rs. in Lakh)	7459.62	9663.72	16469.59	21159.65	39137.56	79391.82	96984.93
EBIT (Rs. in Lakh)	812.28	1169.49	1926.62	3231.36	4750.35	6605.42	9743.73
Net profit / (Loss) (Rs. in Lakh)	386.08	614.25	930.21	1343.99	2271.59	3315.31	4942.04
Percentage of return on capital employed	10.89	12.10	11.70	15.27	12.14	8.32	10.05
Turn-over (Rs. in Lakh)	18918.09	35503.69	58004.26	80141.18	102930.73	133889.22	213869.71
Working capital (Rs. in Lakh)	4371.22	6750.66	10331.14	13934.91	21741.58	35561.50	46409.42
Current Ratio (in times)	2.84	1.97	1.91	1.84	1.98	2.14	1.74
Return on Net Worth in %	10.10	14.12	13.23	18.08	23.83	12.49	12.70
Growth Rate in %	10.10	14.12	11.98	16.52	22.41	11.11	11.22

Source: Calculated from annual reports of Nakoda Limited.

Table 1.14 shows that the paid up capital of Nakoda limited increased from Rs. 1100.00 lakh to Rs. 9920.00 lakh in the year 2010-11. Total capital employed was in increasing trend. Average percentage of return on capital employed was 11.50%. Sales of the company were Rs. 213869.71 lakh in the year 2010-11. Current ratio of the company was lower than standard norm i.e. 2:1 in the year 2005-06, 2006-07, 2007-08, 2008-09 and 2010-11. Working capital of Nakoda Limited was Rs. 4371.22 lakh in 2004-05 which increased by 961.70% in 2010-11. Return on net worth and growth rate of the company in the year 2010-11 were 12.70% and 11.22% respectively. Overall financial performance of the company was satisfactory.

1.3.7 P B M Polytex Limited

PBM Polytex Limited was incorporated on 24th November 1919 in the name of ‘The Petlad Bulakhidas Mills Co. Ltd. In 1978, the Management of the company was taken over by the House of Patodias and the name of the company was changed to P B M Polytex Ltd. The company has installed indigenous as well as imported machinery sourced from world class manufactures. Its main function is spinning and cotton blended. Krishan Kumar Patodia is Chairman or Chair Person of the company. More details are given in table 1.15.

Table 1.15: Details of P B M Polytex Limited

Company Name	P B M POLYTEX LIMITED
Corporate Identity Number (CIN)	L17110GJ1919PLC000495
ROC Code	RoC-Ahmedabad
Registration Number	495
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	100,000,000.00
Paid up capital (in Rs.)	81,296,080.00
Date of Incorporation	24-Nov-1919
Address	PETLAD, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.7.1 Financial Performance of P B M Polytex Limited

Table 1.16: Summarised Financial Performance of P B M Polytex Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	812.96	812.96	812.96	812.96	812.96	812.96	812.96
Total capital employed (Rs. in Lakh)	9856.89	10851.36	10959.95	11268.59	10790.48	11920.69	13350.89
EBIT (Rs. in Lakh)	660.24	917.86	1078.60	303.55	221.80	766.45	2696.59
Net profit / (Loss) (Rs. in Lakh)	193.50	385.83	645.25	(75.98)	8.75	382.10	1546.05
Percentage of return on capital employed	6.70	8.46	9.84	2.69	2.06	6.43	20.20
Turn-over (Rs. in Lakh)	10468.04	11436.23	12652.28	12738.31	13704.83	14932.71	19124.50
Working capital (Rs. in Lakh)	3072.85	4516.44	3848.33	3566.95	3604.21	5313.67	6678.88
Current Ratio (in times)	6.31	5.80	4.52	5.22	5.98	5.55	5.87
Return on Net Worth in %	4.83	8.97	13.27	(1.61)	0.19	7.75	24.23
Growth Rate in %	3.44	7.03	11.32	nil	0.19	3.89	22.75

Source: Calculated from annual reports of P B M Polytex Limited.

Table 1.16 reveals that total capital employed in 2010-11 was Rs. 13350.89 lakh and percentage of return on capital employed was the highest i.e. 20.20% in the same year. Company had incurred loss in the year 2007-08 but in the year 2010-11, it earned the net profit of Rs. 1546.05 lakh. Turnover of the company increased to Rs. 19124.50 lakh in the year 2010-11. Working capital of the company was Rs. 6678.88 lakh in the year 2010-11. Current ratio was an average of 5.61 times, which indicated a very sound liquidity position of the company. Return on net worth and growth rate of the company were 24.23% and 22.75% respectively in the year 2010-11.

1.3.8 Shri Dinesh Mills Limited

The Company was incorporated on 1st July, 1935, at Baroda. The Company was formerly known as Maharani Woollen Mills manufacturing woollen fabrics at Baroda. The Company had got the certificate of commencement of business on 17th February, 1936. The company manufactures woollen/worsted goods, felt cloth etc. Upendrabhai

M Patel is its Chairman Emeritus and Bharatbhai U Patel is the Chairman and Managing director of the company. More details are given in table 1.17

Table 1.17: Details of Shri Dinesh Mills Limited

Company Name	SHRI DINESH MILLS LIMITED
Corporate Identity Number (CIN)	L17110GJ1935PLC000494
ROC Code	RoC-Ahmedabad
Registration Number	494
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	100,000,000.00
Paid up capital (in Rs.)	52,775,000.00
Date of Incorporation	1-Jul-1935
Address	PADRA ROAD, VADODARA, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.8.1 Financial Performance of Shri Dinesh Mills Limited

Table 1.18: Summarised Financial Performance of Shri Dinesh Mills Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	527.75	527.75	527.75	527.75	527.75	527.75	527.75
Total capital employed (Rs. in Lakh)	7025.79	8118.58	9881.89	10248.54	11524.48	13191.91	13073.98
EBIT (Rs. in Lakh)	648.67	1448.82	1638.23	1210.48	1437.76	1360.29	1409.90
Net profit / (Loss) (Rs. in Lakh)	353.71	860.54	958.51	692.10	861.10	733.69	778.65
Percentage of return on capital employed	9.23	17.85	16.58	11.81	12.48	10.31	10.78
Turn-over (Rs. in Lakh)	5937.75	6873.81	7555.92	7905.21	8187.89	8339.05	8689.44
Working capital (Rs. in Lakh)	2255.37	3279.72	3390.72	3721.07	3142.71	3427.36	3858.78
Current Ratio (in times)	1.99	2.16	2.50	2.55	2.27	2.45	2.56
Return on Net Worth in %	7.57	15.87	14.27	9.53	10.74	8.56	8.44

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Growth Rate in %	6.02	13.65	12.43	7.83	9.20	6.41	7.11

Source: Calculated from annual reports of Shri Dinesh Mills Limited.

Table 1.18 exhibits that the total capital employed was in increasing trend till 2009-10, but it slightly fell down in 2010-11. The average percentage of return on capital employed of last seven years was 12.72%. Net profit for the year 2010-11 was Rs. 778.65 lakh. Working capital of the company rose from Rs. 2255.37 lakh in the year 2004-05 to Rs. 3858.78 lakh in the year 2010-11. Current ratio of the company was above standard norm 2:1 throughout the period except in the year 2004-05. Company's overall liquidity position was satisfactory. Growth rate of the company in the year 2010-11 was 7.11% and return on net worth was also reasonable.

1.3.9 Surat Textile Mills Limited

The Surat Textile Mills Limited was originally incorporated on 29th November, 1945 under the Companies Act, 1913. The management of the company vests in the board comprising professionals and persons with extensive technical, commercial and administrative experience. The Board is headed by Shri M.R. Momaya who is the Chairman and Managing Director of the Company. It has 14,288 Ring Spindles. The Company produces a very high quality Ring Spun Yarn for domestic market in all the product range viz. 100% Polyester, 100% Viscose, 100% Modal, Polyester Viscose Blend and Polyester Modal Blend. Surat Textile Mills Limited is involved in the manufacturing and selling of polyester filament yarn, spun yarn etc. More details are given in table 1.19.

Table 1.19: Details of Surat Textile Mills Limited

Company Name	SURAT TEXTILE MILLS LIMITED
Corporate Identity Number (CIN)	L17119GJ1945PLC000214
ROC Code	RoC-Ahmedabad
Registration Number	214
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	750,000,000.00
Paid up capital (in Rs.)	222,064,440.00
Date of Incorporation	29-Nov-1945
Address	SAHARA GATE, SURAT, GUJARAT

Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.9.1 Financial Performance of Surat Textile Mills Limited

Table 1.20: Summarised Financial Performance of Surat Textile Mills Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	6704.07	6704.21	6704.21	2220.64	2220.64	2220.64	2220.64
Total capital employed (Rs. in Lakh)	5274.53	5011.76	5198.94	5028.08	5648.95	6069.64	7018.12
EBIT (Rs. in Lakh)	(71.31)	191.91	134.83	156.03	710.54	1266.41	1548.11
Net profit / (Loss) (Rs. in Lakh)	(120.26)	40.37	(47.08)	30.04	620.87	720.69	837.65
Percentage of return on capital employed	(1.35)	3.83	2.59	3.10	12.58	20.86	22.06
Turn-over (Rs. in Lakh)	11318.77	22132.22	10659.31	9547.39	17521.73	26023.92	29917.63
Working capital (Rs. in Lakh)	1542.27	1479.03	1847.74	1856.93	1845.69	1845.10	3355.33
Current Ratio (in times)	1.48	1.89	2.06	1.96	2.98	1.51	2.49
Return on Net Worth in %	(1.07)	0.36	(0.42)	1.35	25.35	22.80	16.90
Growth Rate in %	nil	0.36	nil	1.35	25.35	22.80	16.90

Source: Calculated from annual reports of Surat Textile Mills Limited.

Table 1.20 shows that the financial performance of Surat Textile Mills Limited has been improved during last four years. It earned net profit of Rs. 837.65 lakh in the year 2010-11. Percentage of return on capital employed was in increasing trend from 2006-07 to 2010-11. Turnover of the company increased by Rs 8502.19 lakh in 2009-10 as compared to 2008-09. Working capital of the company in the year 2010-11 was Rs. 3355.33 lakh. Average current ratio of the company of last seven year was 2.05 times, which was above the set standard 2:1. Company's growth rate and return on net worth for the year 2010-11 were same i.e. 16.90%.

1.3.10 SNS Textile Limited

SNS Textiles Ltd., formerly known as Suzlon Fibres Limited, is an Indian-based firm engaged in the manufacture of polyester yarn, textiles and tapestries. It is a publicly quoted company incorporated in March 1992 in Gujarat to manufacture micro filament yarn and twisted polyester filament yarn. The yarn products manufactured by the company have wide use in dress materials and sarees. Mansukh K. Patel is the Executive Director of the company. The company has its registered head office located in Gujarat, India. It has three manufacturing units, one in Karanj and two units located in Ankleshwar. More details are given in table 1.21

Table 1.21: Details of SNS Textile Limited

Company Name	SNS TEXTILES LIMITED
Corporate Identity Number (CIN)	L17119GJ1992PLC017218
ROC Code	RoC-Ahmedabad
Registration Number	17218
Company Category	Company Limited by Shares
Company Subcategory	Indian Non Government Company
Class of Company	Public
Authorised Capital (in Rs.)	250,000,000.00
Paid up capital (in Rs.)	148,467,810.00
Date of Incorporation	4-Mar-1992
Address	ANKLESHWAR, BHARUCH, GUJARAT
Whether listed or not	Listed
Company Status (for eFiling)	Active

Source: Ministry of Corporate Affairs

1.3.10.1 Financial Performance of SNS Textiles Limited

Table 1.22: Summarised Financial Performance of SNS textiles Limited

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paid up capital (Rs. in Lakh)	1479.41	1484.68	1484.68	1484.68	1484.68	1484.68	1484.68
Total capital employed (Rs. in Lakh)	1896.99	942.64	875.94	857.63	825.58	797.37	750.32
EBIT (Rs. in Lakh)	(110.05)	(14.56)	(9.88)	(12.53)	0.05	9.85	(43.81)
Net profit / (Loss)	(136.61)	(15.05)	(10.19)	(12.75)	(0.34)	9.81	(43.92)

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
(Rs. in Lakh)							
Percentage of return on capital employed	(5.80)	(1.54)	(1.13)	(1.46)	0.01	1.24	(5.84)
Turn-over (Rs. in Lakh)	1443.07	642.91	99.53	201.39	185.91	123.59	54.22
Working capital (Rs. in Lakh)	130.54	235.85	251.31	280.77	305.53	304.69	306.70
Current Ratio (in times)	1.25	3.15	4.50	4.39	5.57	5.58	4.83
Return on Net Worth in %	(5.62)	(0.66)	(0.45)	(0.56)	(0.01)	0.43	(1.92)
Growth Rate in %	nil	nil	nil	nil	nil	0.43	nil

Source: Calculated from annual reports of SNS Textiles Limited.

Table 1.22 exhibits that the share capital of SNS Textiles Limited had not been raised since 2004-05. Percentage of return on capital employed was positive only in the year 2008-09 and 2009-10. The company's turnover decreased from Rs. 1443.07 lakh in the year 2004-05 to Rs. 54.22 lakh in the year 2010-11. However company's working capital increased from Rs. 130.54 lakh in 2004-05 to Rs. 306.70 lakh in 2010-11 and current ratio of the SNSTL was 1.25 times in the year 2004-05 which increased to 4.83 times in 2010-11. It had very high current ratio in last few years because of low current liabilities and retaining its current assets of previous years, reason of low current liabilities was a sudden fall in purchase and production that further led to very low sales. Return on net worth was in negative in all years except in year 2009-10. It marked growth rate of 0.43% only in the year 2009-10.

1.4 Research Methodology

This research basically focuses both the descriptive and explanatory case study. First, researchers review literature in order to search for what conceptual policy and management of working capital approaches are available, and second they search and describe what internal and external working capital approaches firms use.²⁷ Finally, they compare and explain how their conceptual expectations and empirical findings differ and

²⁷ Sebhatleab Tewolde (2002), Working Capital Management-The Case of Government-owned, Transitional, and Privatised Manufacturing Firms in Eritrea, *Unpublished Thesis*, University of Groningen, Netherlands, p.13

forward possible recommendations on how the firms can use policy and management of working capital approaches in search of creating value.

The present study is of the management of working capital and its policy. The approach adopted is basically analytical and descriptive in nature. On the basis of the objectives of this study and review, it is decided to use the ratio analysis technique to analyze and interpret regarding working capital policy and management of selected manufacturing textile companies in the state of Gujarat. Statistical and Mathematical tools like average, standard deviation, coefficient of variation, coefficient of correlation and hypotheses testing have also been applied.

1.5 Objectives of the Study

The present study proposed to examine the policy prevailing in the management of working capital in Textile Company in the state of Gujarat and to examine management performance in this regard and also to look at possible remedial measures on the basis of which funds tied up in working capital could be used efficiently and effectively.

The specific objectives of the study are as follows:

- 1) To study relevance in working capital management and policy adequacy of textile industry.
- 2) To find profitable policy of the firm under different combination of current assets investment approach and financing approach.
- 3) To evaluate the risk associated with liquidity and profitability in working capital policy of textile industries in Gujarat state.
- 4) To analyse the management of inventory, receivable and cash.
- 5) To suggest a better management of working capital and its policy in textile manufacturing industry.

1.6 Limitations of the Study

The present study limits itself to the study of working capital policy and management in selected textile manufacturing companies in Gujarat state. In present study the analysis is mainly based on secondary data given in the annual audited profit and loss accounts, cash flows, balance sheets, directors and auditors reports of textile companies. Next limitation is in respect of the size of the sample.

In the present study, around 20 textiles manufacturing companies having their registered office as public limited company in the state of Gujarat on or before 1999-2000. Only ten textile manufacturing companies are selected on the basis of convenient sampling method. The rest of companies are not included in the sample either due to non availability of data or their size being small.

Another limitation of the study is that the selected companies do not follow a uniform accounting year. The accounting year followed by some companies is financial year, some of them follow calendar year while some follow June ending accounting year. So, in order to facilitate the analysis, the data has been arranged in uniform manner with twelve months ending on 31st March of the account year. Apart from this, availability of data from 1999-2000 to 2010-2011 has also been considered while selecting the textile companies. The present study is carried out with these limitations.

1.7 Organization of Chapters of the Study

The preliminary page shall contain the contents, acknowledgement, list of tables, maps graphs, charts etc. This study is presented in the following six chapters based on original text.

CHAPTER – I: INTRODUCTION

It contains the historical background of textile industry in India and Gujarat, rationale of the present study, profile of the selected textile manufacturing companies, research methodology, objectives of the study, limitations of the study and organization of the chapter of the study.

CHAPTER – 2: LITERATURE REVIEW

One of the most important early steps in a research is the conducting of the literature review. A literature review is designed to identify related research, to set the current research within a conceptual and theoretical context. It contains indepth study of prior research on the subject.

CHAPTER – 3: ANALYSIS OF THE WORKING CAPITAL POLICY AND MANAGEMENT (Conceptual)

It includes introduction related to working capital, concept of working capital, importance of working capital, rationale of working capital management and policy, structure of

working capital, financing of working capital, determinants of working capital requirements and control of working capital and its components.

CHAPTER – 4: RESEARCH METHODOLOGY

It consists of research methodology of sample of the study, constitution of the sample, the time frame of the study i.e. from 1999-2000 to 2010-2011, sources of data and data collection, methods of analysis and statistical tools used in the present study and specific ratio analysis of working capital regarding inventory, receivables, cash and working capital policy and management.

CHAPTER – 5: ANALYSIS AND INTERPRETATION OF DATA

This chapter is divided into five sections in order to have better analysis and interpretation of financial data of textile manufacturing companies of Gujarat state. These sections are as follows:

Section – 1: Working Capital Policy

Section – 2: Inventory Management

Section – 3: Receivable Management

Section – 4: Cash Management

Section – 5: Working Capital Management

CHAPTER – 6: CONCLUSION AND SUGGESTIONS

This chapter gives the summary of the entire findings and highlights the significant conclusions. It concludes with major findings, conclusions and suggestions as to working capital policy and management of textile companies in Gujarat.

CHAPTER – II

LITERATURE REVIEW

Synopsis

- 2.1 Introduction
- 2.2 Theoretical and Empirical Review for Working Capital Management and Policy
- 2.3 Recommendation of Working Capital Committee
- 2.4 Approach Chosen for the Study

Chapter – II

Literature Review

2.1 Introduction

A review work has been done in order to understand the intricate aspects of present study. A good researcher has to keep up to date with the current knowledge about what and how much work has been carried out in the field related to the current study and where more exploration is required. Such a review has not only provided a sound rationale for the current study but also helped in defining boundaries for this present study. A proper review of related literature helps, to a great extent, in defining problem, developing a research design and determining the size and scope of further study.

2.2 Theoretical and Empirical Review for Working Capital Management and Policy

Different researchers have analysed and interpreted working capital management and its policy in different ways. The review of these analyses is of great importance for formulating an approach that can be employed in the context of the study of selected textile manufacturing companies in the state of Gujarat. The following literature review has been done for the present study:

Janaki Ramudu P.¹ conducted a study on working capital management of Indian commercial vehicles industries. The purpose of the study was to assess the efficiency of working capital management in selected vehicles companies. The period of the study was ten years from 1994-95 to 2003-2004. The data was collected through journal and other database like prowess, EBSCO business premier, blackwel synergy and emerald. The research methodology was mainly based on ratio analysis. The structure of working capital had been analysed through the construction of tables indicating the percentage composition of individual current assets and current liabilities during the years from 1995 to 2004. The study revealed that the all current assets across the industry, inventories formed highest percentage followed by trade receivables and; loan and advances whereas cash and bank balances formed very negligible part. The study also revealed that the variation between current assets turnover ratio and working capital turnover ratio was

¹ Janaki Ramudu P. (2011), A Study on Working Capital Management of Indian Commercial Vehicles Industry, *Finance India*, Vol. XXV, No. 2, June, pp.543-550.

very high across the industry which in turn implied the sample companies achieved higher sales with less working capital.

Dr. Vivek Sharma² made an important study on Liquidity, Risk and Profitability Analysis: A Case Study of Maruti India Limited. The objectives of the study were to examine the association between liquidity and risk; and to test the correlation between profitability and risk. The study was concerned with the ten years data of Maruti Suzuki India Ltd. for a period of (2001 - 2010). The data was of secondary nature and was obtained from the published annual reports of Maruti Suzuki India Ltd. The collected data had been analyzed through various liquidity and profitability ratios and drawing out the risk factor. Further, t test had been applied to test the hypothesis. He reported that the Trade off between risk and profitability could be made by calculating the risk factor. He used the following formula:

$$R_k = \{(E_j + L_j) - A_j\} / C_j$$

Where, R_k = Risk factor, E_j = Equity + Retained Earnings, L_j = Long term Loans,

A_j = Fixed Assets, C_j = Current Assets

Further, the liquidity position of the company was fluctuating but it was acceptable. The risk factor calculated was a needle of the working capital management and the policy adopted. The company was timely changing its policies for better results but at higher risk. The profitability was increasing at good pace showing the efficiency of the company. Thus, it could be concluded that the company was earning good profit with moderate liquidity and at higher risk.

Agrawal³ in his study of “Working capital policy-Developing an Analytical Model” put in effort to frame a model for the evaluating working capital policy of a firm and to match the model developed with the firm’s working capital policy index. The policy will be aggressive or conservative, both have advantages and disadvantages. Thus, a trade off is requires between the two. The policy is also influenced by current assets structure. This model is framed as under:

$$CA/TA \text{ (FA)} \times LTA/CA \times CA/CL \text{ OR } LTF/TF$$

² Dr. Vivek Sharma (2011), Liquidity, Risk and Profitability Analysis : A Case Study of Maruti India Limited, *Search And Research Journal*, Vol. II, No. 2, Bhopal, pp. 191-193.

³ Agrawal H. L. (1984), Working Capital Policy – Developing An Analytical Model, *Management Accountant*, Vol. 19, No. 2, February, pp. 68-69.

Where, CA = Current Assets, TA = Total Assets, LTA = Long Term Assets, CL = Current Liabilities, LTF = Long Term Funds, TF = Total Funds

Risk Return Tangle – The cost trade off. The working capital policy index is considered in term of overall liquidity measurers. The divisions are cost of liquidity implies holding of high level of current assets and relatively more focused on long term funds than short term funds. Another division is holding low level of current assets and relatively more focused on short term sources of financing. He concluded that the profitability and working capital policy has positive correlation. The reduction in cost can be attained if aggressive policy is followed and negative correlation if conservative policy is followed and moderate if firm adopts moderate policy.

Dr. N. Pasupathi⁴ carried out a study on Operational Adequacy of Working Capital Management of Selected Indian Automobile Industry - A Bivariate Discriminant Analysis. The study in general aimed at making a study of the management performance relating to working capital in the selected units of the automobile industry in India and also at evaluating Working Capital Management policies of selected units during the period from 1992-93 to 2006-07. It covered seventeen major units in the automobile industry. The financial statements used were mainly the Profit and Loss accounts and Balance Sheets published in the annual reports of the respective units. The study used a variety of financial ratios to accomplish the objectives. Necessary data on working capital and other related variables were collected for the period 1992-93 to 2006-07. He reported that the comparison of good and poor risk units as per the current ratio and as per the discriminant score showed that the misclassification of units was noticed in all the years. It could be concluded that in the years 1992-93 to 2006-07 Ashok Leyland Ltd in commercial vehicles sector, Mahindra and Mahindra Ltd in passenger cars and multiutility vehicles sector and Bajaj Auto Ltd in two and three wheelers sector units maintained adequate size of the working capital throughout the period under study.

Aruna Saini and Ram Dhan Saini⁵ conducted an important study on analysis of liquidity management and trade off between liquidity, risk and profitability. It was an empirical

⁴ Dr. N. Pasupathi (Feb 2012), Operational Adequacy of Working Capital Management of Selected Indian Automobile Industry - A Bivariate Discriminant Analysis, *International Journal of Research in Social Sciences*, Vol. I, Issue 1, U.S.A, pp. 139-151.

⁵ Aruna Saini and Ram Dhan Saini (2010), Analysis of Liquidity Management and Trade –off between Liquidity, Risk and Profitability: An Empirical Study, *Journal of Accounting and Finance*, Vol. 24, No. 2, pp. 29-41

study. The period of the study was from 1999-00 to 2008-09. Their purposes of the study were to measure and evaluate the efficiency of liquidity management by using ratio analysis and to assess the trade off between profitability and risk of Infosys Technologies Limited. The study used the secondary data which had been taken from the published annual reports of Infosys Technologies Limited. The research was mainly based on ratio analysis and statistical techniques like measures of central tendency, measures of dispersion, Spearman's rank correlation etc. The study of the liquidity with the help of net working capital evidenced a sound position of company. The current assets were on average 68.59% of the total assets indicated much investment in current assets. The average collection period indicated a liberal credit policy. The degree of association between liquidity and profitability of the company was negative, therefore, excessive liquidity which might lead to lower profitability, they suggested investment in current assets should be controlled through skillful liquidity management.

Bardia S. C and Sweta Kastiya⁶ made an effort to carry out an important study on Liquidity Management and Control: A Comparative study of Torrent Pharma and Cipla. It covered a period of nine years (2000-01 to 2008-09). The objectives of the study were to work out the overall quantum of liquidity maintained by Torrent Pharma and Cipla Limited and to compare the liquidity position of both the companies. The study was broadly devoted to the application of different quantitative techniques in the analysis of liquidity position of both companies.

The technique of ratio analysis was also used to examine the different aspects of liquidity. They reported that the current ratios of Cipla and Torrent Pharma were quite close to the ideal ratio of 2:1. However, it was slightly higher in Cipla than Torrent. They also observed that the performance of Cipla was more stable and consistent than that of Torrent, as was evident from the statistical techniques of CV (coefficient of variance). The study concluded by suggesting that Cipla should review and strengthen its credit and collection policies so as to reduce the blockage of funds with debtors and also to minimize the chances of bad debt losses. Torrent, on other hand, should make efforts to maintain stability in its short-term financial strength.

⁶ Bardia S. C and Sweta Kastiya (2010), Liquidity Management and Control: A Comparative study of Torrent Pharma and Cipla, *The IUP Journal of Accounting Research & Audit Practices*, Vol. IX, No. 3, pp.81-90.

Azhagaiah and Gejalakshmi⁷, in their study made an attempt to examine the working capital management efficiency of the Indian Textile Companies during 1995-1996 to 2005-2006. He measured the efficiency of working capital management with the help of index values, performances utilizations and efficiency indexes. Using industry norm as target, efficiency level of the individual firms, the study also tested the speed of achieving that target level of efficiency by an individual firm during the period of study. Findings of the study indicated that Indian Textile Industry as a whole performed remarkably well during the period. The liquidity was strong, performance and utilization of current assets were satisfactory and Indian Textile Companies had adopted an impressive working capital policy.

Palani A. and Yasodha P.⁸ conducted an important study on Working Capital Management in Loyal Textile Mills Limited, Chennai. The period of the study was five years from 2006-07 to 2010-11. The objective of the study was to evaluate the extent to which working capital has been effectively utilized by Loyal Textile Mills Ltd. The data for the research was collected from secondary sources i.e. annual reports of the company. The research methodology was mainly based on ratio analysis techniques and statistical tools with Z-Score analysis. The Z-score of the company indicated that the company was credit worthy in the first 3 years. They reported that the current ratio of the company was fluctuating. However, the mean value was 4.70 which implied that the company maintained an ideal ratio every year. That indicated the company had sufficient liquidity. The Company maintained good working capital turnover ratio which revealed efficient utilization of working capital in generating sales. Both Pearson's correlation coefficient and Spearman's rank correlation implied that there was very significant positive relationship between capital employed and current ratio.

Solanki Ashvinkumar H.⁹ carried out a research on Working Capital Management in Selected Small Scale Industries of Gujarat State. The objectives of the study were to study the comparison of working capital position and policies adopted by the selected small scale industries of Gujarat state and to study the sources of working capital used by

⁷ Azhagaiah, R. and Gejalakshmi, S. (2007), Working – Capital Management – Efficiency, *Udyog Pragan*, Vol.31, No.3, pp. 15-20.

⁸ Palani A. and Yasodha P. (2012), A Study on Working Capital Management in Loyal Textile Mills Limited, Chennai, *South Asian Academic Research Journals*, Vol. 2, Issue 5, May, pp. 156-173.

⁹ Solanki Ashvinkumar H (2009), Working Capital Management in Selected Small Scale Industries of Gujarat State, *Unpublished Thesis*, Saurashtra University, Rajkot, pp. 85-98.

the selected units. The period of his study was five years from 2002-03 to 2006-07. The research methodology was mainly based on ratio analysis and analysis of variances. The selected small scale industries subscribed to the gross working capital concept and considered current liabilities as a source of working finance. As far as the profitability of the current asset was concerned in selected small scale industries were found to have improved their performance during the period of study. The percentage of inventory to working capital had been found in excess of normal limit of 75%. Suggested that inventory management should be substantially improved and excess inventories should be slashed down. Size of working finance was found to be positively correlated to the size of the industries and its expansion plans.

Amalendu Bhunia et al¹⁰ conducted a study on Financial Performance Analysis-A Case Study. The purpose study was to identify the financial strengths and weaknesses of the Indian public sector pharmaceutical enterprises by properly establishing relationships between the items of the balance sheet and profit and loss account. The study had been undertaken for the period of twelve years from 1997-98 to 2008-09 and the necessary data obtained from CMIE database. The study covered two public sector drug and pharmaceutical enterprises listed on BSE. In order to analyze financial performance in terms of liquidity, solvency, profitability and financial efficiency, various accounting ratios had been used. Various statistical measures had been used i.e., A.M., S.D., C.V., linear multiple regression analysis and test of hypothesis t-test. They reported that the financial stability of both the selected companies had showed a downward trend and consequently the financial stability of selected pharmaceutical companies had been decreasing at an intense rate.

Hong Yuh Ching et.al¹¹ made an important study on relationship between Working Capital Management and Profitability in Brazilian Listed Companies. The objectives of that study were twofold: a) to investigate if there was any difference between corporate profitability and working capital management in two separate groups of companies: working capital intensive and fixed capital intensive; b) to identify the variables that most affect profitability. Two samples were obtained consisting of 16 Brazilian listed

¹⁰Amalendu Bhunia, Sri Somnath Mukhuti and Sri Gautam Roy (2011), Financial Performance Analysis-A Case Study, *Current Research Journal of Social Sciences*, 3 (3), May, pp.269-275.

¹¹ Hong Yuh Ching, MSc. Ayrton Novazzi and Fábio Gerab (2011), relationship between Working Capital Management and Profitability in Brazilian Listed Companies, *Journal of Global Business and Econpnics*, Vol. 3, No. 1, July, pp.75-85.

companies in each group for the period 2005-2009. Multiple linear regression identified that, as far as ROS and ROA were concerned, to manage working capital properly was equally relevant for the two groups of companies. However the impact of debt ratio and days of working capital were relevant in the company profitability in the fixed capital group as opposed to the working capital group. Lastly they concluded that the working capital management was equally relevant for both groups. The impact of the variables on return on sales (ROS) and return on assets (ROA) were statistically significant – 21,7% and 18,4% in the working capital group versus 12,5% and 16,5% in the fixed capital group - but zero for return on equity. That indicated, as far as ROS and ROA were concerned, to manage working capital properly was equally important for companies that use working capital intensively as well as for those that use fixed capital intensively. However the way how working capital was managed in those two groups was different.

Mustafa Afeef¹² carried out a valuable study on Analyzing the Impact of Working Capital Management on the Profitability of SME's in Pakistan. His study aimed to determine the potential effect of working capital management on the profit performance of Small and Medium sized firms in Pakistan. To investigate, effect of working capital management was determined on profitability of a sample of 40 Pakistani small and medium enterprises (SME's) listed in Karachi Stock Exchange for a period of six years from 2003 to 2008 which led to a total of 240 firm-year observations. The data for research purpose was acquired from an official and legitimate document titled, "Balance Sheet Analysis of Joint Stock Companies Listed on the Karachi Stock Exchange (2003-2008)", formally published by the Statistics and DWH Department of the State Bank of Pakistan (SBP).the study was mainly based on ratio analysis, statistical tools and regression model. His major findings were as follows:

- I. The Correlation matrix of the pooled data of sample firms revealed strong negative relationships of the 'Inventory Conversion Period' and the 'Receivable Collection Period' with the 'Operating Profit to Sales' of small firms. However, no significant associations were found between the profitability measures and the Payable Deferral Period, Cash Conversion Cycle & Current Ratio.

¹² Mustafa Afeef (2011), Analyzing the Impact of Working Capital Management on the Profitability of SME's in Pakistan, *International Journal of Business and Social Science*, Vol. 2, No. 22, December, pp.173-180.

- II. Studying the results of the Regression Analysis 'A', no significant associations were detected between the Return on Assets and the indicators of working capital management & liquidity.
- III. In the Regression Analysis 'B', however, a weak but significant relationship was discovered between the Inventory Conversion Period and the Operating Profit to Sales and a highly significant negative association was found between the Receivable Collection Period and the Operating Profit to Sales. The Payable Deferral Period and Cash Conversion Cycle had no significant connection with the profitability variable.

Mauleshkumar N. Joshi¹³ conducted an important study on components of current assets for selected industries in India. The purpose of the study was to evaluate the policies followed by different industries for the various components of current assets. The sample was selected for large companies as defined by RBI, having paid up capital Rs. 1 crore and above. The period of the study was ten years from 1998 to 2008. The data for the research obtained from PROWESS Database, maintained by the Centre for Monitoring Indian Economy (CMIE). The research methodology was mainly based on ratio analysis techniques and one way analysis of variance (ANOVA). He reported that the time period of cash conversion cycle declined significantly over a period for the industries of India. It indicated that the improvement in managing working capital. However, liquidity ratios were not satisfactory. On examining variances between the industries, it was observed that for twenty ratios out of total twenty nine ratios, significant variances were observed.

An important study conducted by Zahir Ahmad¹⁴ on Inflation Accounting Approach to the Working Capital Management, a case study of Shree Bhawani Paper Mills (SBPM) Limited, Allahabad. The purpose of study was to analyse the impact of price level changes on working capital and its components. The period of the study was nine years from 1990-91 to 1998-99. The study was mainly based on analysis and interpretation of published account of the paper manufacturing units in the country in general and of SBPM in particular. Comparative financial analysis, particularly the ratio analysis, cash

¹³Mauleshkumar N. Joshi (2011), A Study of Components of Current Assets for Selected Industries of India, *Unpublished Thesis*, The M.S.University of Baroda, Vadodara.

¹⁴ Zahir Ahmad (2002), Inflation Accounting Approach to the Working Capital Management, a case study of Shree Bhawani Paper Mills (SBPM) Limited, Allahabad, *Unpublished Thesis*, CH. Charan Singh University, Meerut.

flow analysis and trend analysis had been made in his study. His main findings were as follows:

- IV. SBPM was maintaining more inventories in comparison to selected units which would affect the profitability of SBPM.
- V. Size of receivable was more in SBPM than in selected units and debtor management was not encouraging.
- VI. Average percent of cash to current assets in SBPM was 4.33 and in selected units it was 7.60 percent. The share of cash in net working capital in SBPM was lesser than selected units.
- VII. The analysis of turnover of working finance revealed that the average of turnover of working finance in SBPM was 6.45 whereas in selected units it was 4.75. It was clear that the pace of transmutation of working finance in SBPM was better than in selected units.

Lastly he suggested the problem of changing prices would stay more or less permanently, hence, serious efforts should be made to evolve a widely acceptable system of accounting that could take care of inflation and deflation both.

Cohen and Pringle¹⁵ in their study highlighted the extension of Capital Asset Pricing Model (CAPM) for working capital management decisions. They strived to interrelate long-term investment and financing decisions and working capital management decisions through CAPM. They focused that an active working capital management policy based on CAPM could be put in use to keep the firm's shares in a given risk class. By risk, he meant unsystematic risk, the only risk deemed relevant by CAPM. Owing to the chunky nature for long-term financial decisions, the firm is continually subject to shifts in the risk of its equity.

The liquid nature of working capital, on the other hand, can be used effectively so as to set-back or moderate such fluctuations. They suggested that a policy using CAPM could be adopted for the management of marketable securities portfolio such that the appropriate risk level at any point in time was that which would maintain the risk of the company's common stock at a constant level.

¹⁵ R.A. Cohen and J.J. Pringle (1973), "Steps Towards as Integration of Corporate Financial Theory", 1973 in K.V. Smith, Readings on the Management of Working Capital, *West Publishing Company*, U.S.A.

Dr. D. Chandra Bose and Dr. K. C. Sankaranarayan¹⁶ made an important study on the working capital and inventory of an undertaking. The objective of the study was to find out the effect of inventory on both profitability and liquidity of an industrial unit. The main findings of the study were, adequate working capital was required for an efficient and smooth production, fix the optimum level of working capital required to determine the stage of current assets where total cost is minimum, according to study, finance manager was supposed to control working capital position at the optimum level by maximizing the profitability without harming the liquidity of the business, out of various current assets inventory constituted an average 90 percent of working capital and the length of operating cycle was not found satisfactory.

Praveen Kumar Jain¹⁷ conducted a study among seven papers companies in India to analyze the basic components of working capital. The study revealed that the current ratio in public sector undertakings during the period of study was found to be high erratic while the same in private sector undertakings registered continuous decrease. As far as the inventory was concerned, the study disclosed that it was highly unplanned in public sector undertaking units when compared to private sector units the study contributed much in terms of realizing the importance of effective management of working capital through its components.

Vijaykumar and Venkatachalam¹⁸ made an important study on the demand for working capital in private sector sugar industries of Tamil Nadu. The study was conducted in order to probe the requirement for cash, inventories, receivables, gross working capital and net working capital. Private sector sugar industries were selected on the basis of which were registered in the Tamil Nadu jurisdiction and availability of data. Models of economic were used to describe the demand for working capital and its various components. The study revealed empirically whether transactions relating to working capital including cash and inventories direct proportionate or not to change in the volume of sales. They found that the transactions for cash proportionately higher than the changes in the volume of the sales. Sales elasticity was more than unity indicating the diseconomies of scale with

¹⁶ Dr. D. Chandra Bose and Dr. K. C. Sankaranarayan (1997), Working Capital and Inventory, *The Management Accountant*, December, pp.942-944.

¹⁷ Jain, R.K (1988), Working Capital Management of State Enterprises in India. *National Publishing House, Jaipur*, pp.56-78.

¹⁸ Vijaykumar and Venkatachalam (1996), Demand for Working Capital in Private Sector Sugar Industries of Tamil Nadu-An Empirical Analysis, *The management Accountant*, Vol. X, No. 2, June, pp. 379-384.

respect to investment of working capital and its components, the sales elasticity of cash and inventories were more than unity showed that fluctuation in cash and inventories levels depended significantly on fluctuation in their financing carrying costs, the capital cost on receivables, gross working capital and net working capital showed that the sign of interest rate of co-efficient was not only negative but also statistically significant in all these cases except receivables, etc. were also their important findings. They suggested that the demand for working capital and its components was a function of sales and its holding cost.

Ghosh¹⁹ in his study, reviewed that the four different industries: (i) Working Capital Management in Textile Industry (ii) Working Capital Management in Cement Industry, (iii) Working Capital Management in National Fertilizer Limited and (iv) Working capital management in Pharmaceutical industry; it included the following objectives such as to determine source and size of working capital with a survey made in 98 small scale textile firms of Punjab. The study concluded that in addition to the own capital, bank loans is the most prominent source of working capital among most of the selected units.

N.M.Khandelwal²⁰ carried on half-complete empirical research initiated by late N.M.Agarwal, among 40 small-scale industries in Jodhpur industrial estate. The study attempted to probe into working capital management process and practices among the selected units between the years 1975-76 and 1979-80. The study revealed that the sample firms held more investments in inventories than required and management of receivable was found to be highly disorderly. It was found that bills receivable constituted as much as 50 percent of total current assets. Highlighting the sickness in Jodhpur Industrial Estate, the study attributed the main reason to inefficient management of working capital. Based on findings the study suggested that the entrepreneurs needed to be educated about the basic concepts and efficient way of working capital management.

M. Subramanya Sarma and Thiruvengala Chary²¹ conducted an important study on working capital management in Vazir Sultan Tobacco & Company Limited. The objective of the study was to understand the trends in current assets investing and financing policy

¹⁹ Dr.Arindam Ghosh, (2007), Working Capital Management Practices in some Selected Industries in India, *The Management Accountant*, January, pp. 60 –67.

²⁰ Khandelwal N.M. (1985), Working Capital Management in SSIs, *Ashish Publication House*, New Delhi, p.5.

²¹ M. Subramanya Sarma and Thiruvengala Chary (1999), Working Capital Management in VST-An Appraisal, *Finance India*, Vol. XIII, No. 1, March, pp. 71-79.

of working capital management with the help of selected accounting ratios in the sample company. The period of study was from 1989 to 1996. The methodology of the study was based on interpretation of the annual reports of the company. There was not proportionate increase in current assets investment in relation to sale resulting a rapid decline in working capital turnover ratio, there was no consistent policy of working capital management, during last two years of the study the quick ratio was much higher than generally accepted norms that was due to the sudden decline of inventory and rapid increase in current assets, credit policy was highly volatile with increasing risk of bad debts, etc. were their main findings of the study. They also suggested that the company needed to improve its management of cash and credit policy in order to have adequate profitability.

Mukhopadhyay²² in his study made an effort to study the effectiveness and adequacy of working capital and short-term solvency in an engineering company for the period of ten years from 1993-94 to 2002-03. The study suggested the working capital management should not be treated as an isolated management function but it was the necessary part of overall corporate management functions and impact of corporate management policy and strategy affects working capital management practice of the firm. It was, therefore, necessary to interpret and analyze cause-effect relationship of every function of the management to assess its impact on the working capital management.

Sidharth G. Das²³ carried out a study on working capital turnover in pharmaceutical companies in India. He covered a period of ten years from 1981 to 1990. The objective of the study was to ascertain the uses of working capital with relation to sales. He selected fifteen large pharmaceuticals public limited company. The data of sample companies was collected from Bombay Stock Exchange Official Directory. The methodology adopted was mainly based on evaluating of working capital with the help of ratio analysis. His main two findings were as follows:

- i. Most of the companies had maintained the size of working capital sufficient to the requirements of production cycle.

²² Dr. Mukhopadhyay, D (2004), Working Capital Management in Heavy Engineering Firms a case Study, *The Management Accountant*, April, pp.317-323.

²³ Sidharth G. Das (1994), Working Capital Turnover in Pharmacheutical companies, *The Management Accountant*, March 1994, pp. 151-153.

- ii. The overall working capital turnover ratio of all the firms was more than the accepted norms of 5:1. It revealed the efficient use of working capital by the pharmaceutical companies.

Santanu Ghosh and Santi Gopal Maji²⁴ in their study measured that the efficiency of working capital management practice and ability to improve their efficiency up to the industrial average in 20 large cement companies operating in India. The period of the study was the ten years from 1992-93 to 2001-02. They reported that the Indian cement industry did not perform remarkably well during this period. Some of the sample firms had successfully improved their efficiency during these years; the existence of a very high degree of inconsistency in this matter clearly points out the requirement of adopting effective working capital management policies by these firms and the forces for inefficiency should be identified and removed.

Sagan²⁵ in his study disclosed mainly the role and function of the manager who is directly interested in the management of cash that is generated during the transactions of business. He emphasized that more vehemence was laid on the money manager's job. He concluded that the preparation and analysis of a cashflow schedule was a basic factor to attain a sound programme of money management. Sagan also found out that the level of operational cash needs depends on the level of sales. His Study stated that the level of working capital is a function of sales.

Walker²⁶ study toward a theory of working capital was betterment upon the Sagan (1955) study. His main disceptation was that it was possible to develop a theory of working capital. In this connection, he formulated the following propositions which imply a risk return trade off of working capital. A) If working capital is varied to sales, amount of risk that a concern assumes is also varied and opportunity for gain or loss is increased. B) Capital should be invested in each component of working capital as long as the equity-network position of the concern increases. C) The type of capital used to finance working capital affects the amount of risk that a concern assumes; and, D) The greater the disparity between the maturities of a

²⁴ Dr.Santanu Kr.Ghosh and Santi Gopal Maji, (2004), Working Capital Management Efficiency : A study on the Indian Cement Industry, *The Management Accountant*, May, pp. 363-372.

²⁵ John Sagan (1955), Toward a Theory of Working Capital Management, *The Journal of Finance*, May, pp. 121-129.

²⁶ Walker E. W. (1964), Toward a Theory of Working Capital, *The Engineering Economist*, Winter, pp. 21-35.

company's short term debt instruments and its flow of internally generated funds, the greater the risk and vice versa.

He revealed that changes in working capital in certain industries cause the rate of return on investment to respond more favourably than in others. It highlighted a kind of negative relation that exists between the level of working capital and the rate of return. Lastly, he went beyond by indicating that the working capital level is also varied directly with attitude toward risk of management.

Sinha et.al²⁷ conducted a study on analysis of working capital management in Fertiliser Corporation of India and Gujarat State Fertiliser Corporation. The analysis revealed that a huge portion of funds was tied up as working capital especially in inventories and receivables. The study revealed that the sample companies failed to manage working capital efficiently by the usage of latest techniques and hence the funds were locked up at various levels during the course of business operations. The study recommended for necessary need for restructuring working capital management practices failing which the firms would get affected.

A study conducted by R. Sivaram Prasad²⁸ on working capital management in paper industry to analyse and interpret the working capital management. The study covered the period of ten years 1983-84 to 1992-93. The data was collected from CMIE, Kothari Industrial Directory and other journals. Classification and tabulation of data had been done as per the requirement of the study. Ratio analysis techniques and statistical tools were applied to check the validity trends. He found the efficiency of the working capital clearly revealed under utilisation and the rate of return on current assets was negative or insignificant for many years during the period of the study, the results of correlation analysis indicated a close relationship between profitability and working capital efficiency, paper mills revealed a poor planning of cash balances during the period under study, collection of debts, availability of working funds and uncertain cash flows were some of the major working capital problems encountered; and the debts servicing capacity was also found to be poor and the firms were not able to service their debt

²⁷ Sinha K.P, Sinha A.K and Singh S.C (1988), Management of Working Capital in India. *Janki prakashan*, New Delhi, pp.1-33

²⁸ R. Sivaram Prasad (2000), Working Capital Management in Paper Industry, *Finance India*, Vol. XIV, No. 2, June, pp. 577-580.

properly, consequently resulting in cash shortage problem. Lastly, he suggested that there was an urgent need for better management of working capital for paper mills.

Kesseven Padachi²⁹ made an important study on Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms. The purposes of the study were to analyse the trend in working capital needs of firms and to examine the causes for any significant differences between the industries. The empirical study was based on a sample of 58 small manufacturing companies. The data had been collected from the financial statements of the sample firms having a legal entity and had filed their annual return to the Registrar of Companies. The sample was drawn from the directory of Small Medium Industrial Development Organisation (SMIDO), a database for registered manufacturing firms operating in diverse activities and for which data was available for a 6 years' period, covering the accounting period 1997-98 to 2002-03. He reported that the working capital needs of an organization changed over time and the small firms should ensure a good synchronization of its assets and liabilities.

Jani, Virendra C.³⁰ conducted an important research on Working Capital Management of Fertilizer Industry of Gujarat in order to find out liquidity management of fertilizer units as well the problems in liquidity management of fertilizer units. The study was based on secondary data taken from published annual reports of the sample units for the period from 1996-97 to 2004-05, various reports of fertilizes association of India and relevant publications were taken into consideration.

Most of the work was based on books, periodicals news papers and various government reports were taken into consideration. His study was mainly based on ratio analysis and statistical techniques like index number, analysis of variance, measurement of centre tendency etc, he reported that the combined industrial average of net working capital turnover ratio during the course period was worked out at 4.11 and combined industrial average current ratio during the research period was 2.29 that was a favorable ratio because the standard level of current ratio is 2:1. Finally he concluded that the liquidity

²⁹ Kesseven Padachi (2006), Trends in Working Capital Management and its Impact on Firms Performance: An Analysis of Mauritian Small Manufacturing Firms, *International Review of Business Research Papers*, Vol. 2, No. 2, pp. 45-58.

³⁰ Jani, Virendra C (2007), Working Capital Management of Fertilizer Industry of Gujarat, *Unpublished Thesis*, Saurashtra University, Rajkot, pp. 340-351.

management of fertilizer units were satisfactory, however he suggested some units to increase their current assets and to decrease the creditors. They should also give importance to cash purchase.

Amit K. Mallick and Debasis Sur³¹ carried out an important study on working capital management. The objective of the study was to examine the operational efficiency in Hindustan Lever Limited. The study covered the period of ten years from 1987 to 1996. The data of the sample company was collected from Bombay Stock Exchange Official Directory. Ratio analysis techniques and statistical tools were applied to measure liquidity of the company.

They found that the current ratio and quick ratio of a sample company was very low as compared to the ideal norms which revealed that industry was not maintaining adequate amount of liquidity to meet the current obligations, industry turnover ratio indicated that there was a substantial improvement in the efficiency of inventory management of the company and debtors turnover ratio confirmed that the performance of credit management of company as a whole was satisfactory, a short term fund had played a dominant role in funding the working capital; and the profitability of the company was deeply influenced by efficient management of its inventory as well as debtors.

Sudarsana Reddy et.al³² they evaluated the performance of the debtors' management of the paper industry in Andhra Pradesh. For complying this, the analysis of trends in sales and debtors, debtors' size, turnover, collection period and aging of receivables had been carried out. The forgoing analysis reveals that the sample mills adopted liberal credit policy, which had a favourable effect on sales with the exception of Sirpur.

The size of trade debtors as a percentage of current assets had shown declining trend. But the collection period of debtors slowly increased in all the mills except in Sirpur. The increasing debtors' collection period was an indication of slackness in collection efforts of the mills. Lastly they suggested to reduce the collection period, the collection and follow up efforts of trade debtors should be rationalized and the slackness should altogether be removed.

³¹Amit K. Mallick and Debasis Sur (1999), Working Capital Management: A Case Study of Hindustan Lever Limited, *Finance India*, Vol. XIII, No. 3, September, pp. 176-191.

³²Sudarsana Reddy G., Sivarami Reddy C. and Mohan Reddy P. (2004), Debtors' management: A case study of Andhara Pradesh paper industry, *The Management Accountant*.

Rais Abramd and Ali Ghufra³³ in their analytical study highlighted the impact of working capital on profitability in eight Marketing Cooperative Societies for a period of three years from 1997-98 to 1999-2000. He also examined the components, structure, and financing of working capital of eight Marketing Cooperative Societies. The study concluded that 6 societies for their investment in working capital following aggressive approach, more dependencies on short term funds for their financing of working capital, the liquidity position of all the societies was not satisfactory except one and there was negative impact on working components.

Van Horne³⁴ evaluated the level of a firm's liquid assets and the maturity composition of its debt in order to highlight the respective trade off between risk and profitability separately. His study focused on the fact that the lower the level of liquid assets the greater risk of not being able to meet short term obligations. The risk of technical insolvency can be reduced by maintaining a high proportion of liquid assets. Moreover, this strategy would affect the return on investment. Hence, the decision relating a liquid asset balance is a matter of risk return trade off. Mainly, the longer the maturity schedule of debt, the debt financing of the firm would be the less risky. His study added to it by including that the relationship also exists between the maturity schedule and the cost of debt. The longer the maturity schedule, the more costly is probably to be the financing and vice versa.

Roshan Patel³⁵ conducted a study on financial appraisal of selected steel companies in India. The purpose of the study was to analysis the profitability of steel industries in India. He also analysed the liquidity, short term solvency and the efficiency of working capital management of the steel industry in India. He covered the period of ten years starting from 1985-86 to 1994-95. The data of sample industry was collected from Bombay Stock Exchange Directory. The methodology adopted was based on ratio analysis. The major findings of his study were as follows:

- I. The current ratio and quick ratio were below the standard norms and liquidity was not satisfactory.

³³Dr. Rais Abmad and Dr. Ali Ghufra (2005), Analytical Study of Working Capital Management of Marketing Cooperative Societies, *Management & Account Research*, pp. 35-51.

³⁴Van Horne J. C. (1969), A Risk Analysis of a Firm's Working Capital Position, *The Engineering Economist*, Winter, pp. 71-88.

³⁵Roshan Patel, Financial Appraisal of Selected Steel Companies in India, from *Unpublished Thesis*.

- II. The average cash to current asset ratio was only 3.40%. That indicated the management of steel companies was holding a small portion of in the day to day business.
- III. Credit and collection policy of the selected steel companies were liberal.
- IV. The working capital turnover was encouraging but the low inventory turnover ratio i.e. 2.33 times indicated high investment in inventory.

Amit K. Chakraborty³⁶ in his study made an effort to examine the working capital management of Andrew Yule and Company Limited during the period from 1993-94 to 2002-03. The study revealed that the short-term liquidity position was not properly maintained by the company and it was not satisfactory at all.

But the acid test ratio indicated very good short-term liquidity position of the company. The cause of that result of the ratio analysis was due to exclusion of the inventory from the total current assets. Further the study concluded that the inventory contributed only (average) 17.92 percent in gross working capital, which indicated optimum utilization and maintenance of inventory.

Govind D. Rao³⁷ conducted a research on working capital management through fund flow statement analysis. The objective of the study was to examine the causes of change in working capital. The study carried on four cement manufacturing companies. It covered the period from 1990-91 to 1993-94, the data of the sample companies were collected from published annual reports.

Ratio analysis and fund flow statement techniques were adopted to interpret the financial data. As per study the size of working capital showed an increasing trend in all the cement companies except one i.e. Naroda Cement Limited. The increasing trend was highest and fastest in Gujarat Ambuja Cement Limited.

The current ratio in all cement companies was more than standard norm 2:1. Changes in working capital were mainly depending on two variants, first source of funds and second application of funds.

³⁶Amit K. Chakraborty (2005), Working Capital Management: An Empirical Study, *Southern Economist*, Vol. 43, No.19, pp. 23-27.

³⁷ Govind D. Rao, Working Capital Management through Funds Flow Statement Analysis, Working Capital Management, Edited by Rao P.M and Pramanik Alok Kumar, *Deep and Deep Publication Pvt. Ltd.*, New Delhi, pp. 127-146.

Sharma³⁸ in his study analyzed that the various methods and techniques of financial analysis selected by the textile industry of the accounting and control of various constituents of current assets in all aspects of textile units in India for a period from 2002-2006. It may be concluded that the existing management of current assets accounting in all the textile companies selected for this study was not satisfactory and needed improvement in all the directions immediately. Today, manufacturing units of several other industries are using modern techniques of current assets accounting and the textile industry should not lag behind.

Swami H.R³⁹ in his study on “Materials Management in Public Sector Undertakings” took five sectors enterprises in the state of Rajasthan. The study unveiled that the inventory alone constituted by 61 percent of total current assets during the period (1978 to 1982). The growth of inventories during period found to be very high indicating no control. The study concluded that the materials management in selected companies was not satisfactory and recommended for improvement through continuous monitoring and necessary action.

Kamta Prasad Singh et.al⁴⁰ made an attempt to examine various aspects of working capital management in fertilizer industry in India during the period 1978-79 to 1982-93. Sample included public sector unit, Fertilizer Corporation of India Ltd. (FCI) and its daughter units namely Hindustan Fertilizers Corporation Ltd., the National Fertilizer Ltd., Rashtriya Chemicals and Fertilizers Ltd. and Fertilizer (Projects and Development) India Ltd. and comparing their working capital management results with Gujarat State Fertilizer Company Limited in joint sector. The research methodology was specially based on ratio analysis, the study disclosed that inefficient management of working capital was to a great extent responsible for the losses incurred by the FCI and its daughter units, as turnover of its current assets had been low. FCI and its daughter units had high proportion of inventory in respect of each of its components particularly stores and spares. Similarly, quantum of account receivables had been excessive and their turnover was very low. However, cash and bank balances held by FCI and its daughter units had been much

³⁸Dr. Nand Kishore Sharma, (2007), Current Assets Accounting and Control, *The Chartered Accountant*, May, pp. 1706-1712.

³⁹Swami H. R (1987), Material Management in Public Undertakings, *Ashish Publication house*, New Delhi, pp. 89-110.

⁴⁰Kamta Prasad Singh, Anil Kumar Sinha and Subas Chandra Singh (1986), Management of Working Capital in India, *Janaki Prakashan*, New Delhi.

lower in relation to operation requirements. So far as financing of working capital was concerned, long-term funds had been financing a low proportion of current assets due to rapid increase of current liabilities. The profitability providing an internal base for financing of working capital had been very low in these units.

Smith⁴¹ has carried out two studies. His first study elaborated dual goal of profitability and liquidity and proposed that the task of financial managers is to attain a trade off between the two. He highlighted his suggestion by using the rate of return on equity investment as a measure of profitability and net working capital and current ratio as a measure of liquidity. He presented their model in which current assets and current liabilities were directly related to sales of firm. His second study related to profitability versus liquidity trade off in working capital management. The study suggested that the parallel monthly predictions of profitability and liquidity could be useful in evaluating trade off between those two goals. This study also described individual and collective effects of accounts receivables, inventories, accounts payable, and other accruals on profitability and liquidity.

Shah⁴² carried out a research on problems of working capital management in Pharmaceutical Industry in Maharashtra state. The objectives of the study were to analyse and evaluate working capital management policies and to examine the structure and management of inventory, receivables and cash performances of selected Pharmaceutical Companies in state of Maharashtra. He selected 13 Pharmaceutical Companies on the basis of judgment sampling. His period of the study was ten years from 1989-90 to 1998-99. His study was based on secondary data which was collected from annual reports, CMIE and other published Journal and Bulletin of Reserve Bank of India. He used decennial average percentage for analyzing the financial data. His main findings were as follows:

1. Inventory formed the second largest component of working capital. It was on average of 45.80% of total working capital of the selected pharmaceutical units in the state of Maharashtra during the period from 1989-90 to 1998-99.

⁴¹ Smith K.V. (1974), An Overview of Working Capital Management, in Management of Working Capital, A Reader, *West Publishing Company*, New York, pp. 3-20.

⁴² Shah B. Alok (2003), Working Capital Management, 1st Edition, *Himalaya Publishing House*, Mumbai, pp. 193-207.

2. Receivables formed the largest component of working capital and constitute a very substantial portion of the current assets. It varied between 43.03% and 50.08%. the overall average percentage of receivables to current assets was 46.15% during the period under study.
3. Cash occupied the third place in order of importance among the different components of working capital.
4. The overall size of net working capital of sample units had maintained a rising trend throughout the period under study.

Lastly, he suggested the management of the pharmaceutical companies should go for innovative techniques and professionalism of working capital management and need to look for option available, rather than confining to tradition.

John J. Hampton⁴³ examined working capital as the functional area of finance that includes all the current accounts of the concern. It is concerned with the level of risk posed by current liabilities as well as the adequacy of current assets. He also suggested that the firm's policies for managing its working capital should be framed to attain three goals such as adequacy of liquidity, minimization of risk and maximization of firm value.

Agarwal⁴⁴ also examined working capital management on the basis of sample of 34 large manufacturing and trading public limited companies in ten industries in private sector for the period 1966-67 to 1976-77. Ratio analysis technique had been used for the purpose of analysis, the study concluded the although the working capital per rupee of sales exhibited a declining trend over the years but still there appeared an enough scope for reduction in investment in almost all the segments of working capital.

A downward trend in cash turnover and an upward trend in cash to current assets ratio showed the accumulation of idle cash in these industries. Almost all the industries had overstocking of inventories i.e. raw materials shown by increase in the share of raw material to total inventory while share of semi-finished and finished goods came down. It also showed that long-term funds as a percentage of total working capital reported an upward trend, which was mainly due to restricted flow of bank credit to the industries.

⁴³Hampton J. John (1983), Financial Decision Making, *Prentice Hall of India Pvt. Ltd.*, New Delhi, June, pp. 67-78.

⁴⁴N.K. Agrawal (1983), Management of Working Capital, *Sterling Publication Pvt. Ltd.*, New Delhi.

Viqar Ali Baig⁴⁵ conducted an important study on Working Capital Management: A Comparative Study of Different Ownerships, the main purpose of his study was to report comparative findings of a survey of working capital management practices of selected agribusiness firms from dairy co-operatives, private and MNC dairy firms. His study was also an attempt to know the effect of the ownership, government regulation, managerial empowerment and cultural factor on the working capital decision making. A sample of three state dairy co-operatives, three private dairy and three MNC dairy firms was taken for the study. The finding on working capital level of investment and short-term financing signaled that these firms' policies of short-term financing are working well. He concluded that the managers are more involved in the control function, which is evidenced by the strict control mechanisms imposed over the levels of cash, receivables and inventory as well as operations of cash collections, cash payments, purchases and sales.

Ali⁴⁶ made an attempt to examine the determinants of leverage of Indian textile firms using panel data analysis. He collected the sample of 170 Indian textile companies listed on the Bombay Stock Exchange covering the period from 2006 to 2010. He deployed three alternative methods of penal data regression i.e. pooled-ordinary least squares (OLS) method, fixed effects method, and random effects method to estimate the model of leverage. He concluded that firm size, growth, non-debt tax shields, profitability, and asset tangibility had strong significant influence on firm's leverage. The positive effect of firm size, tangibility and a negative effect of firm growth, and profitability, on leverage confirmed the predictions of capital structure theories. His study had delivered some insights into the financing behavior of Indian textile firms. Nevertheless, his study covered only the determinants of long term debt-to-assets of sample textile companies.

1.3 Recommendation of Working Capital Committee

In recent years banks have placed several limitations on the flow of bank credit for working capital needs to the industries. For this purpose of controlling working capital loans, the Reserve Bank of India has framed many rules and regulations. Various study groups were appointed to review the procedures and suggest recommendations to regulate the liberal flow of bank credit for working capital needs.

⁴⁵Viqar Ali Baig (2009), Working Capital Management: A Comparative Study of Different Ownerships, *Management & Change*, Volume 13, Number 2, pp. 125-129.

⁴⁶ Liaqat Ali (2011), The Determinants of Leverage of the Listed-Textile Companies in India, *European Journal of Business and Management*, Volume 3, No. 12, pp. 54-58.

The Dehejia study group⁴⁷ detected that in the absence of any restraint on bank credit, industry used to avail of bank credit much more than specified by production performance. The excessive dependence of industry on bank credit for working capital requirements is not desirable and the industry should find alternative modes, especially internal long term sources for meeting a maximum portion of working capital. The study group also suggested that this would be possible for improving the shortcomings of the present lending system of banks by introducing the much needed discipline in credit utilisation and disbursement.

Tandon Committee⁴⁸ was appointed by the Reserve Bank of India to achieve the objectives recommended by Dehejia study group. Tandon Committee framed the guidelines for follow up bank credit for working capital requirements. It suggested three methods for calculation of permissible bank credit limit for working capital. First method for MPBF is 75% of $(CA - CL_E)$, second method for MPBF is $(75\% \text{ of } CA) - (CL_E)$, and third method for MPBF is $75\% \text{ of } (CA - CCA) - (CL_E)$.

Where,

MPBF-Maximum Permissible Bank Finance, CA-Current Assets, CL_E – Current Liabilities Excluding Bank Finance, CCA-Core Current Assets

The methods are based on that the working capital should increasingly be financed by the company out of its own funds (internal long term sources). This would be result in reduction of bank credit.

The Chore Committee⁴⁹ was constituted in 1979 only for keeping in view to study the sanctionable limits of the banker, to re-examine the cash credit system and to check the prevailing style of bank credit and contemplate the effectiveness of the monitoring and follow-up system adopted by banks. This committee has advised that banks should follow the second method of lending recommended by the Tandon Committee in assessing bank credit limits and no frequent sanction of ad hoc limits of borrowing from bank.

⁴⁷Dehejia, V.T. (1969), Report of the Committee, Reserve Bank of India Bulletin, *Reserve bank of India*, Bombay, pp. 1972-1978.

⁴⁸Prakash Tandon (1975), Report of the Study Group to Frame Guidelines for Follow – up of Bank Credit, *Reserve Bank of India*, pp. 20-21.

⁴⁹Chore K. B. (1979), Report of the Working Group to Review the System of Cash Credit, *Reserve Bank of India*, Bombay, pp. 26-52.

The Marathe Committee⁵⁰ was appointed to re-examine the working of cash authorization scheme from its operational aspects point of view. The committee had noticed that the basic purpose of Credit Authorization Scheme (CAS) was to ensure systematic credit management and amend the quality of bank lending so that all borrowings were in commensurate with the policies and priorities framed by the Reserve Bank of India.

Apart from above committee review Chakravarty Committee in 1985, Narashimham Committee in 1991, Vaz Committee in 1993, Jilani Committee in 1993, Kanan Committee in 1995 etc. were constituted, but at present RBI has withdrawn all its instructions relating to MPBF and every bank is volunteer to determine its loan policy in respect of each broad category of industry. Bank can also adopt turnover method, cash budget method, MPBF or any other method for evaluating the credit requirement.

2.4 Approach Chosen for the Study

From the above review, the approaches of Dr. Vivek Sharma², Agrawal³, John J. Hampton⁴³, Shah⁴², Aruna Saini and Ram Dhan Saini⁵, Tandon Committee⁴⁸ Janaki Ramudu P.¹, Bardia S. C and Sweta Kastiya⁶, Palani A. and Yasodha P.⁸, Solanki Ashvinkumar H.⁹, Mustafa Afeef¹², Jani, Virendra C.³⁰, Zahir Ahmad¹⁴, Sidharth G. Das²³, Roshan Patel³⁵, Kamta Prasad Singh et.al⁴⁰, Amit K. Chakraborty³⁶, and Mauleshkumar N. Joshi¹³ have been considered in the study to evaluate, analyse and interpret working capital management and policy of textile manufacturing companies in Gujarat.

It is crystal clear from the review of the literatures in the field of working capital management and its policy that research studies in this particular field of financial management are quite limited. Current study is undertaken on an in-depth study of working capital management and its policy of selected manufacturing textile companies in Gujarat. No single study has thrown light on working capital policy and management of textile units in Gujarat. Thus, this study will be covering a major aspect of working capital management and its policy in textile industry of Gujarat state.

⁵⁰ Marathe S.S. (1983), Report of the Committee to Review the Working of the Credit Authorisation Scheme, *Reserve Bank of India*, Bombay, pp. 20-27.

CHAPTER – III
ANALYSIS OF THE WORKING CAPITAL POLICY AND MANAGEMENT
(CONCEPTUAL)

Synopsis

- 3.1 Introduction
- 3.2 Concept of Working Capital
- 3.3 Significance of Working Capital
- 3.4 Rationale of Working Capital Management and Policy
- 3.5 Structure of Working Capital
- 3.6 Financing of Working Capital
 - 3.6.1 Short Term Sources of Working Capital Finance
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- 3.9 Control of Working Capital and Its Components
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 - 3.9.3 Methods of Receivables Control
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Chapter - III

Analysis of the Working Capital Policy and Management (Conceptual)

3.1 Introduction

This chapter is related to conceptual analysis of working capital policy and management. Working capital is regarded as the life blood of a business. It has been emphasized that a business should maintain a sound working capital position. Management of working capital is very essential for the success of a business. “Constant management is required to maintain appropriate levels in the various working capital accounts.”¹ Therefore, it is necessary to understand the meaning, importance, structure, financing, and adequacy of working capital before taking up the management of various components of working capital. No one can ignore the necessity of funds in a concern either a small shop or a large manufacturing unit. Cash is the only common factor in all units. Thus, cash management is must, which is commonly known as financial management. Skillful management of employed funds in a firm results in effective financial management.

Every business unit needs funds for two objectives first for establishment and second to carry out its day to day operations. Long term funds are necessary to ease production through purchase of fixed assets such as plant and machinery, land and building etc. and also for expansion of business, diversification and renovation or modernization of plant and machinery and research and development. The part of business capital which is employed on a permanent basis and is called fixed capital. It is impossible to carry on any business with only fixed capital.² Funds are also required for short term operational activities for the purchase of raw materials, payment of wages and for carrying out routine expenses. All the goods which are produced or manufactured in a specific period of time may not be sold entirely in that period. Thus, some goods hold in stock, for e.g. raw materials, semi finished goods and finished marketable goods. These blocked funds are known as working capital. In simple words working capital refers to that part of the total capital, which is available and used for carrying on the regular or routine or day to day business operation. In other words we can say it refers to all aspects of components of current assets and current liabilities. The management of a working capital is as much

¹ E.F. Donaldson (1957), *Corporate Finance, Ronald Press company*, New York, p. 479

² Yasasway N. J. (1978), *Finance for Non – Financial Executives, Allied Publication Pvt. Ltd.*, New Delhi, p. 86.

as important like management of long term financial investment. The fundamental aim of working capital management is to manage current assets and current liabilities in such a way that maximize the profitability and maintain adequate liquidity of the concern. In managing working capital, not only investment in current assets is significant but the financing of current assets is also equally important. This is done through working capital policy of the firm.

3.2 Concept of Working Capital

The concept of working capital was first developed by Karl Marx. He used the term in a somewhat different form i.e. 'variable capital' and the concept of working capital, as we learn today, was derived from his variable capital.³

There are two concepts of working capital, gross working capital and net working capital. Gross working capital is the capital invested in total current assets of the firm. This view is supported by the financial analysts like Professor Bogen⁴, Walker⁵ and Smith⁶. Current assets are those assets which can be converted into cash within a short period of time, not more than one year⁷.

Gross working Capital = Total Current Assets

The main constituents of current assets are inventories that include raw material, work in progress, stores and spares and finished goods; account receivable, cash on hand and cash at bank, loan and advances etc.

Net working capital is a narrow term, refers to the excess of current assets over current liabilities. This concept is enunciated by authorities like Guthmann⁸, Gerstenberg⁹ and Saliers¹⁰. Current liabilities are those which are to be paid within a short period of time normally one accounting year or normal operating cycle whichever is shorter.

Net Working Capital = Current Assets – Current Liabilities.

³ Hrishikesh Bhattacharya (2009), Working Capital Management: Strategies and Techniques, *PHI Learning Pvt. Ltd.*, 2nd Edition, New Delhi, p.2.

⁴ Bogen Jules I. (1933), Financial Hand Book, *Ronald Press Co.*, New York, p. 303

⁵ Walker E.W. (1959), Essential of Financial Management, *Prentice Hall of India (P) Ltd.*, New Delhi, Forth Edition, p. 59.

⁶ Smith K.V. (1979), Guide to Working Capital Management, *Mc Graw – Hill Book Co.*, New York, p. 2.

⁷ Pandey I. M. (1981), Financial Management, Second Edition, *Vikas Publishing House Pvt. Ltd.*, New Delhi, p. 325.

⁸ Guthmann H.G. and Dougall Herber E. (1955), Corporate Financial Policy, *Prentices Hall*, New York, p. 387.

⁹ Gerstenberg C. W. (1959), Financial Organisation and Management, *Prentice Hall*, New York, p. 282.

¹⁰ Saliers E. A. (1927), Handbook of Corporate Management and Procedure, *Mc Graw Hill*, New York, p. 728.

According to Soloman, “Net working capital usually refers to current assets minus current liabilities (primarily account payable, accrual of various types and short term borrowings).”¹¹

The main constituents of current liabilities are sundry creditors, bills payable, bank overdraft, unclaimed dividend etc. Net working capital may be positive or negative or nil when:

Positive working capital = Current assets – Current Liabilities (Current assets > Current Liabilities)

Negative working capital = Current Liabilities – Current assets (Current assets < Current Liabilities)

Zero/Nil working capital = Current assets – Current Liabilities (Current assets = Current Liabilities)

The gross working capital concept emphasizes on two aspects of current assets management, i.e. Optimum investment in current assets and Financing of current assets. The investment in current assets should be adequate, not more and not less, to the requirement of a business. Excessive investment in current assets reduces profitability and inadequate investment in current assets threatens the solvency of a firm and fails to meet the current obligations. Another aspect of gross working capital highlights the need of arranging funds to finance current assets. Whenever a want for working capital funds rises due to the increasing level of business operation or for any other reasons, arrangement should be made as quickly as possible. Some surplus funds should be invested in some short term securities and the finance manager must have information of the sources of working capital funds as well as investment channels where idle funds may be temporarily invested.

Similarly net working capital is also important from the following points of view:

- i. Liquidity Position of the firm and
- ii. Financing of current assets by sources of long term funds.

Current assets should be adequately in excess of current liabilities to make the immediate payment to short term creditors. Net working capital indicates the margin of safety to short term creditors. In order to maintain adequate liquidity, it is a traditional rule to maintain the level of current assets double of the level of current liabilities. A weak liquidity position introduces a threat to the solvency of the firm and makes it

¹¹ Soloman E. and Pringle John J. (1978), An Introduction to Financial Management, *Prentice Hall of India (P) Ltd.*, New Delhi, p. 51.

unsound. But an appropriate liquidity position enhances the credit of a concern, which enables the management to obtain financial resources at a comparatively lower cost. Net working capital reveals in what direction the management should take proper steps to escape insolvency. The net working concept also takes into consideration needs for financing current assets by long term sources. In every firm, a minimum amount of net working capital is required for financing the current assets, which is permanent. Therefore, the management must determine the extent to which current assets should be financed with equity funds or borrowed funds.

To interpret, it may be said that both, gross and net concepts of working capital are equally important for efficient management of working capital. However the widely accepted view about the concept of working capital is that it must measure the relationship of current assets and current liabilities. The concept 'net' and 'gross' have operational importance. Gross concept deals with the problems of managing various components of current assets separately in day to day operations, while net working capital deals with the operation of current assets which is constant in short run analysis and decision making, but manageable in long term operations.¹²

3.3 Significance of Working Capital

The effective management of working capital is significant because of its relationship with the regular business operation. It has been realized that inadequate working capital is the major reason for business failure. Management of working capital assumes considerable importance of the firm. It aims at protecting the purchasing power of assets and maximizing the return on investment.¹³ Donnel correctly explained the significance of adequate working capital and mentioned that "To avoid interruption in the production schedule and maintain sales, a concern requires funds to finance inventories and receivables."¹⁴ In the recent time, working capital management has obtained an important and great significance. "It has been found that the largest portion of financial manager's time is utilized in the management of working capital."¹⁵ Working capital is

¹² Zahir Ahmad (2002), *Inflation Accounting Approach to the Working Capital Management, a case study of Shree Bhawani Paper Mills (SBPM) Limited, Allahabad*, Unpublished Thesis, CH. Charan Singh University, Meerut, p. 60.

¹³ David B. Zenoff and Jack Zwick (1969), *International Financial Management*, Prentice Hall, Inc., Englewood Cliffs New Jersey, p. 228.

¹⁴ O'Donnel and Milton S. Goldberge (1964), *Accountants Financial Administration*, Prentice Hall of India Private Ltd., (New Delhi), p.55.

¹⁵ Fred J. Weston and Eugene F (1971). Brigham, *Essential of managerial finance*, Rinehart and Winston Inc., New York, p. 297.

the fund circulation of the business. Just as circulation of blood is essential in the human body for maintaining life, working capital is also essential to maintain the smooth running of the business. No business can run successfully without an appropriate amount of working capital. The main advantages of maintaining the adequate amount of working capital are as follows:

- **Solvency and easy loan to the business:** Adequate working capital helps in maintaining appropriate liquidity of the firm. This enables the firm in making payment to its short term creditors in time. This increases the credit standing of the firm and hence, it becomes simple for a firm to obtain the loan from banks and other financial institution on favourable terms.
- **Regular supply of raw material:** Adequate working capital enables the firm to supply raw material regularly and it helps the firm in maintaining continuous and timely flow of production.
- **Getting benefit of cash discount:** Sufficient working capital also enables a firm to avail cash discount by making prompt payment on its purchase and reduces cost of production.
- **Ability to face unfavourable condition:** Proper working capital helps the firm to face business crisis such as inflation. During such period, company more depends on its working capital strength.
- **Regular payment of operational expenses:** A concern which have enough working capital can make regular payment of wages, salaries and other operational expenses which increases the morale of the employees, raises their efficiency and this enhances the profits of company.
- **Advantage of favourable market conditions:** The firm having sufficient working capital can take the benefit of favourable market condition such as purchasing raw material in bulk when price is reducing and holding finished goods for sale till prices are rising.

Lastly, every business concern should have adequate amount of working capital to run its business operation smoothly. It should neither have excess nor have shortage working capital. Both are not favourable for any business concern. The management of any concern should maintain the appropriate level of working capital on a regular and continuous basis. Level of appropriate working capital could be achieved with the financial analysis and statistical approaches.

3.4 Rationale of Working Capital Management and Policy

Funds are essential and required in every business for carrying on routine business operations. Working capital funds are regarded as the life blood of the firm.¹⁶ A firm can exist and survive without making profit but cannot survive without liquidity or working capital funds. If a firm is not earning profit it may be termed as 'sick', but, weak liquidity position may cause its bankruptcy and insolvency. Thus, each firm must contemplate how to balance the amount of working capital it holds, against the risk of failure. The working capital management includes and refers to the procedures and policies required to manage the working capital.¹⁷ A satisfactory level of working capital is to be maintained is the basic goal of working capital management because both the situations are bad for a business unit i.e. inadequate working capital and excessive working capital. Inadequate working capital may lead the firm to insolvency and excessive working capital implies idle funds which earn more profits for the business. A study of working capital management is very important for sales expansion, rising price level, dividend declaration, increase in salaries and wages, plants expansion, new product line etc., and put added strain on working capital maintenance. Failure of any enterprise is doubtlessly due to poor management and lacking of management skill.

Working capital management policies of a firm have a great effect on its profitability, liquidity and structure health of the organization. A careful maintenance of the proper assets and funds-acquired mixes is subjected to close scrutiny, it must be noted that there exists a close correlation between sales fluctuations and invested amounts in current assets.¹⁸ An examination of the components of working capital is useful at this point because of the preoccupation of management with the proper combination of assets and acquired funds. First, short term, or current, liabilities represent the portion of the funds which have been planned for and raised. Since management should be concerned with proper financial structure, these and other funds must be raised judiciously. Short term or current assets comprise a part of the asset-investment decision and require diligent review by the firm's executives. The working capital investment and financing decision independent of one another in order to examine the profitability-risk trade offs associated

¹⁶ Bhalla.V.K (2010), Working Capital Management, 11th Edition, *Anmol Publications Pvt. Ltd.*, New Delhi, p. 3.

¹⁷ Dr. R. P. Rustagi (2011), Working Capital Management, *Taxmann Publication (P.) Ltd.*, New Delhi, p.9.

¹⁸ Bhalla.V.K (2010), Op.cit, p. 30.

with each.¹⁹ The larger the percentage of funds obtained from short term funds, the more aggressive is firm's working capital policy and vice versa. Although short term debt is less expensive than long term, short term funds may only be renewable at much higher interest rates. Conversely, long term funds involve a rather lengthy commitment at fixed, or locked-in, rates of interest. It should also be contemplated that heavy reliance on low cost, current funds may jeopardize the solvency of the business. Another policy, working capital investment policy, elects to prescribe levels for current assets. Excessive current assets are usually not advisable, because the yield from short term assets is usually low, while return from long term and fixed assets are usually high. So management may also be considered as aggressive or conservative according to investment in current verses long term assets.

3.5 Structure of Working Capital

Working capital structure refers to the components of working capital and it shows which of the components is responsible for the sizeable amount of working capital.²⁰ The structure of working capital denotes the components of gross working capital or its basic components are current assets and current liabilities. The main elements of current assets are inventories, receivables, cash and bank balance and other resources like short term investments. Current liabilities include trade creditors, bank overdrafts, outstanding expenses and proposed dividends, tax payable income received in advance and others. The management should try to have maximum utilisation of its components at the minimum possible cost as much as it is possible. This is highly dependent on the structure of working capital²¹ and hence the study of the structure of working capital is useful. In other words, the effective utilisation of working capital and its needs for a firm should increase less than in proportion to the increase in the output volume. Structure of current assets and current liabilities is analyzed in order to plan working capital management.

The different elements or components of current assets and current liabilities constitute the structure of working capital which can be exhibited in a table as follows:

¹⁹ Bhalla.V.K (2010), Op.cit, p. 42.

²⁰ Howorth C., M. S. Narasimhan and R. Durbarry (2010), Working Capital Structure and Financing Pattern of Mauritian SMEs, Oxford Business & Economics Conference Program, St. Hugh's College, Oxford University, Oxford, UK, p. 3.

²¹ Ravi K Jain (1988), Working Capital Management of State enterprises in India, *National Publishing House*, Jaipur, p.18.

Table 3.1: Structure of Working Capital (Current Assets and Current Liabilities)

Current Liabilities	Current Assets
Bank Overdraft	Cash and Bank Balance
Creditors	Inventories: Raw-Materials Work-in-progress Finished Goods
Outstanding Expenses	Stores and spares
Bills Payable	Accounts Receivables
Short-term Loans	Bills Receivables
Proposed Dividends	Accrued Income
Provision for Taxation, etc.	Prepaid Expenses Short-term Investments

Proposed dividends and Provisions are considered as company's internal short term sources of financing working capital. Creditors are spontaneous or transactionary sources of finance for the company. Rest of current liabilities is company's external short term sources of financing working capital.

3.6 Financing of Working Capital

Another important aspect of working capital management is to decide the pattern of financing working capital i.e. current assets. One of the important decisions in working capital management is to decide which source of working capital to be used for financing current assets. The management has to think of the sources of fund which can be availed to make investment in current assets. Working capital needs could be broken down into permanent and temporary components over time that helps in terms of financing choice. The permanent component is predictable insofar as it is linked up to expected change in sales or cost of goods sales over time.²² The temporary component is also predictable in general as it follows the same pattern every year. So, the two components of working capital need to be financed accordingly for which the different sources of funds can be grouped as follows

3.6.1 Short Term Sources of Working Capital Finance

- **Factoring** - Credit management is a professional activity and involves a huge amount of effort. So many companies find it simple to transfer it to an external agency whereby the external agency is supposed to maintain records and accounts and put in efforts for collection. This process is called factoring. It is a conventional source of short term funding. Factoring facility

²² Dr. R. P. Rustagi (2011), Op.cit, p. 12.

arrangements incline to be restrictive and entering into a complete - turnover factoring facility can lead to belligerent chasing of outstanding invoices from clients, and it controls the loss of a company's credit function. The factor financial institution that purchases the accounts receivable for cash, put in efforts to collect all the billings, and charges a fee for rendering this service. Factoring agreements could be bifurcated under two ways-

- A) If the risk of bad debts is transferred to factor agencies, then it is known as non-recourse factoring agreement and other are known as recourse factoring agreement.
- B) If any advance payment is received by company from the factor, it is known as advance factoring agreement; if no money is receivable currently then it is maturity factoring agreement.

The SBI factors and Commercial Services Ltd. is the first factoring company in India, it was jointly promoted in 1991 by State Bank of India: its two subsidiary State Bank of Indore and State Bank of Saurashtra, Union Bank of India and Small Industries Development Bank of India. Presently it has five branches at Delhi, Baroda, Mumbai, Pune and Coimbatore, but the company has not been able to make much headway towards the objectives for which it was set up. During the first eight year of its existence, it was able to develop a portfolio of only about 300 clients out of which only 40 percent were from small scale sector. Primary reasons behind the slow growth of factoring services in India could be attributed to the absence of systematic credit information in SSI sector and general risk aversion of the bankers who man the factoring arms. One must understand that factoring is different from banking both in respect of the attitude towards risk and scope of financial services.²³

- **Securitization** - It is another prevailing arrangement used by company to sell its accounts receivable with the creation of special purpose equity (SPE), usually a subsidiary or a trust, the SPE buys a pool of accounts receivable from the company and then sells related securities, typically debt such as bonds or commercial paper, that are collateralized by the receivables.

²³ Hrishikesh Bhattacharya (2009), Working Capital Management: Strategies and Techniques, *PHI Learning Pvt. Ltd.*, 2nd Edition, New Delhi, p. 429.

- **Installment Credit** - Installment credit is a method of finance to pay for goods or services over a period through the fixed number of payments of principal and interest in routine or regular payments.
- **Asset-Based Lending** - A lender providing an asset-based loan considers mainly to the value of the assets ensuring the loan for repayments of the obligation. It is different from conventional loan in that the borrower's capacity to repay the borrowed funds from operating incomes is unpredictable. These are provided against inventory, accounts receivable and equipments.²⁴
- **Invoice Discounting** - Invoice Discounting is a source of asset based finance which enables a concern to release cash tied up in an invoice and unlike factoring authorizes a client to retain control of the administration of its account receivables.
- **Income received in advance** - Income received in advance seems as a liability because it is money that does not match to that specific accounting or business year but rather for one that is still to come. The income received in advance will then be debited to the income account and the income account will be credited to the income received in advance account such as rent.
- **Commercial Papers** - A commercial paper is a financial instrument viz. an unsecured promissory note. Commercial paper is a money-market security issued by large financial institutions or corporations to get funds to meet short term debt obligations e.g. payroll, and is merely ensured by an issuing bank or corporation's promise to pay the amount on the specified maturity date on the note. Since it is not guaranteed by collateral, only firms with excellent credit ratings given by a recognized rating agency will be enabling to sell their commercial paper at a fair price.
- **Bank Overdraft** - An overdraft occurs when cash is withdrawn from a bank account and the available balance turns below zero, a bank overdraft is when company needs more than what is actually in its bank account. The overdraft will be limited. A bank overdraft is also a source of short term finance or type of loan as the fund is technically and systematically borrowed.

²⁴ Narendra Kumar Jain (2004), Working Capital Management, *A.P.H. Publishing Corporation*, New Delhi, p. 29.

- **Letter of Credit** - A financial institution issues the letter of credit to a seller of goods or services which infers that the issuer will pay the seller for goods or services which seller delivers to a third-party buyer. The issuer then puts in efforts for reimbursing the invoices from the buyer or from the buyer's bank. The letter of credit is generally a guarantee to the seller that issuer of letter of credit will pay the stated amount of invoices if the buyer fails to pay the amount. This is how, the risk of buyers failure is transferred from the seller to the financial institution (letter of credit's issuer) meanwhile seller also gets the funds for working capital.
- **Trade Finance** - An exporter needs an importer to pay in advance for goods shipped. Naturally, the importer naturally wants to minimize risk by demanding the exporter to document that the goods have been delivered or shipped. The importer's bank facilitates by issuing a letter of credit to the exporter (or the exporter's bank) providing for payment upon presentation of required documents, such as a bill of lading. The exporter's bank may also provide a loan to the exporter on the ground of the export contract.

3.6.2 Long Term Sources of Working Capital Finance:

- **Shares Capital** - Shares capital refers to the owner's funds of a company that can be obtained by issuing shares to shareholders for cash or an equivalent item of capital value. Share capital consists of the nominal values of all shares allotted (i.e. the sum of their "par values"). Share capital can simply be defined as the part of capital (cash or an equivalent item of capital value) that company receives from shareholders or investors for its shares.
- **Debenture** - It is one of the long term sources of raising the loan capital of the company. A debenture is a written document or certificate that either creates a debt or recognizes it and it is a debt without collateral security. In corporate finance, the term is applied for a medium to long-term debt instrument used by large companies to raise funds. A debenture is same as a certificate of loan which is attached with the fact that the company will be liable to pay a pre-decided amount with interest and although the funds raised by the debentures is a part of the company's capital structure. Debentures can freely be transferred by the debenture holder.

- **Loan from Financial Institutions** - A loan is a kind of debt which it involves the redistribution of financial assets over time, between the lender and the borrower. In a loan, the borrower at initial stage receives or borrows a sum of money from the lender, and is obligated to pay back or repay the same amount of money to the lender at a later time. In a typical manner, the money is paid back in regular uniform installments, or partial repayments; in an annuity, each installment is the same amount. Acting as a provider of loans is one of the major tasks for financial institutions like banks. A secured loan is a loan in which the borrower pledges some asset (e.g. any kind of property, movable or immovable) as collateral. Unsecured loans are monetary loans that are not secured against the borrower's assets.

3.6.3 Transactionary Sources / Spontaneous Sources:

These spontaneous sources provide funds to a business during the normal course of business operation for e.g. credit allowed by suppliers and outstanding wages and other expenses. As much as the firm stretches or postpones the payments, the funds are available to it for some more time period and that too generally at no cost. Credit limits from supplier and other outstanding expenses are called spontaneous sources of working capital finance.

3.7 Policies of Working Capital Management

There are basically two different policies of working capital management:

- a) Current assets financing policies, and
- b) Current assets investment policies

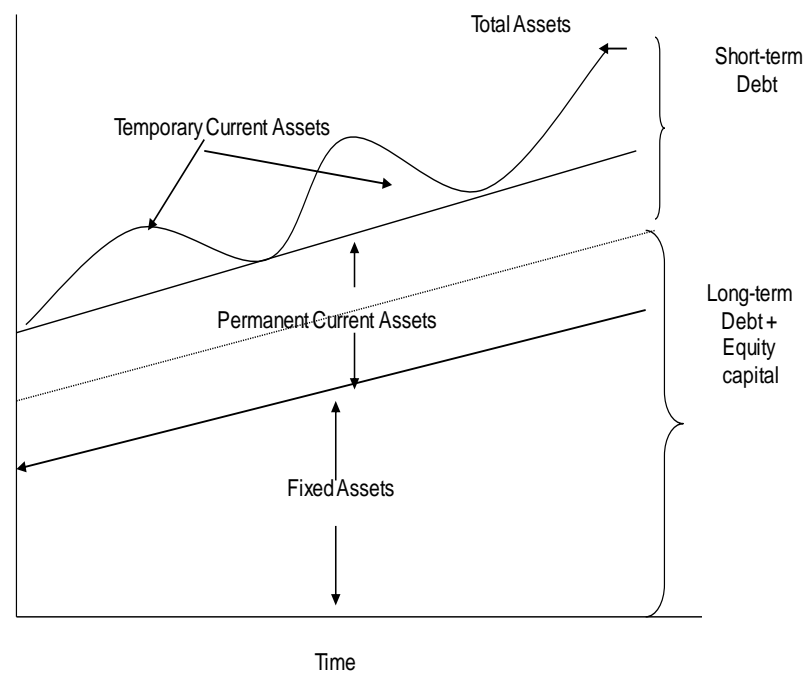
3.7.1 Current Assets Financing Policies

Current assets financing policy is to decide what portion of current assets should be financed by long term sources and by short term sources. There are different approaches to take this decision relating to financing mix of the working capital as follows:

- **Aggressive Approach** – A Business concern may be aggressive in financing its current assets. An aggressive policy may be said to be followed by the business concern when it uses more short term sources of financing as a major part of its permanent current assets. In other words, the concern

finances a major part of its permanent current assets with short term funds. Some externally aggressive firms may even finance a part of their fixed assets with short term funds. The relatively greater use of short term funds makes the firm greater risky.

Figure 3.1: Aggressive approach to current assets financing policy



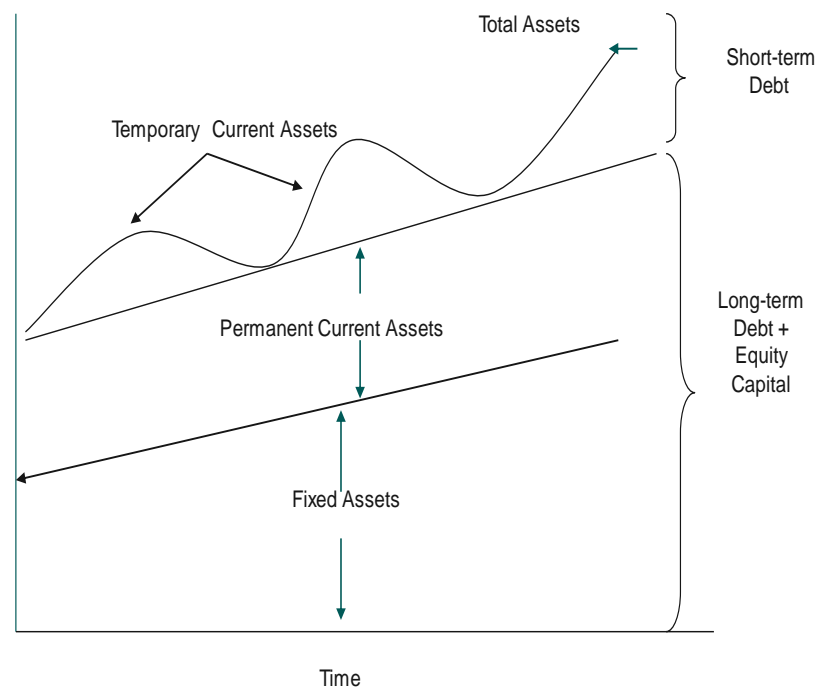
- **Hedging or Matching Approach** – A business firm may follow a financing plan which is based on the principle of matching. It implies the financing of short term needs with short term sources and financing long term requirement with long term sources. Haley and Schall observe regarding the matching principle “the idea expressed in this principle is to match the maturity of the funds of the lengths of time the funds are needed.”²⁵ In other words, it involves the matching of expected life of assets with an expected life of funds raised to finance assets. Thus, a ten year loan may be raised to finance

²⁵ Schall L. D. and Haley C. W. (1977), Introduction to Financial Management, McGraw-Hill Book Company, New York, p. 571.

machinery with expected life of ten years; debtors to be received in fifty five days may be financed with a fifty five days bank loan and so on.

If the accurate matching is possible, the strategy operates without any net working capital since all short term requirements are financed with short term funds.

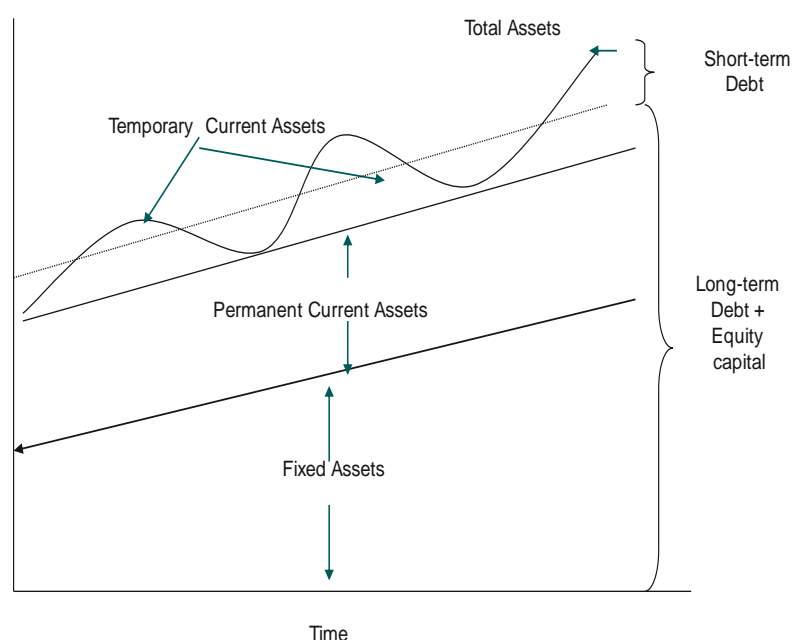
Figure 3.2: Matching approach to current assets financing policy



- **Conservative Approach** – A firm may follow a conservative approach to finance its current assets. In this, a firm depends on the long term sources of funds for financing its requirements. The firm relies more on long term funds for financing its needs and short term funds are only to emergency situation. In this strategy, the management finances its permanent current assets and a major part of temporary current assets with long term sources of funds.

Because the strategy relies more on long term sources of funds, therefore, it is less risky.

Figure 3.3: Conservative approach to current assets financing policy



The financing the current assets involves a trade off between risk and return. A firm can choose from short term or long term sources of finance. Short term financing is less expensive than long term financing but at the same time, short term financing involves greater risk than long term financing. Depending on the mix of short term and long term financing, the approach followed by a company may be referred as aggressive approach, conservative approach and matching approach.

3.7.2 Current Assets Investment Policies

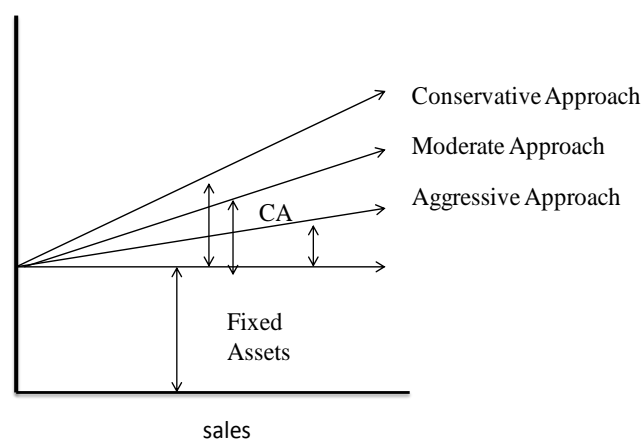
Current assets investment policy is the proportion of investment in current assets and fixed assets.²⁶ It is always said that for a given level of sales, a concern may have different combination of fixed assets and current assets. For effective management of assets and higher return on investment, there must be optimum investment in both fixed

²⁶ Mohan Rao P. and Alok Kumar Pramanik (2001), Working Capital Management, 1st Edition, Deep & Deep Publication, New Delhi, p.14.

assets and current assets. There are mainly three approaches for current assets investment policy as follow:

- **Conservative approach-** This approach is relatively high level of investment in current assets in order to support a given level of sales. According to conservative approach, a firm does not take risk of maintaining a low level of current assets. Since, it holds more current assets that may adversely affect the profitability.
- **Aggressive Approach-** As per this approach, relatively low level of investment in current assets is made to attain a given level of sales. Less investment in current assets may be done to increase the return on investment but it is likely to expose to more risk of solvency or liquidity.
- **Moderate Approach-** In this approach, there is neither very high nor very low investment in current assets made to attain a given level of sales. Moderate investment in current assets is made to support liquidity as well as profitability. The ratio of current assets to total assets can be applied in order to analyse the investment policy pursued by the firm for financing the current assets.

Figure 3.4: Types of Current Assets Investment Policy



It may be stated that fixed assets remaining constant, a high ratio reveals more investment in current assets that is conservative approach followed by company,

low ratio indicates less investment in current assets, i.e. aggressive policy pursued by the firm, and ratio is average, it means average investment in current assets and moderate policy followed by the company.

Table 3.2: Overall working capital policy and risk-return analysis

Combination	Current Assets Investment Approach	Current Assets Financing Approach	Overall Working Capital Policy
I	Conservative Approach – includes high CA/TA ratio Low Risk and Low Return	Conservative Approach – includes low STF/TF ratio Low Risk and Low Return	<u>Conservative Policy</u> High Current Ratio and Low Return on Equity Low Risk and Low Return
II	Aggressive Approach-includes low CA/TA ratio Highly Riskier and Highly Profitable	Aggressive Approach-includes high STF/TF ratio Highly Riskier and Highly Profitable	<u>Aggressive Policy</u> Low Current Ratio and High Return on Equity Highly Riskier and Highly Profitable
III	Conservative Approach – includes high CA/TA ratio High Risk and High Return	Aggressive Approach – includes high STF/TF ratio High Risk and High Return	<u>Moderate Policy</u> Low Net Working Capital Risk and Return Higher than I but Lower than II
IV	Aggressive Approach – includes low CA/TA ratio High Risk and High Return	Conservative Approach – includes low STF/TF ratio Low Risk and Low Return	<u>Balancing/ Average Policy</u> Low Net Working Capital Risk and Return Higher than I but Lower than II

3.8 Determinants of Working Capital Requirements / Factors Influencing Working Capital Requirements

Working capital requirements of a firm depend upon number of factors. Every factor is important because all such factors are of different importance and influence of individual factor fluctuates for a firm over period of time. There are some important factors that determine the working capital requirements, these are as follows:

- ❖ **Basic nature of the business:** The working capital requirements of a concern basically rely upon the nature of the business. Trading and financial firms need good quantum of working capital because they require more investment in current assets as compared to fixed assets. Trading concerns have to carry large stock, more receivables and liquid cash. Manufacturing concerns also require huge amount of working capital for the purchase of raw materials, maintaining the stock of inventories, financing the receivables and meeting operating expenses. Public utility concerns like Railway, Water Supply, Airways, Electricity board etc. require very limited quantum of working capital because they provide services for cash and do not sale products and as such no funds are tied up in inventories and receivables. The Manufacturing concerns lie between public utility concerns and trading and financial firms.
- ❖ **Business cycle fluctuations:** Various phases of business cycle i.e. recession, boom, recovery etc. also determine the working capital requirement. In case of boom conditions, inflationary pressure exists and business operations expand. As a result, the overall requirement for cash, inventories etc. increases, consequently more and more funds blocked in these current assets. In case of recession phase, there is usually dullness in business operations and there would be opposite impact on the level of working capital requirement. There will be a fall in inventories and receivables.
- ❖ **Size of the business:** The size of the business has also an important determinant of working capital requirements. The working capital requirements would be different between two firms doing same types of business. A firm with larger scale of operations or routine business will require more working capital than a firm with smaller scale of operations.
- ❖ **Production policy:** A constant production policy accumulates inventories during off season and it increases working capital requirements. High accumulation of inventories increases the inventory carrying costs and risks. Depending upon the

kind of product manufactured, accordingly a firm should formulate its production policy. The production may be reduced during the off season to ignore overstocking and increased during the peak season.

- ❖ **Seasonal operations:** If the firm has seasonal fluctuations in demand for its goods and services, then the working capital need will also be fluctuating with every change. In case of cold drink business, the demand will surely be higher during summer season and therefore, more working capital is required to meet with higher production, which compels to have larger inventories and big size of receivables. On the other hand, if the operations are smooth and even throughout the year then the working capital requirement will be constant and will not be influenced by the seasonal factors.
- ❖ **Growth and expansion of the business:** The needs of working capital also increase with the growth and expansion of the business. In general, for normal rate of expansion in the volume of business i.e. steady and gradually growing firm, the retained profits are useful for the requirement of the working capital. But in fast growing firm, larger amount of working capital is required to finance the additional fixed assets and current assets in order to nurture its growing requirement of sales and production. It should be taken into consideration that a fast growing firm needs funds continuously.
- ❖ **Market Competitiveness:** The market competitiveness has a vital heading on the working capital requirements of a concern. An inspection of the competitive conditions existing in the market, the firm may have to provide liberal credit terms to the customers which lead to higher receivables. Even larger inventories may be maintained to fulfill an order as and when received; otherwise the customer may switch over to some other suppliers. Hence, the working capital tends to be high as a result of higher investment in inventories and receivables. While, a monopolistic firm does not require larger working capital. It may demand the customer to pay in advance or wait for some days after receiving the order.
- ❖ **Supply Conditions:** Supply condition of suppliers is also one of the determinants of working capital requirements. Sometimes supplier takes long time to supply raw materials etc. in that case purchasers will have to maintain a high level of inventories. On the other hand, if a supplier sends the raw materials in a short period after placing an order, then purchasers will not have to maintain a high level of inventory, and hence low working capital is required.

- ❖ **Credit Policy:** The credit policy means the sum of terms and conditions on which goods are sold and bought. A concern has to deal with two kinds of credit policies at a time. First, the credit policy of the supplier of raw materials, goods etc., and second, the credit policy regarding to credit which it allows to its customers. In both the cases, however the firm while contemplating its credit policy has to take care of the credit policy prevailing in the market. The credit policy of a firm in its dealing with receivables and payables both affect the requirement of working capital. A firm that purchases its raw materials on credit and sells its products on cash, requires lesser working capital and vice versa. A firm gets liberal credit from its suppliers need less working capital and vice versa.
- ❖ **Manufacturing or Production Cycle:** Production cycle affects the need for working capital. The time which is taken to convert raw materials into finished goods is known as manufacturing or production cycle. Longer manufacturing cycle will require more working capital. The shorter the production cycle, the less will be the requirement of working capital. Hence, utmost care should be given to shorten the period of the manufacturing cycle in order to minimize the working capital requirements.

3.9 Control of Working Capital and its Components

Adequacy of working capital is very important for achieving management's goals. John L. O. Donnell and Milton S. Gladberg observe "Many a time business failure takes place due to lack of working capital."²⁷ Inadequacy of working capital may lead to failure of business. Working capital control plays very important role its adequacy. Working capital control depends upon the level of operation and the length of operating cycle. Monitoring the time period of the operating cycle is an important element of working capital control. The duration of the raw material stage depends on regularity of supply, transportation time, price fluctuations and economy of bulk purchase. The duration of the work-in-process depends on the length of manufacturing cycle, consistency in capacities at different stages, and efficient coordination of various inputs. The duration of the finished goods depends on the pattern of production and sales. If production is fairly uniform throughout the year but sales are highly seasonal, then the duration of finished goods tends to be long. The duration at the debtors' stage relies on the credit

²⁷ John L.O. Donnell and Milton S. Galdberg (1964), *Elements of Financial Administration*, Prentice Hall of India Private Ltd., New Delhi, p.55.

period granted, discounts offered for prompt payment, and efficiency and rigour of collection efforts.

Better control of working capital depends on the control of its components like inventories, receivable and cash which may be discussed as follows:

3.9.1 Methods of Inventory Control

Inventory control is concerned with the acquisition, storage, handling and use of inventories so as to ensure the availability of inventory whenever needed, providing adequate provision for contingencies, deriving maximum economy and minimizing wastage and losses. The inventory should be controlled by applying different techniques of inventory control. Traditional methods, accounting methods (ratio analysis), and scientific methods (like time series analysis, regression analysis etc.) are three methods which can be used to control inventory. Some of major prevailing techniques for inventory control have been explained as under:-

- **Ratio Analysis:** Ratio analysis is the primary tool to monitor and manage the inventory, various ratios can be calculated like inventory turnover ratio, raw material turnover ratio, work-in-progress turnover ratio, finished goods turnover ratio, raw material holding period, work-in-progress holding period, finished goods holding period etc. Calculation of these ratios is not enough. As a control device, these ratios could be compared with the same ratio of the firm over past few years to find if there is an important trend or variation.
- **Fixation of stock level:** According to Periasamy, “Effective stock control system should ensure the minimization of inventory carrying cost and materials holding cost.”²⁸ Various levels of inventory are fixed to see that no excessive inventory is carried and simultaneously there will not be any stock outs. Fixation of stock levels depends upon two important factors, one rate of consumption and second lead time. It requires fixing of various types of stock level e.g. maximum level (the upper limit of stock which should not be allowed to exceed under normal circumstances), minimum level (the lower limit of stock which should be maintained as a buffer stock) and the reorder level (the level of inventory when fresh order should be placed with the

²⁸ Periasamy P. (2009), Financial management, *Tata McGraw Hill Education Pvt. Ltd.*, 2nd Edition, New Delhi, p. 22.19.

supplier for procuring additional inventory). It would be worthwhile if standards of inventories were set by the management by objectives concept. This concept expects the top management to determine and to specify the inventory norms (limit) after consultation with the materials department.

➤ **Just in time (JIT):** One of the most popular methods for controlling inventory in the manufacturing environment is just in time, or JIT, inventory control. JIT system of inventory developed by Japanese is used in repetitive manufacturing organisation. It could be regarded as an extension of the original concept of managing the material flow in a production system to reduce the level of inventory. The main objectives of JIT system are that piling of inventory is undesirable and lead time in arranging and disposing of the inventory must be reduced as far as possible. JIT seeks to deliver inventory to the production floor just in time for use. This system reduces inventory-carrying costs thereby increasing profitability.

➤ **ABC Analysis:** The ABC analysis is a business term used to define an inventory classification technique often used in materials management. It is also known as Selective Inventory Control. Policies based on ABC analysis:

A ITEMS: very tight control and accurate records

B ITEMS: moderate controlled and good records

C ITEMS: simplest controls possible and minimal records

Thomas E Vollmann observes, “The ABC analysis provides a mechanism for identifying items that will have a significant impact on overall inventory cost while also providing a mechanism for identifying different categories of stock that will require different management and controls.”²⁹ The ABC analysis suggests that inventories of an organization are not of equal value. Thus, the inventory is grouped into three categories (A, B, and C) in order of their estimated importance.

'A' items are very important for an organization. Because of the high value of these 'A' items, frequent value analysis is required. In addition to that, an organization needs to choose an adequate order pattern (e.g. 'Just- in- time') to avoid excess capacity.

²⁹ Thomas E Vollmann (2005), Manufacturing Planning and Control Systems for Supply Chain Management, McGraw-Hill, 5th Edition, p. 273.

'B' items are important, but of course less important, than 'A' items and more important than 'C' items. Therefore 'B' items are intergroup items.

'C' items are marginally important.

This method helps in keeping close control on costly stock in which large amount of capital has been invested.

- **Economic order quantity (EOQ):** The EOQ model predicts the annual demand or usage for a particular item is known with certainty. It also estimates that this demand is fixed or uniform throughout the year. In other words, seasonal fluctuations in the rate of demand are excluded. Finally, the model assumes that orders to fill again the inventory of an item are filled promptly. Given a known demand and zero lead time for filling again inventories, there is no need for a company to maintain extra inventories, or safety stocks, to protect itself against stock outs. Management can make two crucial conclusions with the help of EOQ, first, if purchases are made in small quantity, ordering cost will be high while carrying cost will be less and second, if purchases are made in large quantity, ordering cost will be less while carrying cost will be high. There are various methods of determining EOQ, these are-

- a) Graphical presentation
- b) Tabular determination through trial and error method
- c) Algebraic formula

EOQ is ascertaining at the point where ordering cost is equal to the carrying cost and at the same time the total unit cost is minimum.

- **VED (Vital, Essential, and Desirable) Analysis:** The VED classification is suitable mainly to spare parts. Stocking of spare parts is generally based on strategies different from those of raw materials because their consumption pattern is not similar. While consumption of raw material depends directly on the market demand on production, the demand for spare parts counts on the performance of the plant and machinery. Statistically, demand for spares follow the poisson distribution and therefore, spares are bifurcated as vital, essential and desirable. This means that vital classes of spares have to be stocked adequately and so on. Also ABC and VED classifications can be combined to advantage. A combination of XYZ and VED methods can give

an idea of what are the items that can be disposed off to improve the inventory.

- **XYZ Analysis:** While the ABC classification has the value of consumption as the fundamental, the XYZ classification has the value of inventory stored as the basis of distinction. This study is generally performed once a year during the annual stock checking exercises. X items are those whose inventory values are very high while Z items are those whose inventory value is low. And Y items are those whose inventory values are neither high nor low, viz, items that are of average value. This classification, thus, help in identifying the items which are being excessively stocked. If the management of concern is not alert, one can expect C items to be in the X category. Therefore, the XYZ and ABC classification are employed in conjugation and controls can be influenced on the items according to whether they are CZ, BY, AX and so on.
- **HML (High, Medium, and Low) Analysis:** The HML classification is similar to ABC classification, but in this method instead of the assumption value of items, the unit value of the item is taken into consideration. The cut off points will depend on the individual units.
- **SOS (Seasonal, Off - Seasonal) Analysis:** Raw Materials, especially agricultural inputs are generally separated by the SOS system since the prices during the season would generally be lower. Seasonal items are of two types:
 - A) Items, which are available only during season
 - B) Items, which are available throughout the year.Items, which are available during season for example, raw materials for cigarettes, raw materials for textile industries etc. such items are procured throughout the year. When their prices are low during harvest time, bulk purchases should be done at that time.

3.9.2 Methods of Cash Control

Cash is the absolute liquid form of asset. It consists of demand deposits and currency. Cash is also known as an idle or non-earning asset.³⁰ So, the goal of cash management is to minimize the amount of cash in the business. But this

³⁰ Thummuluri Siddaiah (2010), International Financial Management, *Dorling Kindersley (India) Pvt. Ltd.*, New Delhi, p. 308.

minimum balance of cash should be enough to perform normal activities of business and meet the unexpected cash needs of the concern. A company holds cash to take care of its transaction needs, contingency needs, and opportunity needs. It needs cash to carry out regular business operations. Cash Management will be successful only if cash collections are accelerated and disbursements, as far as possible are delayed.³¹ There are following methods to keep check on cash management. These are as follows:

- **Maintaining lockboxes:** A lockbox is a post office box that a company maintains at its bank. The lockbox is kept to accelerate the cash flow. Cheques are mailed to the lockbox, where the bank collects them. The bank is authorized to deposit the cheques into one of the company's bank accounts, and the bank then sends the organization an acknowledgement detailing the day's deposits, so cheques can be recorded in the company's books. Maintaining lockboxes ensures that the cheques a company receives are safely deposited into the company's bank accounts.
- **Float:** A Float is the money arising from time lag in payment of cheques issued by the firm and/or delay in the collection of cheques issued by others in favour of the concern. The net float is the difference between the collection float and the disbursement float. Thus, a float originates from the delay between the time drawer writes a cheque and the time the payee actually receives the proceeds of the cheque. There are many sources of delay or float. First a cheque issued by a firm may take time some time to reach the payee. This delay is known as mail float. Second, the payee of the cheque may take time to process the cheque internally and deposit it in the bank. Such delay is called processing float. Third, some amount of time is also consumed in the clearing the cheque through the banking system. In other words, some delay takes place between the time a cheque is deposited and the time the cash is available to be spent. This delay is known as a clearing float. Therefore, delay in the transit, processing, or clearing of cheque cause a float. The firm should identify the various sources of the float and accordingly plan and make efforts to take advantage of each source so that the availability of its usable

³¹ Alok B. Shah (2003), Working Capital Management, *Himalaya Publishing House*, Mumbai, p. 16.

funds will increase.³² Moreover, it can be said that float is one of the natural hurdle, and every business unit should deal with such type of hurdle carefully in order to receive its dues from its customers as soon as possible.

- **Using bank accounts:** An organization should use separate bank accounts for various business processes, such as a disbursement account and a payroll account. Although this practice means that the organization will have many bank accounts to track, doing so organization is provided with record-keeping devices that help management to trace cash transactions. Being able to track cash transactions enables management to control how cash is used within the organization.
- **Utilizing electronic funds transfer:** Electronic funds transfer, or EFT, is the computer-based transfer of funds between two companies' accounts that doesn't involve any physical exchange of funds. EFT is becoming an effective method for making payments because it eliminates the cheque writing process and the errors that may attach to this process. EFT also reduces bank charges for cheque processing for the company.
- **Concentration banking:** Under this method multiple collection centers are opened at different places for collecting the cash from different places quickly. In this system, customers in a particular area instructed to send their cheques to specific collection centre. After receiving the cash, the collection centre can immediately deposit the cheques into local bank, and it will not take more time in converting them into cash. It reduces mailing float and bank float.

3.9.2.1 Optimum Cash Balance: A Few Models

- A) **Baumol's Model** - This Model was suggested by W.J.Baumol in 1952. This model is similar to economic order quantity model of inventory management. This model is based on assumption that the firm uses cash at an already known rate per period and that this rate of use is constant. This model includes the holding cost of cash and transaction cost of marketable securities. It can be expressed as follows:

$$C = \sqrt{2FT/r}$$

³² Thummuluri Siddaiah (2010), Op.cit. p. 310

Where,

C = Cash required each time to restore balance to minimum cash

F = Total cash required during the year

T = Cost of each transaction between cash and marketable securities

r = Rate of interest on marketable securities

The firm has to manage the holding cost as well as transaction cost. The adequate cash balance is found by controlling the transaction cost and holding cost in order to minimize the total cost of holding cash. As per the Baumol's Model, the company should start each period with the cash balance equal to 'C' and spend gradually until its balance comes to zero. At this time, the company should replenish the cash equal to 'C' from the sale of marketable securities.³³

B) Miller-Orr Model - Miller and Orr model is also known as Stochastic Model. This model has been developed by Miller and Orr in 1966. They have expanded the Baumol's Model which is not applicable if demand of cash is not constant. In case, the cash flow is uncertain, the Baumol's Model which is based on the inventory type model cannot be applied. If cash balances fluctuate randomly, then Miller-Orr Model can be used to set optimum cash balances. This model is based on assumptions that out of two assets i.e. marketable securities and cash, the latter has a marginal yield and without any delay in conversion of cash to marketable securities and marketable securities to cash. This model can be presented as follows:

$$Z = \sqrt[3]{\frac{3TV}{4i}}$$

Where,

Z = Target cash balance

T = Transaction cost of conversion

V = Variance of daily cash flows, and

i = Daily % of interest rate on investment

The Miller-Orr Model is superior to Baumol's Model. This model is more realistic and the actual cash balance fluctuates between the higher and the

³³ Dr. R. P. Rustagi (2011), Op.cit, p. 148.

lower limits. If the firm takes 'L' to be lower limit of cash balance, then the return level may be defined as $R = L + Z$ and the upper limit H is defined as H equal to $3Z + L$. The average cash balance under this model is $(4R - L)/3$.³⁴

3.9.3 Methods of Receivables Control

Receivables are originated at the time of credit sales of goods and services. It is the part of current assets. Sales on credit are unavoidable in current scenario of business. The basic different between cash sales and credit sales, is the time gap in the receipt of cash. Every company wants to convert its debtors into cash as soon as possible. Once the credit has been extended to a customer as per the company's credit policy, the next important step in the management of receivable is the control of these receivables. Merely setting of standards and formulating the credit policy is not sufficient; it should be implemented effectively to control the receivables. There are following techniques of receivables:-

- **The collection procedure:** Once the firm formulates the credit policy and specify the terms of credit sales, it must develop a policy for dealing with delinquent or slow paying customers. Delinquent customers lead to bad debts and other costs associated with the repossession of goods, while the slow paying customers create more cash being tied up in receivables and the increased interest cost. The concern should frame a system under which the customer may be reminded a few days in advance about the bill becoming due. After the lapse of due date of payment, the firm should make statements, telephone calls, reminders, and even personal visit to the paying customer. One possible way of ensuring early payments from customers may be to charge interest on overdue balances.
- **Monitoring receivables:** In order to control the level of accounts receivables, the concern should apply regular checks and there should be a persistent monitoring system. A common method of monitoring the receivables is the collection period or number of days outstanding receivables. The average collection period may give an idea about the trend of total receivables. Another technique available for monitoring the debtors is known as ageing analysis. The quality of the receivables of a firm can be evaluated by looking at the age of receivables. The older the receivable, the

³⁴ Dr. R. P. Rustagi (2011), Op.cit, p. 149.

lower is the quality and greater the likelihood of default. In the aging analysis, the total outstanding receivables on a particular day i.e. at the end of the month or a year are categorised into different groups together with percentage of total receivables that fall in each age group. Moreover, a basic shortcoming of the aging analysis is that it is influenced by the change in sales volume, though, by comparing the ageing schedule for different periods, the financial manager can have an idea of any required change in the collection procedure and can also point out those customers which require special attention.

- **Receivables turnover ratios:** Accounting information can be used in order to control the receivables. Receivables Turnover Ratio is one of the efficiency ratios and measures the number of times receivables are collected, on average, during the fiscal year. Receivables turnover ratio measures company's efficiency in collecting its sales on credit and collection policies. This ratio takes in consideration only the credit sales. If the cash sales are included, the ratio will be affected and may lose its importance as there will not be receivables. A high receivables turnover ratio implies that its extension of credit and collection of accounts receivable are efficient. Also, a high ratio reflects a short lapse of time between sales and the collection of cash, while a low ratio means collection takes longer. The lower the ratio is the longer receivables are being held and the risk to not be collected increases. A low receivables turnover ratio reveals that the company should re-assess its credit policies in order to ensure the timely collection of credit sales that is not earning interest for the firm.
- **Lines of credit:** Another control evaluates for receivables management is the line of credit which means to the maximum amount of particular customer may have as due to the firm at any time. To set up and finalise the lines of credit, firm can use risk-class approach under which numerous risk-classes are defined. Many customers are classified, on the basis of the history of the customers, into different groups strongest (risk free) to weakest (risk prone). A separate credit is developed for each such class. Each customer is placed in one or the other class. The need to make a separate decision on extending credit each time the customer wants to make a credit purchase is not required. The lines of credit should be reviewed timely and frequently for all the

customers. This review of credit lines, however, need not mandatorily mean the credit lines should be changed. History of customers should be looked into properly and costs and benefits of extending credit term should be evaluated.

3.10 Management of Payable

Moreover, management of payable is also equally essential activity, which provides spontaneous finance to the operations of a business on an ongoing basis. This source of finance is also known as self-adjusting. Account payable policy of a concern mostly depends on the accounts receivable policies of the supplier. Terms of purchase generally comprise of credit period and a cash discount for early payment and also a penalty for delayed payment. Enterprises should always be motivated to stretch their payables in order to enjoy additional float. But it also consists of economic cost of loss of goodwill. Serious ethical questions may be raised against the stretching of payments. All these conditions should be combined in a model to determine the effective accounts payable management as well as working capital management.

CHAPTER – IV

RESEARCH METHODOLOGY

Synopsis

- 4.1 Introduction
- 4.2 Sample of the Study and its Constitution
- 4.3 The Time Frame of the Study
- 4.4 Sources of Data and Data Collection
- 4.5 Techniques Adopted for Analyzing the Management of Working Capital and its Policy
 - 4.5.1 Methods Used in Working Capital Policy
 - 4.5.2 Specific Ratios and Methods Used in Interpreting the Management of Working Capital and its Components
- 4.6 Statistical Tools Adopted for the Formulation of Hypothesis, Analysis and Interpretation

Chapter – IV

Research Methodology

4.1 Introduction

A series of linked activities move from a beginning to an end in a research process.¹ The research methodology is that tool in the research area which directs the activities in proper direction, in order to attain the research objectives. In this phase the researcher has to formulate the problem to be studied with the help of specific method. Here the researcher has also to frame the research design, to machine measures for variables, and selects the methods to analyse the data of samples or the units. This is what, this section on research methodology aims to attain.

This chapter consists of research methodology of sample of the study and its constitution, the time frame of the study i.e. from 1999-2000 to 2010-2011, sources of data and data collection, techniques of data analysis and statistical tools adopted in the present study; and specific ratio analysis of working capital regarding inventory, receivables, cash and working capital policy and management.

4.2 Sample of the Study and its Constitution

An indepth study and analysis of working capital policy and management in textile manufacturing companies in Gujarat, ten textile manufacturing companies have been selected which are registered in Gujarat jurisdiction under Ministry of Corporate Affairs and engaged in manufacturing any kind of garment that comes under textile sector. Apart from this, availability of data from 1999-2000 to 2010-2011 has also been considered while selecting the textile companies. In the present study, around 20 textiles manufacturing companies having their registered office as public limited company in the state of Gujarat on or before 1999-2000. Only ten textile manufacturing companies are selected on the basis of convenient sampling method. The remaining companies are not included in the sample either due to non availability of data or their size being small.

¹ Bouma G.D., Atkinson G.B.J. (1995), A Handbook of Social Science Research: Comprehensive and Practical Guide for Students, *Oxford University Press*, Oxford, p. 43.

The textile manufacturing companies selected for the purpose of the present study are as follows –

1. Arvind Limited,
2. Aarvee Denims and Export Limited,
3. Ashima Limited,
4. Garden Silk Mills Limited,
5. Minaxi Textiles Limited,
6. Nakoda Limited,
7. P B M Polytex Limited,
8. Shri Dinesh Mills Limited,
9. Surat Textile Mills Limited, and
10. SNS textile Limited.

4.3 The Time Frame of the Study

Gujarat has registered an admirable industrial development since its formation as a separate state in 1960. The industrial sector at present comprises of over 1200 large industries and over 4, 00,000 micro, small and medium industries. As per the results of the Annual Survey of Industry (ASI), 2009-10 carried out by the Central Statistical Organization (CSO), under Ministry of Statistics and Program Implementation, Government of India, Gujarat accounts for over 18% of fixed capital investment, 17.22% of gross output and 15.20% of net value added in industrial sector in India. This survey further reinforced the position of Gujarat as the most industrially developed state in India in respect of first ranking in industrial investment and second in terms of value of production and value addition in industrial sector.² Over the years, Gujarat has diversified its industrial foundation substantially.

In the year 1960-61, textiles and auxiliaries were the major contributor to industrial economy of the state.³ Since then its textile sector contribution to state is declining year after year. Though, in the span of over 52 years, the industrial spectrum has completely transformed and today 13 major industry groups together account for 83% of factories, 94% of fixed capital

²Industries commissionerate, Government of Gujarat, accessed on July 25, 2011, http://ic.gujarat.gov.in/?page_id=112

³ Ibid

investment, 93% of value of output and 93% of value addition in the state's industrial economy. In the recent years, refined petroleum products has emerged as one of the largest industrial groups having 37% share, followed by chemicals having 14% share. Other important groups Basic Metal (8%), food products (7.14%), textiles (5%), machinery and equipment (3.36%), non-metallic mineral based products (2.8%), plastic and rubber products (1.81%), fabricated metal products (2.74%).⁴ In addition to this, Gujarat has achieved tremendous growth in the industrial sector and as a result, has emerged as one of the leading industrialized states in India contributing nearly 16.1% to the country's industrial output.⁵ The State economy has recorded an average annual growth rate of 10.4% for the 10th Five Year Plan period (2002-2007) as against a target of 10.2% as set out by Planning Commission of India. India had achieved growth rate of 7.6% during this plan period. Gujarat also has achieved annual GSDP (Gujarat State Domestic Product) growth of 15.81% in 2006-07.⁶

This is also evidence that textile sector has not grown as fast as petroleum or chemical sectors. Textile sectors have been struggling since long time due to price hike in factors of production like higher interest rate, rent etc. Higher cost of production decreases the revenue of the textile companies. As working capital is employed in the production process and it acts like life line of any business, so company needs to manage it deftly. They have also been desperately looking for investment in latest technology to manufacture textile garment.

Hence, it has been an inspiration for us to carry on research in the state of Gujarat. As we know that there was economic slowdown in India in the year 2009. This has affected on capital structure of textile companies. Therefore, it requires effective management of working capital and its policy in order to increase the production and sales of the company.

The present study covers a period of twelve years from 1999-00 to 2010-11. The accounting year followed by some companies is financial year, some of them follow calendar year while some follow June ending accounting year. So, in order to facilitate the analysis, the data has been arranged in uniform manner with twelve months ending on 31st March of the account

⁴ Ibid

⁵ Industrial Policy – 2009 (January 2009), *Government of Gujarat*, p. 7.

⁶ Ibid

year. Apart from this, availability of data from 1999-2000 to 2010-2011 has also been considered while selecting the textile companies.

4.4 Sources of Data and Data Collection

Sources of data of present study are annual balance sheets, profit and loss accounts, cash flow statements, and audit reports of the ten textile manufacturing companies of Gujarat state. The study is based on analysis of secondary sources of data. The secondary sources of data are annual balance sheets, profit and loss accounts, cash flow statements, director's reports, and audit reports of the textile companies from 1999-00 to 2010-11. Some secondary financial data have been collected through correspondence and personal visits to the executives of the companies, and remaining data has been collected from Registrar of Companies - Ministry of Corporate Affairs, Ahmedabad. Primary data regarding product information of sample companies has been collected through personal interview with authorized person of particular company.

The other relevant data which were not available in the published reports of the selected sample companies, have been collected from the Center of Monitoring Indian Economy (CMIE), PROWESS, IndiaStat.com, and other directory reports for the purpose of the study. Other magazines and ISSN publications are also used for fulfilling the required data. These magazines and publications were Indian Journal of Finance, The Management Accountant, Economics Times, Journal of Accounts and Finance etc.

4.5 Techniques Adopted for Analyzing the Management of Working Capital and its Policy

The present study is basically based on the analysis of working capital policy and its management in textile manufacturing companies. The approach adopted is basically analytical and descriptive in nature. On the basis of the literature review and objectives of this study, it is fixed to use the ratio analysis technique to analyze and interpret regarding working capital management while computation of maximum permissible bank finance as per Tandon Committee etc. used to interpret the working capital policy of selected manufacturing textile companies in the state of Gujarat. Statistical and Mathematical tools

like average, standard deviation, coefficient of variation, correlation coefficient and hypotheses testing have also been applied. Further, the detail methodologies are given below-

4.5.1 Methods used in working capital policy

- a) The analysis and interpretation of working capital policy have been performed through current assets financing policy and current assets investment policy. The following ratios have been used to analysis working capital management policy-

Particular	Ratio
A) Financing Policies	STF/TF
B) Investment Policies	CA/TA

- b) Analysis of matching approach, conservative approach and aggressive approach of working capital policy in selected textile manufacturing companies in Gujarat state in following ways-

Particular	Policies
A) Financing Policy	
1. More use of short term funds (STF)	Aggressive
2. Less use of short term funds (STF)	Conservative
B) Investment Policies	
1. More investment in current assets (CA)	Conservative
2. Less investment in current assets (CA)	Aggressive

- c) Computation of maximum permissible bank finance formulated as per Tandon Committee.
- d) Computation of return on average capital employed for profitability, current assets to total assets for liquidity and risk factor of selected textile companies.

4.5.2 Specific Ratios and Methods Used in Interpreting the Management of Working Capital and its Components

A ratio analysis is the most effective tool of working capital analysis. The ratios are used as a parameter for measuring and evaluating the financial performances of a company. It entails comparison for a useful analysis and interpretation of each and every aspect of working capital. The details of specific ratios used are following as under:

❖ Inventory Management

- i. Total inventory to total current assets.
- ii. Inventory turnover ratio of textile companies during the period from 1999-00 to 2010-11
- iii. Inventory holding period of textile companies during the period from 1999-00 to 2010-11
- iv. Raw materials turnover ratio of textile companies during the period from 1999-00 to 2010-11
- v. Raw materials holding period of textile companies during the period from 1999-00 to 2010-11
- vi. Work in progress to total inventory of textile companies during the period from 1999-00 to 2010-11
- vii. Work in progress turnover ratio of textile companies during the period from 1999-00 to 2010-11
- viii. Work in progress holding period of textile companies during the period from 1999-00 to 2010-11
- ix. Finished goods to total inventory of textile companies during the period from 1999-00 to 2010-11
- x. Finished goods turnover ratio of textile companies during the period from 1999-00 to 2010-11
- xi. Finished goods holding period of textile companies during the period from 1999-00 to 2010-11
- xii. Stores and spares to total inventory of textile companies the during period from 1999-00 to 2010-11

- xiii. Stores & spares turnover ratio of textile companies during the period from 1999-00 to 2010-11
- xiv. Stores & spares holding period of textile companies during the period from 1999-00 to 2010-11

❖ **Receivable Management**

- i. Total receivable to total current assets of textile companies during the period from 1999-00 to 2010-11
- ii. Total debtors to total receivables of textile companies during the period from 1999-00 to 2010-11
- iii. Debtors turnover ratio of textile companies during the period from 1999-00 to 2010-11
- iv. Average debt collection period of textile companies during the period from 1999-00 to 2010-11
- v. Loan and advances to total receivables of textile companies during the period from 1999-00 to 2010-11
- vi. Total receivables to sales of textile companies during the period from 1999-00 to 2010-11
- vii. Bad debt to total sales of textile companies during the period from 1999-00 to 2010-11
- viii. Bad debt to total debtor of textile companies during the period from 1999-00 to 2010-11

❖ **Cash Management:**

- i. Ratio of cash to current assets of textile companies during the period from 1999-00 to 2010-11
- ii. Current ratio of textile companies during the period from 1999-00 to 2010-11
- iii. Quick ratio and absolute liquidity ratio of textile companies during the period from 1999-00 to 2010-11
- iv. Ratio of cash to current liabilities of textile companies during the period from 1999-00 to 2010-11

- v. Ratio of cash to sales of textile companies during the period from 1999-00 to 2010-11
- vi. Cash conversion cycle of textile companies during the period from 1999-00 to 2010-11
- vii. Net cash flow to current liabilities of textile companies during the period from 1999-00 to 2010-11.

❖ **Working capital management:**

- i. Net working capital, current assets, and total sales have been interpreted with the help of trend analysis.
- ii. Working capital to total capital employed of textile companies during the period from 1999-00 to 2010-11
- iii. Net working capital turnover ratio of textile companies during the period from 1999-00 to 2010-11
- iv. Net profit to gross working capital of textile companies during the period from 1999-00 to 2010-11
- v. Inventory, receivables and cash as a percentage to net working capital of textile companies during the period from 1999-00 to 2010-11

Lastly, the elaborated analysis and interpretation of the above mentioned ratios and techniques are discussed at respective places in the study. In every case, year-wise and company-wise averages have been calculated. An overall average could be more stable so it has been used somewhere as standard for comparison between individual unit average and average of all ten companies.

4.6 Statistical Tools Adopted for the Formulation of Hypothesis, Analysis and Interpretation

Statistical tools have been used to test the hypotheses, analysis and interpret the results. Parametric test i.e. 't' test has been used to reach the inferences of hypotheses testing for working capital policy in section one of fifth chapter. Non-parametric chi square test has been applied for testing the significance between the differences of actual values and trend values of net working capital, current assets, and sales etc. of the sample units. In addition to

this, statistical tools like average, standard deviation, coefficient of variation, coefficient of correlation, and trend analysis has been used to find the consistency of data. The details are as under:

- a) Computation of value of “t” is based on testing the significance of an observed correlation coefficient. The formula of “t” is given below-

$$t = r / \sqrt{1 - r^2} * \sqrt{d}$$

Where,

t = value of t

r = correlation coefficient

d = degree of freedom, i.e. n-2

If the calculated value of t exceeds $t_{0.05}$ for (n-2), degree of freedom, we say that the value of r is significant at 5% level. If $t < t_{0.05}$ the data are consistent with the hypothesis of an uncorrelated population.⁷

- b) Net working capital, current assets, and total sales have been interpreted with the help of trend analysis. Linear trend by the method of least squares is most widely used in practice.⁸ The straight line trend is represented by the equation-

$$Y_c = a + bX$$

Where,

Y_c is used to designate the trend values to distinguish them from the actual Y values, ‘a’ is the Y intercept or the computed trend figure of the Y variable when $\sum X = 0$. ‘b’ represents the slope of the trend line or amount of change in Y variable that is associated with a change of one unit in X variable. The X variable in time series analysis represents time.

Moreover, the chi-square test has been used to test the significance between the differences of actual values and trend values of net working capital, current assets, and sales of the sample units.

- c) A hypothesis testing with the value of “t” to find out the significant relationship between liquidity and profitability; and risk and profitability in all selected textile manufacturing companies during the period of study i.e. from 1999-00 to 2010-

⁷ Dr. S. P. Gupta (2002), Statistical Methods, *Sultan Chand & Son*, 31st Edition, New Delhi, p. 923.

⁸ Ibid, p. 613

11. Level of significance is 5% and degree of freedom is taken as N-2. The following hypotheses testing are given below-

Hypothesis 1:

Null: There is no significant correlation between liquidity and profitability in Aarvee Denims and Export Ltd.

Alternative: There is significant correlation between liquidity and profitability in Aarvee Denims and Export Ltd.

Hypothesis 2:

Null: There is no significant correlation between liquidity and profitability in Arvind Ltd.

Alternative: There is significant correlation between liquidity and profitability in Arvind Ltd.

Hypothesis 3:

Null: There is no significant correlation between liquidity and profitability in Ashima Ltd.

Alternative: There is significant correlation between liquidity and profitability in Ashima Ltd.

Hypothesis 4:

Null: There is no significant correlation between liquidity and profitability in Garden Silk Mills Ltd.

Alternative: There is significant correlation between liquidity and profitability in Garden Silk Mills Ltd.

Hypothesis 5:

Null: There is no significant correlation between liquidity and profitability in Minaxi Textiles Ltd.

Alternative: There is significant correlation between liquidity and profitability in Minaxi Textiles Ltd.

Hypothesis 6:

Null: There is no significant correlation between liquidity and profitability in Nakoda Ltd.

Alternative: There is significant correlation between liquidity and profitability in Nakoda Ltd.

Hypothesis 7:

Null: There is no significant correlation between liquidity and profitability in P B M Polytex Ltd.

Alternative: There is significant correlation between liquidity and profitability in P B M Polytex Ltd.

Hypothesis 8:

Null: There is no significant correlation between liquidity and profitability in Shri Dinesh Mills Ltd.

Alternative: There is significant correlation between liquidity and profitability in Shri Dinesh Mills Ltd.

Hypothesis 9:

Null: There is no significant correlation between liquidity and profitability in SNS Textile Ltd.

Alternative: There is significant correlation between liquidity and profitability in SNS Textile Ltd.

Hypothesis 10:

Null: There is no significant correlation between liquidity and profitability in Surat textile Mills Ltd.

Alternative: There is significant correlation between liquidity and profitability in Surat textile Mills Ltd.

Hypothesis 11:

Null: There is no significant correlation between liquidity and profitability in overall selected textile companies.

Alternative: There is significant correlation between liquidity and profitability in overall selected textile companies.

Hypothesis 12:

Null: There is no association between risk and profitability in Aarvee Denims and Export Ltd.

Alternative: There is association between risk and profitability in Aarvee Denims and Export Ltd.

Hypothesis 13:

Null: There is no association between risk and profitability in Arvind Ltd.

Alternative: There is association between risk and profitability in Arvind Ltd.

Hypothesis 14:

Null: There is no association between risk and profitability in Ashima Ltd.

Alternative: There is association between risk and profitability in Ashima Ltd.

Hypothesis 15:

Null: There is no association between risk and profitability in Garden Silk Mills Ltd.

Alternative: There is association between risk and profitability in Garden Silk Mills Ltd.

Hypothesis 16:

Null: There is no association between risk and profitability in Minaxi Textiles Ltd.

Alternative: There is association between risk and profitability in Minaxi Textiles Ltd.

Hypothesis 17:

Null: There is no association between risk and profitability in Nakoda Ltd.

Alternative: There is association between risk and profitability in Nakoda Ltd.

Hypothesis 18:

Null: There is no association between risk and profitability in P B M Polytex Ltd.

Alternative: There is association between risk and profitability in P B M Polytex Ltd.

Hypothesis 19:

Null: There is no association between risk and profitability in Shri Dinesh Mills Ltd.

Alternative: There is association between risk and profitability in Shri Dinesh Mills Ltd.

Hypothesis 20:

Null: There is no association between risk and profitability in SNS Textile Ltd.

Alternative: There is association between risk and profitability in SNS Textile Ltd.

Hypothesis 21:

Null: There is no association between risk and profitability in Surat textile Mills Ltd.

Alternative: There is association between risk and profitability in Surat textile Mills Ltd.

Hypothesis 22:

Null: There is no association between risk and profitability in overall selected textile companies.

Alternative: There is association between risk and profitability in overall selected textile companies.

The above research methodologies have been used to achieve stated aim and objectives of a study regarding working capital management and its policy of selected textile manufacturing companies in the state of Gujarat during the period from 1999-00 to 2010-11.

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA

Section – 1: Working Capital Policy

Synopsis

- 5.1.1 Analysis and Interpretation of Working Capital Policy through Current Assets Financing Policy
- 5.1.2 Analysis and Interpretation of Working Capital Policy through Current Assets Investment Policy
- 5.1.3 Computation of Maximum Permissible Bank Finance as Per Tandon Committee
 - 5.1.3.1 Approach to Lending
- 5.1.4 Computation of Return on Average Capital Employed
- 5.1.5 Computation Risk Factor of Selected Textile Companies
- 5.1.6 Computation of Correlation between Liquidity and Profitability, Value of “t” for Hypothesis Testing; and Hypothesis Results
- 5.1.7 Computation of Correlation between Risk and Profitability, Value of “t” for Hypothesis Testing; and Hypothesis Results

Chapter - V

Analysis and Interpretation of Data

Section – 1: Working Capital Policy

Working capital management is well defined as the management of all aspects of current assets and current liabilities. It is concerned with the complications that arise in the management of current liabilities, current assets and the difference between current assets and current liabilities.

In order to manage working capital, not only the amount and components of current assets are significant but also the financing part and proportion of investment in current assets and fixed assets are equally important. Optimum financing and investment mixes leads to maximize the wealth of shareholder. The financial management should avoid excessive investment in current assets and must have just enough investment in working capital. The financing mix of short term funds and long term funds must also be optimum. The current assets investment policy and current assets financing policy of working capital management directly influence on its twin operational activities, i.e. liquidity and profitability.

Liquidity means capacity of a concern to pay its short term obligations as and when they become due. Inadequate liquidity creates potential danger of technical insolvency.¹ Excess of liquidity reduces the risk but it also reduces the profitability. In case assets are financed by borrowing on a short term and a long term basis, shorter the maturity schedule of a firm's debt obligations, the greater the risk that the firm will be unable to meet principal and the interest payment and a longer the maturity debt gives more period of time to meet principal and interest payments, and thus less risky the financing of the business. If assets are financed by borrowing on short term basis, the company confronts refinance risk. It means the lenders may not refinance the loans if the risk level of the company changes.

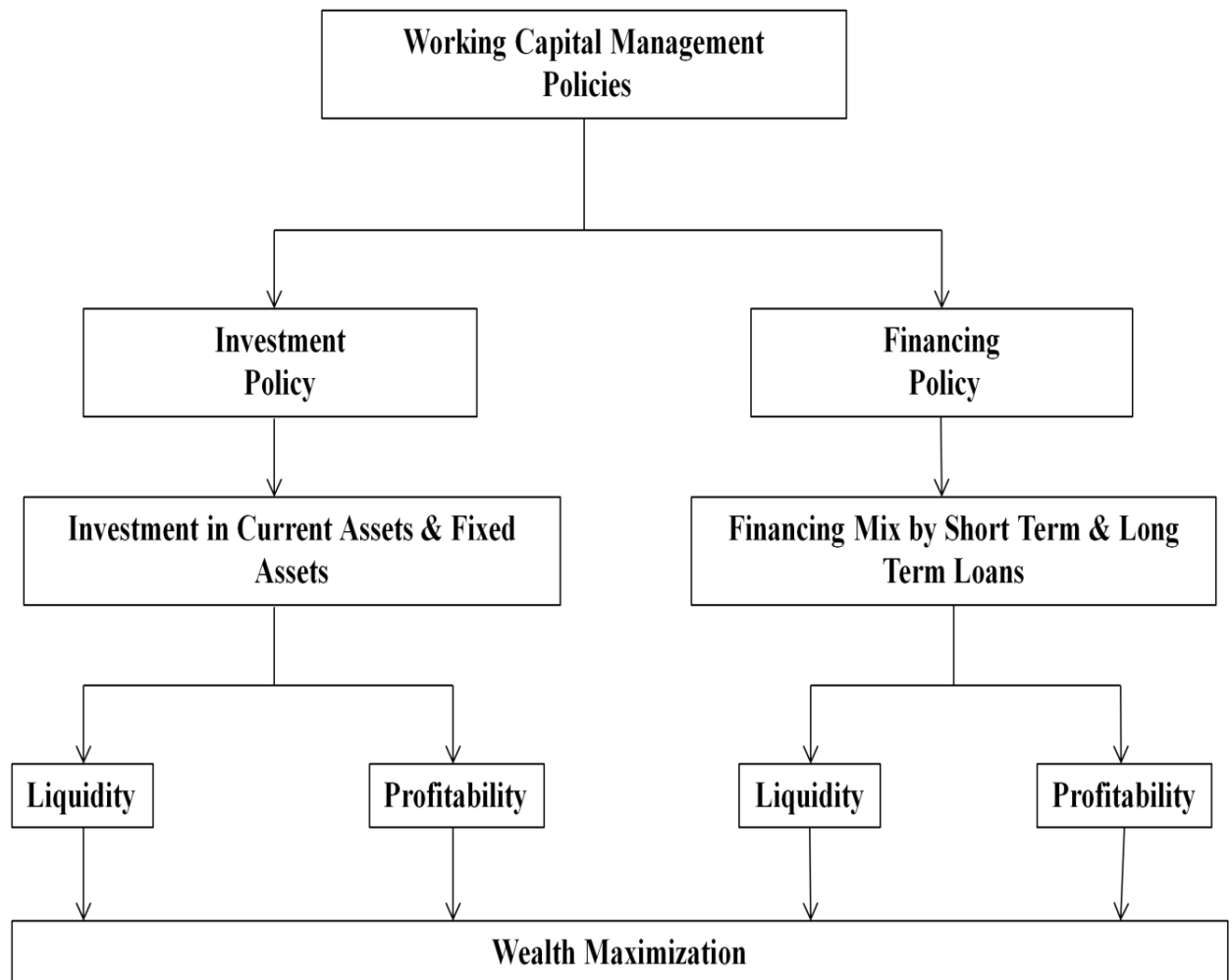
An alternate source of finance may be too costly and may harm the viability of the project. Longer the maturity schedule of the concern's debt, the more costly the financing is likely to be. Moreover, higher costs of long term borrowings, the firm may end up paying interest on

¹ Vinay A. Kumar (2001), Working Capital Management – A Comparative Study, 1st Edition, Northern Book Centre, New Delhi, p. 43.

debt over period of time when the funds are not needed, this encourages a firm to borrow short term funds.²

An unjustified investment in current assets and defective financing policies both reduce the profitability of firm and value of the firm. A trade off between these two contradicting goals is an essential condition for realizing wealth maximizing objective. The following figure shows this trade off.

Figure 5.1: Liquidity and Profitability Management



Source: See footnote³

² Narendra Kumar Jain (2004), Working Capital Management, 1st Edition, A.P.H. Publishing Corporation, New Delhi, p. 85.

³ Hyderabad R.L. (2001), Working Capital Management, Chp. 2, Management of Liquidity and Profitability, Deep & Deep Publication, New Delhi, p. 13.

Profitability is the rate of return on firm's capital employed. Excess investment in current assets increases the liquidity and reduces the risk and profitability of the business.

The above discussion exhibits two basic principles in working capital finance, i.e.

1. Profitability changes inversely with liquidity.
2. Profitability has direct relation with risk; it implies that profitability is directly proportional to risk.

In evaluating and measuring any working capital policy of the firm and its influence on liquidity and profitability, the three basic assumptions are necessary to be framed:

1. All firms are manufacturing units.
2. Current assets are less productive and profitable than fixed assets.
3. Short term funds are less costly than long term funds.

Ultimately, the optimum level of each current asset is determined by management's attitude to the trade off between risk and profitability. The finance manager has to be alert and to take financial decisions pertaining to working capital management, swiftly and frequently, and repeatedly, too, keeping pace with the ever changing scenario and circumstances of the market and the economy.⁴

This section deals with detail analysis and interpretation of working capital policy. Risk factors, correlation, t test and hypothesis testing have been carried out in this section in order to understand risk, liquidity and profitability associated with the selected Gujarat textile manufacturing companies.

5.1.1 Analysis and Interpretation of Working Capital Policy through Current Assets Financing Policy

Current assets financing policy highlights the proportion of short term funds and long term funds that have been used for financing current assets of the textile manufacturing companies in the state of Gujarat. Table 5.1 shows percentage of short term funds are used in financing the current assets of textile companies during the period from 1999-00 to 2010-11.

⁴ Satish B. Mathur (2007), Working Capital Management and Control: Principles and Practice, New Age International (P) Limited, New Delhi, p. 13.

Table 5.1: Current Assets Financing Policy (Short Term Fund to Total Fund) of Selected Textile Manufacturing Companies

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	0.00	0.00	2.55	1.16	0.00	2.28	0.62	0.00	0.21	0.00	0.68
2000-01	0.00	0.00	8.35	1.31	0.00	1.32	0.41	0.00	0.18	0.00	1.16
2001-02	0.00	1.13	5.25	1.62	0.00	0.11	1.42	0.00	0.17	0.00	0.97
2002-03	0.00	2.18	5.68	3.38	0.00	0.53	2.51	0.35	0.62	0.00	1.53
2003-04	0.00	1.98	3.02	1.08	0.00	0.15	1.69	0.60	0.18	0.00	0.87
2004-05	0.00	2.08	N.A	0.51	0.00	0.13	1.05	0.16	0.14	0.00	0.45
2005-06	0.00	1.98	1.56	0.50	0.00	0.29	1.25	0.13	0.00	0.00	0.57
2006-07	0.00	3.69	1.50	0.51	0.00	0.19	1.16	0.10	0.00	0.00	0.72
2007-08	0.01	2.60	1.38	0.52	0.00	0.68	0.39	0.09	0.31	0.00	0.60
2008-09	0.01	2.53	1.21	1.00	0.00	0.31	0.54	0.04	0.44	0.00	0.61
2009-10	0.00	2.11	1.37	0.65	0.00	0.35	1.50	0.04	0.36	0.00	0.64
2010-11	0.00	2.51	1.39	0.53	0.00	0.21	1.80	0.02	0.46	0.00	0.69
Average	0.00	1.90	3.02	1.06	0.00	0.55	1.20	0.13	0.26	0.00	0.81

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.2: Current Assets Financing Policy (CA Financed by STF and LTF) of textile companies during the Period from 1999-00 to 2010-11

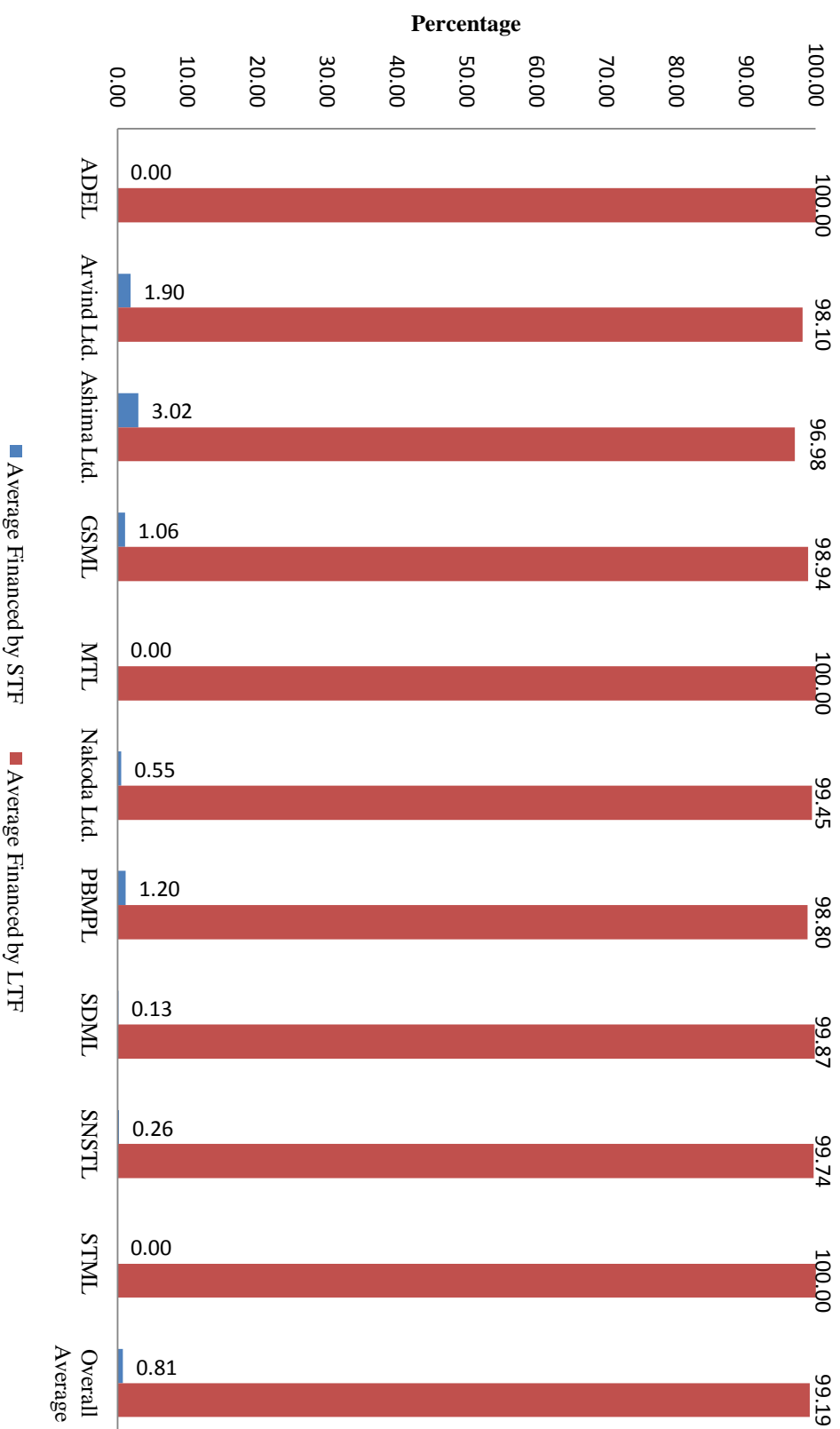


Table 5.1 shows the percentage of short term funds used by textile companies was very less. The maximum percentage of average short term funds was 3.02 for Ashima Limited. The year wise analysis shows that 1.53% was the highest and 0.45% was the lowest average percentage of short term funds, used in the year 2002-03 and 2004-05 respectively during the course of study. ADEL used the short term funds to finance current assets in the year 2007-08 and 2008-09, i.e. just 0.01% of total funds in each year. Similarly, MTL and STML were not depending on short term funds to finance their working capital. Arvind Limited used the short term funds for financing current assets in the year 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11. Maximum percentage of short term funds used by Arvind Limited was in the year 2006-07. And its average percentage of short term funds used in financing working capital was 1.90%.

Ashima Limited has used short term funds in every year but it was very less as compared to long term funds. The maximum percentage of short term funds used by Ashima Limited was in the year 2000-01 i.e. 8.35%. Its average percentage of using short term funds to finance current assets was the highest i.e. 3.02% during the course of study. GSML had increasing trend of deploying short term funds till 2002-03 (from 1.16% in 1999-00 to 3.38% in 2002-03). The average percentages of deploying short term funds for GSML, Nakoda Limited, PBMPL, SDML and SNSTL were 1.06%, 0.55%, 1.20%, 0.13% and 0.26% of total funds respectively. SDML had not used any short term fund in the year 1999-00, 2000-01 and 2001-02. Similarly SNSTL had not deployed any short term funds in the 2005-06 and 2006-07. Having compared with average of average short term fund used by all textile companies, it has been observed that Arvind Limited, Ashima Limited, GSML and PBMPL have more average percentage of short term funds than 0.81%. Moreover, in companies like ADEL, MTL, Nakoda Limited, SDML, SNSTL and STML have less average percentage of short term funds than 0.81%.

Lastly, it has been noticed that every company has used very low percentage of short term fund for financing current assets. Therefore it can be concluded after analyzing short term funds to long term funds percentage that all textile companies follow conservative approach and their working capital policies are defensive and conservative as per current assets financing approach.

5.1.2 Analysis and Interpretation of Working Capital Policy through Current Assets Investment Policy

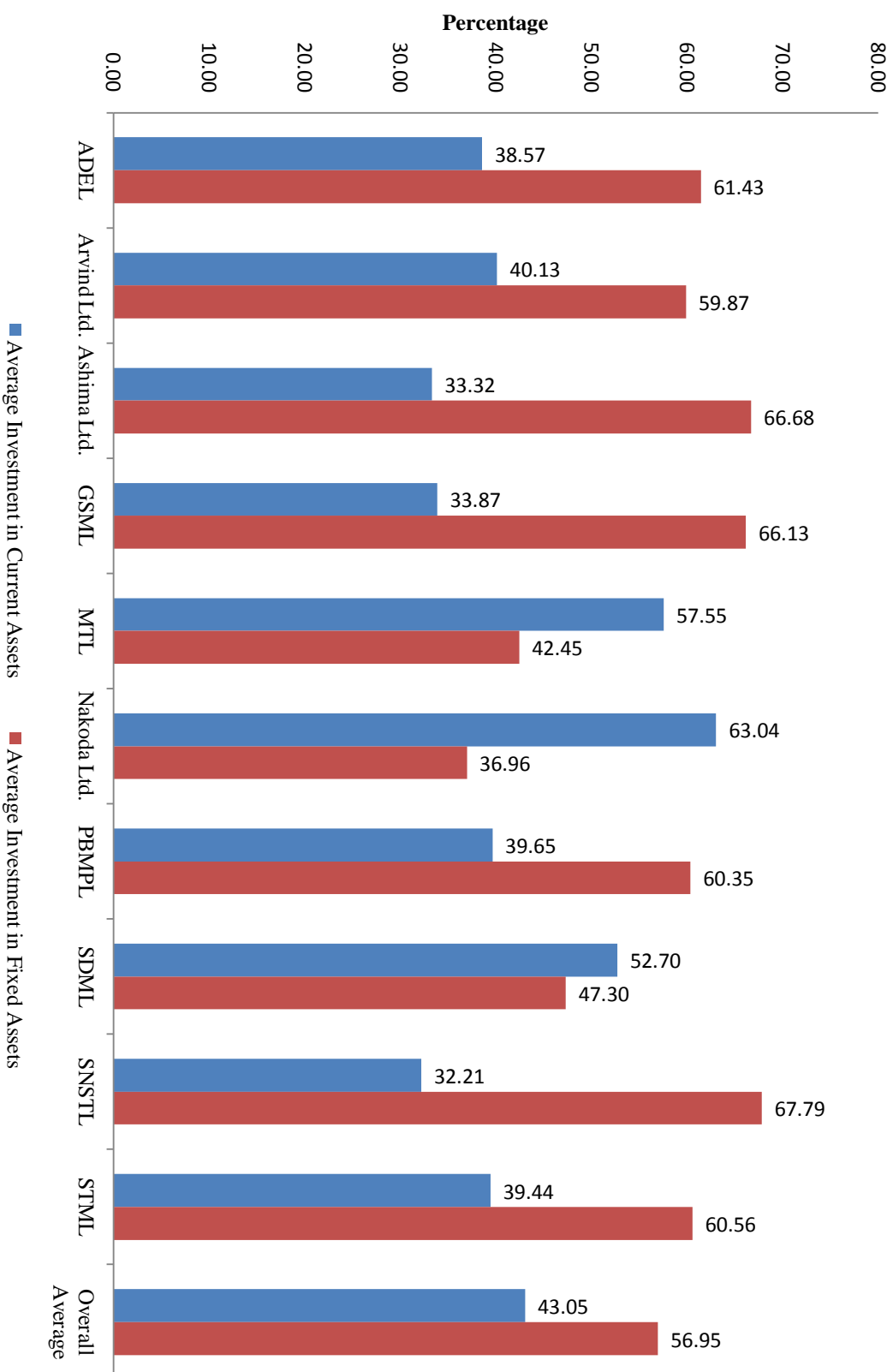
Current assets investment policy highlights the proportion of investment in current assets and fixed assets of the textile manufacturing companies in the state of Gujarat. Low percentage of current assets to total assets indicates aggressive working policy that means less liquidity and more profitability while risk of insolvency is high, and high percentage of current assets to total assets indicates excessive investment in current assets and it is considered as conservative policy of working capital. It has high liquidity but low profitability. There is no such standard for proportion of investment in current assets and fixed assets. Therefore, reaching to adequate liquidity and profitability is a challenge. Though, it can be achieved with the past experience of company's performance. Moreover, less but adequate investment in current assets enables firms to have a fair liquidity position as well as a better profitability. Table 5.2 shows percentage of current assets to total assets used to attain the given sales. ADEL had the highest investment in current assets 50.91% in the year of 2002-03, and the lowest investment in current assets 25.12% in the year 2007-08. Its average investment in current assets to total assets was 38.57%. Arvind Limited invested 52.72% in current assets in the year 2005-06. It was the highest investment in current assets for Arvind Limited. It had average investment of 40.13% of total assets in current assets. Ashima Limited seemed quite aggressive in the year 2008-09. Its twelve years average investment in current assets was 33.32%. GSML also maintained average of 33.87%. Average percentage of current assets to total assets for MTL and Nakoda Limited and SDML had more than 50% which had high liquidity during course of study. Average percentages of current assets to total assets for PBMPL, SNSTL and STML were 39.65%, 32.21% and 39.44% respectively. There was an increasing trend of average percentage of current assets to total assets from year 1999-00 to 2004-05, 48.57% was the maximum investment in current assets in the year 2010-11 by all ten textile manufacturing companies. Average of averages of the percentage of current assets to total assets of all ten companies was 43.05%. Average percentages of currents assets to total assets of ADEL, Arvind Limited, Ashima Limited, GSML, PBMPL, SNST and STML were lower than 43.05%, while average percentages of currents assets to total assets of Nakoda Limited, MTL and SDML were higher than 43.05%. The overall SD and CV of textile industry were 10.26 and 23.83% respectively.

Table 5.2: Current Assets Investment Policy (Current Assets to Total Assets) of Selected Textile Manufacturing Companies

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	38.26	31.44	31.35	46.05	41.17	30.48	34.3	64.28	24.49	20.11	36.19
2000-01	41.29	33.36	45.97	35.26	50.23	41.48	31.42	65.73	24.43	21.48	39.06
2001-02	45.56	34.7	44.64	37.77	50.9	56.21	30.89	62.08	25.29	20.83	40.89
2002-03	50.91	34.44	44.88	29.83	54.46	59.81	36.38	61.37	27.78	22.43	42.23
2003-04	45.15	39.52	45.94	28.31	61.28	58.07	42.37	61.5	20.74	19.96	42.28
2004-05	39.1	49.44	N.A	22.17	64.12	68.62	34.99	48.68	26.9	55.94	45.55
2005-06	41.61	52.72	28.22	25.2	56.64	82.45	46.28	55.83	32.84	47.13	46.89
2006-07	27.11	42.85	28.21	28.46	62.18	77.97	41.00	46.55	34.1	51.73	44.02
2007-08	25.12	39.46	20.93	37.69	64.8	80.91	36.43	48.36	38.66	54.44	44.68
2008-09	32.88	41.65	21.85	35.02	64.32	71.68	37.58	40.09	41.72	42.21	42.9
2009-10	36.19	39.53	25.23	38.00	59.62	60.41	49.52	37.23	42.97	56.45	44.52
2010-11	39.63	42.41	29.25	42.63	60.87	68.37	54.68	40.74	46.57	60.51	48.57
Average	38.57	40.13	33.32	33.87	57.55	63.04	39.65	52.70	32.21	39.44	43.05
SD	7.15	6.09	9.55	6.85	6.88	14.91	7.05	9.87	8.19	16.23	10.26
CV	18.53	15.17	28.67	20.24	11.96	23.65	17.78	18.72	25.43	41.14	23.83

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.3: Current Assets Investment Policy during the Period from 1999-00 to 2010-11



As per current assets investment policy, it seemed that ADEL, Arvind Limited, Ashima Limited, GSML, PBMPL, SNST and STML had enough liquidity; and Nakoda Limited, MTL and SDML were highly conservative companies. It is decided on the basis of observation and in-depth study of working capital that CA/TA should not exceed 35%. The results of current assets financing and current assets investment policy are given below:

Table 5.3: Analysis of working capital policy of textile manufacturing companies of Gujarat

Particular	Policies
A) Financing Policy 1. Less use of short term funds (STF) i.e. 0.81% of total funds.	Conservative
B) Investment Policy 1. More investment in current assets (CA) i.e. 43.05% of total assets.	Conservative

Both current assets financing policy and current assets investment policy revealed that all ten companies of textile manufacturing were following conservative approach.

5.1.3 Computation of Maximum Permissible Bank Finance as per Tandon Committee

The Reserve Bank of India had constituted a committee under the chairmanship of Mr. P. L. Tandon in 1974 to frame guidelines for commercial banks for reviewing of bank credit system. The committee submitted its report in August 1975, which is popularly known as Tandon Committee's Report. Its main recommendations related to norms for inventory and receivables, lending approach, credit style, review and information system. It was a benchmark in the history of bank lending in India. A new era of lending began in India with acceptance of major recommendations by Reserve Bank of India.

Major recommendations of the Tandon Committee were as follows:

1. Assessment of credit requirement on a rational basis on the basis of their business plans.
2. Bank should ascertain proper utilization of bank credit by keeping a closer vigil on the borrower's business, and impose financial discipline on them.

3. Bank credit would only be supplementary to the borrower's funds and short term credit should not be converted into long term credit; and banks would not finance 100% of borrower's working capital requirement.
4. Bank credit would be given to the borrowers on the basis of industry wise norms prescribed first by the Tandon Committee and then by Reserve Bank of India for holding different current assets, these current assets are raw materials including stores and others items used in manufacturing process, stock in process, finished goods and accounts receivables.
5. Bank credit would be made available to the borrowers in different forms like cash credit, short term loans, bills purchased and discounted working capital, etc., based upon nature of holding of various current assets.
6. In order to ease a close vigil over operation of borrowers, bank could instruct them to submit data regarding their business and financial operations at regular intervals, for both the past and the future periods.⁵

5.1.3.1 Approach to Lending

The committee has suggested three methods for working out the maximum permissible level of bank borrowing. Each successive method is meant for increasing the involvement of long term funds to finance the current assets.

1st Method:

According to 1st method, the borrower has to contribute a minimum of 25% of working capital gap from the long term funds i.e. secured or unsecured loans, owned funds etc. This will give the minimum current ratio of 1:1.

Working Capital Gap = Gross Current Assets – Accounts Payable

2nd Method:

In the second method, the borrower has to provide a minimum of 25% of total current assets from long term funds i.e. secured or unsecured loans, owned funds etc. this will give the current ratio at least 1:1.33.

⁵ The Reserve Bank of India, Tandon Study Group, *Reserve Bank of India*, 1975.

3rd Method:

According to the third method, the borrower has to contribute core (permanent) current assets and a maximum of 25% of the balance of the current assets from the long term funds, then strengthening the current assets further. Under this method, permissible bank finance would be assessed in the same manner as the second method but only after deducting core current assets from the gross current assets.

Table 5.4 showed that the selected textile manufacturing companies in state of Gujarat deployed long term funds more than short term funds; in spite of maximum permissible bank finance for textile companies was enough to deploy funds in order to fulfill the needs of working capital. In the year 1999-00, the MPBF was Rs. 83200.42 lakh but it had just Rs. 2270.36 lakh of short term funds that had borrowed by textile companies from bank. MPBF in the year 2000-01 Rs. 94175.13 lakh, but textile companies' borrowed short term funds just Rs. 7002.26 lakh. MPBF in the year 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11 were Rs. 97607.27 lakh, Rs. 94957.25 lakh, Rs. 112499.16 lakh, Rs. 128391.91 lakh, Rs. 170804.11 lakh, Rs.140510.34 lakh, Rs. 149677.74 lakh, Rs. 146416.77 lakh, Rs. 163913.33 lakh and Rs. 202442.33 lakh respectively. In every year textile companies borrowed short term funds lower than MPBF. Their working capital gap in the year 1999-00 was Rs. 110933.89 lakh which increased to Rs. 269923.11 lakh in the year 2010-11. A total current asset of textile companies was Rs. 164142.76 lakh in the year 1999-00, which also increased to Rs. 445751.77 lakh in the year 2010-11. They should have financed their current assets by long term funds not more than Rs. 27733.47, Rs. 31391.71, Rs. 32535.76, Rs. 31652.42, Rs. 37499.72, Rs. 42797.30, Rs. 56934.70, Rs. 46836.78, Rs. 49892.58, Rs. 48805.59, Rs. 54637.78 and Rs. 67480.78 lakh in the year 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11 respectively. In every year current ratio of this method was above standard norm i.e. 1:1.

Moreover, 1st method of tendon committee showed that the textile companies of Gujarat had more MPBF than their short term borrowings throughout the study period. It also revealed that either the performance of textile companies might not be effective or textile companies were not interested in borrowing short term funds as they had conservative approach.

Table 5.4: Maximum Permissible Bank Finance as per Tandon Committee (1st Method)

Rs. in Lakh												
Particulars	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Total current assets	164142.76	175819.31	169287.03	159815.92	180075.47	210798.57	275123.73	256006.43	263629.53	296076.13	333191.56	445751.77
Current liabilities other than bank borrowing	53208.87	50252.47	39144.01	33206.26	30076.59	39609.36	47384.92	68659.30	64059.22	100853.77	114640.45	175828.66
Working Capital Gap (WCG)	110933.89	125566.84	130143.02	126609.66	149998.88	171189.21	227738.82	187347.12	199570.31	195222.36	218551.10	269923.11
Less 25% of WCG from long term funds	27733.47	31391.71	32535.76	31652.42	37499.72	42797.30	56934.70	46836.78	49892.58	48805.59	54637.78	67480.78
Maximum Permissible Bank Finance (MPBF)	83200.42	94175.13	97607.27	94957.25	112499.16	128391.91	170804.11	140510.34	149677.74	146416.77	163913.33	202442.33
STF of Selected Textile Companies (Actual)	2270.36	7002.26	7706.87	11783.37	8562.19	6898.47	8696.04	14602.31	10882.55	10832.40	9582.95	11742.73

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.5 is the calculated MPBF based on 2nd method, shows that the 25% of current assets should be financed from long term funds. In the year 1999-00, Rs. 41035.69 lakh should have raised from long term funds, which increased to Rs. 111437.94 lakh in the year 2010-11. A total current asset of textile companies was Rs. 164142.76 lakh in the year 1999-00, which increased to Rs. 445751.77 lakh in the year 2010-11. MPBF for the textile companies should be Rs. 69898.20 lakh in 1999-00, Rs.81612.01 lakh in 2000-01, Rs. 87821.26 lakh in 2001-02, Rs.86655.68 lakh in 2002-03, Rs. 104980.01 lakh in 2003-04, Rs. 118489.57 lakh in 2004-05, Rs. 158957.88 lakh in 2005-06, Rs. 123345.52 lakh in 2006-07, Rs. 133662.93 lakh in 2007-08, Rs. 121203.33 lakh in 2008-09, Rs. 135253.21 lakh in 2009-10 and Rs. 158485.17 lakh in the year 2010-11. The actual short term funds were Rs. 2270.36, Rs.7002.26, Rs. 7706.87, Rs.11783.37, Rs. 8562.19, Rs. 6898.47, Rs. 8696.04, Rs.14602.31, Rs.10882.55, Rs. 10832.40, Rs. 9582.95 and Rs. 11742.73 lakh in the years 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11 respectively. In every year short term finance was lower than MPBF during the course of study. Current ratio was 1.33:1 throughout the study period.

Table 5.6 is the calculated MPBF based on 3rd method of Tandon committee. This method is quite vague as Tandon Committee has not specified any percentage for core current assets and current ratio. Therefore, it has been decided to assume 40% of total assets as core current assets in order to find maximum permissible bank finance. Despite of taking core current assets 40% of total current assets, study found that MPBF of textile manufacturing companies were higher than actual short term funds deployed by them. MPBF of textile companies should be Rs. 20655.37, Rs. 28866.22, Rs. 37035.15, Rs. 38710.91, Rs. 50957.37, Rs. 55250.00, Rs. 76420.76, Rs. 46543.59, Rs. 54574.07, Rs. 32380.49, Rs. 35295.75 and Rs. 24759.64 lakh in the year 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11 respectively. Current ratio was 2.22:1 throughout period of the study.

It observed that under all three methods, actual short term funds were lower than MPBF as per Tandon Committee. It revealed that the textile manufacturing companies in the state of Gujarat were more dependable on long term funds for financing their working capital. It is found that the textile companies followed conservative approach of working capital during the course of study.

Table 5.5: Maximum Permissible Bank Finance as per Tandon Committee (2nd Method)

Rs. in Lakh												
Particulars	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Total current assets	164142.76	175819.31	169287.03	159815.92	180075.47	210798.57	275123.73	256006.43	263629.53	296076.13	333191.56	445751.77
Less 25% of CA from long term funds	41035.69	43954.83	42321.76	39953.98	45018.87	52699.64	68780.93	64001.61	65907.38	74019.03	83297.89	111437.94
Balance of Current Assets	123107.07	131864.48	126965.27	119861.94	135056.60	158098.93	206342.80	192004.82	197722.15	222057.10	249893.67	334313.83
Less: CL other than bank borrowing	53208.87	50252.47	39144.01	33206.26	30076.59	39609.36	47384.92	68659.30	64059.22	100853.77	114640.45	175828.66
Maximum Permissible Bank Finance (MPBF)	69898.20	81612.01	87821.26	86655.68	104980.01	118489.57	158957.88	123345.52	133662.93	121203.33	135253.21	158485.17
STF of Selected Textile Companies (Actual)	2270.36	7002.26	7706.87	11783.37	8562.19	6898.47	8696.04	14602.31	10882.55	10832.40	9582.95	11742.73

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.6: Maximum Permissible Bank Finance as per Tandon Committee (3rd Method) (Assumed core current assets 40% of total current assets)

Rs. in Lakh

Particulars	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Total current assets	164142.76	175819.31	169287.03	159815.92	180075.47	210798.57	275123.73	256006.43	263629.53	296076.13	333191.56	445751.77
40% Core CA to be finance from LTF	65657.10	70327.72	67714.81	63926.37	72030.19	84319.43	110049.49	102402.57	105451.81	118430.45	133276.62	178300.71
Balance of Current Assets(CA)	98485.65	105491.58	101572.22	95889.55	108045.28	126479.14	165074.24	153603.86	158177.72	177645.68	199914.93	267451.06
25% of balance of CA from LTF	24621.41	26372.90	25393.05	23972.39	27011.32	31619.79	41268.56	38400.96	39544.43	44411.42	49978.73	66862.77
Net balance of CA	73864.24	79118.69	76179.16	71917.16	81033.96	94859.36	123805.68	115202.89	118633.29	133234.26	149936.20	200588.30
Less: CL other than bank borrowing	53208.87	50252.47	39144.01	33206.26	30076.59	39609.36	47384.92	68659.30	64059.22	100853.77	114640.45	175828.66
Maximum Permissible Bank Finance (MPBF)	20655.37	28866.22	37035.15	38710.91	50957.37	55250.00	76420.76	46543.59	54574.07	32380.49	35295.75	24759.64
STF of Selected Textile Companies (Actual)	2270.36	7002.26	7706.87	11783.37	8562.19	6898.47	8696.04	14602.31	10882.55	10832.40	9582.95	11742.73

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.1.4 Computation of Return on Average Capital Employed

Effective working capital management policy leads to liquidity and profitability. Profitability can increase wealth maximization of the shareholders and liquidity is the necessity of working capital management. Return on average capital employed (ROACE) is a general measure of assessing the profitability of the company. This ratio compares profits with the capital employed to earn the profits.⁶ Return on average capital employed is calculated by dividing EBIT (Earnings before Interest and Tax) by average capital employed.

Table 5.7 shows the profitability of the textile companies during the period from 1999-00 to 2010-11. ROACE of ADEL in the year 2004-05 was the highest i.e. 33.54%. It decreased to 3.46% in the year 2008-09. The average of twelve year of ADEL was 17.56%. Arvind Limited had negative return on average capital employed in first two years, and then it managed to make it in positive return on average capital employed till 2010-11. Arvind Limited had the highest profitability of 11.30% in the year 2002-03. Its average ROACE was 3.86%. An average percentage of ROACE of Ashima Limited was in negative i.e. 0.03%. ROACE of GSML in 1999-00 was 4.56% that reached to 11.57% in 2010-11. The average of twelve years for GSML was 8.60%. MTL had loss in the year 2007-08. Though, its average was 7.90%. Nakoda Limited had consistent ROACE throughout the study period. 17.17% was the highest in the year 2007-08. Twelve years average of Nakoda Limited was 13.30%. ROACE of PBMPL was the highest in the year 2010-11. 2.01% was the lowest return for PBML in 2008-09. Average return of PBMPL was 9.33%. SDML recorded 19.13% ROACE in the year 2005-06 then again reduced to 10.74% in 2010-11. 11.15% was the average ROACE for SDML. SNSTL recorded the lowest average ROACE of (2.78) %. ROACE for STML was negative in first six years and then positive in next six years. Its return increased from 3.15% in 1999-00 to 23.66% in 2010-11. The average ROACE of STML was 3.76%. It was found that in the year 2005-06 and 2010-11 averages were above 10%. The overall SD was 5.77%.

However, the overall average of textile companies was 7.46%. After comparing it with averages of selected companies, it was observed that ADEL, GSML, MTL, Nakoda Limited, PBMPL and SDML had more average than overall average of textile companies. It was also found that GSML, Nakoda Limited and SDML were consistent in their profitability.

⁶ Clive Marsh (2012), Financial Management for Non Financial Managers, *Kogan Page*, New Delhi, p.43.

Table 5.7 : Return on Average Capital Employed of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In percentage

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPPL	SDML	SNSLTL	STML	Average
1999-00	8.30	(1.72)	5.91	4.56	7.93	9.52	10.21	8.99	0.61	(3.15)	5.12
2000-01	12.54	(0.70)	9.71	6.90	12.19	11.04	10.49	5.71	(4.41)	(3.90)	5.96
2001-02	18.89	3.03	(3.61)	10.27	2.50	13.35	11.02	6.24	(3.61)	(5.46)	5.26
2002-03	31.43	11.31	(1.52)	11.92	6.98	16.04	12.65	8.13	(1.88)	(5.58)	8.95
2003-04	26.36	8.67	(0.76)	8.32	5.27	13.94	9.74	9.79	(12.06)	(4.12)	6.52
2004-05	33.54	8.97	N.A	3.16	9.34	12.21	6.31	10.64	(4.04)	(0.72)	8.82
2005-06	30.07	8.55	5.16	7.24	12.73	13.66	8.86	19.13	(1.03)	3.73	10.81
2006-07	16.16	5.30	(1.52)	9.44	12.08	14.74	9.89	18.20	(1.09)	2.64	8.58
2007-08	5.41	4.81	(4.67)	10.46	(0.68)	17.17	2.73	12.03	(1.45)	3.05	4.89
2008-09	3.46	5.30	(4.76)	8.58	6.29	15.76	2.01	13.21	0.01	13.31	6.32
2009-10	10.84	6.35	(3.18)	10.80	10.16	11.15	6.75	11.01	1.21	21.61	8.67
2010-11	13.74	9.51	(1.09)	11.57	9.99	11.05	21.34	10.74	(5.66)	23.66	10.48
Average	17.56	5.78	(0.03)	8.60	7.90	13.30	9.33	11.15	(2.78)	3.76	7.46
SD	10.01	3.86	4.57	2.62	3.91	2.26	4.78	3.96	3.45	9.87	5.77
CV	57.00	66.67	(14839.17)	30.46	49.56	17.01	51.18	35.50	(124.09)	262.68	77.31

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.1.5 Computation Risk Factor of Selected Textile Companies

The Trade off between risk and profitability could be made by calculating the risk factor. The interpretation could be done through which it can be said about the policies adopted while managing the working capital of the company.

The formula of risk factor is⁷:

$$R_k = \{(E_j + L_j) - A_j\} / C_j$$

Where, R_k = Risk factor, E_j = Equity + Retained Earnings, L_j = Long term Loans,

A_j = Fixed Assets, C_j = Current Assets

The above formula assists to understand about the financing of the current assets through long term funds after fixed assets are financed entirely. Based on the above stated formula, following interpretations can be drawn:

- Value of R_k is zero or less would mean that the firm is using the aggressive policy and normally the profitability would be high⁸.
- Value of R_k is 1 or close to 1 would mean that the firm is using a conservative policy and the profitability would be low⁹.

Table 5.8: shows the risk factor of every textile company from 1999-00 to 2010-11. ADEL had negative R_k in the year 2006-07, indicated aggressive policy and in the same year profit was also higher. The average R_k for ADEL was 0.47 times. It showed that its working capital policy was quite moderate and thus, profitability was also higher. PBMPL and SDML could also be confined to moderate working capital policy. STML in the year 2009-10, SDML in 1999-00 and 2001-02, and PBMPL in 2001-02 followed quite aggressive working policy. Risk factors of Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, SNSTL and STML were 0.89, 3.59, 0.78, 0.76, 0.58, 5.89 and 2.12 times respectively.

Moreover overall average risk factor of textile companies was 1.60 times. It indicated more or less all selected textile companies were following conservative working capital policy in the state of Gujarat. Their overall CV of 30.12% indicated the consistency in risk factor.

⁷ Dr. Vivek Sharma (2011), Liquidity, Risk and Profitability Analysis : A Case Study of Maruti India Limited, *Search And Research Journal*, Vol. II, No. 2, Bhopal, pp. 191-193

⁸ Ibid.

⁹ Ibid.

Table 5.8: Risk Factor of Textile Companies during the Period from 1999-00 to 2010-11

In Times

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNS TL	STML	Average
1999-00	0.75	0.95	0.92	0.97	0.92	0.81	0.57	0.35	1.44	1.38	0.91
2000-01	0.71	1.47	0.85	1.16	0.80	0.91	0.68	0.40	2.31	1.52	1.08
2001-02	0.70	0.92	1.12	0.83	0.80	0.61	0.29	0.35	2.66	1.92	1.02
2002-03	0.55	0.87	1.51	0.62	0.83	0.52	0.37	0.45	2.67	2.03	1.04
2003-04	0.47	0.97	1.90	0.83	0.76	0.68	0.46	0.42	4.76	2.76	1.40
2004-05	0.18	0.92	N.A	0.89	0.74	0.65	0.42	0.40	4.54	3.52	1.36
2005-06	0.50	1.02	3.27	0.83	0.71	0.48	0.56	0.42	8.87	5.26	2.19
2006-07	(0.20)	0.74	3.65	0.97	0.69	0.46	0.50	0.46	9.58	4.72	2.16
2007-08	0.47	0.83	5.95	0.77	0.84	0.44	0.50	0.50	8.63	0.59	1.95
2008-09	0.47	0.69	6.59	0.62	0.80	0.48	0.53	0.43	8.50	0.66	1.98
2009-10	0.53	0.69	7.28	0.40	0.73	0.52	0.63	0.46	8.45	0.34	2.00
2010-11	0.47	0.64	6.50	0.47	0.54	0.42	0.68	0.50	8.24	0.75	1.92
Average	0.47	0.89	3.59	0.78	0.76	0.58	0.52	0.43	5.89	2.12	1.60
SD	0.25	0.21	2.43	0.21	0.09	0.15	0.12	0.05	2.97	1.57	0.48
CV	52.91	23.59	67.48	26.84	11.87	25.75	22.34	11.28	50.36	73.90	30.12

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.1.6 Computation of Correlation between Liquidity and Profitability, Value of “t” for Hypothesis Testing; and Hypothesis Results

An objective of working capital policy leads to adequate liquidity with maximum profitability. Liquidity and profitability are the two faces of a coin that help in smooth running of operating cycle and increasing the wealth of shareholders. To understand the relation between liquidity and profitability, the hypotheses are formulated. Liquidity has been calculated with the help of current assets to total assets. Current asset is the synonym of liquidity for business organization. Return on average capital employed is taken as profitability of the textile companies of Gujarat. Average capital employed is applied for more consistent results.

Table 5.9 is the calculation of correlation between liquidity and profitability and value of “t”. Critical value 2.33 and 2.26 are obtained from table where degrees of freedom are 10 and 9 respectively. Level of significance is 5%. There were only two textile companies which had no significant correlation between liquidity and profitability i.e. MTL and SDML. Correlations for ADEL, Arvind Limited, Ashima Limited, GSML, Nakoda Limited, PBMPL, SNSTL and STML were 0.64, 0.58, 0.35, 0.26, 0.66, 0.41, 0.42 and 0.73 respectively. These textile companies had significant correlation between two.

Table 5.10 shows the results of hypothesis testing, these findings are as follows:

Hypothesis 1:

Null: There is no significant correlation between liquidity and profitability in Aarvee Denims and Export Ltd (ADEL).

Alternative: There is significant correlation between liquidity and profitability in Aarvee Denims and Export Ltd.

Result: Calculated value of “t” of ADEL is more than critical value of “t” ($2.603 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in ADEL. Therefore alternative hypothesis is accepted for ADEL (Table 5.10).

Hypothesis 2:

Null: There is no significant correlation between liquidity and profitability in Arvind Ltd.

Alternative: There is significant correlation between liquidity and profitability in Arvind Ltd.

Result: Calculated value of “t” of Arvind Limited is more than critical value of “t” ($2.229 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in Arvind Limited. Therefore alternative hypothesis is accepted for Arvind Limited (Table 5.10).

Hypothesis 3:

Null: There is no significant correlation between liquidity and profitability in Ashima Limited.

Alternative: There is significant correlation between liquidity and profitability in Ashima Limited.

Result: Calculated value of “t” of Ashima Limited is less than critical value of “t” ($1.88 < 2.262$). It reveals that there is no significant correlation between liquidity and profitability in Ashima Limited. Therefore, null hypothesis is accepted for Ashima Limited. Though, there is mild relationship between liquidity and profitability (Table 5.10).

Hypothesis 4:

Null: There is no significant correlation between liquidity and profitability in Garden Silk Mills Ltd (GSML).

Alternative: There is significant correlation between liquidity and profitability in Garden Silk Mills Ltd.

Result: Calculated value of “t” of GSML is less than critical value of “t” ($0.855 < 2.228$). It reveals that there is no significant correlation between liquidity and profitability in GSML. Therefore, null hypothesis is accepted for GSML. Though, there is mild relationship between liquidity and profitability (Table 5.10).

Hypothesis 5:

Null: There is no significant correlation between liquidity and profitability in Minaxi Textiles Ltd (MTL).

Alternative: There is significant correlation between liquidity and profitability in Minaxi Textiles Ltd.

Result: Calculated value of “t” of MTL is less than critical value of “t” ($-0.395 < 2.228$). It reveals that there is no significant correlation between liquidity and profitability in MTL. Therefore, null hypothesis is accepted for MTL (Table 5.10).

Table 5.9: Correlation between Current Assets to Total Assets (Liquidity) and Average Return on Capital Employed (Profitability), and Its Value of "t"

COMPANIES	r (Between Liquidity and Profitability)	Computed Value of "t"	Critical value of "t"
Aarvee Denims And Export Ltd.	0.64	2.603	2.228
Arvind Ltd.	0.58	2.229	2.228
Ashima Ltd.	0.35	1.188	2.262
Garden Silk Mills Ltd.	0.26	0.855	2.228
Minaxi Textiles Ltd.	(0.12)	(0.395)	2.228
Nakoda Ltd.	0.66	2.753	2.228
P B M Polytex Ltd.	0.41	2.890	2.228
Shri Dinesh Mills Ltd.	(0.47)	(1.669)	2.228
SNS Textile Ltd.	0.42	1.462	2.228
Surat textile Mills Ltd.	0.73	3.397	2.228
Overall (selected textile companies)	0.74	3.500	2.228

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.10: Hypotheses Testing (Liquidity & Profitability)

COMPANIES	Computed Value of "t"		Critical value of "t"	Result	Remark (For Alternative Hypothesis)
Aarvee Denims And Export Ltd.	2.603	>	2.228	Alternative	Accepted
Arvind Ltd.	2.229	>	2.228	Alternative	Accepted
Ashima Ltd.	1.188	<	2.262	Null	Rejected
Garden Silk Mills Ltd.	0.855	<	2.228	Null	Rejected
Minaxi Textiles Ltd.	(0.395)	<	2.228	Null	Rejected
Nakoda Ltd.	2.753	>	2.228	Alternative	Accepted
P B M Polytex Ltd.	2.890	>	2.228	Alternative	Accepted
Shri Dinesh Mills Ltd.	(1.669)	<	2.228	Null	Rejected
SNS Textile Ltd.	1.462	<	2.228	Null	Rejected
Surat textile Mills Ltd.	3.397	>	2.228	Alternative	Accepted
Overall (selected textile companies)	3.500	>	2.228	Alternative	Accepted

Hypothesis 6:

Null: There is no significant correlation between liquidity and profitability in Nakoda Ltd.

Alternative: There is significant correlation between liquidity and profitability in Nakoda Ltd.

Result: Calculated value of “t” of Nakoda Limited is more than critical value of “t” ($2.753 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in Nakoda Ltd. Therefore alternative hypothesis is accepted for Nakoda Limited (Table 5.10).

Hypothesis 7:

Null: There is no significant correlation between liquidity and profitability in P B M Polytex Ltd (PBMPL).

Alternative: There is significant correlation between liquidity and profitability in P B M Polytex Ltd.

Result: Calculated value of “t” of PBMPL is more than critical value of “t” ($2.890 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in PBMPL. Therefore alternative hypothesis is accepted for PBMPL (Table 5.10).

Hypothesis 8:

Null: There is no significant correlation between liquidity and profitability in Shri Dinesh Mills Ltd (SDML).

Alternative: There is significant correlation between liquidity and profitability in Shri Dinesh Mills Ltd.

Result: Calculated value of “t” of SDML is less than critical value of “t” ($-1.669 < 2.228$). It reveals that there is no significant correlation between liquidity and profitability in SDML. Therefore, null hypothesis is accepted for SDML (Table 5.10).

Hypothesis 9:

Null: There is no significant correlation between liquidity and profitability in SNS Textile Ltd (SNSTL).

Alternative: There is significant correlation between liquidity and profitability in SNS Textile Ltd.

Result: Calculated value of “t” of SNSTL is less than critical value of “t” ($1.462 < 2.228$). It reveals that there is no significant correlation between liquidity and profitability in SNSTL. Therefore, null hypothesis is accepted for SNSTL. Though, there is mild relationship between liquidity and profitability (Table 5.10).

Hypothesis 10:

Null: There is no significant correlation between liquidity and profitability in Surat textile Mills Ltd (STML).

Alternative: There is significant correlation between liquidity and profitability in Surat textile Mills Ltd.

Result: Calculated value of “t” of STML is more than critical value of “t” ($3.397 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in STML. Therefore alternative hypothesis is accepted for STML (Table 5.10).

Hypothesis 11:

Null: There is no significant correlation between liquidity and profitability in overall selected textile companies.

Alternative: There is significant correlation between liquidity and profitability in overall selected textile companies.

Result: Calculated value of “t” of overall selected Companies is more than critical value of “t” ($3.500 > 2.228$). It reveals that there is significant correlation between liquidity and profitability in overall selected companies. Therefore alternative hypothesis is accepted for overall selected Companies (Table 5.10).

Liquidity decreases the profitability is the generally accepted statement, the study indicates, in textile companies in the state of Gujarat, profitability has statistically significant relationship with liquidity of the textile companies and therefore, excessive liquidity which may lead to lower profitability should be controlled through skilful liquidity management. There exists some favorable effect of liquidity on profitability. Hypotheses testing indicated that ADEL, Arvind Limited, Nakoda Limited, PBMPL and STML had significant correlation between liquidity and profitability. Companies like MTL and SDML had no significant correlation between liquidity and profitability.

Ashima Limited, GSML and SNSTL had mild relationship between liquidity and profitability. Overall in textile industry, it was found that there was significant correlation between liquidity and profitability.

5.1.7 Computation of Correlation between Risk and Profitability, Value of “t” for Hypothesis Testing; and Hypothesis Results

Management of working capital policy is effective when it attains maximum profitability with minimum risk. There is direct relationship between risk and profitability; means higher risk increases the profitability of the company and lower risk decreases the profitability. For the computation of risk in textile companies of Gujarat, risk factor has been used. Return on average capital employed is taken as profitability of textile companies.

Table 5.11 has shown that the correlation between risk and profitability during the period from 1999-00 to 2010-11. It consists of value of “t”, where level of significance is 5%. The correlations for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were (0.209), (0.461), (0.582), (0.630), (0.463), (0.576), 0.199, 0.376, 0.233 and (0.398) respectively. There were no positive association between risk and profitability in ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited and STML. Companies like PBMPL, SNSTL and SDML had some positive relationship between risk and profitability but their ‘r’ was not near to 1. Though, overall it had 0.478 that revealed mild correlation between risk and profitability in textile companies of Gujarat.

Table 5.12 shows the results of hypothesis testing, these findings are as follows:

Hypothesis 1:

Null: There is no association between risk and profitability in Aarvee Denims and Export Ltd (ADEL).

Alternative: There is association between risk and profitability in Aarvee Denims and Export Ltd.

Result: Calculated value of “t” of ADEL is less than critical value of “t” ($-0.898 < 2.228$). There is no association between risk and profitability in ADEL. Therefore, null hypothesis is accepted for ADEL (Table 5.12).

Table 5.11: Correlation between Risk Factor (Risk) and Average Return on Capital Employed (Profitability), and its Value of "t"

COMPANIES	r (Between Risk and Profitability)	Computed Value of "t"	Critical value of "t"
Aarvee Denims And Export Ltd.	(0.209)	(0.898)	2.228
Arvind Ltd.	(0.461)	(2.574)	2.228
Ashima Ltd.	(0.582)	(3.584)	2.262
Garden Silk Mills Ltd.	(0.630)	(4.384)	2.228
Minaxi Textiles Ltd.	(0.463)	(2.588)	2.228
Nakoda Ltd.	(0.576)	(3.707)	2.228
P B M Polytex Ltd.	0.199	0.844	2.228
Shri Dinesh Mills Ltd.	0.376	1.908	2.228
SNS Textile Ltd.	0.233	1.023	2.228
Surat textile Mills Ltd.	(0.398)	(2.070)	2.228
Overall (selected textile companies)	0.478	1.718	2.228

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.12: Hypotheses Testing (Risk & Profitability)

COMPANIES	Computed Value of "t"	Critical value of "t"	Result	Remark (For Alternative Hypothesis)	
Aarvee Denims And Export Ltd.	(0.898)	<	2.228	Null	Rejected
Arvind Ltd.	(2.574)	<	2.228	Null	Rejected
Ashima Ltd.	(3.584)	<	2.262	Null	Rejected
Garden Silk Mills Ltd.	(4.384)	<	2.228	Null	Rejected
Minaxi Textiles Ltd.	(2.588)	<	2.228	Null	Rejected
Nakoda Ltd.	(3.707)	<	2.228	Null	Rejected
P B M Polytex Ltd.	0.844	<	2.228	Null	Rejected
Shri Dinesh Mills Ltd.	1.908	<	2.228	Null	Rejected
SNS Textile Ltd.	1.023	<	2.228	Null	Rejected
Surat textile Mills Ltd.	(2.070)	<	2.228	Null	Rejected
overall (selected textile companies)	1.718	<	2.228	Null	Rejected

Hypothesis 2:

Null: There is no association between risk and profitability in Arvind Ltd.

Alternative: There is association between risk and profitability in Arvind Ltd.

Result: Calculated value of “t” of Arvind Limited is less than critical value of “t” ($-2.574 < 2.228$) which is statistically insignificant. There is no association between risk and profitability in Arvind Limited. Hence, null hypothesis is accepted for Arvind Limited (Table 5.12).

Hypothesis 3:

Null: There is no association between risk and profitability in Ashima Ltd.

Alternative: There is association between risk and profitability in Ashima Ltd.

Result: Calculated value of “t” of Ashima Limited is less than critical value of “t” ($-3.584 < 2.228$) which is statistically insignificant. There is no association between risk and profitability in Ashima Limited. Therefore, null hypothesis is accepted for Ashima Limited (Table 5.12).

Hypothesis 4:

Null: There is no association between risk and profitability in Garden Silk Mills Ltd (GSML).

Alternative: There is association between risk and profitability in Garden Silk Mills Ltd.

Result: Calculated value of “t” of GSML is less than critical value of “t” ($-4.384 < 2.228$). There is no association between risk and profitability in GSML. Therefore, null hypothesis is accepted for GSML (Table 5.12).

Hypothesis 5:

Null: There is no association between risk and profitability in Minaxi Textiles Ltd (MTL).

Alternative: There is association between risk and profitability in Minaxi Textiles Ltd.

Result: Calculated value of “t” of MTL is less than critical value of “t” ($-2.588 < 2.228$) which is statistically insignificant. There is no association between risk and profitability in MTL. Therefore, null hypothesis is accepted for MTL (Table 5.12).

Hypothesis 6:

Null: There is no association between risk and profitability in Nakoda Ltd.

Alternative: There is association between risk and profitability in Nakoda Ltd.

Result: Calculated value of “t” of Nakoda Limited is less than critical value of “t” ($-3.707 < 2.228$) which is statistically insignificant. There is no association between risk and profitability in Nakoda Limited. Hence, null hypothesis is accepted for Nakoda Limited (Table 5.12).

Hypothesis 7:

Null: There is no association between risk and profitability in P B M Polytex Ltd (PBMPL).

Alternative: There is association between risk and profitability in P B M Polytex Ltd.

Result: Calculated value of “t” of PBMPL is less than critical value of “t” ($0.844 < 2.228$). There is no association between risk and profitability in PBMPL. Therefore, null hypothesis is accepted for PBMPL. However, there is mild positive relationship between risk and profitability (Table 5.12).

Hypothesis 8:

Null: There is no association between risk and profitability in Shri Dinesh Mills Ltd (SDML).

Alternative: There is association between risk and profitability in Shri Dinesh Mills Ltd.

Result: Calculated value of “t” of SDML is less than critical value of “t” ($1.908 < 2.228$). There is no association between risk and profitability in SDML. Thus, null hypothesis is accepted for SDML. However, there is mild positive relationship between risk and profitability (Table 5.12).

Hypothesis 9:

Null: There is no association between risk and profitability in SNS Textile Ltd (SNSTL).

Alternative: There is association between risk and profitability in SNS Textile Ltd.

Result: Calculated value of “t” of SNSTL is less than critical value of “t” ($1.023 < 2.228$). There is no association between risk and profitability in SNSTL. Therefore, null

hypothesis is accepted for SNSTL. However, there is mild positive relationship between risk and profitability (Table 5.12).

Hypothesis 10:

Null: There is no association between risk and profitability in Surat textile Mills Ltd (STML).

Alternative: There is association between risk and profitability in Surat textile Mills Ltd.

Result: Calculated value of “t” of STML is less than critical value of “t” ($-2.070 < 2.228$). There is no association between risk and profitability in STML. Therefore, null hypothesis is accepted for STML (Table 5.12).

Hypothesis 11:

Null: There is no association between risk and profitability in overall selected textile companies.

Alternative: There is association between risk and profitability in overall selected textile companies.

Result: Calculated value of “t” of overall selected textile companies is less than critical value of “t” ($1.718 < 2.228$). There is no association between risk and profitability in overall selected textile companies. Thus, null hypothesis is accepted for overall selected textile companies. However, there is mild positive relationship between risk and profitability (Table 5.12).

Profitability is increased when risk is higher; the study indicates textile companies in the state of Gujarat, there is no association between risk and profitability. The association between risk and profitability of overall selected textile companies indicates that there exists no significant relationship but they are mildly related to each other. The overall state of risk should be optimum through skilful risk management as to put a favorable impact of risk on the textile companies’ profitability. Hypotheses testing indicated that ADEL, Arvind Limited, Ashima Limited, GSML, MTL Nakoda Limited and STML had no association between risk and profitability. PBMPL, SDML and SNSTL had a mild positive relationship between risk and profitability. Though, overall it found that there was no association between risk and profitability.

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA
Section – 2: Inventory Management

Synopsis

- 5.2.1 Size of Inventory
- 5.2.2 Inventory and Sales Volumes
- 5.2.3 Total Inventories to Current Assets of Textile Companies
- 5.2.4 Inventory Turnover Ratio
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Chapter - V

Analysis and Interpretation of Data

Section – 2: Inventory Management

Inventories are current assets of the firm and require investment and thus involve the great attention. The inventories are integral part of firm's operation and these current assets should not be viewed as idle assets. But the dilemma usually is as to how much inventories be maintained by manufacturing concern? If the inventory size is too big, they block the funds and if the inventory size is very small, the firm may lose the sales. Therefore the firm must have an adequate level of inventory. The basic financial trouble is to ascertain the proper level of investment in the inventories and to specify how much inventory must be held during each period to maintain that level.

Each business needs inventory for smooth running of its activities. The investment in inventories constitutes the most important part of working capital in the most of undertakings. Thus, it is very essential to manage and control the inventories skillfully. The main purpose of inventory management is to ensure availability of material in enough quantity as and when needed and also to reduce investment in inventories.

This section deals with detail analysis and interpretation of the adequacy of inventory, inventory and sales volumes, interpretation of total inventories to total current assets, inventory turnover ratio, inventory holding period, analysis of structure of inventory (i.e. raw materials, work in progress, finished goods and stores & spares), raw material turnover ratio, raw material holding period, work in progress turnover ratio, work in progress holding period, finished goods turnover ratio, finish goods holding period, stores and spare turnover ratio, and stores and spare holding period of selected textile manufacturing companies in the state of Gujarat.

Analyzing the consistency in textile companies, co-efficient of variance has been used. Correlation is applied to find any association between the two variables, wherever it requires, it has been used to formulate the conclusion therefrom.

5.2.1 Size of Inventory

Table 5.13 shows the size of total inventory of textile companies during the period from 1999-00 to 2010-11. ADEL had Rs. 832.24 lakh in the year 1999-00, increased to Rs. Rs.11035.36 lakh in the year 2010-11. It was increased by Rs. 10203.12 lakh and 1225.98% in 2010-11. Arvind Limited had Rs. 20038.00 lakh in the year 1999-00 and in the year 2010-11 it increased to Rs. 69916.00 lakh that was increased by Rs. 49878.00 lakh and 248.92%. Inventory of Ashima Limited was in decreasing trend from 1999-00 to 2009-2010. It was decreased by 29% during the period from 1999-00 to 2010-11. GSML had Rs.5631.97 lakh in 1999-00 and it was increased by 1038.31% in 2010-11.

Total inventory of MTL was Rs.102.45 lakh in 1999-00 that raised by 306.92% in 2010-11. Nakoda Limited reported 5792.85% the highest percentage of rising in the inventories from 1999-00 to 2010-11. PMPL, SDML and STML increased by 74.53%, 27.24% and 68.45% respectively in 2010-11 from 1999-00. SNSTL had Rs. 358.80 lakh in the year 1999-00 which decreased to Rs.89.51 lakh in 2010-11 viz decreased by 75.05%. Reduce in sales and productions of SNSTL were the main reason for declining inventory after 2003-04.

Amounts of average inventories for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 8488.82, Rs. 86490.82, Rs. 11289.06, Rs. 29190.73, Rs. 281.23, Rs. 8120.89, Rs. 6850.19, Rs. 4871.67, Rs. 364.45 and Rs. 5323.20 lakh respectively.

Year-wise analysis showed that the total inventory of textile companies was in increasing trend from 1999-00 to 2010-11. Overall average of total inventory of textile companies was Rs. 101834.92 lakh. Overall total inventory in 1999-00 was Rs. 43124.34 lakh that increased to Rs. 188674.94 in 2010-11 that was increased by Rs. 145550.60 lakh and 337.51%.

Co-efficient of variation indicates the level of consistency of textile companies in the state of Gujarat. The most consistent companies among all textile companies, was SDML. Besides SDML, STML, PBMPL, Arvind Limited, and Ashima Limited had consistent inventory level, but GSML, Nakoda Limited and SNSTL had inconsistent inventory. Nakoda Limited was highly fluctuated company in term of total inventory. Overall CV of 150.44% showed that there was not a uniform level of inventory in textile companies in the state of Gujarat.

Table 5.13: Total Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lakh

Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
Years											
1999-00	832.24	20038.00	7328.72	5631.97	102.45	417.54	3252.79	2459.36	358.80	2702.47	43124.34
2000-01	1356.44	22799.00	7270.12	5428.34	95.05	459.70	2925.96	2202.19	359.75	3039.81	45936.36
2001-02	1840.99	21308.00	7013.00	5878.52	118.04	578.97	2574.81	2214.79	303.88	2720.03	44551.02
2002-03	3063.64	38338.00	6394.57	5123.24	85.95	570.41	3497.68	2091.63	365.39	3113.40	62643.91
2003-04	2800.26	38038.00	6067.49	8643.11	88.74	837.76	4341.74	2292.01	204.64	2389.20	65702.95
2004-05	3320.38	51115.00	N.A	6585.39	78.28	1396.37	2599.09	1964.96	76.91	3540.93	70677.30
2005-06	4749.22	47926.00	5589.73	9708.08	97.45	2651.11	3972.49	2518.78	44.70	2235.71	79493.27
2006-07	5230.63	64501.00	5132.09	13002.59	185.71	3469.53	3543.33	2313.33	67.39	2314.05	99759.65
2007-08	5479.75	57534.00	4429.28	18575.89	121.05	5874.11	2903.85	2700.47	81.62	2531.05	100231.07
2008-09	7564.56	58147.00	3917.79	21755.11	207.82	7719.73	2545.85	2987.75	94.10	1490.19	106429.90
2009-10	7202.56	43200.00	3540.77	36536.20	234.08	10863.98	4441.51	2717.24	91.65	2296.53	111124.52
2010-11	11035.36	69916.00	5144.19	64109.26	416.89	24605.15	5676.89	3129.39	89.51	4552.30	188674.94
Total	54476.03	532860.00	61827.75	200977.70	1831.52	59444.34	42275.97	29591.89	2138.34	32925.67	1018349.22
Average	8488.82	86490.82	11289.06	29190.73	281.23	8120.89	6850.19	4871.67	364.45	5323.20	101834.92
CV	33.61	18.72	11.17	57.67	33.38	83.05	13.24	7.04	34.46	13.85	150.44

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.2 Inventory and Sales Volumes

Generally, it is accepted that the increase in the volume of sales obligate the firm to maintain a higher level of inventory. As per Graham and McGolerick – “The chief criterion of inventory soundness is the turnover defined as the annual sales divided by the yearend inventory.”¹ The relationship between inventory and sales has been studied in table 5.14.

Table 5.14: Inventory and Sales Relationship of Textile Companies

Year	Total inventory	Total inventory to Sales (in %)	Sales
1999-00	43124.34	17.18	251006.37
2000-01	45936.36	12.71	361434.24
2001-02	44551.02	19.79	225115.27
2002-03	62643.91	19.88	315031.12
2003-04	65702.95	20.19	325428.71
2004-05	70677.30	22.42	315241.31
2005-06	79493.27	19.11	416067.68
2006-07	99759.65	21.06	473630.58
2007-08	100231.07	17.99	557143.69
2008-09	106429.90	18.86	564378.74
2009-10	111124.52	15.10	736072.47
2010-11	188674.94	19.34	975521.15
r	0.96 (Between Total Inventory and Sales)		

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

The above table 5.14 shows the relationship between inventory and sales of textile companies of Gujarat. It has shown that inventory and sales both are in increasing trend. Total inventory of textile companies increased when there was rise in sales. Correlation between total inventory and sales of textile companies is 0.96 which is near to 1, therefore it can be concluded that there was a positive correlation between sales and inventory. Growth in sales increases the inventory level of textile companies in Gujarat. Percentage of total inventory to sales was varied between 12.71% in 2000-01 and 22.42% in 2004-05.

¹ McGolerick C. and Graham B. (1964), The Interpretation of Financial Statements, *Harper and Row*, London, p. 169.

5.2.3 Total Inventories to Current Assets of Textile Companies

The amount of working capital funds invested in inventories could be known by calculating inventories to total current assets. Table 5.15 shows the total inventories as a percentage to total current assets. It is found that percentages of total inventories to current assets were consistent throughout the study period of all companies.

ADEL had 51.45% the highest investment in inventory in the year 2007-08. In 1999-00, it had 27.65% of current assets invested as inventory, which increased to 48.49% in the year 2010-11. Arvind Limited had 19.42% the lowest investment in inventory in the year 1999-00, which rose to 38.71% in 2010-11. Ashima Limited had 21.46% the lowest investment in inventory in the year 2000-01. In the year 2010-11, it reported 62.64% the highest investment in inventory. Percentage of total inventories to current assets of GSML in the year 1999-00 was 26.28% that stepped up to 62.27% in the year 2010-11. MTL decreased to 27.57% in 2010-11 from 38.54% in 1999-00. It is observed in Nakoda Limited that in every year investment in inventory was less than 25%. PBMPL showed that it invested more in inventory as compare to other companies. SDML was investing its working capital funds in inventory in most consistent manner. SNSTL registered 11.83% the lowest investment in inventory in the year 2004-05. STML was investing more than 50% in inventory throughout study period except in the year 2009-10.

The average percentages of total inventories to current assets of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 44.19, 31.70, 39.80, 37.21, 26.92, 17.65, 72.99, 45.52, 22.35 and 68.65 percent respectively. Overall percentage of textile companies was 40.70%. ADEL, PBMPL, SDML and STML had more percentage than overall percentage of all selected textile companies in the state of Gujarat. The year wise average percentage of total inventories to current assets in the year 2010-11, found the highest of 48.63%.

The co-efficient of variations (CVs) for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 14.04, 24.28, 36.03, 25.70, 22.97, 14.72, 9.17, 8.11, 21.35 and 15.75 percent respectively. Overall CV of all selected textile companies was 42.63% during the study period. It showed that the investment in inventory by all selected textile companies was quite consistent.

Table 5.15: Total Inventories to Current Assets of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PB MPL	SD ML	SNS TL	ST ML	Average
1999-00	27.65	19.42	39.22	26.28	38.54	17.62	80.80	43.49	23.93	67.08	38.40
2000-01	38.41	22.08	21.46	32.92	27.46	12.75	76.09	41.19	26.57	73.15	37.21
2001-02	42.29	21.59	24.08	29.88	36.86	15.11	74.57	45.97	23.51	72.69	38.66
2002-03	48.24	41.93	23.84	29.66	25.17	15.48	82.36	46.88	27.10	80.59	42.12
2003-04	44.55	35.42	23.18	39.87	21.00	19.39	82.70	49.45	25.96	76.67	41.82
2004-05	45.61	31.91	N.A	29.14	17.77	20.68	71.19	43.43	11.83	74.73	38.48
2005-06	43.13	24.74	41.53	35.01	21.87	19.37	72.80	41.18	12.94	70.99	38.35
2006-07	50.15	39.74	40.73	38.39	33.38	15.97	71.69	40.92	20.85	64.42	41.62
2007-08	51.45	39.11	58.29	35.44	22.03	19.18	65.80	44.17	22.45	66.79	42.47
2008-09	48.55	36.51	53.68	38.80	27.75	17.53	58.83	53.26	25.27	53.64	41.38
2009-10	41.74	29.19	49.16	48.89	23.67	16.24	68.54	46.91	24.69	41.94	39.10
2010-11	48.49	38.71	62.64	62.27	27.57	22.51	70.52	49.39	23.15	81.10	48.63
Average	44.19	31.70	39.80	37.21	26.92	17.65	72.99	45.52	22.35	68.65	40.70
CV	14.04	24.28	36.03	25.70	22.97	14.72	9.17	8.11	21.35	15.75	42.63

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.4 Inventory Turnover Ratio

Inventory turnover ratio is the method of reviewing performance and controlling inventories periodically to check the inventory turnover of each type of raw material supply and finished goods.² The turnover of inventory affects directly to profitability of the company. A higher turnover indicates that the firm converts its inventory into sales quickly or inventory holding period is short. It results in saving inventory costs. It is an indicator of the liquidity of the inventory. This ratio helps in ascertaining the efficiency of management of inventory. Ordinarily, the higher the rate of inventory turnover, the larger amount of profit, the smaller the amount of working capital tied up in inventory, and more current transactions.³ Therefore, a high turnover ratio is always desirable in normal conditions. This ratio may be calculated as under:-

$$\frac{\text{Sales}}{\text{Average Inventories}}$$

Table 5.16 has shown the calculation of inventory turnover ratio of selected textile companies. Turnover ratio of ADEL in the year 1999-00, was 11.63 times, which decreased to 5.35 times in 2010-11. Arvind Limited decreased from 6.07 times in 1999-00 to 4.61 in 2010-11. Ashima Limited had 9.19 times in 2000-01; it was the highest inventory turnover of Ashima Limited. The highest inventory turnover of GSML was 13.33 times in 2006-07, that reduced to 7.29 times in 2010-11. MTL increased from 3.90 times in 1999-00 to 5.15 times in 2010-11. Turnover of Nakoda Limited was better among all textile companies. 5.03 times was the highest inventory turnover ratio of PBMPL in 2008-09. Inventory turnover of SDML was varying between 2 and 3 times. SNSTL had 10.84 times in 1999-00 which decreased to 0.60 time in 2010-11 due to very long inventory holding period and substantially fall in sales. STML stepped up from 6.10 times in 1999-00 to 13.74 times in 2009-10 and then decreased to 8.74 times in 2010-11. Nakoda Limited had the best average of 19.36 times which was greater than overall average of all selected textile companies as well. The year wise analysis shows that the highest average inventory turnover ratio was 9.18 times was in the year 2000-01. The co-efficient variance indicated SDML was the most consistent, whereas overall CV was 64.65%. It showed more fluctuation of inventory turnover ratio on overall basis.

² R. Drebin Allon and Harold Jr. (1975), *Managerial Accounting – An Introduction*, 3rd Edition, *Philadelphia: W.B. Saunder Company*, p.155.

³ H. Kreps Cliften Jr. and Richard F. Wacht (1975), *Financial Administration*, *Honsdale Illinois*, p. 45.

Table 5.16: Inventory Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

In Times											
Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
Years											
1999-00	11.63	6.07	4.31	7.16	3.90	22.64	3.59	2.39	10.84	6.10	7.86
2000-01	9.73	8.67	9.19	8.04	6.98	24.81	3.79	2.26	10.96	7.36	9.18
2001-02	9.34	3.17	5.85	7.99	3.42	27.09	4.12	2.27	9.66	6.73	7.96
2002-03	6.02	4.96	6.39	9.53	1.65	24.13	3.71	2.47	10.06	7.92	7.68
2003-04	5.90	3.76	7.55	8.83	2.85	21.43	3.10	2.66	6.49	7.87	7.04
2004-05	7.74	3.77	N.A	9.91	1.90	16.94	3.02	2.79	10.25	3.82	6.68
2005-06	6.85	3.21	7.70	13.25	1.80	17.54	3.48	3.07	10.57	7.66	7.51
2006-07	4.97	3.28	4.40	13.33	3.03	18.95	3.37	3.13	1.78	4.69	6.09
2007-08	4.54	3.56	4.67	11.55	3.73	17.15	3.95	3.15	2.70	3.94	5.89
2008-09	4.90	3.97	4.99	6.87	5.02	15.14	5.03	2.88	2.12	8.71	5.96
2009-10	5.08	4.45	6.03	9.13	5.28	14.41	4.27	2.92	1.33	13.74	6.66
2010-11	5.35	4.61	5.97	7.29	5.15	12.06	3.78	2.97	0.60	8.74	5.65
Average	6.84	4.46	6.10	9.41	3.73	19.36	3.77	2.75	6.45	7.27	7.01
CV	32.13	33.79	24.10	22.81	42.04	22.96	13.93	11.48	64.82	35.15	64.65

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.5 Inventory Holding Period

Inventory holding period indicates the number of days inventory held by company. This is calculated with the help of 365 days divided by inventory turnover ratio. It calculates the number of days, on an average, that spend between finished goods production and sale of product.

Table 5.17 shows that the average inventory holding period of ADEL was 58 day. In 1999-00, it was 31 days which increased to 68 days in 2010-11. It was increased by 119.35%. Its CV showed that it was consistent in holding inventory. Arvind Limited had 60 days in the year 1999-00 which increased to 114 days in 2005-06 and again decreased to 79 days in the year 2010-11. Average inventory holding period of Arvind Limited was 89 days which was more than overall average inventory holding period of all selected textile companies i.e. 82 days. Ashima Limited reduced from 85 days in 1999-00 to 61 days in 2010-11. It had the average inventory holding period of 63 days.

Average inventory holding period of GSML was 41 days. MTL showed that it had 119 days as average inventory holding period. In the year 2002-03, it was 221 days. Period from 2001-02 to 2006-07, it had more than 100 days inventory holding period. Nakoda Limited reported just 20 days average inventory holding period. In the year 1999-00, it was 16 days which increased to 30 days in the year 2010-11. PBMPL had blocked working capital in inventories for 121 days in the year 2004-05. In 1999-00, it had 102 days of inventory holding period that reduced to 97 days in the year 2010-11. Average inventory holding periods of SDML and SNSTL were 135 days and 139 days respectively. SDML had more than 100 days inventory holding period throughout the study. SNSTL had below 100 days in first seven years and suddenly it stepped up to 206 days in 2006-07. It happened due to sudden reduce in sales of SNSTL and it had lot of idle inventories of previous year. STML had 96 days of inventory holding period in 2004-05 which resisted at 42 days in 2010-11. Average inventory holding period of year wise was almost in increasing order that started with 68 days in 1999-00 and ended with 123 days in 2010-11.

All selected textile companies were consistent in inventory holding period, except SNSTL. Overall CV also showed the same. In case of individual unit, SDML was the most consistent in inventory holding period and SNSTL was the highly fluctuated textile unit.

Table 5.17: Inventory Holding Period of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Days										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	31	60	85	51	94	16	102	153	34	60	68
2000-01	37	42	40	45	52	15	96	162	33	50	57
2001-02	39	115	62	46	107	13	89	161	38	54	72
2002-03	61	74	57	38	221	15	98	148	36	46	79
2003-04	62	97	48	41	128	17	118	137	56	46	75
2004-05	47	97	N.A	37	192	22	121	131	36	96	86
2005-06	53	114	47	28	203	21	105	119	35	48	77
2006-07	73	111	83	27	120	19	108	117	206	78	94
2007-08	80	103	78	32	98	21	92	116	135	93	85
2008-09	74	92	73	53	73	24	73	127	172	42	80
2009-10	72	82	61	40	69	25	85	125	274	27	86
2010-11	68	79	61	50	71	30	97	123	610	42	123
Average	58	89	63	41	119	20	99	135	139	57	82
CV	26.95	24.16	22.57	20.68	45.79	23.99	13.15	12.05	117.17	35.91	47.00

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.6 Structure of Inventory

In the words of M.Y. Khan and P. K. Jain – “Inventory is composed of assets that will be sold in future in the normal course of business operations. The assets which firms store as inventory in anticipation of need are raw material, work-in-progress and finished goods.”⁴

Inventory may be generally divided into four parts. The same pattern has been followed in the annual balance sheets of textile companies. The main four parts are as under:-

- i. Raw Materials
- ii. Work-in-Progress
- iii. Finished Goods
- iv. Stores and Spares

5.2.7 Raw Materials and its Adequacy in Textile Companies

Raw material implies the items which are held in their original form for production and processing. This inventory constitutes the materials that are bought by the firm to be converted in final products through the production process and act as inputs of the final product. It should be assured that production should not suffer because of low supply of raw materials.

Table 5.18 exhibits the raw materials of all selected companies in the state of Gujarat. Raw Materials of ADEL was just Rs. 30.78 lakh in 1999-00, which increased to Rs. 7588.08 in 2010-11. An average raw material of ADEL was Rs. 2453.63 lakh. Arvind Limited had a great quantum of raw materials throughout the study. It had the average of Rs.16216.00 lakh. Eleven years average of Ashima limited was Rs. 1253.96 lakh. Size of MTL of raw material was small. It was increased from Rs. 28.02 lakh in 1999-00 to Rs. 136.30 lakh in 2010-11. Raw material in Nakoda Limited was Rs. 308.14 lakh in 1999-00 but increased to Rs. 17884.85 lakh in 2010-11. It was increased by 5704.13%. The average amounts of raw materials for PBMPL, SDML, SNSTL and STML were Rs.2665.10, 453.38, 44.57 and 359.53 lakh respectively. Overall average raw material of all selected textile companies was Rs. 39126.87 lakh. Overall CV was 144.08%, indicated that consistency in raw material was lacking in textile companies.

⁴ M.Y. Khan and P. K. Jain (2002), Financial Management-Text and Problems, *Tata McGraw-Hill Publishing Company Ltd.*, 6th Edition, New Delhi, p. 20.1.

Table 5.18: Raw Materials of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMP L	SDML	SNS TL	STM L	Average
1999-00	30.78	3441.00	1437.70	1701.88	28.02	308.14	2518.79	254.10	77.78	374.00	10172.20
2000-01	474.60	4734.00	1055.89	1780.53	30.88	410.89	2256.66	238.27	56.96	487.10	11525.78
2001-02	1092.22	6692.00	2053.45	1781.53	21.73	424.79	1903.27	259.51	80.45	307.42	14616.37
2002-03	2437.36	20192.00	1834.61	1641.81	26.88	431.89	2985.07	395.65	84.67	194.34	30224.28
2003-04	1942.37	16797.00	1763.67	3415.85	18.59	655.29	3553.46	649.66	54.22	217.83	29067.94
2004-05	2502.72	28205.00	N.A	2889.58	12.38	1194.73	2094.21	297.62	9.69	492.96	37698.89
2005-06	3150.85	25712.00	1082.77	4171.06	17.45	1390.77	3312.54	488.98	7.66	66.49	39400.57
2006-07	2545.81	26427.00	933.76	4245.21	65.85	782.20	2767.72	392.33	20.42	93.31	38273.61
2007-08	1304.47	13977.00	811.39	4850.48	54.40	2436.52	2032.61	512.23	25.87	188.38	26193.35
2008-09	2589.06	9317.00	747.44	6707.01	90.17	2743.62	1575.52	681.86	40.43	334.13	24826.23
2009-10	3785.22	9505.00	672.07	14342.10	67.89	4547.76	3791.31	526.46	36.94	725.47	38000.21
2010-11	7588.08	29596.00	1400.85	29856.52	136.30	17884.85	3190.09	743.93	39.76	832.93	91269.31
Total	29443.54	194595.00	13793.60	77383.56	570.53	33211.46	31981.25	5440.58	534.85	4314.36	391268.74
Average	2453.63	16216.25	1253.96	6448.63	47.54	2767.62	2665.10	453.38	44.57	359.53	39126.87
CV	76.13	56.76	36.10	121.28	74.92	170.48	25.51	37.13	57.40	63.68	144.08

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.7.1 Raw Materials to Total Inventory

Table 5.19 exhibits the percentage of raw materials over total inventory. The average percentage of raw materials to total inventory in the year 1999-00 was 29.51% and then increased to 43.30% in the year 2010-11. 44.23% was the highest percentage of raw material over total inventory of the textile companies in the year 2004-05. The overall percentage of all selected textile companies was 36.99%. The overall CV was 51.64% which was evidence of quite inconsistency.

ADEL had 3.70% of raw materials over total inventory in the year 1999-00, which increased to 68.76% in 2010-11. Its highest percentage of raw materials to total inventory was 79.56% in the year 2002-03. The average percentage of raw materials to total inventory was 51.39%. It showed the half of inventory of ADEL was raw materials. Arvind Limited had 17.17% in 1999-00 which increased to 42.33% in 2010-11. It was increased by 146.53%. Average percentage of raw material to total inventory of Arvind Limited was 35.05%. Ashima Limited had raw materials of 19.62% of total inventory in the year 1999-00, which increased to 27.23% in 2010-11. The highest percentage of raw materials to total inventory of Ashima Limited was 29.28% in the year 2001-02. The average percentage of raw materials to total inventory of Ashima Limited was 22.03%. GSML invested 35.60% of total inventory on its raw materials. 46.57% in the year 2010-11 was the highest percentage of raw materials to total inventory for GSML. MTL had an average investment of 29.14% of total inventory in its raw materials. Nakoda Limited had an average investment of 61.89% of total inventory in its raw materials. An average investment of raw materials to total inventory in PBMPL, SDML, SNSTL and STML was 75.93%, 18.05%, 27.76% and 13.10% respectively. PBMPL had the ratio of 77.43% in the year 1999-00 which gradually declined to 56.19% in the year 2010-11.

The CVs for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 43.10%, 40.49%, 23.27%, 17.60%, 31.49%, 34%, 11.56%, 28.98%, 36.54% and 60.28% respectively. ADEL and Arvind Limited were inconsistent but STML was highly fluctuated company in investment of raw materials over total inventory. GSML, MTL, Nakoda Limited, PBMPL, SDML and SNSTL were consistent in the investment of raw materials.

Table 5.19: Raw Materials to Total Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	3.70	17.17	19.62	30.22	27.35	73.80	77.43	10.33	21.68	13.84	29.51
2000-01	34.99	20.76	14.52	32.80	32.48	89.38	77.13	10.82	15.83	16.02	34.47
2001-02	59.33	31.41	29.28	30.31	18.41	73.37	73.92	11.72	26.47	11.30	36.55
2002-03	79.56	52.67	28.69	32.05	31.28	75.72	85.34	18.92	23.17	6.24	43.36
2003-04	69.36	44.16	29.07	39.52	20.95	78.22	81.84	28.34	26.50	9.12	42.71
2004-05	75.37	55.18	N.A	43.88	15.81	85.56	80.57	15.15	12.60	13.92	39.80
2005-06	66.34	53.65	19.37	42.96	17.90	52.46	83.39	19.41	17.14	2.97	37.56
2006-07	48.67	40.97	18.19	32.65	35.46	22.54	78.11	16.96	30.30	4.03	32.79
2007-08	23.81	24.29	18.32	26.11	44.94	41.48	70.00	18.97	31.70	7.44	30.71
2008-09	34.23	16.02	19.08	30.83	43.39	35.54	61.89	22.82	42.96	22.42	32.92
2009-10	52.55	22.00	18.98	39.25	29.00	41.86	85.36	19.37	40.31	31.59	38.03
2010-11	68.76	42.33	27.23	46.57	32.69	72.69	56.19	23.77	44.42	18.30	43.30
Average	51.39	35.05	22.03	35.60	29.14	61.89	75.93	18.05	27.76	13.10	36.81
CV	43.10	40.49	23.27	17.60	31.49	34.00	11.56	28.98	36.54	60.28	52.31

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.20: Raw Materials Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

In Times											
Companies											
	Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML
1999-00	82.63	15.08	0.00	11.48	12.24	17.39	2.71	3.88	24.22	24.88	21.61
2000-01	27.92	19.44	0.00	13.83	17.74	16.85	2.79	3.95	30.60	29.37	18.05
2001-02	11.68	3.97	8.50	13.26	11.48	17.97	3.18	4.06	25.90	26.08	12.61
2002-03	3.69	3.69	6.06	17.34	4.16	19.18	2.39	4.12	23.35	55.62	13.96
2003-04	3.62	2.78	7.69	10.53	9.35	16.81	2.24	3.04	16.79	50.29	12.31
2004-05	5.16	2.72	N.A	12.49	7.94	14.85	2.08	3.44	20.46	14.64	9.31
2005-06	4.73	1.86	10.96	17.78	9.76	24.24	2.18	5.04	0.70	21.95	9.92
2006-07	4.12	2.19	11.17	23.60	8.07	48.30	2.18	3.90	1.18	83.14	18.78
2007-08	6.95	3.03	11.93	27.10	6.76	43.88	2.96	4.43	1.54	41.14	14.97
2008-09	9.04	5.97	11.84	16.10	9.19	34.92	4.32	3.41	0.98	45.90	14.17
2009-10	5.58	10.29	13.30	18.32	11.92	31.95	3.12	3.31	0.55	21.36	11.97
2010-11	5.10	6.60	12.21	11.95	11.65	16.07	3.52	3.60	0.28	17.07	8.80
Average	14.18	6.47	10.41	16.15	10.02	25.20	2.81	3.85	12.21	35.95	13.72
CV	152.43	83.54	21.89	30.04	32.49	44.42	22.75	13.49	96.17	53.43	70.20

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.7.2 Raw Materials Turnover Ratio

Raw materials turnover ratio indicates the number of times raw materials rotates during the period. This ratio shows the speed with which raw material is consumed in relation to stock of raw materials. Raw material turnover ratio is calculated by dividing the cost of raw materials consumed by average inventory of raw materials. A low turnover means the excessive raw materials have been maintained while a high turnover reveals that proportionately lower raw materials were maintained to carry out the production process.

Table 5.20 exhibits the calculation of raw material turnover ratio of textile companies in the state of Gujarat. The year wise analysis shows that the average raw material turnover ratio was 21.61 times in the year 1999-00, which declined to 8.80 times in the year 2010-11. Overall average raw materials turnover ratio of selected textile companies was 13.72 times. Overall CV 70.20% revealed that their raw material turnover ratios were not consistence. Averages of raw materials turnover for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 14.18, 6.47, 10.41, 16.15, 10.02, 25.20, 2.81, 3.85, 12.21 and 35.95 times respectively. STML had very high turnover ratio of 35.95 times. It might have proportionately fewer raw materials were maintained to carry out the production process. ADEL and Arvind Limited were very inconsistent in case of raw materials turnover ratio. SNSTL was very inconsistent company as turnover suddenly reduced from 20.46 times in year 2004-05 to 0.70 times in 2005-06.

5.2.7.3 Raw Materials Holding Period

The raw materials holding period is calculated by dividing 365 days by raw materials turnover ratio. Table 5.21 shows the number of days raw materials held by textile companies. The averages of raw materials holding period of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 60, 95, 37, 24, 41, 17, 136, 97, 290 and 13 days respectively. SNSTL had overstocking in the year 2010-11 while PBMPL, Arvind Limited and SDML had more number of days than overall average of raw materials holding period i.e. 81 days. The overall average raw material holding period was 58 day after exclusion of average holding period of SNSTL. STML might have under stocking. Overall CV 98.13% shows that all selected textile companies were very inconsistent. Though, Ashima Limited, GSML, MTL, Nakoda Limited, PMPL and SDML were consistent in case of raw materials holding period.

Table 5.21: Raw Materials Holding Period of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBML	SDML	SNSL	STML	Average
1999-00	4	24	0	32	30	21	135	94	15	15	41
2000-01	13	19	0	26	21	22	131	92	12	12	39
2001-02	31	92	43	28	32	20	115	90	14	14	48
2002-03	99	99	60	21	88	19	153	89	16	7	65
2003-04	101	131	47	35	39	22	163	120	22	7	69
2004-05	71	134	N.A	29	46	25	175	106	18	25	70
2005-06	77	197	33	21	37	15	168	72	525	17	116
2006-07	89	166	33	15	45	8	168	94	310	4	93
2007-08	53	121	31	13	54	8	123	82	237	9	73
2008-09	40	61	31	23	40	10	84	107	373	8	78
2009-10	65	35	27	20	31	11	117	110	659	17	109
2010-11	72	55	30	31	31	23	104	101	1285	21	175
Average	60	95	37	24	41	17	136	97	290	13	81
CV	51.11	57.96	27.36	25.97	39.94	34.31	20.39	12.95	127.41	46.41	98.13

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.8 Work-in-Progress and its Size in Textile Companies

Work in progress consists of items that are partially processed or partially assembled, but not yet completed. In the production process there can be many stages to completion, some of them the work has just begun, some of them are near to completion and rest other may be at various stages between two. The size of work in progress depends on the complexity of the complete items to be manufactured and the length of time required for their production.

Table 5.22 exhibits the size of work in progress of sample units. It indicated an increasing trend during the period of study. The year wise analysis reveals that the total amount of the work in progress was Rs. 9088.15 lakh in 1999-00 which increased to Rs. 29502.14 lakh in 2010-11. It was increased by 224.62%. An overall average of all selected textile companies was Rs. 23083.37 lakh, and overall CV was 201.17% which also reported highly inconsistency of textile companies in case of work in progress holding.

Ashima Limited, PBMPL and SDML were consistent units as they had the CV of 20.04%, 26.09% and 23.44% respectively. Nakoda Limited had not maintained work in progress throughout study period. MTL had semi finished goods only in 2005-06 and 2006-07, which was ignored in the table in order to have reliable overall average. SNSTL decreased from Rs. 58.81 lakh in 1999-00 to Rs. 6.67 lakh in 2010-11, i.e. by 88.66%. Overall the study found lack in adequacy of semi-finished goods of textile companies.

5.2.8.1 Work in Progress to Total Inventory

Table 5.23: exhibits the percentage of work in progress over total inventory of the textile companies in Gujarat. Overall average percentage of work in progress to total inventory of textile companies was 15.87%. The overall CV of sample units was 57.42% which indicated that they followed a less uniform policy with regard to investment in work in progress.

The average percentages of semi finished goods to total inventory of ADEL, Arvind Limited, Ashima Limited, GSML, PBMPL, SDML, SNSTL and STML were 21.51%, 27.15%, 16.69%, 2.77%, 6.10%, 29.92%, 11.48% and 11.33% respectively. Company wise analysis shows that Arvind Limited, Ashima Limited PBMPL and SDML were consistent in case of their percentage of work in progress to total inventory. The CVs for Arvind Limited, Ashima Limited PBMPL and SDML were 32.28%, 23.23%, 21.53%, and 18.10% respectively. The CVs for ADEL, GSML, SNSTL and STML were 72.42%, 60.73%, 73.66% and 83.85% respectively.

Table 5.22: Work in Progress of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lacs

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PB MPL	SD ML	SNS TL	ST ML	Total
1999-00	543.72	6188.00	988.48	406.07	N.A	N.A	176.43	568.06	58.81	158.58	9088.15
2000-01	515.62	6788.00	826.82	228.20	N.A	N.A	168.37	442.65	63.69	180.10	9213.44
2001-02	352.71	5374.00	609.14	192.66	N.A	N.A	172.47	485.03	68.59	141.68	7396.28
2002-03	217.62	6199.00	1126.01	193.24	N.A	N.A	162.30	629.42	100.36	575.41	9203.36
2003-04	391.08	6901.00	1139.69	69.67	N.A	N.A	207.73	664.46	38.44	188.48	9600.55
2004-05	350.17	8773.00	N.A	125.16	N.A	N.A	152.50	733.30	0.16	1310.16	11444.46
2005-06	358.36	11256.00	962.91	312.04	N.A	N.A	194.14	884.74	0.26	222.60	14191.05
2006-07	761.89	14012.00	895.52	208.14	N.A	N.A	204.97	803.35	3.34	439.60	17328.81
2007-08	1506.91	14658.00	726.81	311.96	N.A	N.A	239.39	967.90	5.00	218.97	18634.95
2008-09	1567.03	20219.00	776.21	531.69	N.A	N.A	232.92	940.52	6.39	217.59	24491.35
2009-10	1313.44	20661.00	712.63	743.65	N.A	N.A	247.17	840.05	7.98	46.51	24572.43
2010-11	1699.13	24598.00	1162.69	689.66	N.A	N.A	362.10	921.99	6.67	61.90	29502.14
Total	9577.68	145627.00	9926.91	4012.14	N.A	N.A	2520.49	8881.47	359.69	3761.58	184666.97
Average	798.14	12135.58	902.45	334.35	N.A	N.A	210.04	740.12	29.97	313.47	23083.37
CV	66.81	52.53	20.04	62.25	N.A	N.A	26.09	23.44	110.54	106.04	201.17

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.23: Work in Progress to Total Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	65.33	30.88	13.49	7.21	N.A	N.A	5.42	23.10	16.39	5.87	20.96
2000-01	38.01	29.77	11.37	4.20	N.A	N.A	5.75	20.10	17.70	5.92	16.61
2001-02	19.16	25.22	8.69	3.28	N.A	N.A	6.70	21.90	22.57	5.21	14.09
2002-03	7.10	16.17	17.61	3.77	N.A	N.A	4.64	30.09	27.47	18.48	15.67
2003-04	13.97	18.14	18.78	0.81	N.A	N.A	4.78	28.99	18.78	7.89	14.02
2004-05	10.55	17.16	N.A	1.90	N.A	N.A	5.87	37.32	0.21	37.00	15.72
2005-06	7.55	23.49	17.23	3.21	N.A	N.A	4.89	35.13	0.58	9.96	12.75
2006-07	14.57	21.72	17.45	1.60	N.A	N.A	5.78	34.73	4.96	19.00	14.98
2007-08	27.50	25.48	16.41	1.68	N.A	N.A	8.24	35.84	6.13	8.65	16.24
2008-09	20.72	34.77	19.81	2.44	N.A	N.A	9.15	31.48	6.79	14.60	17.47
2009-10	18.24	47.83	20.13	2.04	N.A	N.A	5.56	30.92	8.71	2.03	16.93
2010-11	15.40	35.18	22.60	1.08	N.A	N.A	6.38	29.46	7.45	1.36	14.86
Average	21.51	27.15	16.69	2.77	N.A	N.A	6.10	29.92	11.48	11.33	15.87
CV	72.42	32.28	23.23	60.73	N.A	N.A	21.53	18.10	73.66	83.85	57.42

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.8.2 Work in Progress Turnover Ratio of Textile Companies

This ratio shows the speed with which raw material is converted into finished goods. This ratio is calculated as under:

$$\frac{\text{Cost of Production}}{\text{Average Stock of Work-in-Progress}}$$

A high ratio shows that high rate of conversion of raw materials into finished goods or low level of stock of work-in-progress is held to carry out production activities, good for the unit and conversion period is short. A very high ratio indicates that a very high rate of conversion of raw materials into finished goods, or under stocking i.e. very low level of stock of work-in-progress is held to carry out production activity, and production process may get hampered due to very low level of stock of work-in progress. A very high ratio is not good for the units.

A Low ratio reveals that low rate of conversion of raw materials into finished goods or high level of stock of work in progress is held to carry out production activities. Conversion period is long and not considered good for the firm. A very low ratio shows that the rate of conversion of raw materials into finished goods or overstocking i.e. a very high level of stock of work in progress is held to carry out production activity; this may lead to a very long conversion period. It is not good for the firm.

Table 5.24 exhibits the work in progress turnover ratio of textile companies in the state of Gujarat. There was very high turnover ratio in the year 2004-05, 2005-06, 2007-08 and 2010-11. The overall average of work in progress turnover ratio of all selected textile companies was 121.68 times. The overall CV of 117.52% shows that turnover of work in progress ratio was highly fluctuated during the period of study.

The company-wise analysis shows that the averages of work in progress turnover ratio of ADEL, Arvind Limited, Ashima Limited, GSML, PBMPL, SDML, SNSTL and STML were 32.64, 15.37, 38.13, 330.49, 58.97, 7.45, 397.34 and 93.07 times respectively. Nakoda Limited had not maintained the work in progress during the period of study. In 2005-06, SNSTL had a very high turnover ratio due to under stocking of work in progress and high cost of manufacturing. The CV of PBMPL and SDML was very consistent while SNSTL and STML were very inconsistent units.

Table 5.24: Work in Progress Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Aryind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PB MPL	SD ML	SNS TL	ST ML	Average
1999-00	15.33	18.90	28.26	79.81	N.A	N.A	61.41	8.37	59.59	102.68	46.80
2000-01	18.09	28.79	66.04	108.66	N.A	N.A	62.89	8.45	63.53	124.78	60.15
2001-02	29.74	9.47	56.54	165.55	N.A	N.A	61.65	9.40	50.41	109.16	61.49
2002-03	38.95	20.95	48.60	216.91	N.A	N.A	59.75	7.92	41.31	68.32	62.84
2003-04	46.14	18.79	40.43	324.81	N.A	N.A	61.75	7.65	32.02	54.33	73.24
2004-05	49.71	18.23	N.A	544.76	N.A	N.A	52.91	6.84	79.83	13.64	109.42
2005-06	63.55	12.93	39.79	386.31	N.A	N.A	60.65	6.24	4231.10	14.67	601.90
2006-07	39.09	12.92	25.43	477.04	N.A	N.A	57.87	6.15	75.25	31.18	90.61
2007-08	21.40	12.13	28.33	580.56	N.A	N.A	55.69	6.94	49.54	28.73	97.91
2008-09	19.75	10.79	27.78	278.11	N.A	N.A	55.39	6.49	39.95	75.39	64.21
2009-10	22.04	9.91	30.11	365.18	N.A	N.A	57.91	6.92	22.26	125.91	80.03
2010-11	27.86	10.71	28.11	438.15	N.A	N.A	59.73	8.04	23.25	368.03	120.49
Average	32.64	15.37	38.13	330.49	N.A	N.A	58.97	7.45	397.34	93.07	121.68
CV	43.85	36.28	34.13	47.90	N.A	N.A	4.96	13.01	290.95	98.52	117.52

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.25: Work in Progress Holding Period of Textile Companies during the Period from 1999-00 to 2010-11

In Days											
Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBML	SDML	SNSL	STML	Average
Years											
1999-00	24	19	13	5	N.A	N.A	6	44	6	4	15
2000-01	20	13	6	3	N.A	N.A	6	43	6	3	12
2001-02	12	39	6	2	N.A	N.A	6	39	7	3	14
2002-03	9	17	8	2	N.A	N.A	6	46	9	5	13
2003-04	8	19	9	1	N.A	N.A	6	48	11	7	14
2004-05	7	20	N.A	1	N.A	N.A	7	53	5	27	17
2005-06	6	28	9	1	N.A	N.A	6	58	0	25	17
2006-07	9	28	14	1	N.A	N.A	6	59	5	12	17
2007-08	17	30	13	1	N.A	N.A	7	53	7	13	17
2008-09	18	34	13	1	N.A	N.A	7	56	9	5	18
2009-10	17	37	12	1	N.A	N.A	6	53	16	3	18
2010-11	13	34	13	1	N.A	N.A	6	45	16	1	16
Average	13	27	11	2	N.A	N.A	6	50	8	9	15
CV	41.03	30.73	28.00	73.63	N.A	N.A	5.15	12.68	54.72	93.25	93.31

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.8.3 Work-in-Progress Holding Period of Textile Companies

Semi finished goods should not be held for more than a month. It is calculated by dividing 365 days by work in progress turnover ratio. Table 5.25 exhibits that the averages of work in progress holding period of ADEL, Arvind Limited, Ashima Limited, GSML, PBMPL, SDML, SNSTL and STML were 13, 27, 11, 2, 6, 50, 8 and 9 days respectively. SDML was very consistent with average of 50 days work in progress holding period. Nakoda Limited was not maintaining work in progress throughout study period. GSML and PBMPL had very high rate of conversion of raw material into finished goods with the average period of 2 and 6 days respectively.

The overall average of work in progress holding period of all selected companies was 15 days which was desirable. Though, the overall CV 93.31% shows that textile companies were not following uniform policy for holding work in progress.

5.2.9 Finished Goods and its Size in Textile Companies

Finished goods inventory implies final product or goods which could be saleable. It also consists of products which are purchased for re-sale. A business concern should maintain a adequate level of finished goods. If the firm does not have sufficient stock of finished goods, it would not be able to commit the demand of customers and would lose its profits. Thus, it would be better to hold a sufficient quantity of finished goods.

Table 5.26 shows that the size of finished goods of textiles companies. Average sizes of finished goods of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 1063.04, Rs. 12478.50, Rs. 2110.28, Rs. 6292.75, Rs. 97.79, Rs. 1955.53, Rs. 474.85, Rs. 807.58, Rs. 85.32 and Rs. 751.29 lakh respectively. The overall average of all selected textile companies was Rs. 31129.28 lakh. The overall CV of 143.29% revealed the inconsistency of textile companies during the period of study.

Year-wise analysis shows that the Rs. 15854.12 lakh in 1999-00 which was increased to Rs. 49614.13 lakh in 2010-11. It was increased by 212.94%. The CVs of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 92.09%, 52.32%, 22.76%, 95.19%, 60.86%, 118.06%, 96.33%, 20.38%, 69.12%, and 53.64% respectively. Ashima Limited and SDML were found very consistent among all selected textile companies during the period of the study from 1999-00 to 2010-11.

Table 5.26: Finished Goods of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lacs

Companies		ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPIL	SDML	SNSTL	STML	Total
Years												
1999-00	129.83	7948.00	3007.61	2439.39	70.93	109.40	406.08	1089.50	188.08	465.30	15854.12	
2000-01	216.58	7844.00	2661.55	2343.56	61.18	48.80	351.57	998.98	209.80	639.31	15375.34	
2001-02	245.46	5870.00	2534.46	2803.80	92.56	40.21	367.85	896.54	119.28	710.05	13680.21	
2002-03	237.99	8686.00	2034.89	2495.49	55.58	23.74	225.71	666.72	129.52	1059.71	15615.35	
2003-04	215.58	10950.00	1743.30	4151.75	64.08	13.52	456.61	590.98	72.53	730.83	18989.18	
2004-05	182.66	10354.00	N.A	2620.27	59.27	22.81	169.49	520.37	36.35	346.58	14311.80	
2005-06	948.65	7119.00	2344.86	3653.15	66.26	1076.32	274.96	759.09	36.78	612.04	16891.11	
2006-07	1745.65	19842.00	2305.56	3868.29	102.73	2468.39	374.13	700.52	43.63	375.02	31825.92	
2007-08	2313.59	24323.00	1939.00	6800.41	61.04	3076.02	389.75	771.98	50.75	773.85	40499.39	
2008-09	3102.65	25539.00	1489.74	7342.97	111.80	4574.75	514.25	951.05	47.28	499.36	44172.85	
2009-10	1839.90	9234.00	1452.25	13839.70	157.30	5856.65	211.28	934.90	46.74	890.72	34463.44	
2010-11	1577.88	12033.00	1699.89	23154.19	270.72	6155.74	1956.51	810.39	43.08	1912.73	49614.13	
Total	12756.42	149742.00	23213.11	75512.97	1173.45	23466.35	5698.19	9691.01	1023.82	9015.50	311292.83	
Average	1063.04	12478.50	2110.28	6292.75	97.79	1955.53	474.85	807.58	85.32	751.29	31129.28	
CV	92.09	52.32	22.76	95.19	60.86	118.06	96.33	20.38	69.12	53.64	143.29	

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.9.1 Finished Goods to Total Inventory

Finished goods to total inventory shows that the percentage of finished goods over total inventory. Table 2.27 shows the percentage of finished goods to total inventory of textile companies in the state of Gujarat. In the year 1999-00, percentage of finished goods to total inventory was 15.60%, which increased to 42.22% in the year 2007-08, and then decreased to 14.30% in the year 2010-11. Its average percentage of finished goods to total inventory was 20.19%. Arvind Limited declined from 39.66% in the year 1999-00 to 17.21% in the year 2010-11. It indicated that Arvind Limited reduced its investment in finished goods by 56.61%. Percentage of finished goods to total inventory of Ashima limited decreased from 41.04% in 1999-00 to 33.04% in the year 2010-11, i.e. by 19.48%. Similarly, GSML decreased from 43.31% in 1999-00 to 36.12% in 2010-11, i.e. by 16.62%. The percentage of finished goods to total inventory of MTL was very high throughout the study period. Every year it was found more than 50% of total inventory invested in finished goods. Nakoda Limited had 26.20% in 1999-00, which was declined to 1.61% in 2003-04, and then again increased to 25.02% in 2010-11. PBMPL invested 12.48% in 1999-00 in finished goods that increased to 34.46% in the year 2010-11. Average percentages of finished goods to total inventory for SDML and SNSTL were 32.95% and 52.23% respectively. SDML decreased from 44.30% in 1999-00 to 25.90% in 2010-11, i.e. by 41.54%. SNSTL decreased from 52.42% in 1999-00 to 48.13% in 2010-11, i.e. by 8.18%. STML increased from 17.22% in 1999-00 to 42.02% in 2010-11, i.e. by 144.03%. The highest average percentage of finished goods to total inventory of individual unit was 65.36% in MTL.

The CVs for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 60.12%, 32.81%, 13.05%, 14.38%, 12.57%, 81.73%, 60.76%, 20.00%, 24.56% and 33.91% respectively. Arvind Limited, Ashima Limited, GSML, MTL, SDML, SNSTL and STML were consistent units while ADEL, Nakoda Limited and PBMPL were not consistent units.

The year-wise analysis shows that there was 66.15% in the year 1999-00, which increased to 40.56% in 2008-09 and then decreased to 34.11% in the year 2010-11. The overall average of percentage of finished goods to total inventory of all selected units was 34.69%. The overall CV of 41.81% shows that overall consistency of textile companies was fair during period of study from 1999-00 to 2010-11.

Table 5.27: Finished Goods to Total Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDMI	SNSIL	STMI	Average
1999-00	15.60	39.66	41.04	43.31	69.23	26.20	12.48	44.30	52.42	17.22	36.15
2000-01	15.97	34.41	36.61	43.17	64.36	10.62	12.02	45.36	58.32	21.03	34.19
2001-02	13.33	27.55	36.14	47.70	78.41	6.95	14.29	40.48	39.25	26.10	33.02
2002-03	7.77	22.66	31.82	48.71	64.67	4.16	6.45	31.88	35.45	34.04	28.76
2003-04	7.70	28.79	28.73	48.04	72.21	1.61	10.52	25.78	35.44	30.59	28.94
2004-05	5.50	20.26	N.A	39.79	75.72	1.63	6.52	26.48	47.26	9.79	25.88
2005-06	19.97	14.85	41.95	37.63	67.99	40.60	6.92	30.14	82.28	27.38	36.97
2006-07	33.37	30.76	44.92	29.75	55.32	71.14	10.56	30.28	64.74	16.21	38.71
2007-08	42.22	42.28	43.78	36.61	50.43	52.37	13.42	28.59	62.18	30.57	40.24
2008-09	41.02	43.92	38.03	33.75	53.80	59.26	20.20	31.83	50.24	33.51	40.56
2009-10	25.55	21.38	41.02	37.88	67.20	53.91	4.76	34.41	51.00	38.79	37.59
2010-11	14.30	17.21	33.04	36.12	64.94	25.02	34.46	25.90	48.13	42.02	34.11
Average	20.19	28.64	37.92	40.20	65.36	29.46	12.72	32.95	52.23	27.27	34.69
CV	60.12	32.81	13.05	14.38	12.57	81.73	60.76	20.00	24.56	33.91	41.81

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.9.2 Finished Goods Turnover ratio

Finished goods turnover ratio implies the speed with which the finished goods are converted into sales i.e. accounts receivables and then into cash. The formula of finished goods turnover ratio is:

$$\frac{\text{Cost of Goods Sold}}{\text{Average Stock of Finished Goods}}$$

A high ratio shows that the fast moving items of finished goods. It shows the finished goods are converted into sales i.e. debtors and then into cash. It may be possible that the production is less than volume of sales or efficient management of the finished goods. It leads to better liquidity position of the company and short period of holding finished goods. A very high ratio shows that the finished goods are converted very fast into sales. It may be possible that there is under stocking i.e. sales are carried out with very low level of stock of finished goods. It may lead to stock out or less production in compare to volume of sales, shortage or inadequate investment in finished goods. A low ratio indicates that the slow moving items of finished goods and finished goods converted slowly into sales. It may be possible that the production is more than volume of sales or inefficient management of the finished goods that may lead to weak liquidity position of the unit and long period of holding finished goods. A very low ratio shows that the finished goods are converted very slowly into sales, i.e. debtors and then into cash or overstocking i.e. sales are carried out with very high level of stock of finished goods. It may lead to less chance of stock out or excess investment in finished goods; it is like an opportunity loss for the firm.

Table 5.28 shows that the averages of finished goods turnover ratio of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 41.24, 13.72, 15.89, 18.90, 7.05, 239.43, 31.67, 6.68, 15.23 and 24.33 times respectively. Nakoda Limited had very high ratio between 2000-01 and 2004-05 due to under stocking of finished goods. The overall average turnover of all selected textile units was 41.41 times showed high turnover because of much fluctuated turnover. The overall CV shows that they were inconsistent at finished goods turnover ratio. Though, individual analysis of CV indicates that Arvind Limited, Ashima Limited, GSML, MTL, PBMPL, SDML and STML were consistent units. In the year 2004-05, there was a very high (133.31 times) average finished goods turnover ratio due to under stocking.

Table 5.28: Finished Goods Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Times										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	68.81	15.22	9.07	13.98	6.67	80.25	26.60	4.37	19.29	35.15	27.94
2000-01	54.98	23.60	20.92	14.52	12.05	128.58	28.79	4.30	19.45	37.90	34.51
2001-02	56.46	8.89	16.06	13.37	6.01	296.83	29.15	4.66	20.81	25.98	47.82
2002-03	46.54	16.16	18.58	15.91	4.10	408.66	34.21	5.75	27.97	26.80	60.47
2003-04	61.26	12.23	24.40	12.39	6.23	767.11	32.68	7.94	22.52	23.98	97.07
2004-05	92.90	13.29	N.A	16.11	4.78	985.97	31.53	8.61	28.97	17.60	133.31
2005-06	38.43	14.93	20.42	26.53	5.23	62.06	46.64	7.28	24.29	25.17	27.10
2006-07	15.36	11.38	10.21	32.12	6.48	31.75	35.27	7.30	3.20	20.96	17.40
2007-08	11.32	7.83	11.07	27.47	7.99	27.82	32.24	8.02	4.23	16.16	15.41
2008-09	10.89	7.41	12.44	16.47	9.34	25.75	28.68	7.00	4.71	26.28	14.90
2009-10	13.44	11.75	15.36	21.42	8.74	24.39	39.11	6.69	3.41	23.34	16.77
2010-11	24.49	21.90	16.20	16.50	7.05	33.96	15.07	8.19	3.87	12.64	15.99
Average	41.24	13.72	15.89	18.90	7.05	239.43	31.67	6.68	15.23	24.33	41.41
CV	61.92	35.46	29.39	32.67	29.88	129.79	22.80	22.13	65.58	28.47	161.26

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.9.3 Finished Goods Holding Period

Finished goods holding period of textile companies of textile companies is calculated by dividing 365 days by finished goods turnover ratio. The standard finished goods holding period is 2 to 3 months of cost of sales. Table 5.29 exhibits that the average finished goods holding periods for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 15, 30, 25, 21, 56, 7, 12, 58, 49 and 16 days respectively. In the year 2004-05 and 2005-06, there were 0 days of finished goods holding period at Nakoda Limited that indicated very less amount of finished goods held by Nakoda Limited and it had very fast process to convert its finished goods into sales. It was also not consistent unit along with ADEL and SNSTL. The CV of Arvind Limited, Ashima Limited, GSML, MTL, PBMPL, SDML and STML indicated that they had uniform policy for finished goods holding. The overall average finished goods holding of all selected units was 29 days and overall CV of 61.70% revealed that textile companies were quite inconsistent.

5.2.10 Stores and Spares and its Size in Textile Companies

Stores and Spares form a significant part of inventories. In a manufacturing company, consumption pattern of stores and spares differs from that of raw material. In other words, stores and spares consist of material which will be used to complete the finished goods. This inventory has many articles and a few of them, particularly the imported ones, take a long time to procure. The inventory of such items in optimum quantity is important for continuous production. Table 5.30 shows the size of stores and spares of textile companies in the state of Gujarat. It showed the average sizes of stores and spares for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 221.28, Rs. 2938.42, Rs. 562.72, Rs. 1535.03, Rs. 4.55, Rs. 276.65, Rs. 172.90, Rs. 417.53, Rs. 36.75 and Rs. 201.93 lakh respectively. An overall average of stores and spare of all selected textile companies was Rs. 7507.66 lakh. In the year 1999-00 the total stores and spares was Rs. 4057.73 lakh, which increased to Rs. 10131.13 lakh in the year 2010-11. Year wise analysis shows that it was almost in an increasing trend throughout the study. The overall CV of 140.16% shows that textile companies were not consistent in case of stores and spares.

Table 5.29: Finished Goods Holding Period of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Days										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Average
1999-00	5	24	40	26	55	5	14	84	19	10	28
2000-01	7	15	17	25	30	3	13	85	19	10	22
2001-02	6	41	23	27	61	1	13	78	18	14	28
2002-03	8	23	20	23	89	1	11	63	13	14	26
2003-04	6	30	15	29	59	0	11	46	16	15	23
2004-05	4	27	N.A	23	76	0	12	42	13	21	24
2005-06	9	24	18	14	70	6	8	50	15	15	23
2006-07	24	32	36	11	56	11	10	50	114	17	36
2007-08	32	47	33	13	46	13	11	45	86	23	35
2008-09	34	49	29	22	39	14	13	52	77	14	34
2009-10	27	31	24	17	42	15	9	55	107	16	34
2010-11	15	17	23	22	52	11	24	45	94	29	33
Average	15	30	25	21	56	7	12	58	49	16	29
CV	72.79	34.55	31.21	26.74	28.15	82.24	31.57	25.97	81.82	31.57	61.70

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.30: Stores and Spares of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPPL	SDML	SNSLTL	STML	Total
1999-00	127.91	2035.00	663.21	289.55	3.32	N.A	151.48	539.06	34.13	214.08	4057.73
2000-01	149.64	2484.00	842.53	331.57	2.83	N.A	149.36	522.29	29.80	250.39	4762.41
2001-02	150.60	2517.00	615.94	445.59	3.00	113.97	131.22	500.07	35.56	261.40	4774.34
2002-03	170.67	2476.00	560.79	692.16	2.70	114.78	124.60	398.50	50.84	161.39	4752.43
2003-04	251.23	2484.00	559.97	927.15	4.03	168.95	123.94	375.86	39.45	127.96	5062.54
2004-05	284.83	3116.00	N.A	886.69	3.57	178.83	182.88	375.12	30.71	262.39	5321.01
2005-06	248.34	3501.00	631.54	1549.60	4.38	184.01	190.85	357.23	N.A	178.24	6845.19
2006-07	177.29	3637.00	555.12	1529.13	5.00	218.94	196.51	349.79	N.A	254.86	6923.64
2007-08	354.78	3937.00	528.74	1948.85	3.92	361.57	242.10	384.49	N.A	194.30	7955.74
2008-09	305.82	2516.00	502.78	2053.12	5.19	401.36	223.16	363.51	N.A	99.16	6470.10
2009-10	264.00	3523.00	413.34	2490.43	7.97	459.57	190.54	379.05	N.A	292.49	8020.38
2010-11	170.27	3035.00	315.95	5276.57	8.68	564.56	168.19	465.40	N.A	126.51	10131.13
Total	2655.38	35261.00	6189.91	18420.41	54.58	2766.54	2074.82	5010.35	220.49	2423.17	75076.64
Average	221.28	2938.42	562.72	1535.03	4.55	276.65	172.90	417.53	36.75	201.93	7507.66
CV	31.53	19.61	22.98	86.26	40.80	54.20	21.19	15.84	19.21	30.22	140.16

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.10.1 Stores and Spares to Total Inventory

A table 5.31 exhibits the stores and spares as a percentage of total inventory. The year wise analysis shows a fluctuating trend during the period of study. In the year 1999-00, average percentage of stores and spares was 9.66%, which increased to 13.22% in the year 2004-05, and then decreased to 5.03% in the year 2010-11.

Individual analysis of companies shows that percentage of stores and spare to total inventory of ADEL was decreased from 15.37% in the year 1999-00 to 1.54% in the year 2010-11, i.e. by 89.96%. In the year 1999-00, Arvind Limited had 10.16% stores and spares to total inventory, which decreased to 4.34% in the year 2010-11, i.e. by 57.26%. Ashima Limited had 9.05% in the year 1999-00, which increased to 12.83% in the year 2008-09, and then decreased to 6.14% in the year 2010-11. Percentage of stores and spares to total inventory of GSML in the year 2005-06 was the highest, i.e. 15.96%, which reduced to 8.23% in 2010-11. MTL didn't invest more than 5% in stores and spares throughout the period of study. In the year 2001-02, Nakoda Limited had 19.69% which decreased to 2.29% in the year 2010-11, i.e. decreased by 88.34%. The highest percentage of stores and spares to total inventory of PBMPL was 8.77% in the year 2008-09, which decreased to 2.96% in the year 2010-11. Percentage of stores and spares to total inventory of SDML in the year 1999-00 was 21.92% that declined to 14.87% in the year 2010-11. SNSTL didn't maintain stores and spares from 2005-06 to 2010-11. STML had a fluctuating trend during the period of study. It was 7.92% in the year 1999-00 which was increased to 12.74% in the year 2009-10, and then decreased to 2.78% in the year 2010-11.

The average percentages of stores and spares to total inventory of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 6.68%, 7.38%, 10.19%, 9.94%, 3.28%, 10.39%, 5.25%, 17.27%, 17.10% and 7.71% respectively. The overall average of percentage of stores and spares to total inventory was 9.54%. It indicates that 9.54% of total inventory invested in stores and spares by textile companies of Gujarat. The CVs for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 53.72%, 31.64%, 18.34%, 32.08%, 24.48%, 65.23%, 34.98%, 21.45%, 63.18% and 32.98% respectively. Arvind Limited, Ashima Limited, GSML, MTL, PBMPL, SDML and STML were consistent units and remaining companies were inconsistent units.

Table 5.31: Stores and Spares to Total Inventory of Textile Companies the during Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	15.37	10.16	9.05	5.14	3.24	N.A	4.66	21.92	9.51	7.92	9.66
2000-01	11.03	10.90	11.59	6.11	2.98	N.A	5.10	23.72	8.28	8.24	9.77
2001-02	8.18	11.81	8.78	7.58	2.54	19.69	5.10	22.58	11.70	9.61	10.76
2002-03	5.57	6.46	8.77	13.51	3.15	20.12	3.56	19.05	13.91	5.18	9.93
2003-04	8.97	6.53	9.23	10.73	4.54	20.17	2.85	16.40	19.28	5.36	10.40
2004-05	8.58	6.10	N.A	13.46	4.56	12.81	7.04	19.09	39.93	7.41	13.22
2005-06	5.23	7.31	11.30	15.96	4.49	6.94	4.80	14.18	N.A	7.97	8.69
2006-07	3.39	5.64	10.82	11.76	2.69	6.31	5.55	15.12	N.A	11.01	8.03
2007-08	6.47	6.84	11.94	10.49	3.23	6.16	8.34	14.24	N.A	7.68	8.38
2008-09	4.04	4.33	12.83	9.44	2.50	5.20	8.77	12.17	N.A	6.65	7.33
2009-10	3.67	8.16	11.67	6.82	3.40	4.23	4.29	13.95	N.A	12.74	7.66
2010-11	1.54	4.34	6.14	8.23	2.08	2.29	2.96	14.87	N.A	2.78	5.03
Average	6.84	7.38	10.19	9.94	3.28	10.39	5.25	17.27	17.10	7.71	9.54
CV	53.72	31.64	18.34	32.08	24.48	65.23	34.98	21.45	63.18	32.98	45.85

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.10.2 Stores and Spares Turnover Ratio

Stores and spares turnover ratio is calculated by dividing stores and spares consumed during the year by average stores and spares. Table 5.33 exhibits the calculation of stores and spares turnover ratio of textile companies. An indepth analysis of individual unit indicates that in the year 2010-11, ADEL had the highest store and spares turnover of 4.60 times. The average turnover of ADEL was 2.02 times. Stores and spares turnover ratio of Arvind Limited in the year 1999-00 was 5.73 times, which declined to 2.15 times in the year 2001-02, and again increased to 5.88 times in 2010-11. GSML had 1.93 times in the year 1999-00 that stepped up to 2.41 times in 2010-11. Average turnover ratio of GSML was 2.13 times. Similarly, MTL had 4.14 times in 1999-00 that increased to 7.13 times in 2010-11. Nakoda Limited stated consuming stores and spares since 2004-05 as per its financial statement. It had an increasing trend of stores and spares turnover ratio from 2004-05 to 2010-11. PBMPL was very consistent in case of stores and spares turnover ratio. Its average turnover ratio was 2.41 times. Average stores and spares turnover ratios of Ashima Ltd., SDML, SNSTL and STML were 3.66, 0.84, 2.36 and 3.48 times respectively. The year wise analysis shows that in the year 2010-11 reported the highest average stores and spares turnover ratio of 3.84 times. The overall average of stores and spares turnover ratio of all selected textile was 2.75 times. The overall CV of 47.23% shows that they were consistent units in following uniform policy.

5.2.10.3 Stores and Spares Holding Period

Table 5.33 exhibits that the average periods of holding stores and spares for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 242, 76, 105, 178, 94, 307, 154, 463, 180 and 111 days respectively. The holding period of SDML found very long duration on an average of 463 days. The year wise analysis shows that in the year 1999-00 the average holding period of stores and spares by all companies was 262 days which declined to 153 days in the year 2010-11. As per Nakara Committee the stock of stores and spares should not exceed 12 month consumption of stores and spares⁵. Comparing the norms prescribed by the committee, it is clear that the all sample units had managed their stores and spares below the norms i.e.191 days. The overall CV of 59.31% shows they were not very consistent.

⁵ Nakara Committee Report (1968), Report on Spare Parts Committee, HSL, Ranchi, June, pp. 6-19.

Table 5.32: Stores and Spares Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Times										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	0.73	5.73	2.51	1.93	4.14	N.A	2.32	0.40	2.05	3.28	2.56
2000-01	0.81	7.78	4.11	2.69	4.29	N.A	2.49	0.98	2.80	3.33	3.26
2001-02	1.15	2.15	2.44	2.93	4.48	N.A	2.57	0.98	2.72	2.26	2.41
2002-03	1.53	4.78	2.95	1.87	3.74	N.A	2.87	0.89	2.89	2.89	2.71
2003-04	1.32	4.75	3.35	1.58	3.21	N.A	2.98	0.97	1.39	4.76	2.70
2004-05	1.22	5.19	N.A	1.59	2.89	1.06	2.16	1.00	1.12	3.56	2.20
2005-06	2.23	4.34	4.41	2.46	3.81	1.04	2.41	0.98	3.56	3.83	2.91
2006-07	3.09	4.81	3.55	1.95	2.99	1.04	2.60	0.70	N.A	3.42	2.68
2007-08	2.58	5.49	3.86	1.81	3.34	1.19	2.04	0.87	N.A	2.24	2.60
2008-09	1.91	6.14	3.55	2.03	4.82	1.20	1.84	0.88	N.A	4.34	2.97
2009-10	3.05	6.71	3.99	2.28	4.64	1.26	2.05	0.76	N.A	3.49	3.14
2010-11	4.60	5.88	5.55	2.41	7.13	1.81	2.65	0.69	N.A	3.81	3.84
Average	2.02	5.31	3.66	2.13	4.12	1.23	2.41	0.84	2.36	3.43	2.75
CV	54.48	24.95	23.19	19.26	26.66	20.45	13.80	20.33	34.34	20.64	47.23

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.33: Stores and Spares Holding Period of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Days										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	502	64	146	189	88	N.A	157	920	178	111	262
2000-01	448	47	89	135	85	N.A	147	371	130	109	174
2001-02	319	170	149	125	81	N.A	142	373	134	162	184
2002-03	239	76	124	195	98	N.A	127	412	126	126	169
2003-04	277	77	109	231	114	N.A	122	376	262	77	183
2004-05	299	70	N.A	230	127	343	169	365	326	102	226
2005-06	164	84	83	148	96	353	151	374	103	95	165
2006-07	118	76	103	187	122	351	141	520	N.A	107	191
2007-08	142	67	95	202	109	306	179	422	N.A	163	187
2008-09	191	59	103	180	76	304	199	415	N.A	84	179
2009-10	120	54	91	160	79	290	178	482	N.A	105	173
2010-11	79	62	66	151	51	202	138	529	N.A	96	153
Average	242	76	105	178	94	307	154	463	180	111	191
CV	52.97	40.03	23.26	18.60	22.11	15.93	14.28	32.09	42.76	23.18	59.31

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.2.11 Other Inventory and its Size in Textile Companies

Other inventory implies other than raw materials, work in progress, finished goods and stores and spares. Other inventory also blocks the funds of working capital. It should be managed skillfully. There are many textile companies which retain other inventory under the head of inventory. It is found very important part of total inventory in textile companies of Gujarat. The table 5.34 shows that ADEL had other inventory only in the year 2005-06. Arvind Limited retained other inventory throughout the study period; in the year 1999-00 other inventory of Arvind Limited was Rs. 426.00 lakh which increased to Rs. 654.00 lakh in the year 2010-11. The averages of other inventory of Arvind Limited, Ashima Limited, GSML and MTL were Rs. 636.25, Rs. 791.29, Rs. 2137.39 and Rs. 1.60 lakh respectively. Average of other inventory of GSML was the highest among all selected textile companies. Nakoda Limited and SNSTL were not retaining any kind of other inventory. PBMPL had Rs. 1.21 lakh in the year 2009-10 only. In the year 1999-00 the other inventory of SDML was 8.65 lakh, which went up to Rs. 187.68 lakh in the year 2010-11. The averages of other inventory of SDML and STML were Rs. 51.68 and Rs. 1117.59 lakh respectively. Individual analysis of company shows that the Arvind Limited and STML were following uniform policy regarding maintaining of other inventory. The overall average of all selected textile companies was Rs. 7536.22 lakh. The overall CV of 108.64% of textile companies shows that they were not following uniform policy regarding other inventory. The highest amount of total other inventory was invested in the year 2010-11 i.e. Rs. 8158.23 lakh.

5.2.11.1 Other Inventory to Total Inventory

Table 5.35 exhibits that the percentage of other inventory over total inventory of textile companies in the state of Gujarat. Company wise analysis shows the average percentages of other inventory to total inventory in Arvind Limited, Ashima Limited, GSML, MTL, SDML and STML were 1.77%, 13.17%, 11.50%, 1.35%, 1.97% and 40.59% respectively. ADEL and PBMPL had very less investment in other inventory. The CV (29.38%) of STML revealed that it had very uniform policy regarding investment in other inventory. The year wise analysis of textile companies shows that average percentage of other inventory to total inventory was 14.79% in the year 1999-00, which declined to 10.29% in the year 2010-11. The overall average of all selected textile companies was 8.91%. The overall CV of 144.57% shows that they were not following uniform policy regarding investment of other inventory.

Table 5.34: Other Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lakh

Companies	ADIEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
Years											
1999-00	N.A	426.00	1231.72	795.08	0.19	N.A	N.A	8.65	N.A	1490.51	3952.14
2000-01	N.A	949.00	1883.33	744.48	0.17	N.A	N.A	N.A	N.A	1482.91	5059.89
2001-02	N.A	855.00	1200.01	654.94	0.75	N.A	N.A	73.65	N.A	1299.48	4083.83
2002-03	N.A	785.00	838.27	100.54	0.78	N.A	N.A	1.35	N.A	1122.55	2848.49
2003-04	N.A	906.00	860.86	78.69	2.04	N.A	N.A	11.05	N.A	1124.10	2982.75
2004-05	N.A	667.00	N.A	63.69	3.06	N.A	N.A	38.55	N.A	1128.84	1901.15
2005-06	4302.00	338.00	567.65	22.23	3.22	N.A	N.A	28.75	N.A	1156.34	6418.19
2006-07	N.A	583.00	442.13	3151.82	4.50	N.A	N.A	67.33	N.A	1151.26	5400.04
2007-08	N.A	639.00	423.34	4664.19	1.69	N.A	N.A	63.86	N.A	1155.55	6947.64
2008-09	N.A	556.00	401.62	5120.32	0.66	N.A	N.A	50.82	N.A	339.95	6469.36
2009-10	N.A	277.00	290.48	5120.32	0.92	N.A	1.21	36.78	N.A	341.34	6068.06
2010-11	N.A	654.00	564.81	5132.32	1.19	N.A	N.A	187.68	N.A	1618.23	8158.23
Total	4302.00	7635.00	8704.22	25648.62	19.18	N.A	1.21	568.47	N.A	13411.06	60289.77
CV	0.00	32.51	58.06	102.22	81.46	N.A	0.00	94.67	N.A	34.34	108.64

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.35: Other Inventory to Total Inventory of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPPL	SDML	SNSL	STML	Average
1999-00	N.A	2.13	16.81	14.12	0.18	N.A	N.A	0.35	N.A	55.15	14.79
2000-01	N.A	4.16	25.91	13.71	0.18	N.A	N.A	N.A	N.A	48.78	18.55
2001-02	N.A	4.01	17.11	11.14	0.64	N.A	N.A	3.33	N.A	47.77	14.00
2002-03	N.A	2.05	13.11	1.96	0.91	N.A	N.A	0.06	N.A	36.06	9.02
2003-04	N.A	2.38	14.19	0.91	2.30	N.A	N.A	0.48	N.A	47.05	11.22
2004-05	N.A	1.30	N.A	0.97	3.91	N.A	N.A	1.96	N.A	31.88	8.00
2005-06	N.A	0.71	10.16	0.23	3.31	N.A	N.A	1.14	N.A	51.72	11.21
2006-07	0.91	0.90	8.62	24.24	2.42	N.A	N.A	2.91	N.A	49.75	12.82
2007-08	N.A	1.11	9.56	25.11	1.40	N.A	N.A	2.36	N.A	45.65	14.20
2008-09	N.A	0.96	10.25	23.54	0.32	N.A	N.A	1.70	N.A	22.81	9.93
2009-10	N.A	0.64	8.20	14.01	0.39	N.A	0.03	1.35	N.A	14.86	5.64
2010-11	N.A	0.94	10.98	8.01	0.29	N.A	N.A	6.00	N.A	35.55	10.29
Average	0.91	1.77	13.17	11.50	1.35	N.A	0.03	1.97	N.A	40.59	8.91
CV	0.00	66.10	37.81	77.96	92.98	N.A	0.00	82.05	N.A	29.38	144.57

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA
Section – 3: Receivables Management

Synopsis

- 5.3.1 Size of Receivables
- 5.3.2 Receivables and Sales Volume
- 5.3.3 Total Receivables to Total Current Assets
- 5.3.4 Total Debtors and Percentage of Total Debtors to Total Current Assets of Textile Companies
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Chapter V

Analysis and Interpretation of Data

Section – 3: Receivables Management

Receivables represent an essential component of current assets. Management of receivables is equally important as much as inventory management. They constitute a major part of gross working capital or current assets in all manufacturing units. The term 'Receivables' has been defined by Joy O. M. as "Debt owed to the firm by customers arising from sales of goods or services in the ordinary course of business."¹ Prof. Milling enunciates the accounts receivables as "A claim against a debtor for merchandise sold or services rendered in the ordinary course of business; the debt appears on the books of the vendor as receivables and on the books of the purchaser as a payable."² It is not always possible to sell the goods on cash basis only. Receivables results from credit sales. Credit sale is risky because cash payment for sale is yet to be received. It plays a vital role in ensuring a higher turnover for the units. Significant amounts are tied up in receivables; therefore they require a meticulous analysis and proper management.

Generally, it has been observed that the accounts receivables or receivables comprise the following items:

- i) Sundry Debtors or Book debts:
 - Debts outstanding over six months.
 - Debts outstanding upto six months.
- ii) Loan and Advances:
 - Prepaid expenses
 - Advances recoverable in cash or in kind or for the value to be received.
 - Advance to suppliers.
 - Advance to employees.
 - Advance payment of income tax.
 - Deposit with government authority and other.

¹ Jay O. M. (1992), Introduction to Financial Management, *Irwin, Homewood Ill.* p. 456.

² Milling. B.E. (1978), Hand Book of Accounts Receivable Financing: A Dynamic Approach to Cash Flow and Profits, *Institute for Business Planning. Inc.*, New Jersey, p.327.

- Balance with customs, excise, port trust and other authorities.

iii) Other current assets:

- Claim recoverable.
- Interest accrued on deposits and investments.
- Excise refund received.

Loans and advances and current assets are receivables but the ways of analyzing receivables as relationship with sales, average collection period, turnover of receivables etc. are concerned with the trade receivables only, not with the advances to employees or claims recoverable etc.

Moreover, the basic objective of accounts receivables management is to maximize the value of a firm by attaining a tradeoff between risk and return. Certain investment in accounts receivables is compulsory to increase the sales and return of a firm. Meanwhile, investment in accounts receivables involves costs and risks of bad debts. Therefore, the firm should manage its accounts receivables in such a way that sales are increased to the extent to which risk remains within an acceptable limit.

5.3.1 Size of Receivables

Table 5.36 exhibits the size of total receivables of the textile companies. Company wise analysis shows that the average sizes of total receivables of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 4714.89, Rs. 88733.00, Rs. 10622.79, Rs. 18962.30, Rs. 296.30, Rs. 15894.59, Rs. 1191.98, Rs. 1525.83, Rs. 475.94 and Rs. 957.64 lakh respectively. The year-wise analysis reveals that the total receivables were Rs. 112775.98 lakh in the year 1999-00, which increased to Rs. 223399.83 lakh in the year 2010-11.

The overall average of total receivables of all selected textile companies was Rs. 170988.03 lakh. Company wise CV showed that the SDML was following uniform policy regarding total receivables while Nakoda Limited was the most inconsistent unit. The overall CV of 179.99% exhibited that there was substantial difference in size of total receivables in the textile companies during the period of study.

Table 5.36: Total Receivable of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lacs

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMP	SDML	SNSITL	STML	Total
1999-00	2104.73	80380.00	9177.98	14552.18	137.70	1625.23	694.82	1962.57	988.03	1152.74	112775.98
2000-01	2055.89	72556.00	25151.33	9510.76	179.05	2655.98	823.61	1779.87	925.01	1010.00	116647.51
2001-02	2407.83	49094.00	20577.40	9338.79	147.59	2734.89	713.87	1566.11	915.27	784.23	88279.98
2002-03	2690.13	51854.00	18679.20	11150.55	113.22	2609.15	632.62	1479.94	859.38	560.28	90628.47
2003-04	3192.89	68096.00	18607.70	11314.82	223.48	2961.85	714.62	1527.20	541.27	567.06	107746.89
2004-05	3067.13	107761.00	N.A	12877.39	209.32	4763.71	934.85	1687.47	435.20	973.69	132709.76
2005-06	4193.68	144840.00	7050.27	15174.57	217.44	9572.77	1342.73	1681.78	235.16	678.24	184986.64
2006-07	4637.94	95578.00	6906.93	18926.93	233.15	15352.25	1284.34	1211.74	213.99	995.04	145340.31
2007-08	4231.17	87948.00	2466.11	26225.86	265.49	21200.05	1377.83	1291.54	192.02	1089.97	146288.05
2008-09	7621.82	98421.00	2918.90	27030.45	383.98	29812.93	1662.57	1425.77	147.32	770.85	170195.58
2009-10	9623.98	100486.00	2888.22	34715.55	581.01	37235.64	1933.26	1333.72	131.43	1952.52	190881.32
2010-11	10751.48	107782.00	2426.62	36729.80	864.12	60210.60	2188.65	1362.30	127.17	957.09	223399.83
Total	56578.67	1064796.00	116850.66	227547.65	3555.56	190735.06	14303.76	18310.01	5711.25	11491.71	1709880.33
Average	4714.89	88733.00	10622.79	18962.30	296.30	15894.59	1191.98	1525.83	475.94	957.64	170988.03
CV	60.56	28.81	76.18	49.42	70.91	110.49	42.28	13.86	70.87	36.96	179.99

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.2 Receivables and Sales Volume

Table 5.37 shows the relationship between receivables and sales of textile companies in Gujarat. In the year 1999-00, the total receivables were Rs. 112775.98 lakh which decreased to Rs. 88279.51 lakh in 2001-02; and then increased to Rs. 223399.83 lakh in 2010-11. Sales of textile companies were Rs. 251006.37 lakh in 1999-00 which declined to Rs. 225115.27 lakh in the year 2001-02; and then reached to Rs.975521.55 lakh in 2010-11. Sales volume of textile companies generally increased when volume of receivables increased.

Table 5.37: Receivables and Sales Relationship of Textile Companies

Rs. in Lakh		
Year	Total receivables	Sales
1999-00	112775.98	251006.37
2000-01	116647.51	361434.24
2001-02	88279.98	225115.27
2002-03	90628.47	315031.12
2003-04	107746.89	325428.71
2004-05	132709.76	315241.31
2005-06	184986.64	416067.68
2006-07	145340.31	473630.58
2007-08	146288.05	557143.69
2008-09	170195.58	564378.74
2009-10	190881.32	736072.47
2010-11	223399.83	975521.15
r		0.89

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Correlation co-efficient 0.89 shows that there was positive relationship between sales and receivables of the textile companies during the period from 1999-00 to 2010-11. It indicated that the sales of textile companies increased when the volume of receivables was increased. Therefore, there was positive correlation between sales and receivables of manufacturing textile companies.

5.3.3 Total Receivables to Total Current Assets

Table 5.38 shows total receivables as a percentage to total current assets. Total receivable to total current assets indicates the amount of working capital funds blocked in receivables. The year wise analysis revealed that average percentages varied between 53.17% in 1999-00 and 38.30% in 2010-11. The company wise analysis shows that the percentage of total receivables to total current assets of ADEL was 69.92% in the year 1999-00, which decreased to 38.09% in the year 2005-06; and then again increased to 47.25% in the year 2010-11. Average percentage of total receivables to total current assets was 49.41%. In the year 1999-00, the percentage of total receivables to total assets of Arvind Limited was 77.91%. It decreased to 59.68% in the year 2010-11. It was declined by 23.40% and average percentage of total receivables to total current assets of Arvind Limited was 64.01%. Ashima Limited had 77.91% in the year 1999-00 that was declined to 29.55% in the year 2010-11. The average percentage of total receivables to total current assets of Ashima Limited was 53.09%. In the year 1999-00, percentage of GSML was 67.90% which decreased to 35.68% in 2010-11. MTL had 51.80% in 1999-00 that stepped up to 57.14% in 2010-11. In the year 1999-00, percentage of total receivables to total current assets of Nakoda Limited was 68.59%, which decreased to 55.07% in 2010-11. Investment in receivables by PBMPL was 17.26% in 1999-00, which increased to 38.42% in the year 2008-09; and then stepped down to 27.19% in 2010-11. SDML invested 34.71% of total current assets in receivables in 1999-00 and it declined to 21.50% in 2010-11 by 38.05%. SNSTL had 65.88% in the year 1999-00 which decreased to 32.89% in 2010-11 i.e. by 50.09%. Percentage of total receivables to total current assets of STML in 1999-00 was 28.61% and later it declined to 17.05% in 2010-11. The average percentages of total receivables to total current assets of GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 53.14%, 49.11%, 67.65%, 24.23%, 28.66%, 58.28% and 23.80% respectively.

The overall average percentage of total receivables to total current assets of all selected units was 47.14%. It indicated that the total investment in receivables by all textile companies was 47.14% of total current assets. The CV of individual unit shows that Nakoda Limited had uniform investment in receivables though it invested over 50% of total current assets in receivables. The overall CV of all units also indicated that they were following consistent policy in case of receivables.

Table 5.38: Total Receivable to Total Current Assets of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	69.92	77.91	49.11	67.90	51.80	68.59	17.26	34.71	65.88	28.61	53.17
2000-01	58.21	70.26	74.25	57.67	51.72	73.68	21.42	33.29	68.32	24.31	53.31
2001-02	55.32	49.75	70.64	47.47	46.09	71.39	20.68	32.50	70.81	20.96	48.56
2002-03	42.36	56.72	69.65	64.55	33.16	70.80	14.90	33.17	63.75	14.50	46.36
2003-04	50.80	63.40	71.09	52.20	52.89	68.54	13.61	32.95	68.68	18.20	49.23
2004-05	42.13	67.28	N.A	56.98	47.52	70.55	25.60	37.29	66.97	20.55	48.32
2005-06	38.09	74.77	52.38	54.73	48.80	69.95	24.61	27.49	68.05	21.53	48.04
2006-07	44.46	58.89	54.82	55.88	41.91	70.66	25.99	21.43	66.21	27.70	46.80
2007-08	39.73	59.78	32.46	50.03	48.31	69.24	31.22	21.12	52.81	28.76	43.35
2008-09	48.92	61.80	40.00	48.21	51.28	67.70	38.42	25.42	39.57	27.75	44.90
2009-10	55.77	67.90	40.10	46.45	58.76	55.67	29.83	23.03	35.41	35.66	44.86
2010-11	47.25	59.68	29.55	35.68	57.14	55.07	27.19	21.50	32.89	17.05	38.30
Average	49.41	64.01	53.09	53.14	49.11	67.65	24.23	28.66	58.28	23.80	47.14
CV	17.81	11.92	29.47	15.46	13.26	8.42	28.31	19.89	23.42	24.46	32.32

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.4 Total Debtors and Percentage of Total Debtors to Total Current Assets of Textile Companies

Table 5.39 exhibits the size of debtors in textile companies of Gujarat. In the year 1999-00 Rs. 37757.98 lakh that increased to Rs. 145003.64 lakh in the year 2010-11. It was increased by 284.03%. The overall average total debtor of all selected units was Rs. 77910.42 lakh. The average debtors of twelve years for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 3681.17, Rs. 30057.42, Rs. 7353.41, Rs. 6845.10, Rs. 203.41, Rs. 15269.87, Rs. 714.22, Rs. 683.29, Rs. 245.24 and Rs. 485.01 lakh respectively. SNSTL declined from Rs. 256.32 lakh in 2004-05 to Rs. 98.48 lakh in 2005-06 due to sudden fall in production and sales. The CV (21.61%) of SDML shows that the uniform policy regarding adequacy of debtors was followed by SDML. The overall CV of all selected companies was 139.66% that indicated they were highly fluctuated units.

Table 5.40 shows the total debtor as a percentage to total receivables. The average percentage of total debtors to total receivables of ADEL was 76.66%. It shows that ADEL blocked its working capital in debtors on an average of 76.66% of total receivables. In the year 1999-00, the percentage of total debtor to total receivables of Arvind Limited was 24.67%, which was increased to 52.29% in 2010-11. Percentage of debtors to total receivables of Ashima Limited had 64.15% in 1999-00, which declined to 18.74% in 2005-06 and again increased to 73.37% in 2010-11. 23.01% of total receivables were held by GSML in debtors in the year 2004-05, which increased to 43.44% in 2010-11. MTL had 47.58% in 1999-00 and it was increased by 72.97% in 2010-11. Percentage of total debtors to total receivables of Nakoda Limited varied between 82.88% in 1999-00 and 99.52% in 2004-05. The average of Nakoda Limited was 95.02%.

PBMPL was investing consistently with average of 60.22% in total debtors. In 1999-00, percentage of total debtors to total receivables of SDML was 29.84%, which increased to 71.57% in 2010-11. In the year 1999-00, 65.16% of total receivables were held by SNSTL in debtors, which declined to 9.82% in 2008-09 and again increased to 30.14% in 2010-11. STML was blocking its working capital in debtors on an average of 53.58% of total receivables. The overall average of all selected units was 56.99% and CV was 31.48%. This shows that they all were following consistent credit policy for their debtors.

Table 5.39: Total Debtors of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PB MPL	SDML	SNS TL	STML	Total
1999-00	1756.54	19829.00	5887.87	6532.28	65.52	1346.98	484.87	585.58	643.83	625.51	37757.98
2000-01	1570.96	20996.00	18061.59	3120.00	90.47	2382.18	510.93	559.24	543.54	511.92	48346.83
2001-02	1874.17	23625.00	14985.11	3423.73	72.38	2493.70	376.99	561.72	549.02	332.22	48294.05
2002-03	2139.81	23435.00	15892.31	3797.57	63.39	2561.81	338.19	528.42	400.14	267.17	49423.81
2003-04	2583.53	23540.00	16266.10	4806.76	139.93	2926.65	471.81	526.09	239.02	300.94	51800.83
2004-05	2283.55	31911.00	N.A	2963.00	122.85	4740.77	634.32	648.03	256.32	732.08	44291.92
2005-06	1834.54	36828.00	1321.03	4844.93	119.35	9368.95	958.05	641.03	98.48	384.36	56398.73
2006-07	3242.68	20485.00	1398.78	6474.15	185.80	15185.57	692.58	735.75	57.99	749.64	49207.94
2007-08	3536.00	26177.00	1420.11	10790.29	220.27	20750.18	723.67	676.66	52.86	868.92	65215.96
2008-09	6364.69	35084.00	1824.08	6747.31	302.72	27717.35	862.82	835.27	14.46	380.75	80133.45
2009-10	7883.19	42416.00	2050.18	12686.88	347.02	35674.73	987.13	926.69	48.83	208.37	103229.01
2010-11	9104.38	56363.00	1780.30	15954.32	711.19	58089.60	1529.33	974.94	38.33	458.25	145003.64
Total	44174.04	360689.00	80887.46	82141.22	2440.88	183238.48	8570.69	8199.43	2942.82	5820.13	779104.16
Average	3681.17	30057.42	7353.41	6845.10	203.41	15269.87	714.22	683.29	245.24	485.01	77910.42
CV	67.84	35.16	93.88	58.29	86.91	110.52	44.92	21.61	90.61	42.16	139.66

Rs. In Lacs

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.40: Total Debtors to Total Receivables of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	83.46	24.67	64.15	44.89	47.58	82.88	69.78	29.84	65.16	54.26	56.67
2000-01	76.41	28.94	71.81	32.80	50.52	89.69	62.04	31.42	58.76	50.69	55.31
2001-02	77.84	48.12	72.82	36.66	49.04	91.18	52.81	35.87	55.93	42.36	56.26
2002-03	79.54	45.19	85.08	34.06	55.99	98.19	53.46	35.71	46.56	47.69	58.15
2003-04	80.92	34.57	87.42	42.48	62.61	98.81	66.02	34.45	44.16	53.07	60.45
2004-05	74.45	29.61	N.A	23.01	58.69	99.52	67.85	38.40	58.90	75.19	58.40
2005-06	43.75	25.43	18.74	31.93	54.89	97.87	71.35	38.12	41.88	56.67	48.06
2006-07	69.92	21.43	20.25	34.21	79.69	98.91	53.93	60.72	27.10	75.34	54.15
2007-08	83.57	29.76	57.59	41.14	82.97	97.88	52.52	52.39	27.53	79.72	60.51
2008-09	83.51	35.65	62.49	24.96	78.84	92.97	51.90	58.58	9.82	49.39	54.81
2009-10	81.91	42.21	70.98	36.55	59.73	95.81	51.06	69.48	37.15	10.67	55.56
2010-11	84.68	52.29	73.37	43.44	82.30	96.48	69.88	71.57	30.14	47.88	65.20
Average	76.66	34.82	62.25	35.51	63.57	95.02	60.22	46.38	41.92	53.58	56.99
CV	14.06	27.53	35.06	18.63	20.46	5.03	13.19	31.46	37.42	32.75	31.48

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.5 Composition of Total Debtor

Debtors are categorized into two parts- i) Debtors exceeding six months and ii) Other debtors less than six months. The analysis and interpretation of composition of debtors assist to study the liquidity of debtors. It will help in improving liquidity position of the units and will also increase the profitability. It may also help in reducing the bad debt of the company.

5.3.5.1 Total Debtors Exceeding Six Months to Total Debtors of Textile Companies

Table 5.41 shows the total debtors exceeding six months to total debtors of textile companies. The average percentages of total debtors exceeding six months to total debtors of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL, and STML were 3.60%, 16.09%, 6.49%, 6.65%, 32.82%, 0.67%, 0.17%, 7.09%, 20.85% and 16.17% respectively. The more percentage highlights lower liquidity position of the textile units and less percentage indicates higher liquidity position of the textile companies. MTL was following very liberal credit policy.

The CV of ADEL, Arvind Limited, Ashima Limited, Nakoda Limited, PBMPL and SNSTL indicated that they had a fluctuating trend throughout the twelve years of period under study. The CV of GSML, MTL, SDML and STML shows that even they had high percentage of debtors blocked for more than six months, they were consistent. The overall average of all selected units was 11.06%. The overall CV was 88.54%.

5.3.5.2 Other Debtors Less than Six Months to Total Debtors of Textile Companies

Table 5.42 exhibits that total percentage of total debtors less than six months to total debtors. The average percentages of other debtors to total debtors of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 96.40%, 83.91%, 93.51%, 93.35%, 67.18%, 99.33%, 99.83%, 92.91%, 78.15% and 83.83% respectively. The overall average of all selected textile companies was 88.84%, which indicated a sound liquidity position of textile companies. The CVs of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 2.91%, 11.27%, 6.39%, 2.74%, 23.59%, 1.05%, 0.18%, 3.16%, 26.88% and 7.69% respectively. This shows that all units were consistent throughout period of study; it was also supported by the overall CV of all selected textile units i.e. 11.14%.

Table 5.41: Total Debtors (Exceeding Six Months) to Total Debtors of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDMI	SNSTL	STMI	Average
1999-00	2.87	37.09	5.74	8.64	25.53	3.55	0.11	7.76	17.08	12.42	12.08
2000-01	1.77	24.40	9.18	10.45	33.53	2.00	0.08	12.37	15.75	14.93	12.45
2001-02	0.41	12.57	15.99	6.29	50.98	1.00	0.01	13.80	12.08	19.25	13.24
2002-03	0.47	13.18	12.81	8.66	68.66	0.77	0.00	8.18	9.96	27.04	14.97
2003-04	2.16	27.20	17.27	5.64	21.65	0.46	0.46	5.38	20.03	25.10	12.54
2004-05	0.89	22.37	N.A	10.93	47.59	0.11	0.19	5.98	14.51	21.35	13.77
2005-06	5.35	16.56	1.97	4.34	38.00	0.06	0.36	6.01	43.84	20.40	13.69
2006-07	2.64	11.95	1.70	3.86	30.79	0.04	0.47	5.02	73.22	13.58	14.33
2007-08	9.16	9.64	1.96	2.90	30.37	0.02	0.37	4.66	43.68	10.49	11.32
2008-09	6.46	7.53	2.18	8.21	15.05	0.04	0.00	6.67	0.00	8.34	5.45
2009-10	3.23	2.62	2.38	4.15	21.95	0.04	0.00	5.49	0.00	16.37	5.62
2010-11	7.80	7.99	0.20	5.70	9.74	0.01	0.00	3.79	0.00	4.75	4.00
Average	3.60	16.09	6.49	6.65	32.82	0.67	0.17	7.09	20.85	16.17	11.06
CV	77.78	58.77	92.14	38.53	48.29	154.01	107.15	41.46	101.51	39.85	88.54

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.42: Other Debtors (Less than Six Months) to Total Debtors of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	97.13	62.91	94.26	91.36	74.47	96.45	99.89	92.24	82.92	87.58	87.92
2000-01	98.23	75.60	90.82	89.55	66.47	98.00	99.92	87.63	84.25	85.07	87.55
2001-02	99.59	87.43	84.01	93.71	49.02	99.00	99.99	86.20	75.83	80.75	85.55
2002-03	99.53	86.82	87.19	91.34	31.34	99.23	100.00	91.82	90.04	72.96	85.03
2003-04	97.84	72.80	82.73	94.36	78.35	99.54	99.54	94.62	79.97	74.90	87.46
2004-05	99.11	77.63	N.A	89.07	52.41	99.89	99.81	94.02	85.49	78.65	86.23
2005-06	94.65	83.44	98.03	95.66	62.00	99.94	99.64	93.99	56.16	79.60	86.31
2006-07	97.36	88.05	98.30	96.14	69.21	99.96	99.53	94.98	26.78	86.42	85.67
2007-08	90.84	90.36	98.04	97.10	69.63	99.98	99.63	95.34	56.32	89.51	88.68
2008-09	93.54	92.47	97.82	91.79	84.95	99.96	100.00	93.33	100.00	91.66	94.55
2009-10	96.77	97.38	97.62	95.85	78.05	99.96	100.00	94.51	100.00	83.63	94.38
2010-11	92.20	92.01	99.80	94.30	90.26	99.99	100.00	96.21	100.00	95.25	96.00
Average	96.40	83.91	93.51	93.35	67.18	99.33	99.83	92.91	78.15	83.83	88.84
CV	2.91	11.27	6.39	2.74	23.59	1.05	0.18	3.16	26.88	7.69	11.14

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.6 Debtors Turnover Ratio of Textile Companies

The Debtors turnover ratio indicates the speed with which the accounts receivables are converted into cash. It also highlights the efficiency attained in using the funds invested in debtors. It is calculated by dividing sales by average debtor. An average debtor is used for consistent result. A high ratio shows that the quick conversion of accounts receivables into cash. It may be possible that credit sales are only allowed to selected customers which lead to fewer bad debts due to stringent credit policy. A high turnover also reveals the efficiency of the collection department, short debt collection period and good liquidity position of concern.

A low ratio indicates that the slow conversion of accounts receivables into cash. It may be possible that credit sales are allowed to all customers which lead to more bad debts due to liberal credit policy. A low turnover also indicates the inefficiency of collection department, long debt collection period and weak liquidity position of the company.

Table 5.43 exhibits the debtors turnover ratio (DTR) of textile companies in the state of Gujarat. The year wise analysis shows that in the year 1999-00, average DTR was 11.12 times which decreased to 10.53 times in 2007-08, and again increased to 17.32 times in the year 2010-11. There was huge difference in DTR from company to company. The individual averages of DTR of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 7.75, 6.31, 8.68, 18.46, 3.53, 5.15, 21.50, 10.12, 4.78, 46.75 times respectively. The overall average of DTR of all selected textile companies was 13.30 times. Averages of DTR of GSML, PBMPL and STML had more than the overall average. STML had more cash sales and stringent credit policy during the study period. MTL reported the least average of DTR among all textile companies.

The CVs of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 28.74%, 26.08%, 61.66%, 38.08%, 57.53%, 15.16%, 30.09%, 7.75%, 41.03% and 58.24% respectively. The CV of ADEL, Arvind Limited, GSML, Nakoda Limited, PBMPL, and SDML had less than 40% showed their consistency level. SDML was following the most uniform policy for debtors, i.e. credit policy to customers. However the overall CV of 93.83% shows that textile companies were following non-uniform policy regarding their collection and credit policy to customers during the period of study from 1999-00 to 2010-11.

Table 5.43: Debtors Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Times										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Average
1999-00	5.70	6.13	5.37	6.11	6.10	7.02	32.31	10.03	6.04	26.34	11.12
2000-01	6.40	9.09	5.60	9.21	8.84	5.84	23.53	9.19	6.63	37.15	12.15
2001-02	8.67	3.13	2.53	13.80	4.47	5.77	25.53	8.94	6.25	45.94	12.50
2002-03	7.36	6.29	2.78	14.52	2.48	5.49	31.48	9.78	7.63	77.03	16.48
2003-04	7.32	6.11	2.92	14.13	2.45	5.50	29.96	11.07	5.78	76.23	16.15
2004-05	9.73	6.06	N.A	19.42	1.21	4.93	18.93	10.11	5.83	21.91	10.90
2005-06	13.42	4.62	5.11	27.64	1.30	5.03	14.36	10.66	3.62	39.65	12.54
2006-07	9.76	6.44	17.36	26.74	2.81	4.72	15.33	10.98	1.27	18.80	11.42
2007-08	7.17	9.30	15.84	21.12	2.82	4.46	17.99	11.19	3.63	11.80	10.53
2008-09	6.46	7.50	12.84	15.79	3.16	4.25	17.28	10.83	5.52	28.04	11.17
2009-10	5.26	5.82	11.60	27.40	3.59	4.22	16.14	9.47	3.91	88.35	17.58
2010-11	5.74	5.28	13.54	25.61	3.17	4.56	15.20	9.14	1.24	89.76	17.32
Average	7.75	6.31	8.68	18.46	3.53	5.15	21.50	10.12	4.78	46.75	13.30
CV	28.74	26.08	61.66	38.08	57.53	15.16	30.09	7.75	41.03	58.24	93.83

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.7 Average Collection Period of Textile Companies

Table 5.44 exhibits the average collection period of textile companies during period from 1999-00 to 2010-11. The formula of average collection period is as under:

$$= 365 \text{ days} / \text{Debtors Turnover Ratio}$$

The generally accepted standard of debt collection period for manufacturing companies is 2-3 months. Table 5.44 shows that in the year 1999-00, average collection period of ADEL was 64 days which declined to 27 days in 2005-06 and again increased to 64 days in 2010-11. Average debt collection period of ADEL was 50 days. Debt collection period for Arvind Limited was 117 days in 2001-02, it reported the maximum days of debt collection period in Arvind Limited. In the year 2010-11, it was declined to 69 days in order to collect its debts. Average collection period of Ashima Limited had over 100 days in the year 2001-02, 2002-03 and 2003-04. Though, the average debt collection period of Ashima Limited was 67 days. Average collection period of GSML was 60 days in 1999-00 which declined to 14 days in 2010-11. Average collection period of GSML was 24 days. MTL had debt collection period less than 100 days only in year 1999-00, 2000-01 and 2001-02; rest of years it was more than 100 days. Average debt collection period of MTL was 138 days, which was more than standard of 2-3 months. Nakoda Limited had 52 days in the year 1999-00 which increased to 80 days in 2010-11. PBMPL's average collection period was very short throughout the study period. Its average debts collection period was 18 days which indicated that it was converting its receivables very fast. SDML was very consistent with average of 36 days. SNSTL had more than 100 days in the year 2005-06, 2006-07 and 2007-08. The least average collection period among all selected textile companies was 12 days, it was of STML. STML had very short average collection period throughout the study period.

However the average debt collection period of all selected units was 59 days, which was not more than two months. The CVs for ADEL, Arvind Limited, Nakoda Limited, PBMPL and SDML were 23.91%, 31.14%, 13.93%, 27.10% and 7.83% respectively. CV of these companies indicated they were following uniform policy. Moreover the overall CV was 64.74% that indicated on aggregate basis they were quite inconsistent. The year wise analysis shows that the average collection period in the year 1999-00 was 49 days, which decreased to 43 days in next year and again increased to 73 days in 2010-11.

Table 5.44: Average Debt Collection Period of Textile Companies during the Period from 1999-00 to 2010-11

In Days											
Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PB MPL	SD ML	SNS TL	ST ML	Average
Years											
1999-00	64	60	68	60	60	52	11	36	60	14	49
2000-01	57	40	65	40	41	63	16	40	55	10	43
2001-02	42	117	144	26	82	63	14	41	58	8	60
2002-03	50	58	132	25	147	67	12	37	48	5	58
2003-04	50	60	125	26	149	66	12	33	63	5	59
2004-05	38	60	N.A	19	302	74	19	36	63	17	70
2005-06	27	79	71	13	280	73	25	34	101	9	71
2006-07	37	57	21	14	130	77	24	33	287	19	70
2007-08	51	39	23	17	129	82	20	33	100	31	53
2008-09	57	49	28	23	116	86	21	34	66	13	49
2009-10	69	63	31	13	102	86	23	39	93	4	52
2010-11	64	69	27	14	115	80	24	40	293	4	73
Average	50	62	67	24	138	72	18	36	107	12	59
CV	23.91	31.14	66.70	53.84	54.81	13.93	27.10	7.83	77.76	65.94	64.74

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.8 Loan and Advances of Textile Companies

Table 5.45 shows the loan and advances held by textile companies. Total loan and advances in the year 1999-00 was Rs. 75018.00 lakh that increased to Rs. 128587.91 lakh in 2005-06, which again declined to Rs. 78396.19 lakh in the year 2010-11. Companies' individual analysis shows that ADEL increased its loan and advances amount from Rs. 348.19 lakh in 1999-00 to Rs. 1647.10 lakh in 2010-11. It was increased by 373.05%. The twelve years average of ADEL was Rs. 1033.72 lakh. Arvind Limited declined from Rs. 60551.00 lakh in 1999-00 to Rs. 51419.00 lakh in 2010-11 which was decreased by 15.08%. Ashima Limited declined from Rs. 3290.11 lakh in 1999-00 to Rs. 646.32 lakh in 2010-11. It was decreased by 80.35%. GSML, MTL, Nakoda Limited and PBMPL increased by 159.05%, 111.87%, 662.27% and 214.04% respectively while SDML, SNSTL and STML declined by 71.87%, 74.19% and 5.38% respectively during the course of study from 1999-00 to 2010-11. The overall CV of textile industry was 223.27%, however, individual companies like Arvind Limited and SDML were following uniform policy during the period of study.

5.3.9 Loan and Advances to Total Receivables

Table 5.46 exhibits the loan and advances as a percentage to total receivables. ADEL was maintaining loan and advances of 16.54% of total receivables in the year 1999-00, which was increased to 56.25% in the year 2005-06 and then declined to 15.32%. Investment in loan and advances held by GSML was found above 50% throughout the study period. Nakoda Limited declined from 17.12% in 1999-00 to 3.52% in 2010-11. It was observed that, Nakoda Limited didn't make investment in loan and advances more than 20% of its total receivables throughout the study period. The average percentages of loan and advances to total receivables of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 23.34%, 65.18%, 37.75%, 64.49%, 36.43%, 4.98%, 39.78%, 53.62%, 58.08% and 46.42% respectively. However, it was observed that the averages of Arvind Limited, GSML, SDML and SNSTL were more than 50%. These companies had more receivables in the form of loan and advances. The year wise average varied between 34.80% in 2010-11 and 51.94% in 2005-06. The overall average of all selected units was 43.01%. The overall CV of 41.71% shows that all selected units were consistent in investing loan and advances during the period of study.

Table 5.45: Loan and Advances of Textile Companies during the Period from 1999-00 to 2010-11

Rs. In Lacs

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	348.19	60551.00	3290.11	8019.90	72.18	278.25	209.95	1376.99	344.20	527.23	75018.00
2000-01	484.93	51560.00	7089.74	6390.76	88.59	273.80	312.68	1220.63	381.47	498.08	68300.68
2001-02	533.66	25469.00	5592.29	5915.06	75.21	241.19	336.88	1004.39	432.59	452.01	40052.27
2002-03	550.32	28419.00	2786.89	7352.98	49.83	47.35	294.42	951.52	459.24	293.11	41204.66
2003-04	609.36	44556.00	2341.60	6508.06	83.56	35.19	242.81	1001.11	302.25	266.12	55946.06
2004-05	783.58	75850.00	N.A	9914.39	86.48	22.94	300.53	1039.44	178.88	241.61	88417.84
2005-06	2359.14	108012.00	5729.24	10329.64	98.09	203.82	384.67	1040.75	136.68	293.88	128587.91
2006-07	1395.26	75093.00	5508.15	12452.78	47.35	166.68	591.76	475.99	156.00	245.40	96132.37
2007-08	695.17	61771.00	1046.00	15435.57	45.23	449.87	654.16	614.88	139.16	221.05	81072.09
2008-09	1257.13	63337.00	1094.82	20283.14	81.26	2095.58	799.75	590.50	132.86	390.10	90062.14
2009-10	1740.79	58070.00	838.04	22028.67	233.99	1560.91	946.13	407.04	82.60	1744.15	87652.31
2010-11	1647.10	51419.00	646.32	20775.48	152.93	2121.00	659.32	387.36	88.84	498.84	78396.19
Total	12404.63	704107.00	35963.20	145406.43	1114.68	7496.57	5733.07	10110.58	2834.77	5671.58	930842.51
Average	1033.72	58675.58	3269.38	12117.20	92.89	624.71	477.76	842.55	236.23	472.63	93084.25
CV	58.75	36.00	68.15	47.72	54.51	123.38	48.63	37.79	56.06	84.27	223.27

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.46: Loan and Advances to Total Receivables of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Average
1999-00	16.54	75.33	35.85	55.11	52.42	17.12	30.22	70.16	34.84	45.74	43.33
2000-01	23.59	71.06	28.19	67.20	49.48	10.31	37.96	68.58	41.24	49.31	44.69
2001-02	22.16	51.88	27.18	63.34	50.96	8.82	47.19	64.13	44.07	57.64	43.74
2002-03	20.46	54.81	14.92	65.94	44.01	1.81	46.54	64.29	53.44	52.31	41.85
2003-04	19.08	65.43	12.58	57.52	37.39	1.19	33.98	65.55	55.84	46.93	39.55
2004-05	25.55	70.39	N.A	76.99	41.31	0.48	32.15	61.60	41.10	24.81	41.60
2005-06	56.25	74.57	81.26	68.07	45.11	2.13	28.65	61.88	58.12	43.33	51.94
2006-07	30.08	78.57	79.75	65.79	20.31	1.09	46.07	39.28	72.90	24.66	45.85
2007-08	16.43	70.24	42.41	58.86	17.03	2.12	47.48	47.61	72.47	20.28	39.49
2008-09	16.49	64.35	37.51	75.04	21.16	7.03	48.10	41.42	90.18	50.61	45.19
2009-10	18.09	57.79	29.02	63.45	40.27	4.19	48.94	30.52	62.85	89.33	44.44
2010-11	15.32	47.71	26.63	56.56	17.70	3.52	30.12	28.43	69.86	52.12	34.80
Average	23.34	65.18	37.75	64.49	36.43	4.98	39.78	53.62	58.08	46.42	43.01
CV	46.19	14.71	57.81	10.26	35.70	95.79	19.96	27.21	27.02	37.79	41.71

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.10 Receivables to Total Sales of Textile Companies

In order to evaluate the policy of credit-granting followed by selected textile companies, the total receivables to total sales is calculated as a clear-cut technique. As it was shown in table 5.37, that receivables could be expected to fluctuate in direct proportion to the volume of sales. One has to make an assumption that the collection methods and sales terms do not change. This ratio also indicates the revenue-generating capacity of each company. It is acceptable for any unit to have reasonably lower percentage of receivables against the sales. It shows a good realization of sales revenue.

Table 5.47 shows the receivables as a percentage to total sales of textile companies in the state of Gujarat. In the year 1999-00, average percentage of receivables to total sales was 27.63%, which increased to 44.36% in 2006-07 and again declined to 42.73% in 2010-11. Company wise analysis shows that ADEL had 21.74% in the year 1999-00 that decreased 22.05% in the year 2010-11. Arvind Limited had very high percentage of receivables to sales during the period of study. Percentage of receivables to sales of Ashima Limited in the year 1999-00 was 29.04%, which declined to 9.36% in the year 2010-11. GSML had almost decreasing trend during the period of study. It reported 36.07% in 1999-00 that declined to 10.02% in 2010-11. MTL marked very high percentage in the year 2004-05 and 2005-06, i.e. 131.73% and 137.78% respectively. Nakoda Limited reported 17.19% in the year 1999-00, which increased to 28.15% in the year 2010-11. PBMPL's revenue generating capacity was high, though it increased from 5.95% in 1999-00 to 11.44% in 2010-11. SDML marked 33.40% in 1999-00 that declined to 15.68% in 2010-11. In the year 2010-11, SNSTL reported a very high percentage of receivables to sales due to marginally decreased in sales and production. STML reported the highest revenue generating capacity among all selected units. The average percentages of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 19.14%, 52.86%, 26.47%, 18.22%, 64.66%, 24.12%, 9.08%, 23.90%, 77.63% and 5.70% respectively. The overall average of all selected unit was 32.18%. The average percentage of receivables to sales of Arvind Limited, MTL and SNSTL was above 50%, revealed less revenue generating capacity. The overall CV of 71.64% shows that on aggregate basis, they were quite inconsistent in following credit policy and method of collection. Though, companies like ADEL, Nakoda Limited, PBMPL and SDML were consistent units.

Table 5.47: Receivables to Sales of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	21.74	66.10	29.04	36.07	34.45	17.19	5.95	33.40	25.40	7.00	27.63
2000-01	19.30	39.09	37.49	21.39	25.97	24.40	7.03	33.84	23.50	4.78	23.68
2001-02	16.13	70.24	49.27	20.68	40.54	19.44	6.30	31.27	30.63	4.04	28.85
2002-03	18.22	35.06	43.60	21.27	67.34	18.82	5.62	27.78	25.52	2.43	26.56
2003-04	18.46	47.44	39.58	18.61	89.68	19.63	5.89	26.17	29.28	2.62	29.74
2004-05	12.95	64.19	N.A	17.07	131.73	25.18	8.93	28.42	30.16	8.60	36.36
2005-06	15.18	91.17	15.70	14.06	137.78	26.96	11.74	24.47	36.58	3.06	37.67
2006-07	18.71	51.81	29.25	12.51	54.29	26.47	10.15	16.04	215.00	9.33	44.36
2007-08	17.41	40.51	11.05	14.38	46.35	26.45	10.82	16.34	95.35	11.42	29.01
2008-09	23.85	42.83	14.02	19.52	46.49	28.96	12.13	17.41	79.24	4.40	28.89
2009-10	25.68	44.58	12.85	13.04	49.79	27.81	12.95	15.99	106.34	7.50	31.65
2010-11	22.05	41.33	9.36	10.02	51.57	28.15	11.44	15.68	234.54	3.20	42.73
Average	19.14	52.86	26.47	18.22	64.66	24.12	9.08	23.90	77.63	5.70	32.18
CV	18.33	30.23	52.29	35.64	54.01	16.57	29.32	28.98	92.22	50.13	71.64

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.11 Payable Conversion Period / Days Payable Outstanding of Textile Companies

It is also required to look at the current liabilities on the balance sheet to see how long company takes them to pay its short-term obligations. It can be applied the same logic to accounts payable as management does to account receivables and inventories.³ To know, how long it takes by a company, on average, to go from creating a payable to paying for it in cash, payable conversion period is assessed. It is calculated by following formula-

$$\text{Payables Conversion Period} = \frac{\text{Average Accounts Payables} * 365}{\text{Cost of Goods Sold}}$$

Table 5.48 shows the payable conversion period of textile companies during the period from 1999-00 to 2010-11. It shows that ADEL used to pay its short term obligations in 33 days in the year 1999-00, which increased to 125 days in 2006-07 and again decreased to 62 days in 2010-11. Arvind Limited had 202 days for paying its current liabilities in the year 2001-02 that reduced to 85 days in 2010-11. Ashima Limited varied between 29 days in 2000-01 and 61 days in 2008-09. GSML had 43 days in 1999-00, which increased to 60 days in 2003-04 and again declined to 45 days in 2010-11. Payable conversion period of MTL was 26 days, which increased to 129 and 135 days in 2004-05 and 2005-06 respectively. It was good management of its creditors but again reduced to 58 days in 2009-10. Nakoda Limited had almost increasing trend of payable conversion period under study. Gradually, it increased from 19 days in 1999-00 to 84 days in 2010-11. PBMPL showed that it was paying its short term debts quickly year after year. SDML had very long length of payable conversion period during the study period. In the year 1999-00, SNSTL had 47 days of payable conversion period, which increased to 258 days in 2006-07 and again decreased to 154 in 2010-11. STML varied between 23 days in 2003-04 and 80 days in the year 2004-05.

The year wise analysis shows that the average conversion payable period varied between 62 days in 2003-04 and 98 days in 2006-07. The average payable conversion periods for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 63, 94, 46, 39, 76, 55, 35, 190, 107 and 47 days respectively. The overall conversion period of textile companies was 75 days. The overall CV of textile companies was 58.96% that showed they were not following uniform policy under the study period.

³ Pamela Peterson Drake, Frank J. Fabozzi (2010), The Basics of Finance-An Introduction to Financial Markets, Business Finance and Portfolio Management, *John Wiley & Sons, Inc.*, Hoboken, New Jersey, p. 250.

Table 5.48: Payable Conversion Period of Textile Companies during the Period from 1999-00 to 2010-11

In Days												
Companies		ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMP	SDML	SNSL	STML	Average
Years												
1999-00		33	121	34	43	26	19	58	283	47	32	70
2000-01		36	76	29	38	26	41	49	281	45	27	65
2001-02		30	202	49	39	58	52	39	247	46	31	79
2002-03		47	85	41	42	76	56	38	197	43	24	65
2003-04		51	64	39	60	77	47	39	164	56	23	62
2004-05		63	58	N.A	46	129	41	35	177	90	80	80
2005-06		68	78	38	28	135	50	27	200	129	74	83
2006-07		125	88	59	21	99	59	32	175	258	60	98
2007-08		112	85	58	22	68	66	29	144	142	72	80
2008-09		62	93	61	41	48	72	22	147	118	31	70
2009-10		64	93	50	39	58	77	24	140	152	51	75
2010-11		62	85	42	45	108	84	28	124	154	61	79
Average		63	94	46	39	76	55	35	190	107	47	75
CV		44.78	38.23	22.51	26.74	45.59	31.11	28.79	27.34	58.43	43.15	58.96

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.3.12 Bad Debts to Debtors/Bad Debt Ratio of Textile Companies

A bad debt can be defined as an amount which has been written off by the concern as a loss and specified as an expense for the debt owed to the business cannot be collected. Generally, a bad debt originates from debtors and it occurs when the debtor declares bankruptcy or even in cases when the costs of extending credit and collecting the debt go beyond the debt itself. Analysis of bad debts of the concern is a very initiative measure to check on bad debts. It also helps in deciding the credit limit to customers and optimum credit period given to customers. Table 5.49 shows the bad debts as a percentage to total debtors of textile companies in the state of Gujarat during the period from 1999-00 to 2010-11. Average percentage of bad debt to total debtor in the year 1999-00 was 0.82%, which increased to 10.08% in the year 2008-09 and then again declined to 0.21% in 2010-11. The average percentages of bad debt to total debtors of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, PBMPL, SDML, SNSTL and STML were 0.37%, 0.32%, 0.39%, 5.97%, 2.46%, 0.27%, 0.17%, 18.50% and 0.60% respectively. Bad debt of SNSTL was found abnormally 57.40%, 97.88% and 27.38% in 2007-08, 2008-09 and 2009-10 respectively because it had retained previous year's doubtful debtors, meanwhile substantial decreased in productions and sales in current year which led to very less fresh debtors of that current year. The overall CV 188.76% shows that they were very inconsistent in case of managing their bad debts.

5.3.13 Bad Debts to Total Sales of Textile Companies

Credit to weak customers, improper collection period and liberal credit policy results in high percentage of bad debts. The objective of receivables management is to maintain bad debts at a minimum level. The effects of bad debt losses on profitability can be analysed by comparing them with sales. Profitability will be low, if there is higher percentage of bad debts to total sales. A bad debt reduces the margin of profit of the business.

Table 5.50 exhibits bad debts as a percentage to total sales of textile companies. The year-wise analysis shows that the percentage of bad debts to total sales was 0.14% in 1999-00, which increased to 1.78% in the year 2007-08 and again declined to 0.04% in 2010-11. The average percentages of bad debts to sales of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, PBMPL, SDML, SNSTL and STML were 0.05%, 0.05%, 0.04%, 0.46%,

Table 5.49: Bad Debt to Debtors of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	0.00	0.41	1.18	3.47	0.00	0.00	0.09	0.02	3.02	0.00	0.82
2000-01	0.00	1.71	0.02	1.86	5.61	0.00	0.00	0.00	9.47	0.00	1.87
2001-02	0.00	0.49	0.00	16.22	0.00	0.00	0.00	1.37	5.35	0.00	2.34
2002-03	0.00	0.54	0.09	48.83	0.00	0.00	2.23	0.30	12.41	0.00	6.44
2003-04	0.00	0.00	0.00	0.04	0.00	0.00	0.18	0.00	1.11	0.00	0.13
2004-05	1.38	0.14	N.A	0.30	0.00	0.00	0.00	0.00	6.51	0.00	0.93
2005-06	1.23	0.05	0.00	0.00	7.14	0.00	0.01	0.00	1.38	0.00	0.98
2006-07	0.53	0.18	2.06	0.00	1.03	0.00	0.39	0.00	0.07	7.14	1.14
2007-08	0.38	0.24	0.86	0.00	6.78	0.00	0.00	0.00	57.40	0.00	6.57
2008-09	0.00	0.02	0.00	0.00	2.59	0.00	0.31	0.00	97.88	0.00	10.08
2009-10	0.94	0.02	0.05	0.05	5.50	0.00	0.00	0.00	27.38	0.00	3.39
2010-11	0.03	0.00	0.00	0.93	0.86	0.00	0.00	0.30	0.00	0.00	0.21
Average	0.37	0.32	0.39	5.97	2.46	0.00	0.27	0.17	18.50	0.60	2.90
CV	134.60	144.92	169.69	228.51	114.18	0.00	225.87	229.19	154.85	331.66	188.76

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.50: Bad Debt to Total Sales of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMP L	SDML	SNSTL	STM L	Average
1999-00	0.00	0.07	0.22	0.56	0.00	0.00	0.00	0.00	0.50	0.00	0.14
2000-01	0.00	0.19	0.00	0.13	0.74	0.00	0.00	0.00	1.31	0.00	0.24
2001-02	0.00	0.16	0.00	1.23	0.00	0.00	0.00	0.15	0.81	0.00	0.24
2002-03	0.00	0.09	0.03	3.54	0.00	0.00	0.07	0.03	1.47	0.00	0.52
2003-04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.14	0.00	0.02
2004-05	0.13	0.03	N.A	0.01	0.00	0.00	0.00	0.00	1.16	0.00	0.15
2005-06	0.08	0.01	0.00	0.00	5.40	0.00	0.00	0.00	0.21	0.00	0.57
2006-07	0.07	0.02	0.12	0.00	0.44	0.00	0.02	0.00	0.04	0.50	0.12
2007-08	0.05	0.03	0.05	0.00	2.61	0.00	0.00	0.00	15.06	0.00	1.78
2008-09	0.00	0.00	0.00	0.00	0.95	0.00	0.02	0.00	7.61	0.00	0.86
2009-10	0.20	0.00	0.00	0.00	1.63	0.00	0.00	0.00	10.82	0.00	1.27
2010-11	0.01	0.00	0.00	0.04	0.37	0.00	0.00	0.03	0.00	0.00	0.04
Average	0.05	0.05	0.04	0.46	1.01	0.00	0.01	0.02	3.26	0.04	0.49
CV	137.93	125.21	169.48	215.95	151.37	0.00	187.28	232.93	148.25	331.66	196.77

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

1.01%, 0.01%, 0.02% and 0.04% respectively. There was an efficient management of debtors in Nakoda Limited. There were very negligible bad debt losses in textile companies of Gujarat during the period of study. The overall average percentage of bad debts to sales was 0.49%. It seems that textile units managed their receivables very effectively and efficiently. However, the CV of 196.77% clearly exhibits that textile manufacturing industry had not a homogenous pattern to follow uniform policy for bad debt.

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA
Section – 3: Receivables Management

Synopsis

- 5.4.1 Size of Cash in Textile Companies
- 5.4.2 Total Cash Balances and Sales Volume
- 5.4.3 Total Cash to Total Current Assets of Textile Companies
- 5.4.4 Current ratio of Textile Companies
- 5.4.5 Quick Ratio of Textile Companies
- 5.4.6 Absolute Liquidity Ratio
- 5.4.7 Cash to Sales of Textile Companies
- 5.4.8 Cash Turnover of Textile Companies
- 5.4.9 Cash Conversion Cycle of Textile Companies
- 5.4.10 Net Cash Flow of Textile Companies
- 5.4.11 Net Cash Flow to Current Liabilities of Textile Companies

Chapter - V

Analysis and Interpretation of Data

Section – 4: Cash Management

Cash is considered as an absolute liquid asset of any business and is one of the most important component of working capital. “Cash is both the beginning and the end of the working capital cycle – cash, inventories, receivables, and cash.”¹ Any shortage of cash will adversely affect the operation of the business and excessive balance of cash may have adverse effect on the profitability of the business. According to Havard and Upton, “Cash is like blood stream in the human body, gives vitality and strength to a business enterprise. The steady and healthy circulation of cash throughout the entire business operation is the basis of business solvency.”²

Therefore, every business has to maintain optimum cash balances to meet requirements that can be solved only with cash. The liquidity and convenience associated with maintaining cash also carries an implicit cost in the form of its opportunity cost. Thus, some businesses hold cash equivalents like Treasury Bills, which are equivalent to cash and provide almost all of the convenience of cash and also earn a return for the shareholder, though it is lower than earned by the business on real course.

The first objective of cash management is to ascertain the cash outflows as and when required. Sufficient cash must be maintained to meet the disbursal needs that emerge in the normal course of business. The firm should be capable to make the payment at any point of time without any liquidity problem. It implies that the business units must have enough cash to discharge the payment schedules and disbursement requirements.

The second objective of cash management is to optimizing the cash balance. Idle cash must be reduced to a minimum level. This objective is based on the principle that unused assets do not earn any income for the firm. Therefore, cash balances should be kept to an optimum level. However the objective of cash management is to maintain the optimum cash balance must be contemplated together with the other objective of maintaining the schedule payment and disbursing needs which require that a business unit must have sufficient liquidity. But the objective of minimum cash balance affects the liquidity

¹ Mishra R.K. (1975), Problems of Working Capital – With Reference to Selected Public Undertakings in India, *Somaiya Publications (P) Ltd.*, Bombay, p. 123.

² Havard B.B. and Upton M. (1953), Introduction to Business Finance, *McGraw Hill Book Co.*, New York, p. 188.

position and put favorable impact on profitability. Thus, these objectives seem to contradict with each other. It is required to attain a trade-off between these two objectives. The cash management strategies are needed to settle these two objectives wherever possible. However, meeting payment schedules is more important than minimizing the cash balance. It can be attained by past experiences of the company and effective forecasting after analyzing each aspect of cash.

This section makes an effort to analysis cash management of textile manufacturing companies in the state of Gujarat with the help of cash to current assets ratio, current ratio, quick ratio, ratio of cash to current liabilities, ratio of cash to sales, cash conversion cycle and; cash flow statement and net cash flow to current liabilities.

5.4.1 Size of Cash in Textile Companies

Table 5.51 shows the size of cash in textile companies in the state of Gujarat during the period from 1999-00 to 2010-11. The year wise analysis indicates that in the year 1999-00, the size of cash was Rs. 8212.44 lakh which increased to Rs. 36456.03 lakh in the year 2002-03 and again declined to Rs. 33676.97 lakh in 2010-11.

Cash balance of ADEL increased substantially from Rs. 891.92 lakh in 2004-05 to Rs. 2068.23 lakh in 2005-06. Similarly, it was observed a sudden rise from Rs. 7916.00 lakh in 2000-01 to Rs. 28271.00 lakh in 2001-02 at Arvind Limited. Cash balance of Nakoda Limited in the year 1999-00 was Rs. 326.69 lakh, which increased to Rs. 24509.94 lakh in the year 2010-11 i.e. by 7402.46%. Total cash balance of Nakoda Limited was very high in 2009-10 and 2010-11 due to substantial increase in sales. Cash balance of STML was drastically increased from Rs. 517.22 lakh in 2009-10 to Rs. 1226.56 lakh in 2010-11. The averages of twelve years for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were Rs. 620.27, Rs. 4787.92, Rs. 1125.41, Rs. 3199.83, Rs. 129.25, Rs. 5055.64, Rs. 130.24, Rs. 1430.15, Rs. 99.12 and Rs. 302.06 lakh respectively. The overall average of cash balances of all selected textile units was Rs. 20143.32 lakh.

The CVs for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 48.71%, 66.49%, 41.80%, 152.58%, 25.82%, 33.19%, 41.04% and 98.45% respectively. Companies like MTL, PBMPL, SDML and SNSTL were following consistent policy for maintaining cash balances. However, the overall CV of 110.13% shows that textile companies had fluctuating policy for maintaining cash balances.

Table 5.51: Total Cash of Textile Companies during the Period from 1999-00 to 2010-11

Companies		In lakh									
Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STMIL	Total
1999-00	73.38	2750.00	2181.33	1248.23	25.66	326.69	78.21	1232.81	122.83	173.29	8212.44
2000-01	119.49	7916.00	1451.63	1553.20	72.10	488.97	95.65	1364.01	69.12	105.64	13235.80
2001-02	103.94	28271.00	1539.32	4457.39	54.59	517.15	164.09	1037.20	73.40	237.95	36456.03
2002-03	597.20	1233.00	1745.11	1000.27	142.28	505.52	116.78	890.25	96.58	189.78	6516.76
2003-04	292.14	1270.00	1500.58	1719.20	110.34	521.69	193.90	815.77	42.25	159.75	6625.63
2004-05	891.92	1287.00	N.A	3136.44	152.86	592.03	117.22	872.41	138.78	223.85	7412.51
2005-06	2068.23	959.00	820.77	2844.30	130.71	1461.54	141.65	1916.41	65.69	235.53	10643.83
2006-07	562.13	2231.00	560.85	1941.83	137.42	2904.95	114.73	2128.81	41.81	282.92	10906.46
2007-08	939.34	1632.00	703.08	7616.56	162.98	3544.58	131.27	2122.08	89.98	168.55	17110.42
2008-09	394.51	2683.00	461.27	7287.86	157.04	6503.75	118.81	1196.28	130.91	517.22	19450.65
2009-10	431.24	4314.00	773.69	3480.63	173.66	18790.87	105.47	1741.48	148.12	1226.56	31185.72
2010-11	969.70	2909.00	641.86	2112.09	231.36	24509.94	185.05	1844.28	170.00	103.69	33676.97
Total	7443.22	57455.00	12379.49	38398.00	1551.01	60667.68	1562.83	17161.79	1189.47	3624.73	201433.21
Average	620.27	4787.92	1125.41	3199.83	129.25	5055.64	130.24	1430.15	99.12	302.06	20143.32
CV	85.93	152.77	48.71	66.49	41.80	152.58	25.82	33.19	41.04	98.45	110.13

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.4.2 Total Cash Balances and Sales Volume

Table 5.52 shows that total cash balances of textile companies was in fluctuating trend from 1999-00 to 2002-03 and thereafter it was in increasing trend from 2003-04 to 2010-11. Sales of textile companies were in almost increasing trend. This is general perception that increase in sales leads to increase in cash balances. Generally, the volume of sales and size of cash balances in a business unit have a positive correlation. According to Prof. John Sagan “The increase in sales is generally associated with larger bank balances.”³ The correlation between total cash and sales of textile companies was found 0.56. It indicates there was a positive relationship between total cash balances and total sales of textile companies in the state of Gujarat during the period from 1999-00 to 2010-11.

Table 5.52: Total Cash and Sales Relationship of Textile Companies

Rs. in Lakh		
Year	Total cash	Sales
1999-00	8212.44	251006.37
2000-01	13235.80	361434.24
2001-02	36456.03	225115.27
2002-03	6516.76	315031.12
2003-04	6625.63	325428.71
2004-05	7412.51	315241.31
2005-06	10643.83	416067.68
2006-07	10906.46	473630.58
2007-08	17110.42	557143.69
2008-09	19450.65	564378.74
2009-10	31185.72	736072.47
2010-11	33676.97	975521.15
r		0.56

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11
(Appendix)

³ John Sagan (1955), Towards a Theory of Working Capital Management, *The Journal of Finance*, New York, Volume X, May, p. 124.

5.4.3 Total Cash to Total Current Assets of Textile Companies

Table 5.53 exhibits the total cash as a percentage to total current assets of textile companies during the period of study from 1999-00 to 2010-11. The percentage of cash to total current assets of textile companies was 8.23% in the year 1999-00, it was increased to 14.18% in the year 2007-08 and again decreased to 13.13%. The overall average of all selected units was 12.13%.

Company wise analysis indicates that the average percentages of cash to total current assets for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 6.40%, 4.29%, 7.11%, 9.64%, 23.96%, 14.69%, 2.78%, 25.82%, 19.05% and 7.55% respectively. The average percentage of MTL, Nakoda Limited, SDML and SNSTL was greater than overall percentage of cash to total current assets. It shows that they had more liquid assets than overall average of liquid assets i.e.12.13%. However, the CVs of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 75.78%, 176.26%, 33.25%, 56.24%, 35.79%, 34.77%, 28.48%, 24.44%, 71.25% and 80.46% respectively. The overall CV was 64.70% shows that textile companies were quite inconsistent in maintaining the cash balances. Though, Ashima Limited, MTL, Nakoda Limited, PBMPL, and SDML were very consistent units throughout the study period.

5.4.4 Current ratio of Textile Companies

Current ratio compares a firm's current assets to its current liabilities. It is expressed as follows:

$$\text{Current Assets} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

It is a liquidity ratio that measures a company's capacity to pay short-term obligations in day to day business. "The current assets along with current liabilities inform us of the short run ability of the company to pay obligations as they become due. This ratio is commonly indicator of short term financial strength of the company."⁴ Table 5.54 exhibits that the current ratios of textile companies. It is the observed that average current ratio in the year 1999-00, was 4.16 times, which slowly and gradually declined to 3.04 times in the year 2010-11. The company wise analysis shows that the current ratio of ADEL in the year 1999-00 was 3.70 times that declined to 1.00 time in 2006-07 and then

⁴ Schattke Rudolph W. and Jensen Howard G. (1978), Financial Accounting – Concept and Uses, *Boston: Allyn and Bacon*, Boston, p. 43.

Table 5.53: Total Cash to Total Current Assets of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STML	Average
1999-00	2.44	2.67	11.67	5.82	9.65	13.79	1.94	21.80	8.19	4.30	8.23
2000-01	3.38	7.67	4.29	9.42	20.82	13.57	2.49	25.51	5.11	2.54	9.48
2001-02	2.39	28.65	5.28	22.66	17.05	13.50	4.75	21.53	5.68	6.36	12.78
2002-03	9.40	1.35	6.51	5.79	41.67	13.72	2.75	19.95	7.16	4.91	11.32
2003-04	4.65	1.18	5.73	7.93	26.11	12.07	3.69	17.60	5.36	5.13	8.95
2004-05	12.25	0.80	N.A	13.88	34.70	8.77	3.21	19.28	21.35	4.72	13.22
2005-06	18.78	0.50	6.10	10.26	29.33	10.68	2.60	31.33	19.01	7.48	13.61
2006-07	5.39	1.37	4.45	5.73	24.70	13.37	2.32	37.65	12.94	7.88	11.58
2007-08	8.82	1.11	9.25	14.53	29.66	11.58	2.97	34.71	24.75	4.45	14.18
2008-09	2.53	1.68	6.32	13.00	20.97	14.77	2.75	21.32	35.16	18.62	13.71
2009-10	2.50	2.91	10.74	4.66	17.56	28.09	1.63	30.06	39.90	22.40	16.05
2010-11	4.26	1.61	7.82	2.05	15.30	22.42	2.30	29.11	43.96	1.85	13.07
Average	6.40	4.29	7.11	9.64	23.96	14.69	2.78	25.82	19.05	7.55	12.13
CV	75.78	176.26	33.25	56.24	35.79	34.77	28.48	24.44	71.25	80.46	64.70

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.54: Current Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies		In Times									
Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STMIL	Average
1999-00	3.70	2.56	7.26	5.35	7.76	5.15	2.34	1.53	3.18	2.78	4.16
2000-01	3.34	2.74	4.94	5.19	4.37	1.97	3.14	1.66	2.77	2.56	3.27
2001-02	4.08	3.31	6.76	4.81	4.82	1.97	3.33	1.75	3.38	2.71	3.69
2002-03	3.48	3.70	5.20	3.02	5.69	1.76	3.89	2.12	3.03	2.16	3.41
2003-04	3.09	6.09	5.62	2.80	4.31	2.71	3.97	1.95	3.08	3.29	3.69
2004-05	1.66	5.90	N.A	3.81	4.00	2.84	6.31	1.99	1.25	1.48	3.25
2005-06	2.93	6.72	3.34	4.06	3.37	1.97	5.80	2.16	3.15	1.89	3.54
2006-07	1.00	3.58	3.41	4.82	3.36	1.91	4.52	2.50	4.50	2.06	3.16
2007-08	2.89	4.22	1.99	4.97	7.02	1.84	5.22	2.55	4.39	1.96	3.71
2008-09	2.46	2.67	2.22	3.54	5.60	1.98	5.98	2.27	5.57	2.98	3.53
2009-10	3.24	3.36	2.45	2.26	4.12	2.14	5.55	2.45	5.58	1.51	3.27
2010-11	2.53	2.83	2.78	2.45	2.31	1.74	5.87	2.56	4.83	2.49	3.04
Average	2.87	3.97	4.18	3.92	4.73	2.33	4.66	2.13	3.73	2.32	3.48
CV	28.83	35.12	42.52	27.04	31.72	39.21	26.95	16.04	32.68	23.59	26.95

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

again increased to 2.53 times in the year 2010-11. The current ratio of Arvind Limited in the year 2005-06, was the highest i.e. 6.09 times, later it was declined to 2.83 times in 2010-11. Ashima Limited had 7.26 times in 1999-00, which decreased to 1.99 times in 2007-08 and again increased to 2.78 times in the year 2010-11. Current ratio of GSML in the year 1999-00 was 5.35 times which decreased to 2.45 times in 2010-11. It was decreased by 54.15%. MTL reported 7.76 times in 1999-00 which declined to 2.31 times in 2010-11. It was decreased by 70.30%. Current ratio of Nakoda Limited registered 5.15 times in 1999-00 which later declined to 1.74 times in 2010-11. Current ratio of PBMPL increased from 2.34 times in 1999-00 to 5.87 times in 2010-11. It was increased by 151.16%. Current ratio of SDML in 1999-00 was 1.53 times which stepped up to 2.56 times in 2010-11. SNSTL had 3.18 times in 1999-00 which decreased to 1.25 times in 2004-05, and again increased to 4.83 times in the year 2010-11. STML was maintaining decent current ratio in initial few years but it was reduced to 1.48 time in 2004-05 and again raised to 2.49 times.

Averages of current ratio reported by ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 2.87, 3.97, 4.18, 3.92, 4.73, 2.33, 4.66, 2.13, 3.73 and 2.32 times respectively. The overall average of current ratio was 3.48 times. All selected textile units were maintaining current ratios more than standard norm 2:1. As it was observed in section one of fifth chapter that all selected textile units were very conservative, the same thing is being supported by their current ratios.

The overall CV of 16.04% indicates that textile companies in the state of Gujarat were very consistent and uniform policy in terms of current ratio.

5.4.5 Quick Ratio of Textile Companies

Quick ratio is an indicator of a company's short-term liquidity. It also evaluates a company's ability to meet its short-term obligations with its most liquid assets. The higher the quick ratio, the better the liquidity position of the company.

The quick ratio is calculated as under:

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventories}) / \text{Current Liabilities}$$

It is also known as the "acid-test ratio" or the "quick assets ratio". Table 5.55 shows that the averages of quick ratio registered by ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 1.63, 2.71, 2.5,

Table 5.55: Quick Ratio of Textile Companies during the Period from 1999-00 to 2010-11

In Times

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STMIL	Average
1999-00	2.68	2.06	4.41	3.94	4.77	4.24	0.45	0.87	2.42	0.91	2.68
2000-01	2.06	2.14	3.88	3.48	3.17	1.72	0.75	0.97	2.04	0.69	2.09
2001-02	2.35	2.59	5.13	3.37	3.04	1.67	0.85	0.95	2.58	0.74	2.33
2002-03	1.80	2.15	3.96	2.12	4.26	1.48	0.69	1.13	2.21	0.42	2.02
2003-04	1.71	3.94	4.32	1.69	3.40	2.19	0.69	0.99	2.28	0.77	2.20
2004-05	0.90	4.02	N.A	2.70	3.29	2.25	1.82	1.13	1.10	0.37	1.95
2005-06	1.67	5.06	1.95	2.64	2.63	1.59	1.58	1.27	2.74	0.55	2.17
2006-07	0.50	2.16	2.02	2.97	2.24	1.60	1.28	1.48	3.56	0.73	1.85
2007-08	1.40	2.57	0.83	3.21	5.48	1.48	1.78	1.43	3.40	0.65	2.22
2008-09	1.27	1.70	1.03	2.16	4.05	1.63	2.46	1.06	4.17	1.38	2.09
2009-10	1.89	2.38	1.25	1.15	3.14	1.79	1.75	1.30	4.20	0.88	1.97
2010-11	1.30	1.73	1.04	0.92	1.67	1.35	1.73	1.29	3.71	0.47	1.52
Average	1.63	2.71	2.71	2.53	3.43	1.92	1.32	1.15	2.87	0.71	2.10
CV	35.53	37.26	57.41	35.68	29.81	38.99	45.40	16.34	31.55	36.40	39.79

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

3.43, 1.92, 1.32, 1.15, 2.87 and 0.71 times respectively. The overall average of all selected textile was 2.10 times, which was very higher than standard 1:1. Year wise analysis shows that it varied between 1.52 times in 2010-11 and 2.68 times in 1999-00 throughout study period. The overall CV of 39.79% indicates that they were consistent in maintaining quick ratio during the period of study.

5.4.6 Absolute Liquidity Ratio

Absolute liquidity ratio is also known as cash position ratio. This ratio measures a relation between absolute liquid assets to quick liabilities. It expressed in following formula:

$$\frac{\text{Absolute Liquid Assets}}{\text{Quick Liabilities}}$$

Absolute liquid assets include cash in hand, cash at bank, Marketable securities and temporary investment only while quick liabilities include all current liabilities except bank overdraft and cash credit as they more or less constitute permanent arrangement and renewed periodically. The ideal absolute liquid ratio is 0.5:1.⁵

The reason of calculating absolute liquid ratio is to eliminate receivables from the component of liquid assets because of some doubt about their quick collection. The ratio is worthwhile in conjunction with current ratio and quick ratio.

Table 5.56 shows that the cash position ratio of textile companies during the period from 1999-00 to 2010-11. The averages of absolute liquidity ratio of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 0.17, 0.06, 0.29, 0.40, 1.13, 0.33, 0.13, 0.68, 0.82 and 0.17 times respectively. The overall average of absolute liquidity ratio of all selected textile companies was 0.42 times. This shows that the cash position ratio of textile companies was quite lower than standard 0.5:1. Current ratio and quick ratio of textile units were higher than standard norms i.e. 2:1 and 1:1. It indicates that the textile companies had more amounts of inventory and receivables in their current assets structures.

The CVs of PBMPL and SDML were 32.77% and 33.79% respectively, which revealed that they were following consistent cash position ratio. However, the overall of CV of 78.58% showed that textile units were not consistent in case of absolute liquidity ratio.

⁵ Rao Thakaran M.E. (2006), Management Accounting, *New Age International Publishers*, New Delhi, pp. 87-88.

Table 5.56: Absolute Liquidity Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STML	Average
1999-00	0.09	0.04	0.85	0.31	0.75	0.71	0.05	0.46	0.26	0.12	0.36
2000-01	0.11	0.12	0.21	0.49	0.91	0.27	0.08	0.56	0.14	0.07	0.30
2001-02	0.10	0.41	0.36	1.09	0.82	0.27	0.16	0.41	0.19	0.17	0.40
2002-03	0.33	0.02	0.34	0.17	2.37	0.24	0.11	0.51	0.22	0.11	0.44
2003-04	0.14	0.01	0.32	0.22	1.12	0.33	0.15	0.45	0.17	0.17	0.31
2004-05	0.20	0.01	N.A	0.53	1.39	0.25	0.20	0.51	0.27	0.07	0.38
2005-06	0.55	0.01	0.20	0.42	0.99	0.21	0.15	0.93	0.60	0.14	0.42
2006-07	0.05	0.02	0.15	0.28	0.83	0.25	0.10	1.06	0.58	0.16	0.35
2007-08	0.26	0.01	0.18	0.72	2.08	0.21	0.16	1.01	1.09	0.09	0.58
2008-09	0.06	0.03	0.14	0.46	1.18	0.29	0.16	0.56	1.96	0.55	0.54
2009-10	0.08	0.04	0.26	0.11	0.72	0.60	0.09	0.86	2.23	0.34	0.53
2010-11	0.11	0.02	0.22	0.05	0.35	0.39	0.13	0.84	2.12	0.05	0.43
Average	0.17	0.06	0.29	0.40	1.13	0.33	0.13	0.68	0.82	0.17	0.42
CV	79.73	174.34	64.03	68.62	49.20	45.47	32.77	33.79	96.10	81.26	78.58

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.4.7 Cash to Sales of Textile Companies

Cash to sales ratio indicates the effectiveness of the firm's credit and collection policies, and the amount of cash required as extra time taken for unexpected delays in cash collection. It is the inverse of cash turnover ratio. It indicates a firm's efficiency in its use of sales for converting into cash.

It calculated by dividing cash balances at the end of a period by sales revenue in that period. It is one of the important methods to evaluate the effectiveness in cash planning. The increase in sales also leads to increase in cash.

Table 5.57 exhibits the total cash as a percentage to total sales of textile companies during the period from 1999-00 to 2010-11. Company wise analysis shows that over the period under study the sample units such as MTL, SDML and SNSTL reported the average percentages of cash to sales were 37.33%, 21.05% and 51.89% respectively. In case of SNSTL, it was observed that its percentages from 2006-07 to 2007-08 were very high because of substantially declined in sales as compared to cash. SNSTL had pre-accumulated cash balance which had raised the percentage of cash to sales from 2006-07 to 2010-11. Average percentage of cash to sales of MTL was 37.33% which showed high percentage of cash to sales, but it was not found consistent in every year. SDML showed that it maintained high cash to sales percentage and it was very consistent as well.

It was noticed that cash to sales ratio was very high for Arvind Limited in the year 2001-02, later it decreased to 0.83% in the following year 2002-03. Ashima Limited decreased from 6.90% in 1999-00 to 2.47% in 2010-11. GSML reported 3.09% in 1999-00 and declined to 0.53% in 2010-11. PBMPL varied between 0.67% in 1999-00 and 1.24% in 2005-06. STML varied between 0.35% in 2010-11 and 4.71% in 2009-10.

In the year 1999-00, the average percentage cash to sales of textile companies was 4.88% which increased to 36.75% in the year 2010-11. The average percentages of cash to sales of ADEL, Arvind Limited, Ashima Limited, GSML, Nakoda Limited, PBMPL and STML were 2.51%, 4.69%, 3.23%, 3.38%, 5.60%, 1.03% and 1.65% respectively. The overall average of cash to sales was 13.24%. About 70% of the sample units were having less than 13.24 rupees per every hundred rupees of sales. CVs of PBMPL and SDML were 26.12% and 23.98% respectively, showed that these two units were following consistent policy in order to generate quick cash from sales revenue. The overall CV of all selected units was 127.83% that was not consistent.

Table 5.57: Total Cash to Total Sales of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Average
1999-00	0.76	2.26	6.90	3.09	6.42	3.46	0.67	20.98	3.16	1.05	4.88
2000-01	1.12	4.26	2.16	3.49	10.46	4.49	0.82	25.94	1.76	0.50	5.50
2001-02	0.70	40.45	3.69	9.87	14.99	3.68	1.45	20.71	2.29	1.23	9.90
2002-03	4.04	0.83	4.07	1.91	84.61	3.65	1.04	16.71	2.87	0.82	12.06
2003-04	1.69	0.88	3.19	2.83	44.28	3.46	1.60	13.98	2.29	0.74	7.49
2004-05	3.77	0.77	N. A	4.16	96.20	3.13	1.12	14.69	9.62	1.98	15.05
2005-06	7.49	0.60	1.83	2.64	82.82	4.12	1.24	27.88	10.22	1.06	13.99
2006-07	2.27	1.21	2.38	1.28	32.00	5.01	0.91	28.17	42.01	2.65	11.79
2007-08	3.87	0.75	3.15	4.18	28.45	4.42	1.03	26.84	44.68	1.77	11.91
2008-09	1.23	1.17	2.22	5.26	19.01	6.32	0.87	14.61	70.42	2.95	12.41
2009-10	1.15	1.91	3.44	1.31	14.88	14.03	0.71	20.88	119.85	4.71	18.29
2010-11	1.99	1.12	2.47	0.58	13.81	11.46	0.97	21.22	313.54	0.35	36.75
Average	2.51	4.69	3.23	3.38	37.33	5.60	1.03	21.05	51.89	1.65	13.24
CV	75.80	231.10	41.66	69.63	82.92	59.65	26.12	23.98	166.25	73.41	127.83

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.4.8 Cash Turnover of Textile Companies

Turnover of cash indicates the effective use of available cash resources and liquidity position of business unit. “The cash turnover means the number of times cash is used during each year.”⁶ It is calculated by dividing sales of a period by the operating cash balances and specifies that how many times the firm has turned its cash during that period.”⁷ It is a tool to evaluate how efficiently the available cash of a business firm is being utilized in its operations. A higher cash turnover ratio is generally better than a lower one. It indicates a company's efficiency in its effective use of cash for generation of sales revenue.

The Table 5.58 shows that the calculation of cash turnover of textile companies during the period from 1999-00 to 2010-11. Cash turnover of ADEL in 2001-02 registered 143.63 times as the highest cash turnover during the period of study, later it declined to 50.28 times in 2010-11. Arvind Limited reported cash turnover above 100 times in the year 2002-03, 2003-04, 2004-05, 2005-06 and 2007-08. Cash turnover of GSML in 2009-10 was 76.49 times and it increased to 173.64 times in the year 2010-11. It was raised by 127.01%. MTL marked very low cash turnover throughout the study period, it varied between 1.04 times in 2004-05 and 15.57 times in 1999-00. Cash turnover ratios of PBMPL were very high during period of study. It reported cash turnover ratio of 149.32 times in 1999-00, which decreased to 62.57 times in 2003-04 and again increased to 103.35 times in 2010-11. SDML varied from 3.55 times in 2006-07 and 7.15 times in 2003-04. SNSTL registered quite satisfactory turnover from 1999-00 to 2003-04 and thereafter it was in decreasing trend till 2010-11. Cash turnover ratios of STML were very fluctuating between 21.22 times in 2009-10 and 288.53 times in 2010-11. It is supported by standard deviation of 74.41%.

The overall average ratio of cash turnover of all selected units was 49.29 times, if it is taken as standard then it was seen that the averages of cash turnover ratio of Ashima Limited, MTL, Nakoda Limited, SDML and SNSTL were lower than standard of 49.29 times while the averages of cash turnover ratio of ADEL, Arvind Limited, GSML, PBMPL and STML registered higher than 49.29 times. The overall CV of all selected companies was 73.04% which indicates that they were not following uniform policy. PBMPL was the most consistent unit among all selected units.

⁶ Gitman L.J. (1997), Principles of Managerial Finance, *Harper and Row*, New York, p. 170.

⁷ Bari R.R. (1980), Cash Planning Management, First Edition, *Triveni Publication*, Delhi, p. 38.

Table 5.58: Cash Turnover Ratio of Textile Companies During the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPPL	SDML	SNSSTL.	STMIL	Average
1999-00	131.95	44.22	14.49	32.32	15.57	28.94	149.32	4.77	31.67	95.08	54.83
2000-01	89.15	23.45	46.21	28.62	9.56	22.26	122.51	3.86	56.95	200.01	60.26
2001-02	143.63	2.47	27.13	10.13	6.67	27.20	69.07	4.83	43.66	81.48	41.63
2002-03	24.72	119.97	24.55	52.42	1.18	27.43	96.40	5.99	34.87	121.65	50.92
2003-04	59.19	113.01	31.33	35.36	2.26	28.92	62.57	7.15	43.75	135.55	51.91
2004-05	26.55	130.45	N.A	24.05	1.04	31.95	89.30	6.81	10.40	50.56	41.23
2005-06	13.36	165.66	54.71	37.94	1.21	24.29	80.74	3.59	9.79	93.97	48.52
2006-07	44.09	82.69	42.10	77.94	3.13	19.97	110.28	3.55	2.38	37.68	42.38
2007-08	25.87	133.02	31.75	23.94	3.51	22.61	97.04	3.73	2.24	56.64	40.03
2008-09	81.00	85.64	45.14	19.00	5.26	15.83	115.36	6.84	1.42	33.88	40.94
2009-10	86.91	52.25	29.05	76.49	6.72	7.13	141.58	4.79	0.83	21.22	42.70
2010-11	50.28	89.64	40.41	173.64	7.24	8.73	103.35	4.71	0.32	288.53	76.68
Average	64.72	86.87	35.17	49.32	5.28	22.10	103.13	5.05	19.86	101.35	49.29
CV	63.03	53.79	31.47	86.42	77.41	34.48	24.67	25.23	100.39	73.42	73.04

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

In Times

5.4.9 Cash Conversion Cycle of Textile Companies

A business concern purchases inventory on credit, which results in creditors (accounts payable). A firm can also sell products on credit, which results in Debtors (accounts receivable). Thus, there is no involvement of cash until the company collects accounts receivable and pays the accounts payable. So the cash conversion cycle calculates the time between disbursing cash and collecting cash. The duration of this cycle is the length of time for which enterprises need to finance their business operation from short term or long term funds. Cash conversion cycle is equal to length of the operating cycle minus average payment period (in days)⁸

In other words, the cash conversion cycle (CCC) evaluates how long a firm will be remained without cash if it increases its investment in resources in order to expand sales. And hence, it is a measure of the liquidity risk involved by growth. However, shortening the CCC leads to its own risks; meantime a firm can also have a negative CCC if it collects from customers before paying suppliers; a negative CCC is the ideal situation for any enterprise.⁹ But a strict collection policy and policy of lax payment are not always sustainable. It is expressed in following formula:

$$CCC = \frac{\text{Inventory}}{\text{conversion period}} + \frac{\text{Receivables}}{\text{conversion period}} - \frac{\text{Payables conversion}}{\text{period}}$$

Where,

$$\text{Inventory conversion period} = \frac{\text{Average Inventory} * 365}{\text{Cost of Goods Sold}}$$

$$\text{Receivables conversion period} = \frac{\text{Average Accounts Receivables} * 365}{\text{Sales}}$$

$$\text{Payables Conversion Period} = \frac{\text{Average Accounts Payables} * 365}{\text{Cost of Goods Sold}}$$

The above formulas are used to calculate cash conversion cycle of any business enterprise.

⁸ Stolz A., Viljoen M., Gool S., Cronje R. with Meyer C. (2007) Financial Management Fresh Perspectives, Pearson Prentice Hall, South Africa, p. 317.

⁹ Stolz A., Viljoen M., Gool S., Cronje R. with Meyer C. (2007) Op.cit. p. 319.

Table 5.59: Cash Conversion Cycle of Textile Companies During the Period from 1999-00 to 2010-11

Companies Years	In Days										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	80	180	170	149	178	61	73	28	81	53	105
2000-01	77	116	109	119	103	46	78	38	77	42	81
2001-02	70	248	213	98	190	32	81	58	94	46	113
2002-03	96	132	184	76	330	30	93	82	88	31	114
2003-04	88	204	155	69	255	38	109	91	128	33	117
2004-05	45	248	N.A	64	472	57	122	84	66	59	135
2005-06	47	350	117	55	456	46	125	65	86	27	138
2006-07	28	283	131	55	187	39	125	61	725	49	168
2007-08	39	198	93	63	176	39	105	69	363	63	121
2008-09	87	169	58	92	170	43	95	86	354	32	119
2009-10	101	159	57	50	162	41	110	86	471	10	125
2010-11	93	150	57	51	128	31	124	82	907	28	165
Average	71	203	122	78	234	42	103	69	287	39	125
CV	33.54	32.15	42.17	37.66	49.96	22.02	17.75	27.93	95.42	37.03	65.55

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.59 shows the CCC of textile companies during the period from 1999-00 to 2010-11. Year wise analysis shows that in the year 1999-00 average CCC was 105 days, which increased to 168 days in 2006-07 and again declined to 165 days in 2010-11. Year wise average indicated that textile companies had long cash conversion cycle throughout the study period. The average days of CCC reported by ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 71, 203, 122, 78, 234, 42, 103, 69, 287 and 39 days respectively. The overall average of CCC of all selected units was 125 days which revealed that textile companies might have quite long CCC. It was observed that average CCC of Arvind Limited, MTL and SNSTL had more than overall average of CCC of selected units. MTL and SNSTL were very highly fluctuated companies. Averages of CCC for ADEL, GSML, Nakoda Limited, SDML, and STML were found less than 100 days. The CVs for ADEL, Arvind Limited, GSML, Nakoda Limited, PBMPL, SDML and STML showed these companies were following uniform policy during the period of study. However, the overall CV of 65.55% shows that textile units were quite inconsistent on collective basis.

Overall average of CCC after exclusion of more than 300 days from the table 5.59 was 98 days. It has been excluded in order to get the standard for CCC. Some abnormality was found in cash conversion period where there was more than 300 days in table 5.59. Abnormality was detected in inventory, accounts receivables, accounts payable, sales and cost of goods sold. Therefore, it is decided to exclude the cell which had more than 300 days in table 5.59.

Comparing the averages of CCC of selected textile companies with overall average of 98 days, it was observed that average days of CCC of ADEL, GSML, Nakoda Limited, SDML and STML were lower than overall average of 98 days.

Cash conversion period is the synonyms of number of days working capital requirement. CCC of ADEL was varying between 28 days in 2006-07 and 101 days in 2009-10. Cash conversion period of GSML varied between 50 days in 2009-10 and 149 days in 1999-00. Nakoda Limited had the maximum cash conversion period of 61 days in 1999-00 and the minimum cash conversion period of 30 days in 2002-03. Average CCC of STML was found as the shortest cycle among all selected textile companies. The main reasons for the shortest CCC of STML were cash sales and stringent credit policy in which credit allowed to some reliable customers only.

ADEL, GSML, Nakoda Limited, SDML and STML must use short term funds to finance their working capital. Their working capital requirement was not more than 80 days. They can reduce their interest costs by using short term funds. However, problem of refinance would be there but the same time it could increase the profitability of the company.

Of course, the remaining companies can also finance their working capital by short term funds in order to improve their profitability position. However, working capital requirement is more than 300 days, then financial institutions generally advice to finance working capital by long term funds.

Arvind Limited and MTL had more than 100 days of cash conversion period throughout the period of study from 1999-00 to 2010-11. In Arvind Limited, size of total receivables and inventory were more than other selected companies, though it needs to have skillful management of inventory and receivables.

SNSTL had abnormal days in the year from 2006-07 to 2010-11 due to sudden decreased in sales and productions since 2006-07.

5.4.10 Net Cash Flow of Textile Companies

Net cash flow is a difference between cash receipts and cash payment during a period of time. Generally, if a company has a positive net cash flow year after year, it is considered to be financially strong, at least in the short-term. The Statement of Cash Flows has three heads: cash flows from operating activities, cash flows from investing activities, and cash flows from financing activities. And net cash flow can be derived by adding all three parts of cash flow, viz,

Net cash flow = Cash Flows from Operating Activities + Cash Flows from Investing Activities + Cash Flows from Financing Activities.

Table 5.60 shows the net cash flow of textile companies during the period of study from 1999-00 to 2010-11. Year wise analysis exhibits that in the year 2002-03 and 2006-07, there were negative net cash flows in textile companies. Moreover, net cash flow of textile companies in the year 1999-00 was Rs.529.01 lakh, which increased to Rs. 2470.17 lakh. It was increased by 366.94%. Individual company's analysis shows that ADEL had negative balance of net cash flow in the year 1999-00, 2001-02, 2003-04, 2006-07 and 2008-09. Positive net cash flows were reported by Arvind Limited in the year 1999-00, 2000-01, 2003-04, 2004-05, 2006-07, 2008-09 and 2009-10.

Table 5.60: Net Cash Flow of Textile Companies during the Period from 1999-00 to 2010-11

In lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSLT.	STMIL	Total
1999-00	(2.19)	149.00	143.90	592.26	0.21	(24.60)	(0.14)	(316.00)	(22.76)	9.33	529.01
2000-01	46.12	5166.00	(713.12)	304.97	46.43	163.20	17.44	131.00	(53.71)	(67.65)	5040.68
2001-02	(15.56)	20355.00	42.82	2904.19	(17.50)	28.18	69.44	(327.00)	4.28	132.31	23176.15
2002-03	493.25	(27038.00)	724.05	(3457.12)	87.68	(16.63)	(47.31)	(146.95)	23.18	(48.17)	(29426.02)
2003-04	(102.10)	37.00	(541.58)	718.93	(22.43)	16.18	77.13	(74.48)	(54.33)	(30.03)	24.29
2004-05	599.77	17.00	N.A	1417.24	42.52	74.17	(76.69)	56.64	96.53	64.10	2291.28
2005-06	1176.30	(328.00)	(706.77)	(292.14)	(21.02)	873.70	24.43	1044.00	73.09	11.68	1855.27
2006-07	(1506.10)	409.00	(246.75)	(902.47)	6.72	1443.43	(26.92)	204.15	(23.88)	47.39	(595.43)
2007-08	377.21	(599.00)	66.18	5674.73	25.56	639.62	16.54	(6.73)	48.17	(114.37)	6127.91
2008-09	(544.95)	1051.00	(171.64)	(328.70)	(5.94)	2959.17	(12.46)	(925.81)	40.94	348.67	2410.28
2009-10	40.23	1671.00	320.24	(3087.23)	16.62	12287.12	(13.34)	545.95	17.20	709.34	12507.13
2010-11	539.39	(1405.00)	(150.42)	(1368.54)	57.70	5719.07	79.58	99.36	21.91	(1122.87)	2470.17
Total	1101.37	(515.00)	(1233.09)	2176.12	216.55	24162.60	107.70	284.13	170.61	(60.27)	26410.73
Average	91.78	(42.92)	(112.10)	181.34	18.05	2013.55	8.98	23.68	14.22	(5.02)	2641.07
CV	696.13	(23092.01)	(373.65)	1308.58	184.72	173.87	523.49	1944.72	317.72	(7985.35)	273.56

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Ashima Limited had positive balance in the year 1999-00, 2001-02, 2002-03, 2007-08 and 2009-10. The total net cash flow of Ashima Limited was also in negative. GSML had net cash flow of Rs. 592.26 lakh, which decreased by 331.07% in year 2010-11. Net cash flow of MTL was Rs. 0.21 lakh in 1999-00 that decreased to Rs. 22.43 lakh in 2003-04, and again increased to Rs. 57.70 lakh during the financial year 2010-11. Nakoda Limited had a positive net cash flow between 2003-04 and 2010-11. During the financial year 2009-10, net cash flow of Nakoda Limited was very high i.e. Rs.12287.12 lakh. Net cash flow of PBMPL was negative in the year 1999-00, 2002-03, 2004-05, 2006-07, 2008-09 and 2009-10. SDML had the highest net cash flow in the year 2005-06 and the lowest in the year 2008-09. Net cash flow of SNSTL was negative in the initial two years of the study, and then had positive net cash flow for two years. It had continuous positive net cash flow in the financial year from 2007-08 to 2010-11. Net cash flow of STML was Rs. 9.33 lakh that declined by 12135.00% in the year 2010-11. Total net cash flow of STML was also in negative. Nakoda Limited had the highest average net cash flow among averages of all selected textile companies in the state of Gujarat. The overall average of all selected textile companies was Rs. 2641.07 lakh. Textile companies had lots of fluctuations in net cash flow during the period of study. CVs of companies revealed that they were not consistent throughout the study period. It had been observed that every textile company set off their negative net cash flow against pre-accumulated cash balance. It has been observed that purchase of fixed assets and interest and finance costs were responsible for negative net cash flow of textile industry.

5.4.11 Net Cash Flow to Current Liabilities of Textile Companies

The ratio made an attempt to find out the textile companies' ability to pay their short term outstanding obligations on a particular date. A manufacturing unit cannot convert its current assets like inventories into cash quickly because it does not find market for them immediately. So, net cash flow to current liabilities is a better tool to judge the paying capacity of short term obligations by companies instantly when it requires. Table 5.61 shows that the net cash flow to current liabilities of textile companies. In 1999-00 average net cash flow to current liabilities of textile companies was 0.30%, which increased to 11.96% in 2009-10 and again decreased to 0.08% in 2010-11. It was observed negative average percentage of net cash flow to current liabilities in the year 2003-04 and 2006-07.

Table 5.61: Net Cash Flow to Current Liabilities of Textile Companies during the Period From 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL.	STMIL	Average
1999-00	(0.27)	0.37	5.59	14.77	0.62	(5.35)	(0.01)	(8.57)	(4.83)	0.64	0.30
2000-01	4.36	13.71	(10.41)	9.60	58.57	8.91	1.42	4.06	(11.01)	(4.16)	7.50
2001-02	(1.46)	68.25	0.99	70.95	(26.32)	1.45	6.71	(11.89)	1.12	9.59	11.94
2002-03	27.03	(109.46)	14.04	(60.42)	146.11	(0.79)	(4.34)	(6.99)	5.21	(2.69)	0.77
2003-04	(5.02)	0.21	(11.63)	9.30	(22.86)	1.01	5.83	(3.14)	(21.23)	(3.17)	(5.07)
2004-05	13.65	0.06	N.A	23.90	38.59	3.12	(13.26)	2.50	18.59	2.01	9.90
2005-06	31.32	(1.14)	(17.51)	(4.28)	(15.91)	12.60	2.60	36.80	66.63	0.70	11.18
2006-07	(14.39)	0.90	(6.67)	(12.84)	4.06	12.67	(2.46)	9.02	(33.22)	2.72	(4.02)
2007-08	10.25	(1.72)	1.74	53.81	32.67	3.83	1.96	(0.28)	58.15	(5.92)	15.45
2008-09	(8.62)	1.76	(5.22)	(2.07)	(4.45)	13.27	(1.72)	(37.53)	61.29	37.39	5.41
2009-10	0.76	3.79	10.89	(9.33)	6.92	39.22	(1.14)	23.08	25.86	19.54	11.96
2010-11	5.99	(2.20)	(5.09)	(3.26)	8.80	9.09	5.80	4.01	27.38	(49.73)	0.08
Average	5.30	(2.12)	(2.12)	7.51	18.90	8.25	0.11	0.92	16.16	0.57	5.35
SD											7.04
CV											131.50

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

The average percentages of net cash flow to current liabilities for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PMPL, SDML, SNSTL and STML were 5.30%, (2.12%), (2.12%), 7.51%, 18.90%, 8.25%, 0.11%, 0.92%, 16.16% and 0.57% respectively during the study period. MTL reported the highest average percentage of net cash flow to current liabilities among all companies. The overall average of net cash flow to current liabilities was 5.35%.

The overall standard deviation of textile companies was 7.04, and the overall CV of 131.50% indicated that they were not consistent during the period of study from 1999-00 to 2010-11.

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA
Section – 5: Working Capital Management

Synopsis

- 5.5.1 Size of Net Working Capital
- 5.5.2 Net Working Capital and Sales Relationship
- 5.5.3 Net working Capital Trends
- 5.5.4 Total Sales Trends of Textile Companies
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Chapter V

Analysis and Interpretation of Data

Section – 5: Working Capital Management

It has been discussed in depth about working capital policy and management in the third chapter, in which it is mentioned that the fundamental objective of working capital management is to manage the current assets and current liabilities in such a way that enhances the profitability and maintain sufficient liquidity of the business concern. And hence, it is very important to make a study about the trend, direction, size and turnover of the working capital.

In this section, it explains the size of net working capital of textile companies, net working capital trends, current assets trends, total sale trends, percentage of working capital to total capital employed, net working capital turnover ratio, current assets turnover ratio, percentage of inventory, receivables and cash to net working capital of textile companies etc. during the period from 1999-00 to 2010-11.

5.5.1 Size of Net Working Capital

Table 5.62 shows the size of net working capital of textile companies during the period from 1999-00 to 2010-11. Working capital of ADEL in 1999-00 was Rs. 2196.96 lakh that went into negative in 2006-07 and again stepped up to Rs. 13749.54 lakh in 2010-11. Average size of working capital of ADEL was Rs. 5729.27 lakh.

Size of working capital at Arvind Limited was large throughout the study period. It was observed that the amount of working capital of Arvind Limited was Rs.62910.00 lakh in the year 1999-00, which was increased by 85.59% in 2010-11. Average size of working capital of Arvind Limited was Rs. 100107.58 lakh. It had 29.94% of CV, which indicated that it had uniform policy for working capital.

Ashima Limited followed almost decreasing trend in its size of working capital. It was Rs.27021.81 lakh in 2000-01, which decreased to Rs. 5260.00 lakh in 2010-11. Average size of working capital of Ashima Limited was Rs. 13344.03 lakh.

The amount of working capital of GSML was Rs. 17432.61 lakh in 1999-00 which increased by 249.63% in 2010-11. The average size of working capital in GSML was Rs. 26743.76 lakh.

Working capital of MTL was observed in increasing trend from 2005-06 to 2010-11. In the year 1999-00, working capital of MTL was Rs. 231.57 lakh that was increased by

Table 5.62: Size of Net Working Capital of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMLPL	SDML	SNSITL	STMIL	Total
1999-00	2196.96	62910.00	16113.78	17432.61	231.57	1909.44	2303.02	1968.53	998.37	2578.24	108642.52
2000-01	2475.19	65580.00	27021.81	13313.93	266.92	1773.36	2618.99	2118.23	865.92	2530.22	118564.57
2001-02	3285.00	68849.00	24822.41	15581.20	253.72	1887.08	2417.14	2068.85	909.58	2362.17	122436.15
2002-03	4526.40	66723.00	21663.02	11552.12	281.44	1586.44	3156.67	2358.14	876.22	2076.06	114799.51
2003-04	4251.65	89777.00	21517.83	13945.49	324.45	2727.28	3927.83	2263.17	532.30	2169.69	141436.69
2004-05	2884.50	133034.00	N.A	16669.71	330.27	4371.22	3072.85	2255.37	130.54	1542.27	164290.74
2005-06	7255.69	164885.00	9424.89	20902.05	313.45	6750.66	4516.44	3279.72	235.85	1479.03	219042.78
2006-07	(35.05)	116977.00	8900.44	26842.62	390.56	10331.14	3848.33	3390.72	251.31	1847.74	172744.81
2007-08	6969.85	112224.00	3788.72	41873.27	471.30	13934.91	3566.95	3721.07	280.77	1856.93	188687.77
2008-09	9257.54	99656.00	4008.65	40212.82	615.23	21741.58	3604.21	3142.71	305.53	1845.69	184389.96
2009-10	11934.00	103920.00	4262.80	41650.37	748.67	35561.50	5313.67	3427.36	304.69	1845.10	208968.16
2010-11	13749.54	116756.00	5260.00	60948.89	856.84	46409.42	6678.88	3858.78	306.70	3355.33	258180.38
Total	68751.27	1201291.00	146784.35	320925.08	5084.43	148984.03	45024.98	33852.64	5997.78	25488.47	2002184.04
Average	5729.27	100107.58	13344.03	26743.76	423.70	12415.34	3752.08	2821.05	499.82	2124.04	200218.40
SD	4011.78	29969.04	8654.49	15067.57	198.88	14222.53	1213.36	678.54	305.79	500.49	346059.57
CV	70.02	29.94	64.86	56.34	46.94	114.56	32.34	24.05	61.18	23.56	172.84

Rs. in lakh

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

270.01% in 2010-11. Nakoda Limited registered the highest increasing percentage; it was 2330.52% that increased from Rs. 1909.44 lakh in 1999-00 to Rs. 46409.42 lakh in 2010-11. The average size of working capital of PBMPL was Rs.3752.08 lakh. The CV of PBMPL was 32.34%, which indicated that it had uniform policy.

Working capital of SDML was Rs. 1968.53 lakh in 1999-00, which increased to Rs. 3858.78 lakh in 2010-11. It was increased by 96.02%. Size of working capital of SNSTL was decreased from Rs. 998.37 lakh in the year 1999-00 to Rs. 306.70 lakh in the year 2010-11. It decreased by 69.27%. Its average size of working capital was Rs. 499.82 lakh. STML was following uniform size of working capital throughout the study period that was also supported by CV of 23.56%.

In the year 1999-00, total working capital of textile companies was Rs. 108642.52 lakh which increased to Rs. 258180.38 lakh in 2010-11. It was increased by 137.64%. The overall average of all selected textile units was Rs. 200218.40 lakh and the overall CV was 172% that was an indicator of inconsistent policy followed by textile companies.

The overall SD shows that textile companies were highly fluctuating companies in case of size of working capital in the state of Gujarat.

5.5.2 Net Working Capital and Sales Relationship

Table 5.63 shows that the relationship between net working capital and sales of the textile companies during the period from 1999-00 to 2010-11. It indicates that the net working capital of textile companies was in increasing trend throughout the study period except in the year 2002-03 while sales of textile companies decreased in 2001-02 and 2004-05, though it can be concluded that it was almost in increasing trend during the period of study.

The coefficient of correlation between net working capital and sales was 0.86 during the study period. It indicates that there exists a positive correlation between net working capital and sales of textile companies. This leads to the remark that increase in sales leads to increase in investment of net working capital. Here also it can be said that increase in sales of textile units led to increase in investment of net working capital of textile manufacturing companies during the period of study from 1999-00 to 2010-11.

Table 5.63: Net Working Capital and Sales Relationship of Textile Companies

Rs. in Lakh

Year	Net Working Capital	Sales
1999-00	108642.52	251006.37
2000-01	118564.57	361434.24
2001-02	122436.15	225115.27
2002-03	114799.51	315031.12
2003-04	141436.69	325428.71
2004-05	164290.74	315241.31
2005-06	219042.78	416067.68
2006-07	172744.81	473630.58
2007-08	188687.77	557143.69
2008-09	184389.96	564378.74
2009-10	208968.16	736072.47
2010-11	258180.38	975521.15
r		0.86

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.5.3 Net working Capital Trends

In order to find the direction of change for net working capital over a period of time, the method of least square has been used for finding trend values. Net working capital has been interpreted with the help of trend analysis. Linear trend by the method of least squares is most widely used in practice to evaluate the direction. The straight line trend is represented by the equation-

$$Y_c = a + bX$$

The constant 'a' is simply equal to average of Y (original values) and the constant 'b' stands for the fix amount of change, calculated with the help of least square method. This analysis will give a base to evaluate the existing policy of management with regard to net working

capital is effective or whether any improvement is required. An upward trend in net working capital, conjugated with a downward trend in sales will usually lead to an avoidable situation or unfavourable situation; while an upward trend of current assets, coupled with downward trend in current liabilities, will usually lead to favourable liquidity position.

Table 5.64: Original and Trend Values of Net Working Capital of Textile Companies

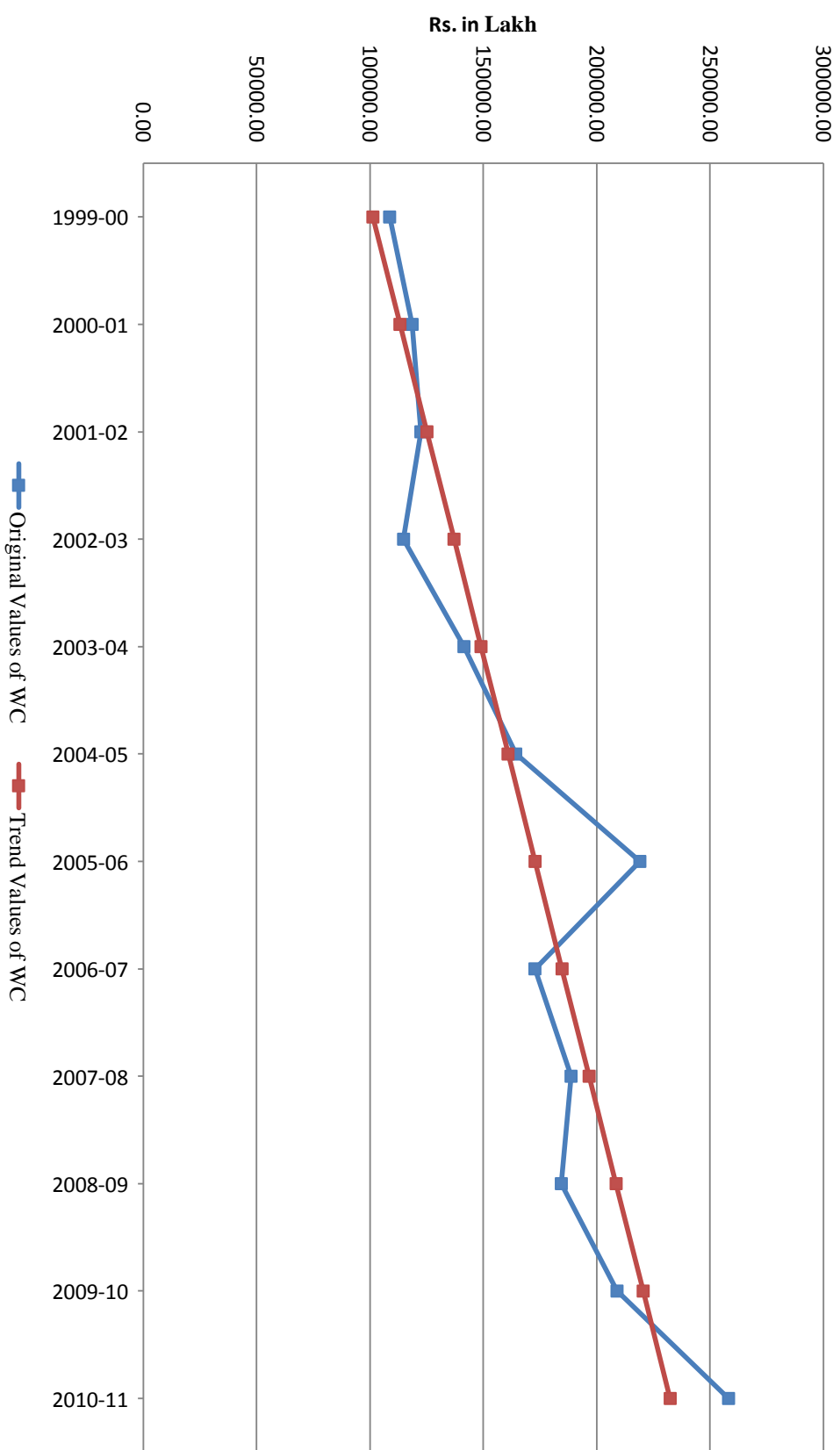
Rs. in lakh

Year	Original Values	Trend Values
1999-00	108642.52	101265.15
2000-01	118564.57	113189.41
2001-02	122436.15	125113.69
2002-03	114799.51	137037.97
2003-04	141436.69	148962.25
2004-05	164290.74	160886.53
2005-06	219042.78	172810.81
2006-07	172744.81	184735.09
2007-08	188687.77	196659.37
2008-09	184389.96	208583.65
2009-10	208968.16	220507.93
2010-11	258180.38	232432.21

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.64 shows that the original values and trend values of net working capital of textile companies during the period from 1999-00 to 2010-11. The trend values have been calculated with the help of least square method. It has been observed that the annual increase in net working capital was Rs. 11924.28 lakh. The original values in the year 2001-02, 2002-03, 2003-04, 2006-07, 2007-08, 2008-09 and 2009-10 were lower than the trend values. The original values of remaining years were greater than trend values during the period under study.

Figure 5.4: Original and Trend values of Working Capital of Textile Companies



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of net working capital of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 24643.30, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of net working capital.

5.5.4 Total Sales Trends of Textile Companies

Table 5.65 exhibits the original and trend values of total sales of textile units in the state of Gujarat during the period from 1999-00 to 2010-11. The annual increase in total sales was Rs. 54098.76 lakh. The original values in the year 1999-00, 2000-01, 2009-10 and 2010-11 were greater than the trend values, rest of years the original values were lower than the trend value.

Table 5.65: Original and Trend Values of Total Sales of Textile Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	251006.37	162129.42
2000-01	361434.24	216228.18
2001-02	225115.27	270326.95
2002-03	315031.12	324425.71
2003-04	325428.71	378524.47
2004-05	315241.31	432623.23
2005-06	416067.68	486721.99
2006-07	473630.58	540820.75
2007-08	557143.69	594919.51
2008-09	564378.74	649018.27
2009-10	736072.47	703117.04
2010-11	975521.15	757215.80

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.5: Original and Trend Values of Sales of Textile Companies

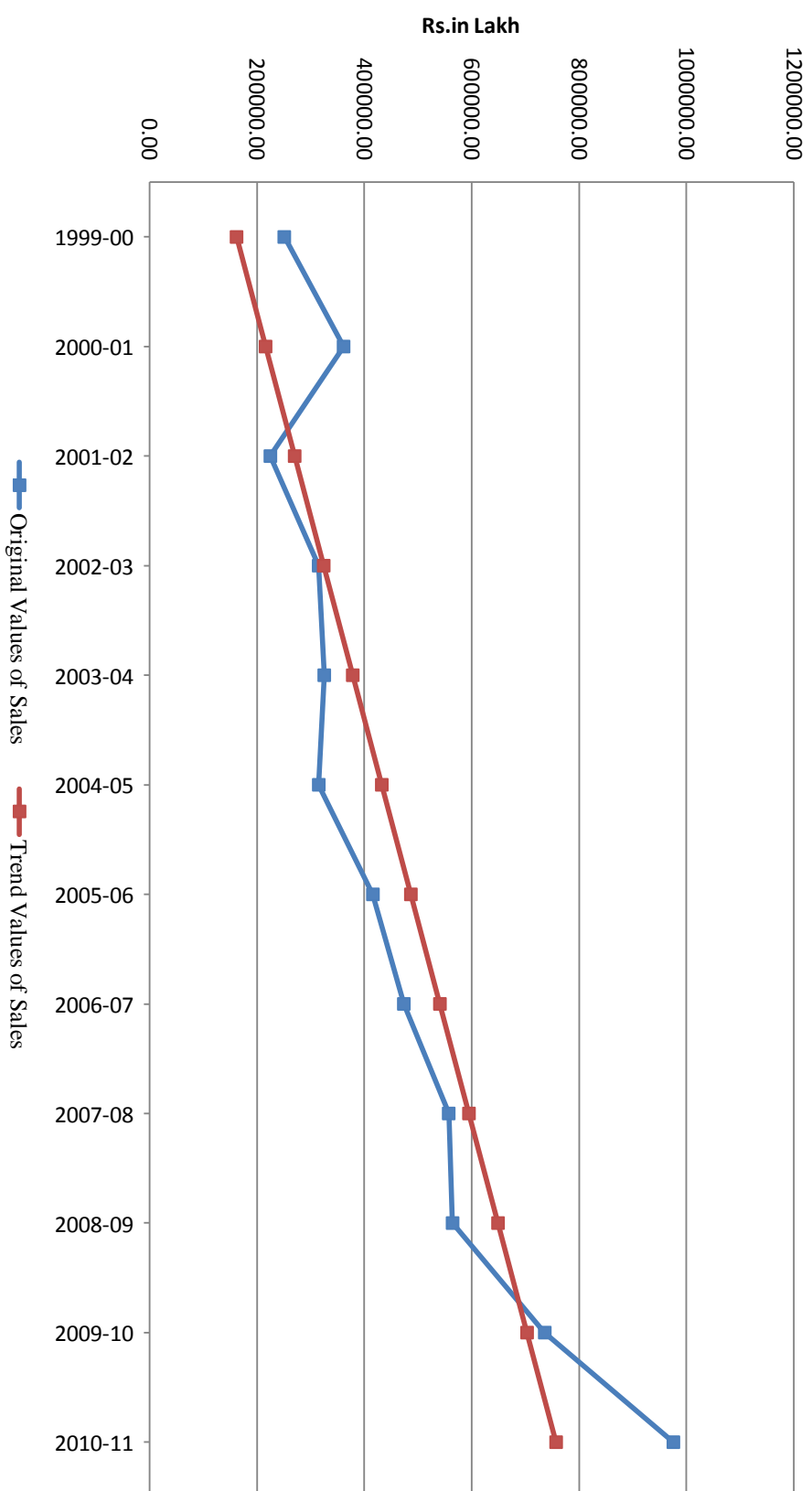
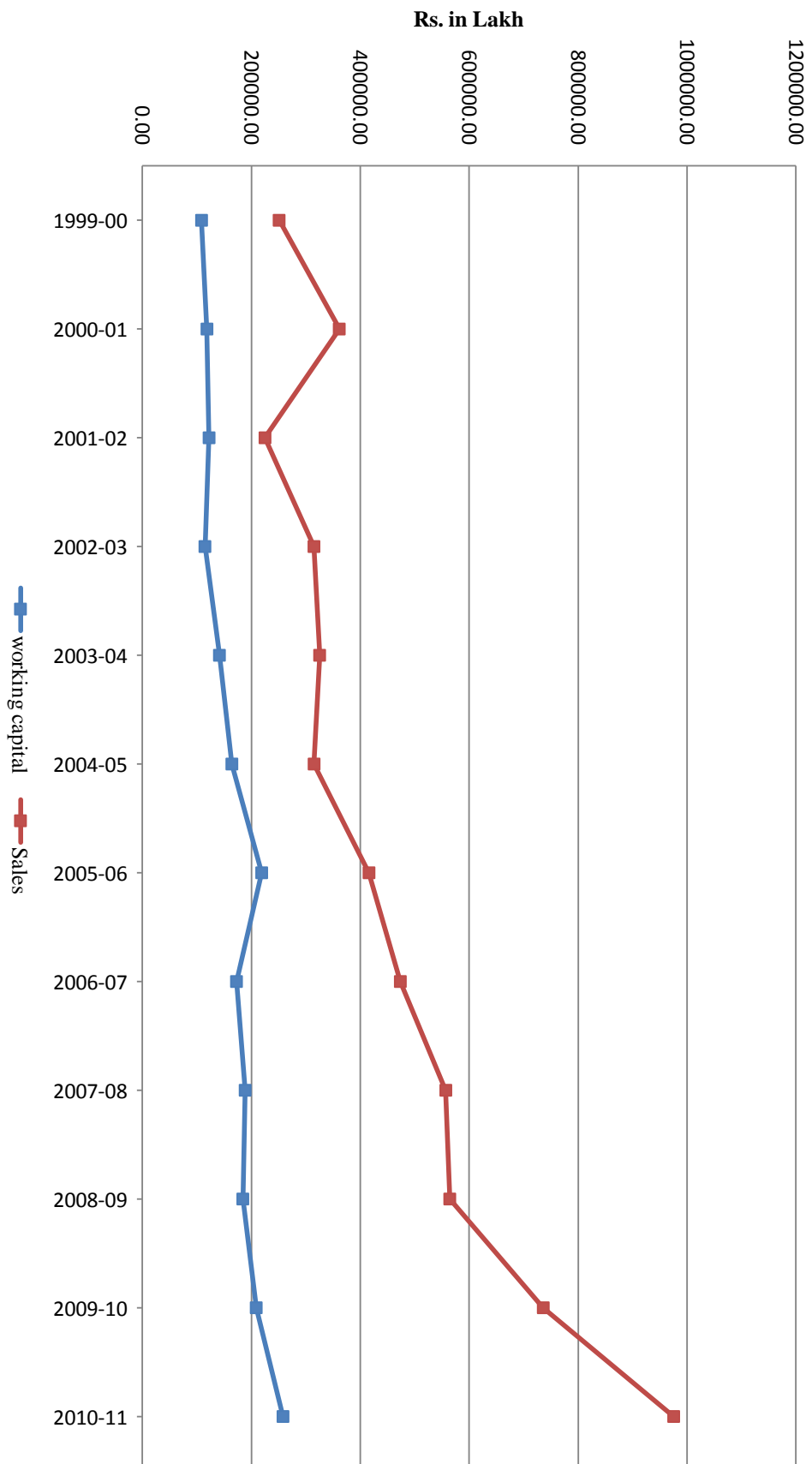


Figure 5.6: Original Values of Working Capital and Sales of Textile Companies



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of total sales of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 289885.66, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of total sales.

The figure 5.6 shows that the sales moving upward faster than the working capital during the period of study. It was favourable situation for textile companies.

5.5.5 Current Liabilities Trends of Textile Companies

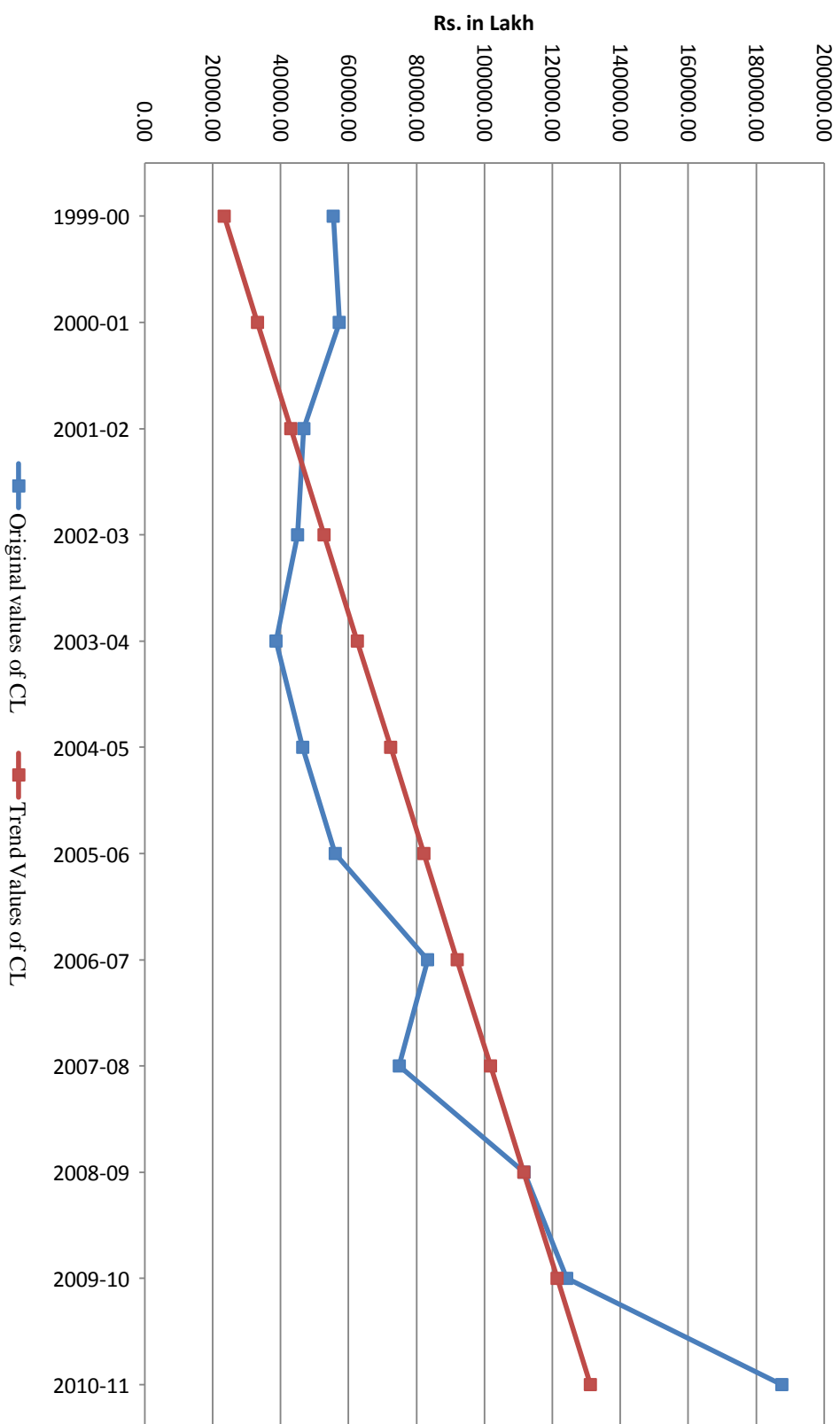
Table 5.66 shows the original and trend values of current liabilities of textile companies during the period of study from 1999-00 to 2010-11. It revealed that the annual increase in current liabilities was Rs. 9799.33 lakh. The original values in the year 1999-00, 2000-01, 2001-02, 2008-09, 2009-10 and 2010-11 were greater than trend values of respective years, rest of all years the original values were lower than trend values of current liabilities.

Table 5.66: Original and Trend Values of Current Liabilities of Textile Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	55479.23	23390.90
2000-01	57254.73	33190.83
2001-02	46850.88	42990.76
2002-03	44989.63	52790.70
2003-04	38638.78	62590.63
2004-05	46507.83	72390.57
2005-06	56080.96	82190.50
2006-07	83261.62	91990.43
2007-08	74941.77	101790.37
2008-09	111686.16	111590.30
2009-10	124223.41	121390.23
2010-11	187571.39	131190.17

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.7: Original and Trend Values of Current Liabilities of Textile Companies



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of current liabilities of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 121887.02, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of current liabilities.

5.5.6 Current Assets Trends of Textile Companies

Table 5.67 exhibits the original and trend values of textile units during the period of study from 1999-00 to 2010-11. The annual increase in current assets was Rs. 21722.93 lakh. It was observed that the trend values in the year 2002-03, 2003-04, 2004-05, 2006-07, 2007-08, 2008-09 and 2009-10 were higher than original values while in remaining years trend values were lower than original values of current assets in their respective years.

Table 5.67: Original and Trend Values of Current Assets of Textile Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	164142.76	124667.04
2000-01	175819.31	146390.00
2001-02	169287.03	168112.93
2002-03	159815.92	189835.86
2003-04	180075.47	211558.79
2004-05	210798.57	233281.72
2005-06	275123.73	255004.65
2006-07	256006.43	276727.58
2007-08	263629.53	298450.51
2008-09	296076.13	320173.44
2009-10	333191.56	341896.37
2010-11	445751.77	363619.30

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.8: Original and Trend Values of Current Assets of Textile Companies

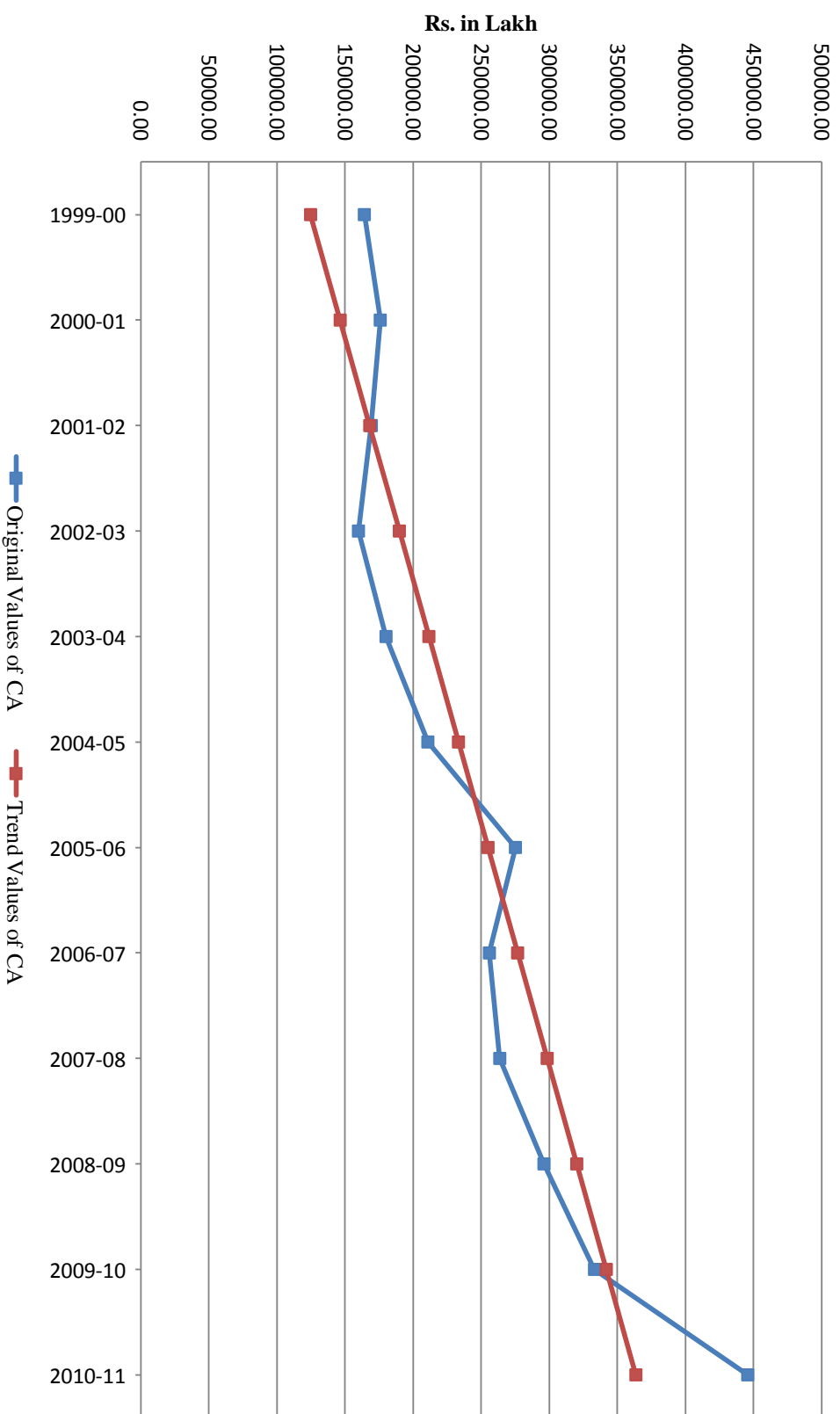
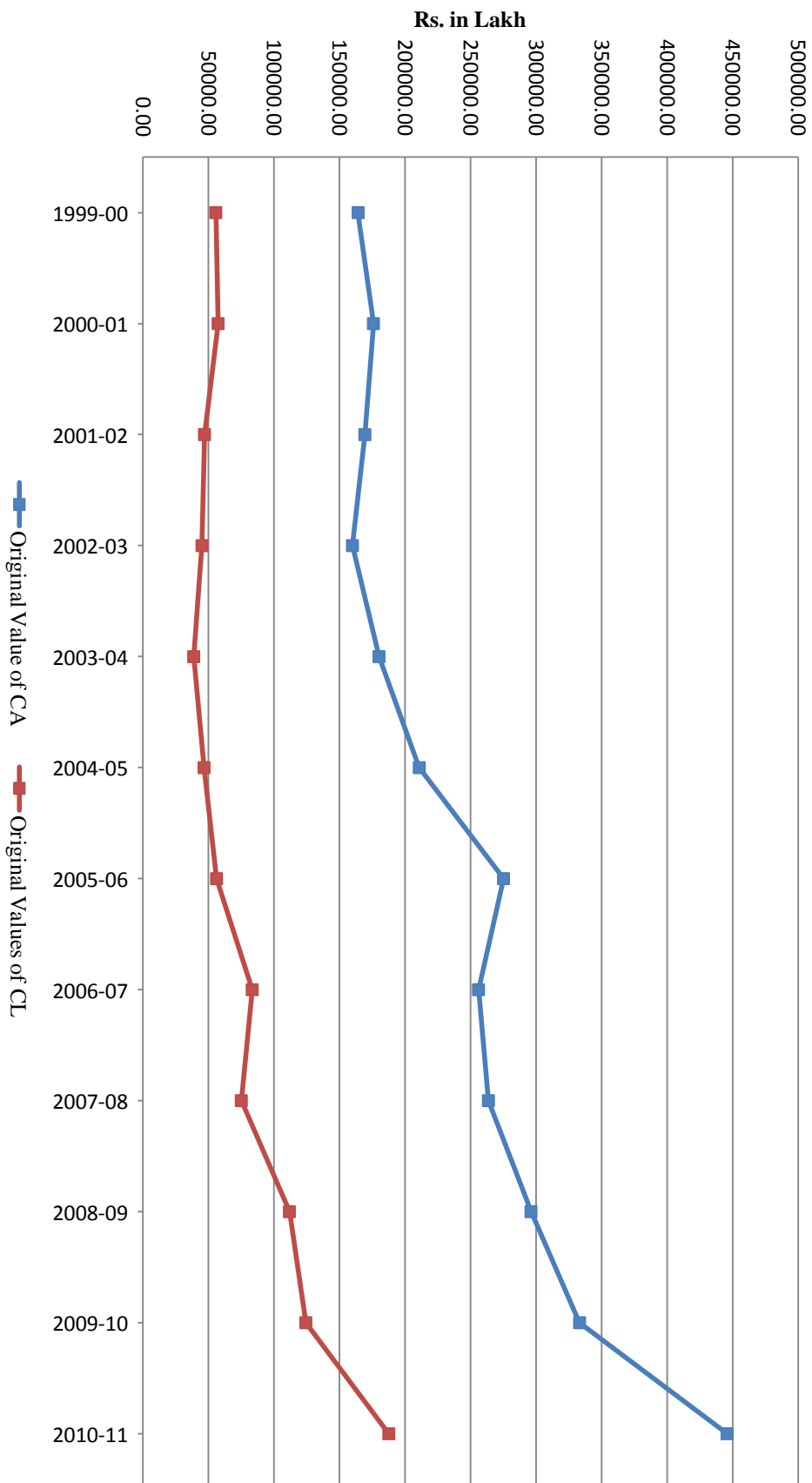


Figure 5.9: Original Values of Current Assets and Current Liabilities of Textile Companies



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of current assets of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 57812.27, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of current assets.

The figure 5.9 shows the comparison between original values of current assets and current liabilities, in which current assets line moving upward quite faster than current liabilities line.

5.5.7 Inventory Trends of Textile Companies

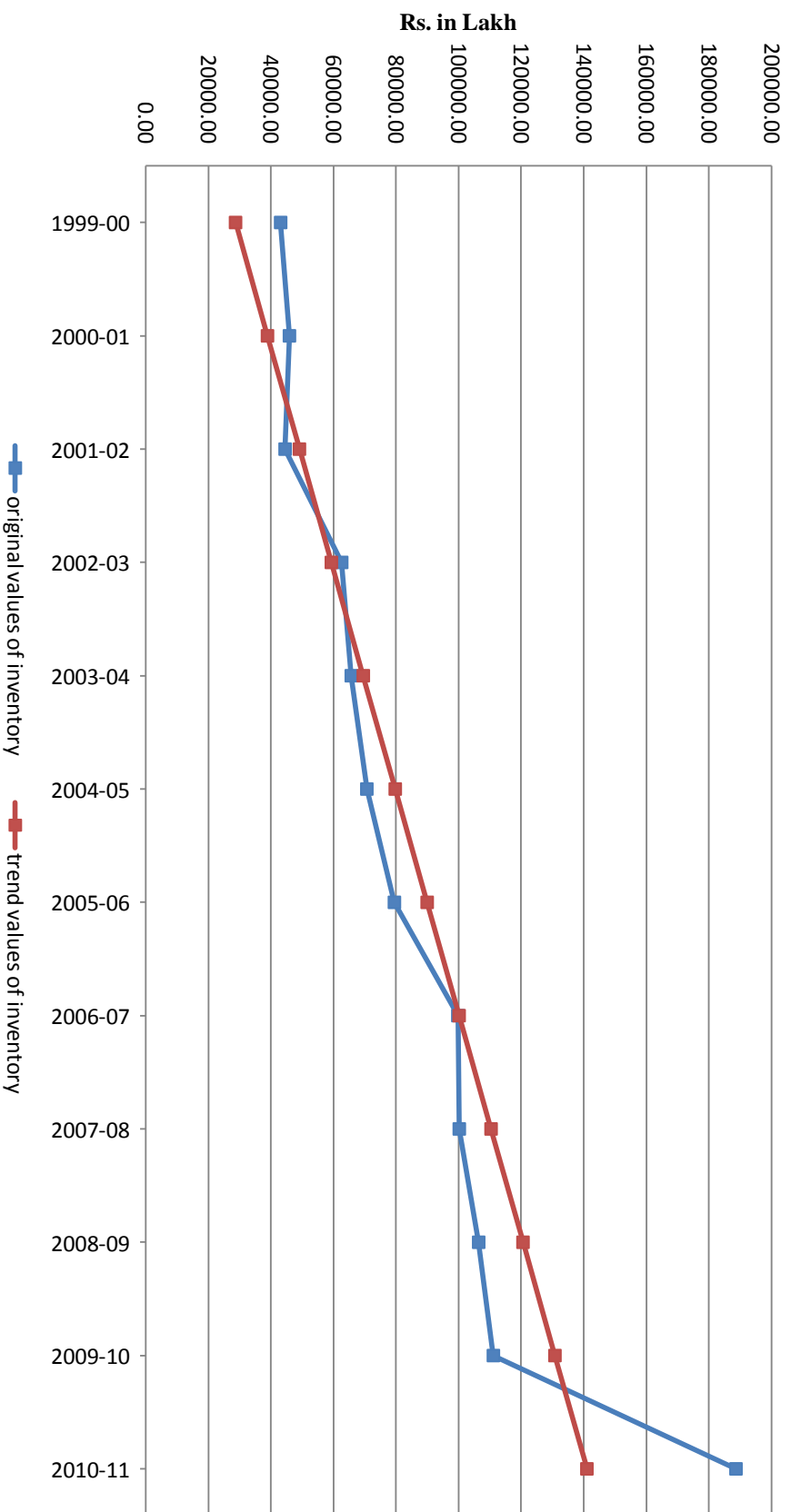
Table 5.68 shows that the original and trend values of inventories of textile companies during the period of study from 1999-00 to 2010-11. It is revealed that the annual increase in inventory was Rs. 10209.18 lakh. The original values in the year 2001-02, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10 were lower than the trend values while rest of the years original values were greater than trend values during the period under study.

Table 5.68: Original and Trend Values of inventory of Textile Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	43124.34	28711.97
2000-01	45936.36	38921.12
2001-02	44551.02	49130.30
2002-03	62643.91	59339.48
2003-04	65702.95	69548.66
2004-05	70677.30	79757.84
2005-06	79493.27	89967.02
2006-07	99759.65	100176.20
2007-08	100231.07	110385.38
2008-09	106429.90	120594.56
2009-10	111124.52	130803.74
2010-11	188674.94	141012.92

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.10: Original and Trend Values of Inventory of Textile Companies during the Period from 1999-00 to 2010-11



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of inventory of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 33245.49, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of inventory.

5.5.8 Total Receivables Trends of Textile Companies

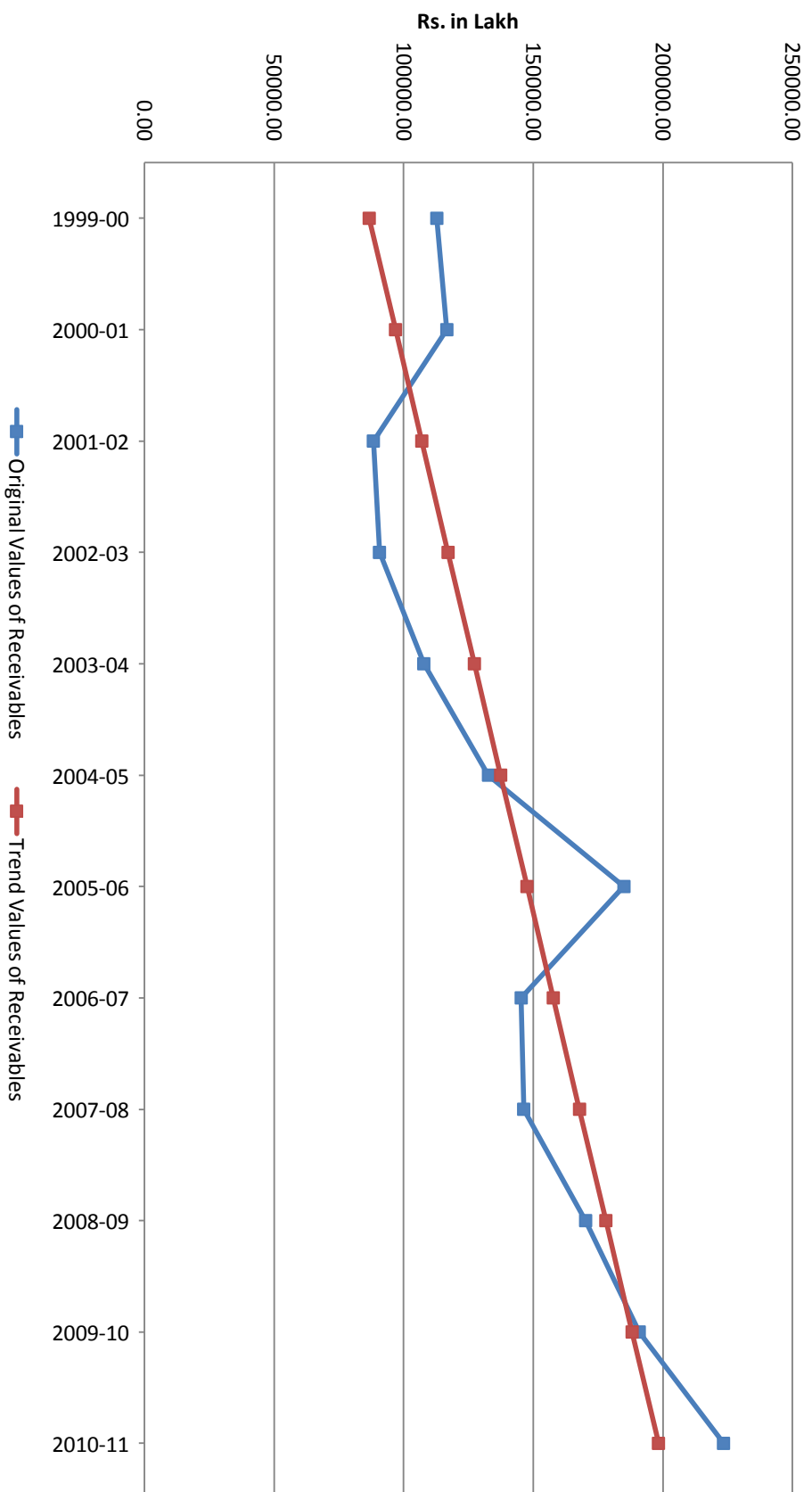
Table 5.69 exhibits the original and trend values of total receivables of textile companies in the state of Gujarat during the period from 1999-00 to 2010-11. The annual increase in total receivables was Rs.10145.91 lakh. The original values in the year 2001-02, 2002-03, 2003-04, 2004-05, 2006-07, 2007-08 and 2008-09 were lower than the trend values of textile companies while rest of the years original values were greater than trend values of total receivables during the period under study.

Table 5.69: Original and Trend Values of Total Receivables of Textile Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	112775.98	86687.51
2000-01	116647.51	96833.43
2001-02	88279.98	106979.34
2002-03	90628.47	117125.25
2003-04	107746.89	127271.16
2004-05	132709.76	137417.07
2005-06	184986.64	147562.98
2006-07	145340.31	157708.89
2007-08	146288.05	167854.80
2008-09	170195.58	178000.71
2009-10	190881.32	188146.62
2010-11	223399.83	198292.53

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Figure 5.11: Original and Trend Values of Receivables of Textile Companies during the period from 1999-00 to 2010-11



The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of total receivables of the sample units. The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 41117.96, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of total receivables.

5.5.9 Total Cash Trends of Textile Companies

Table 5.70 shows the original and trend values of total cash of textile companies in the state of Gujarat during the period from 1999-00 to 2010-11. It revealed that the annual increase in cash was Rs. 1369.45 lakh. The original values in the year 1999-00, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, and 2008-09 were lower than the trend values. Original values in remaining years were higher than trend values of total cash.

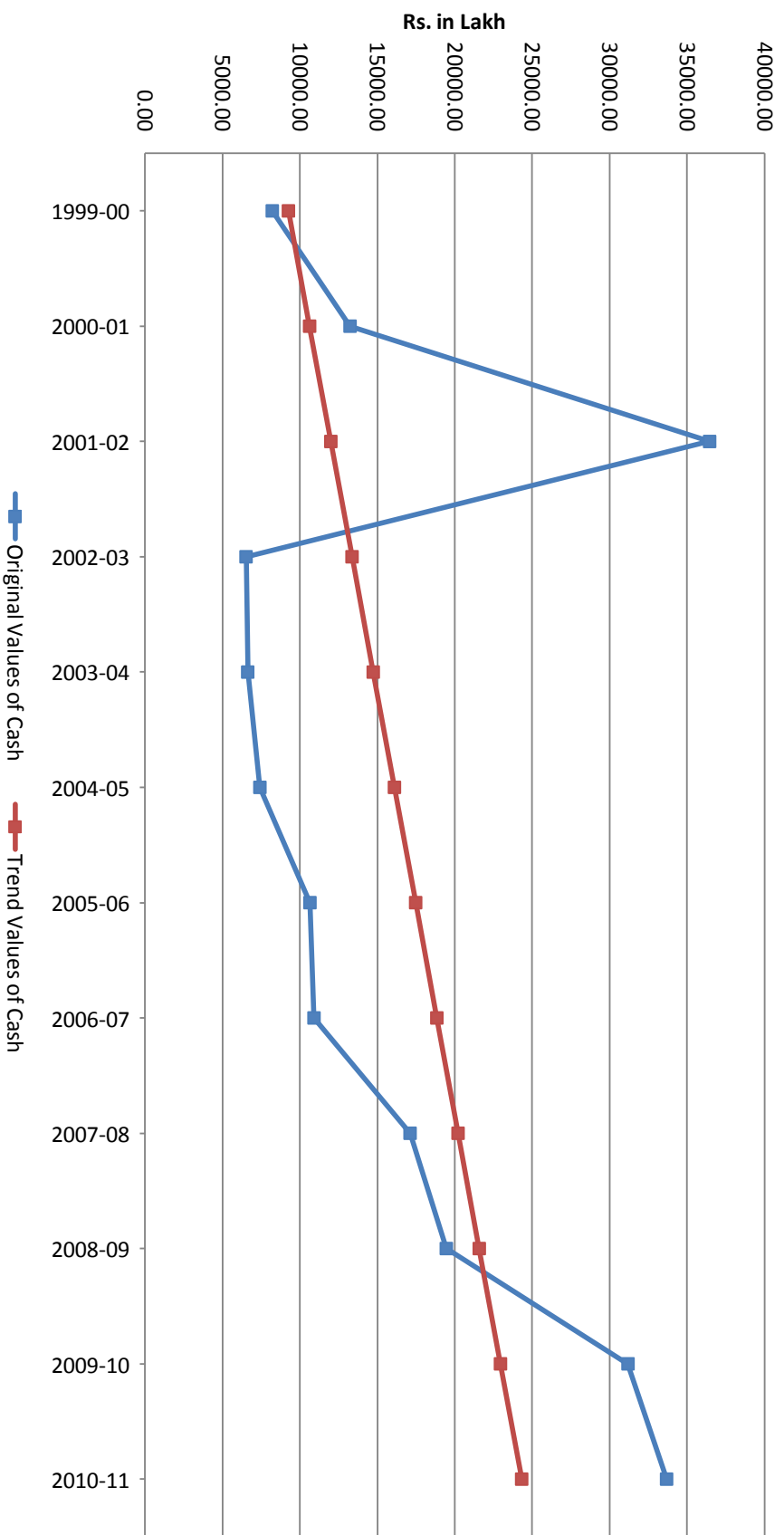
Table 5.70: Original and Trend Values of Total Cash Textile of Companies

Rs. in lakh		
Year	Original Values	Trend Values
1999-00	8212.44	9254.11
2000-01	13235.80	10623.58
2001-02	36456.03	11993.03
2002-03	6516.76	13362.48
2003-04	6625.63	14731.93
2004-05	7412.51	16101.38
2005-06	10643.83	17470.83
2006-07	10906.46	18840.28
2007-08	17110.42	20209.73
2008-09	19450.65	21579.18
2009-10	31185.72	22948.63
2010-11	33676.97	24318.08

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

The non-parametric chi-square test has been applied to find the significant relationship between the differences of original values and trend values of total cash of the sample units.

Figure 5.12: Original and Trend Values of Cash of Textile Companies during the Period from 1999-00 to 2010-11



The table value of chi-square at 1% significant level and for 11 degree of freedom is 24.73. The calculated value of chi-square is 76567.33, which is more than 24.73 (Table value). It can be concluded that there was significant relationship between the differences of original values and trend values of total cash.

5.5.10 Inventory to Net Working Capital of Textile Companies

Inventory to net working capital shows the inventory as a percentage to net working capital of the textile companies. Foulke enunciates that “The inventory in any enterprise should not be more than 75% of its working capital.”¹ When inventory is more than 75% of its net working capital then it indicates that there may have a signal of injudicious purchase of raw materials or slow process of materials. Therefore a lower percentage is always recommendable as it shows an effective working capital position of an enterprise.

Table 5.71 exhibits the percentage of inventory to net working capital of textile companies during the period from 1999-00 to 2010-11. The year wise analysis shows that the averages percentages of inventory to net working capital were 78.77% in the year 2004-05 and 77.58% in the year 2010-11, which were not desirable for the textile companies. The company wise analysis indicates that the average percentages of inventory to net working capital for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 63.65%, 44.26%, 60.98%, 53.57%, 35.60%, 34.26%, 97.17%, 90.51%, 34.57% and 131.95% respectively.

The overall average of inventory to net working capital was 64.64%. It has been observed that PBMPL, SDML and STML had more average percentage of inventory to net working capital than the overall average of textile companies. STML had the highest average that indicates that there must have tendency of keeping extra stocks or processing of inventory would be slow.

The overall standard deviation was 30.80 showed less fluctuation in textile companies and overall CV of textile companies was 47.65% showed that they were quite consistent in following ratio of inventory to net working capital. The CV of SDML was 17.51% that again reported the most consistent unit among all selected units.

¹ Roy Foulke A. (1961), *Practical Financial Statement Analysis*, McGraw-Hill, New York, p. 354.

Table 5.71: Inventory to Net Working Capital of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	37.88	31.85	45.48	32.31	44.24	21.87	141.24	124.93	35.94	104.82	62.06
2000-01	54.80	34.77	26.90	40.77	35.61	25.92	111.72	103.96	41.55	120.14	59.61
2001-02	56.04	30.95	28.25	37.73	46.52	30.68	106.52	107.05	33.41	115.15	59.23
2002-03	67.68	57.46	29.52	44.35	30.54	35.96	110.80	88.70	41.70	149.97	65.67
2003-04	65.86	42.37	28.20	61.98	27.35	30.72	110.54	101.27	38.44	110.12	61.69
2004-05	115.11	38.42	N.A	39.51	23.70	31.94	84.58	87.12	58.92	229.59	78.77
2005-06	65.46	29.07	59.31	46.45	31.09	39.27	87.96	76.80	18.95	151.16	60.55
2006-07	0.00	55.14	57.66	48.44	47.55	33.58	92.07	68.23	26.82	125.24	55.47
2007-08	78.62	51.27	116.91	44.36	25.69	42.15	81.41	72.57	29.07	136.30	67.84
2008-09	81.71	58.35	97.73	54.10	33.78	35.51	70.64	95.07	30.80	80.74	63.84
2009-10	60.35	41.57	83.06	87.72	31.27	30.55	83.59	79.28	30.08	124.47	65.19
2010-11	80.26	59.88	97.80	105.19	48.65	53.02	85.00	81.10	29.18	135.67	77.58
Average	63.65	44.26	60.98	53.57	35.50	34.26	97.17	90.51	34.57	131.95	64.64
SD	26.40	11.11	31.44	20.84	8.58	7.70	18.62	15.84	9.61	34.90	30.80
CV	41.47	25.10	51.55	38.90	24.17	22.48	19.16	17.51	27.80	26.45	47.65

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.5.11 Receivables to Net Working Capital of Textile Companies

Percentage of receivables to net working capital shows the relationship between receivables and net working capital of textile companies. A high percentage of receivables to net working capital indicates the liberal credit policy that compels the concern to have more working capital during the year.

Table 5.72 exhibits the percentage of receivables to net working capital of textile companies during the period from 1999-00 to 2010-11. The receivables to net working capital of ADEL was 95.80% in 1999-00, which increased to 106.33% in the year 2004-05 and again declined to 78.20% in 2010-11. Arvind Limited had over 100% in the initial years of the study. Thereafter, it decreased to 92.31% in the year 2010-11. Nakoda Limited had more than 100% of receivables to net working capital from 2000-01 to 2010-11 due to low working capital as compare to high sales. The SNSTL had also more than 100% of receivable to net working capital in the year 2000-01, 2001-02, 2003-04 and 2004-05. Percentage of receivables to net working capital of STML was 44.71% in 1999-00, which increased to 105.82% in 2009-10 and again decreased to 28.52%.

Average of receivables to net working capital in the year 1999-00 was 78.21% which stepped up to 104.30% in the year 2004-05 and again declined to 64.56% in the year 2010-11. The average percentages of receivables to net working capital of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 71.06%, 90.00%, 73.62%, 73.86%, 65.29%, 131.33%, 31.40%, 58.82%, 102.14% and 47.38% respectively.

The overall percentage of receivables to net working capital was 74.49%. It has been found that the average percentages of receivables to net working capital of Arvind Limited, Nakoda Limited and SNSTL were higher than the overall percentage of 74.49%.

The standard deviation of SNSTL was 73.61, showed that it was fluctuating during the course of the study. However the overall CV of 35.95% shows that they were following uniform policy during the study period. Moreover, CVs of Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited and PBMPL were very consistent units in regard to receivables to net working capital.

Table 5.72: Receivables to Net Working Capital of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMITL	SDMIL	SNSTL	STMIL	Average
1999-00	95.80	127.77	56.96	83.48	59.46	85.12	30.17	99.70	98.96	44.71	78.21
2000-01	83.06	110.64	93.08	71.43	67.08	149.77	31.45	84.03	106.82	39.92	83.73
2001-02	73.30	71.31	82.90	59.94	58.17	144.93	29.53	75.70	100.63	33.20	72.96
2002-03	59.43	77.72	86.23	96.52	40.23	164.47	20.04	62.76	98.08	26.99	73.25
2003-04	75.10	75.85	86.48	81.14	68.88	108.60	18.19	67.48	101.69	26.14	70.95
2004-05	106.33	81.00	N.A	77.25	63.38	108.98	30.42	74.82	333.38	63.13	104.30
2005-06	57.80	87.84	74.80	72.60	69.37	141.80	29.73	51.28	99.71	45.86	73.08
2006-07	0.00	81.71	77.60	70.51	59.70	148.60	33.37	35.74	85.15	53.85	64.62
2007-08	60.71	78.37	65.09	62.63	56.33	152.14	38.63	34.71	68.39	58.70	67.57
2008-09	82.33	98.76	72.82	67.22	62.41	137.12	46.13	45.37	48.22	41.76	70.21
2009-10	80.64	96.70	67.75	83.35	77.61	104.71	36.38	38.91	43.14	105.82	73.50
2010-11	78.20	92.31	46.13	60.26	100.85	129.74	32.77	35.30	41.46	28.52	64.56
Average	71.06	90.00	73.62	73.86	65.29	131.33	31.40	58.82	102.14	47.38	74.49
SD	25.43	15.73	13.30	10.52	13.80	23.02	7.14	20.89	73.61	21.12	26.78
CV	35.79	17.48	18.07	14.24	21.14	17.53	22.74	35.53	72.08	44.58	35.95

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.5.12 Cash to Net Working Capital of Textile Companies

Table 5.73 shows the percentage of cash over net working capital of textile companies in the state of Gujarat during the period from 1999-00 to 2010-11. The average percentage of cash to net working capital in the year 1999-00 was 14.16% which increased to 30.43% in 2004-05 and again decreased to 21.41% in the year 2010-11. The average percentages of cash to net working capital of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 9.94%, 6.25%, 10.51%, 13.02%, 31.47%, 28.95%, 3.68%, 50.378%, 31.42% and 15.82% respectively. The overall average percentage of all selected units was 20.14%. The overall average percentage is taken as a standard of textile companies then it has been found that the MTL, Nakoda Limited, SDML and SNSTL had higher percentage than overall percentage of all textile companies during the period of the study. It means that these companies were following to maintain high cash balances over net working capital. The overall standard deviation was 14.06. The overall CV of textile companies was 69.82% which indicated that they not following uniform policy.

5.5.13 Net Profit to Gross Working Capital of Textile Companies

Return on gross working capital is yet another useful economic indicator of the profitability of the enterprise and thus indicates the efficiency with which the working capital is put to use.² Table 5.74 exhibits the percentage of net profit to gross working capital of textile companies during the period from 1999-00 to 2010-11. The average percentages of net profit to gross working capital of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 14.37%, (1.46)%, (30.39)%, 10.05%, 6.73%, 6.37%, 8.00%, 9.01%, (22.79)% and (5.56)% respectively. The overall average of all selected units was 0.57%, which indicated that the overall efficiency with which the working capital was put to use, found unfavourable during the period of study. Collectively, it indicated inefficient utilization of their working capital by textile companies. Though, ADEL, GSML, MTL, Nakoda Limited, PBMPL and SDML had positive average percentage of net profit to gross working capital. At last, it can be concluded that textile companies had less profit generation capacity on gross working capital throughout the study period.

² Dr. Alok B. Shah (2003), Working Capital Management, 1st Edition, Himalaya Publication House, Mumbai, p. 184.

Table 5.73: Cash to Net Working Capital of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	3.34	4.37	13.54	7.16	11.08	17.11	3.40	62.63	12.30	6.72	14.16
2000-01	4.83	12.07	5.37	11.67	27.01	27.57	3.65	64.39	7.98	4.18	16.87
2001-02	3.16	41.06	6.20	28.61	21.52	27.40	6.79	50.13	8.07	10.07	20.30
2002-03	13.19	1.85	8.06	8.66	50.55	31.86	3.70	37.75	11.02	9.14	17.58
2003-04	6.87	1.41	6.97	12.33	34.01	19.13	4.94	36.05	7.94	7.36	13.70
2004-05	30.92	0.97	N.A	18.82	46.28	13.54	3.81	38.68	106.31	14.51	30.43
2005-06	28.50	0.58	8.71	13.61	41.70	21.65	3.14	58.43	27.85	15.92	22.01
2006-07	0.00	1.91	6.30	7.23	35.19	28.12	2.98	62.78	16.64	15.31	17.65
2007-08	13.48	1.45	18.56	18.19	34.58	25.44	3.68	57.03	32.05	9.08	21.35
2008-09	4.26	2.69	11.51	18.12	25.53	29.91	3.30	38.07	42.85	28.02	20.43
2009-10	3.61	4.15	18.15	8.36	23.20	52.84	1.98	50.81	48.61	66.48	27.82
2010-11	7.05	2.49	12.20	3.47	27.00	52.81	2.77	47.79	55.43	3.09	21.41
Average	9.94	6.25	10.51	13.02	31.47	28.95	3.68	50.38	31.42	15.82	20.14
SD	9.63	10.90	4.48	6.66	10.71	11.88	1.15	10.29	27.79	16.56	14.06
CV	96.90	174.34	42.62	51.14	34.03	41.04	31.37	20.42	88.46	104.67	69.82

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Table 5.74: Net Profit to Gross Working Capital of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	(10.72)	(26.31)	8.73	2.77	11.15	9.55	6.08	2.62	(47.74)	(22.21)	(6.61)
2000-01	0.33	(48.37)	(3.99)	12.50	16.64	8.21	10.60	1.46	(80.99)	(19.08)	(10.27)
2001-02	9.43	2.05	(34.17)	14.87	3.19	9.55	9.35	3.30	(23.04)	(28.15)	(3.36)
2002-03	19.51	14.15	(42.27)	22.34	10.19	8.69	11.70	4.14	(14.41)	(25.08)	0.90
2003-04	22.40	9.01	(35.05)	15.92	5.16	6.99	9.23	6.18	(66.43)	(20.88)	(4.75)
2004-05	36.82	8.19	N.A	3.89	6.54	5.72	5.30	7.82	(21.02)	(2.54)	5.64
2005-06	31.05	6.56	(48.48)	7.97	11.15	4.49	7.07	14.07	(4.36)	1.28	3.08
2006-07	29.18	7.37	(17.14)	6.87	5.85	4.28	13.06	16.95	(3.15)	(1.31)	6.20
2007-08	4.73	1.90	(56.73)	7.63	(3.34)	4.39	(1.72)	11.32	(3.51)	0.79	(3.45)
2008-09	1.59	(3.07)	(38.69)	8.84	3.97	5.16	0.20	15.35	(0.09)	22.35	1.56
2009-10	13.42	3.51	(60.08)	8.46	5.57	4.96	5.90	12.67	2.64	13.16	1.02
2010-11	14.69	7.46	(6.38)	8.53	4.63	4.52	19.20	12.29	(11.36)	14.92	6.85
Average	14.37	(1.46)	(30.39)	10.05	6.73	6.37	8.00	9.01	(22.79)	(5.56)	(0.57)

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

5.5.14 Working Capital Turnover Ratio of Textile Companies

Working capital turnover ratio is an important indicator of efficiency of working capital.³ It is an evaluation that compares the depletion of working capital to the generation of sales over a given period. This provides some useful information as to how efficiently and effectively a business unit is using its working capital to generate sales. This ratio is calculated by dividing sales by net working capital.

A high ratio indicates the high speed of converting inventories into sales i.e. accounts receivables and then into cash which leads to an efficient use of working capital. There could be another reason for high working capital turnover ratio i.e. less amount of working capital as compare to volume of production and sales. A low ratio indicates that there is low speed of converting inventories into sales i.e. accounts receivables and then into cash which leads to inefficient use of working capital. There could be another reason for low ratio i.e. working capital is more than the required volume of production and sales. Reduction in profitability is the consequence of maintaining excessive working capital.

Table 5.75 exhibits the working capital turnover ratio of textile companies during the period from 1999-00 to 2010-11. In the year 1999-00, the average working capital turnover ratio was 3.56 times which increased to 4.80 times in the year 2004-05 and again decreased to 3.75 times in the year 2010-11. The overall average of working capital turnover ratio of all selected textile units was 3.86. It has been observed that the textile companies maintained very high working capital that led to low working turnover ratio of textile companies during the period of study. In the year 2006-07 ADEL had negative working capital. The averages of working capital turnover ratio of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 3.85, 1.84, 3.55, 4.42, 1.27, 5.57, 3.60, 2.42, 2.95 and 9.15 times respectively. It was found that ADEL, Arvind Limited, Ashima Limited, MTL, PBMPL, SDML and SNSTL had lower average working capital ratio than overall working capital of textile companies during the course of the study.

Though, overall standard deviation 2.12 shows that they were less fluctuated but the overall CV of 54.98% shows they were not following uniform policy during the study period.

³ Shankar Dagduji Talekar, (2005), Specifications of Management of Working Capital, 1st Edition, *Discovery Publishing House*, New Delhi, p.85.

Table 5.75: Working Capital Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Times										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Average
1999-00	4.41	1.93	1.96	2.31	1.73	4.95	5.07	2.98	3.90	6.39	3.56
2000-01	4.30	2.83	2.48	3.34	2.58	6.14	4.47	2.48	4.55	8.35	4.15
2001-02	4.54	1.02	1.68	2.90	1.43	7.45	4.69	2.42	3.52	8.21	3.79
2002-03	3.26	2.22	1.98	4.54	0.60	8.74	3.57	2.26	3.84	11.12	4.21
2003-04	4.07	1.60	2.18	4.36	0.77	5.53	3.09	2.58	3.47	9.98	3.76
2004-05	8.21	1.26	N.A	4.52	0.48	4.33	3.41	2.63	11.05	7.34	4.80
2005-06	3.81	0.96	4.76	5.16	0.50	5.26	2.53	2.10	2.73	14.96	4.28
2006-07	0.00	1.58	2.65	5.64	1.10	5.61	3.29	2.23	0.40	5.77	2.83
2007-08	3.49	1.93	5.89	4.35	1.22	5.75	3.57	2.12	0.72	5.14	3.42
2008-09	3.45	2.31	5.19	3.44	1.34	4.73	3.80	2.61	0.61	9.49	3.70
2009-10	3.14	2.17	5.27	6.39	1.56	3.77	2.81	2.43	0.41	14.10	4.21
2010-11	3.55	2.23	4.93	6.02	1.96	4.61	2.86	2.25	0.18	8.92	3.75
Average	3.85	1.84	3.55	4.42	1.27	5.57	3.60	2.42	2.95	9.15	3.86
SD	1.73	0.54	1.56	1.20	0.61	1.32	0.76	0.24	2.91	2.93	<i>2.12</i>
CV	45.03	29.53	44.05	27.25	47.95	23.66	21.02	10.03	98.79	32.03	54.98

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Individually, it has been observed that CVs of Arvind Limited, GSML, Nakoda Limited, PBMPL, SDML and STML indicated uniform policy in regard to working capital turnover ratio.

5.5.15 Current Assets Turnover Ratio of Textile Companies

Current assets turnover ratio is an overall metric of the efficiency of working capital components. The current assets turnover ratio highlights the information similar to that for individual assets turnover ratios for cash, receivables, or inventory. However, the current assets turnover ratio is often more representative because the volatility of total current assets is less than the volatility of an individual current asset. For example, unexpected increase in sales might result in ending receivables temporarily above the normal levels and inventory being temporarily below normal levels. This would cause the debtors turnover ratio to be lowered but the inventory turnover to be inflated.⁴ Therefore, current assets turnover is calculated by dividing sales by average current assets, as it would be less likely to be affected because the volatilities in receivables balances and inventory levels tend to offset each other.

Table 5.76 shows the current assets turnover ratio of textile companies during the period from 1999-00 to 2010-11. The average current assets turnover ratios for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 2.84, 1.32, 2.22, 3.36, 1.05, 3.31, 2.75, 1.24, 1.43, 4.81 times respectively. MTL had the minimum turnover ratio of current assets of 1.05 times and STML had the highest current assets turnover ratio of 4.81 times. The year wise analysis shows that the average current assets turnover ratio varied between 2.14 times in 2006-07 and 2.77 times in 2000-01. The overall average turnover ratio of current assets was 2.43 times. It has been observed that average current assets turnover ratio of Arvind Limited, Ashima Limited, MTL, SDML and SNSTL was lower than overall average turnover ratio of current assets of textile companies while ADEL, GSML, Nakoda Limited, PBMPL and STML had higher average current assets turnover ratio than overall average turnover ratio. The CVs of ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 17.29%, 23.07%, 28.64%, 27.29%, 50.09%, 15.46%, 9.08%, 68.26% and 26.20% respectively.

⁴ Wahlen, Baginski and Bradshaw (2011), Financial Reporting, Financial Statement Analysis and Valuation: A Strategic Perspective, 7th Edition, South-western Cengage Learning, Mason, USA, p. 289.

Table 5.76: Current Assets Turnover Ratio of Textile Companies during the Period from 1999-00 to 2010-11

Companies		In Times									
Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	3.22	1.18	1.69	1.88	1.50	3.99	2.90	1.04	2.59	4.09	2.41
2000-01	3.26	1.80	2.55	2.34	2.25	3.64	2.98	0.96	2.76	5.16	2.77
2001-02	3.79	0.69	1.33	2.50	1.09	3.78	3.11	0.99	2.42	4.91	2.46
2002-03	2.76	1.56	1.53	2.84	0.51	3.69	2.92	1.15	2.55	6.07	2.56
2003-04	2.74	1.44	1.77	3.12	0.65	3.77	2.55	1.28	1.73	6.20	2.53
2004-05	3.49	1.25	N.A	3.41	0.37	3.42	2.35	1.30	2.01	2.88	2.28
2005-06	3.02	0.90	2.27	4.29	0.36	3.47	2.51	1.29	1.29	5.61	2.50
2006-07	2.31	1.04	1.81	4.91	0.86	3.28	2.43	1.28	0.30	3.16	2.14
2007-08	2.31	1.40	2.21	4.23	1.04	3.06	2.72	1.34	0.59	2.59	2.15
2008-09	2.44	1.50	2.80	2.55	1.27	2.76	3.14	1.40	0.51	5.34	2.37
2009-10	2.28	1.47	3.10	4.07	1.34	2.41	2.76	1.46	0.33	6.31	2.55
2010-11	2.44	1.59	3.36	4.13	1.34	2.43	2.63	1.43	0.14	5.40	2.49
Average	2.84	1.32	2.22	3.36	1.05	3.31	2.75	1.24	1.43	4.81	2.43
SD	0.49	0.30	0.64	0.92	0.53	0.51	0.25	0.16	0.98	1.26	1.15
CV	17.29	23.07	28.64	27.29	50.09	15.46	9.08	13.25	68.26	26.20	47.14

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

It has been observed that CVs of MTL and SNSTL were inconsistent and higher than overall CV of 47.14%. Remaining units were following uniform policy with very less fluctuations.

5.5.16 Net Working Capital to Total Capital Employed of Textile Companies

This ratio exhibits the relationship between net working capital and total capital employed of textile companies. Net working capital is taken as a percentage over total capital employed. It indicates the proportion of net working capital and total capital employed. Table 5.77 shows the net working capital as a percentage to total capital employed of textile companies during the period from 1999-00 to 2010-11.

ADEL had the highest percentage of 42.50% in 2002-03 which reduced to 28.40% in 2010-11. In the year 1999-00, the percentage of net working capital to total capital employed of Arvind Limited was 21.85%, which increased to 48.69% in the year 2005-06 and again it reduced to 32.25% in the year 2010-11. Net working capital to total capital employed of Ashima Limited shows that it varied between 11.66% in 2007-08 and 41.12% in 2003-04. GSML had occupied net working capital 40.98% of total capital employed in the year 1999-00, which declined to 30.55% in 2010-11. Nakoda Limited had increasing trend from 1999-00 to 2004-05. In the year 1999-00, percentage of net working capital to total capital employed of MTL was 37.87, which rose to 61.22% in 2007-08 and again declined to 46.84% in 2010-11. PBMPL had the minimum 23.00% of net working capital to total capital employed in 1999-00 and the maximum 50.03% of net working capital to total capital employed in 2010-11. Net working capital to total capital employed of SDML in 1999-00 was 38.52%, which stepped up to 45.64% in the year 2002-03 and thereafter it declined to 29.51% in 2010-11. Percentage of net working capital to total capital employed of SNSTL was decreased from 17.76% in 1999-00 to 6.88% in 2004-05 due to sudden declined in sales. STML had the lowest of 13.45% in the 2002-03 and the highest 47.81% in the year 2010-11.

In the year 1999-00 the average percentage of net working capital to total capital employed of textile companies was 27.94%, which rose to 37.68% in 2005-06 and again declined to 37.51% in 2010-11. The average percentages of net working capital to total capital employed for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 27.54%, 32.70%, 26.92%, 27.04%, 50.88%, 48.47%, 33.62%, 36.53%, 24.88% and 26.06% respectively.

Table 5.77: Percentage of Net Working Capital to Total Capital Employed of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Average
1999-00	31.15	21.85	28.25	40.98	37.87	26.11	23.00	38.52	17.76	13.88	27.94
2000-01	33.01	24.12	40.43	30.54	43.76	25.86	23.78	43.18	17.13	14.27	29.61
2001-02	38.71	27.05	40.72	32.47	45.09	38.74	23.83	41.28	19.24	14.24	32.14
2002-03	42.50	27.71	39.68	22.14	49.64	39.05	29.83	45.64	20.00	13.45	32.96
2003-04	35.77	35.33	41.12	20.26	54.86	46.64	35.48	43.82	15.01	14.79	34.31
2004-05	20.28	44.82	N.A	17.36	57.27	58.60	31.17	32.10	6.88	29.24	33.08
2005-06	31.95	48.69	21.59	20.26	47.89	69.86	41.62	40.40	25.02	29.51	37.68
2006-07	0.00	35.08	21.73	23.97	53.58	62.73	35.11	34.31	28.69	35.54	33.07
2007-08	18.00	33.21	11.66	32.58	61.22	65.86	31.65	36.31	32.74	36.93	36.02
2008-09	22.54	30.88	13.31	27.88	59.70	55.55	33.40	27.27	37.01	32.67	34.02
2009-10	28.17	31.46	16.65	25.46	52.79	44.79	44.58	25.98	38.21	30.40	33.85
2010-11	28.40	32.25	20.93	30.55	46.84	47.85	50.03	29.51	40.88	47.81	37.51
Average	27.54	32.70	26.92	27.04	50.88	48.47	33.62	36.53	24.88	26.06	33.46
SD	10.83	7.46	11.10	6.46	6.66	13.93	8.11	6.41	10.18	11.10	8.87
CV	39.32	22.82	41.22	23.91	13.09	28.73	24.11	17.54	40.93	42.59	26.49

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

The overall average net working capital to capital employed of textile companies was 33.46%. The average percentages net working capital to total capital employed of MTL, Nakoda Limited, PBMPL and SDML were greater than the overall percentage of net working capital to total capital employed of all selected textile units. The overall standard deviation of textile companies was 8.87, which was less fluctuating and the overall CV of 26.49% indicates that they were following uniform policy regarding investment in net working capital over total capital employed during the period of study.

5.5.17 Percentage of Net Working Capital to Sales of Textile Companies

This approach to judge the working capital requirement which depends on the fact that working capital of any concern is directly related to sales size of that concern. Therefore, working capital requirement is expressed as a percentage of estimated sales for a specific period. And hence, the working capital estimation is solely based on the sales forecast. This method is based on assumption that higher the sales level, the greater would be the requirement of working capital.

Table 5.78 shows the net working capital as a percentage of sales of textile units in the state of Gujarat during the period from 1999-00 to 2010-11. In the year 1999-00, the net working capital to sales of ADEL was 22.69%, which decreased to zero percent in 2006-07 (in that year working capital was negative) and again increased to 28.20% in 2010-11. Net working capital of Arvind Limited was very high over its sales. In 2005-06, it was noticed that it had more than 100%, which, later on, decreased to 44.78% in 2010-11. Ashima Limited had high percentage in initial stage of the study period from 1999-00 to 2003-04, and thereafter it decreased to 20.28% in 2010-11. GSML varied between 15.64% in 2009-10 and 43.21% in 1999-00. MTL had very high percentage between 2002-03 and 2005-06. Percentage of net working capital to sales of Nakoda Limited varied between 26.56% in the year 2009-10 and 11.44% in the year 2002-03. Percentage of net working capital to sales of PBMPL in 1999-00 was 19.72% that increased to 39.49%, and again decreased to 34.92% in 2010-11. SDML varied between 33.51% in 1999-00 and 47.71% in 2005-06. SNSTL had very high percentage of net working capital to sales between the year 2006-07 and 2010-11 due to sudden declined in sales of the company. Sales of STML were very high in compare to its net working capital. It varied between 6.68% in 2005-06 and 19.45% in 2007-08.

Table 5.78: Percentage of Net Working Capital to Sales of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Average
1999-00	22.69	51.74	50.98	43.21	57.94	20.20	19.72	33.51	25.66	15.65	34.13
2000-01	23.24	35.33	40.28	29.95	38.71	16.29	22.35	40.28	22.00	11.98	28.04
2001-02	22.00	98.51	59.44	34.50	69.69	13.42	21.33	41.30	28.38	12.18	40.07
2002-03	30.66	45.11	50.56	22.03	167.38	11.44	28.04	44.26	26.02	8.99	43.45
2003-04	24.59	62.55	45.77	22.94	130.19	18.08	32.37	38.79	28.80	10.02	41.41
2004-05	12.18	79.24	N.A	22.10	207.85	23.11	29.35	37.98	9.05	13.63	48.28
2005-06	26.26	103.79	20.99	19.37	198.62	19.01	39.49	47.71	36.68	6.68	51.86
2006-07	00.00	63.41	37.69	17.74	90.94	17.81	30.42	44.87	252.50	17.33	57.26
2007-08	28.69	51.70	16.97	22.96	82.27	17.39	28.00	47.07	139.42	19.45	45.39
2008-09	28.97	43.37	19.25	29.04	74.49	21.12	26.30	38.38	164.34	10.53	45.58
2009-10	31.84	46.10	18.97	15.64	64.16	26.56	35.58	41.10	246.53	7.09	53.36
2010-11	28.20	44.78	20.28	16.62	51.14	21.70	34.92	44.41	565.66	11.22	83.89
Average	23.27	60.47	34.65	24.67	102.78	18.84	28.99	41.64	128.75	12.06	47.61
SD	8.65	21.32	15.04	7.79	56.18	3.95	5.78	4.00	157.30	3.74	36.81
CV	37.18	35.26	43.39	31.59	54.66	20.98	19.93	9.60	122.17	31.02	77.32

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

The average percentages of net working capital to sales for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 23.27%, 60.47%, 34.65%, 24.67%, 102.78%, 18.84%, 28.99%, 41.64%, 128.75%, 12.06% respectively. The overall average percentage of net working capital to sales was 47.61%. Average percentages of net working capital to sales of Arvind Limited, MTL and SNSTL were higher than the overall percentage of net working capital to sales of all selected textile companies in the state of Gujarat, which indicated inefficient use of working capital. The year wise analysis shows that average percentage of net working capital to sales was 34.13% in 1999-00, which increased to 83.89% in the year 2010-11 due to increase in sales of all textile companies. The standard deviation and CV of SNSTL was very high and it indicated inconsistent policy followed by SNSTL. The overall CV was 77.32%, indicator of inconsistency among textile units. Though, Nakoda Limited, PBMPL and SDML were following uniform policy in regard to net working capital to sales.

5.5.18 Percentage of Net Working Capital to Fixed Assets of Textile Companies

In this method, the working capital is estimated as a percentage of fixed assets. The concern generally plans the future level of fixed assets in terms of capital budgeting estimations. In order to use these fixed assets in an effective and efficient way, the concern must have enough working capital. Therefore, the working capital needs based on the planned level of fixed assets. And hence, the forecasting of working capital depends upon the capital budgeting. It can be concluded that the working capital estimation, being a part of the investment decisions, should be decided along with the investment in fixed assets.

Table 5.79 exhibits the percentage of net working capital to fixed assets of textile companies during the period from 1999-00 to 2010-11. The year wise analysis shows that in the year 1999-00, average percentage of net working capital to fixed assets was 40.85% which was increased to 73.27% in 2005-06 and again decreased to 64.03% in 2010-11. The average percentage of net working capital to fixed assets of ADEL was 45.24%, which decreased to zero percent in 2006-07 (as in that working capital was negative) and again increased to 39.67% in 2010-11. Arvind Limited had the highest 94.91% in 2005-06, which reduced to 47.60% in the year 2010-11. Ashima Limited had very high percentage of net working capital to fixed assets between the year 2000-01 and 2003-04, thereafter it decreased to 26.48% in the year 2010-11.

Table 5.79: Percentage of Net Working Capital to Fixed Assets of Textile Companies during the Period from 1999-00 to 2010-11

Companies Years	In Percentage										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMP	SDML	SNSTL	STML	Average
1999-00	45.24	27.96	39.38	69.43	60.96	35.34	29.86	62.64	21.59	16.11	40.85
2000-01	49.28	31.80	67.88	43.96	77.80	34.87	31.21	75.99	20.67	16.65	45.01
2001-02	63.17	37.08	68.70	48.07	82.13	63.23	31.28	70.29	23.82	16.61	50.44
2002-03	73.92	38.33	65.78	28.43	98.59	64.07	42.50	83.96	25.00	15.53	53.61
2003-04	55.69	54.63	69.85	25.41	121.53	87.42	55.00	78.00	17.67	17.36	58.26
2004-05	25.44	81.23	N.A	21.01	134.01	141.54	45.30	47.28	7.39	41.32	60.50
2005-06	46.95	94.91	27.53	25.40	91.89	231.74	71.29	67.78	33.37	41.87	73.27
2006-07	00.00	54.05	27.76	31.52	115.42	168.30	54.11	52.24	40.23	55.14	59.86
2007-08	21.96	49.72	13.20	48.32	157.88	192.88	46.31	57.01	48.67	58.56	69.45
2008-09	29.10	44.67	15.36	38.65	148.11	124.98	50.15	37.49	58.75	48.53	59.58
2009-10	39.23	45.90	19.97	34.16	111.80	81.13	80.42	35.10	61.84	43.68	55.32
2010-11	39.67	47.60	26.48	43.99	88.13	91.76	100.10	41.87	69.14	91.61	64.03
Average	40.79	50.66	40.17	38.20	107.35	109.77	53.13	59.14	35.68	38.58	57.35
SD	19.05	18.70	22.10	12.98	28.22	60.21	20.44	15.82	19.00	22.51	26.59
CV	46.70	36.91	55.01	33.98	26.29	54.85	38.48	26.76	53.27	58.33	46.37

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11 (Appendix)

Net working capital to fixed assets of GSML in the year 1999-00 was 69.43, which reduced to 21.01% in 2004-05 and again increased to 43.99% in 2010-11. MTL had very high percentage of net working capital to fixed assets during the period of study. It indicated that MTL had very high investment in net working capital in compare to fixed assets. In the year 1999-00, percentage of net working capital to fixed assets of Nakoda Limited was 35.34%, which increased to 192.88% in the year 2007-08, and again decreased to 91.76% in the year 2010-11. PBMPL had almost increasing trend of percentage of net working capital to fixed assets throughout study period. It revealed that PBMPL increased its investment in net working capital year after year. SDML had almost decreasing trend of percentage of working capital to fixed assets during the period of study, it revealed that SDML decreased its investment in working capital year after year. SNSTL had the highest percentage of 69.14% in the year 2010-11 and the lowest of 7.39% in the year 2004-05. Percentage of net working capital to fixed assets of STML was 16.11% in 1999-00, which increased to 91.61% in 2010-11 due to sudden increased in sales of the company.

Moreover, it has been observed that the average percentages of net working capital to fixed assets for ADEL, Arvind Limited, Ashima Limited, GSML, MTL, Nakoda Limited, PBMPL, SDML, SNSTL and STML were 40.79%, 50.66%, 40.17%, 38.20%, 107.35%, 109.77%, 53.13%, 59.14%, 35.68% and 38.58% respectively. The overall percentage of net working capital to fixed assets of selected textile units was 57.35%. The overall standard deviation was 26.59. And the overall CV of textile units was 46.59%, which indicated mild inconsistent.

CHAPTER – VI

CONCLUSION AND SUGGESTIONS

Synopsis

- 6.1 Introduction
- 6.2 Findings and Conclusions
 - 6.2.1 Working Capital Policy
 - 6.2.2 Inventory Management
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 - 6.2.5 Working Capital Management
- 6.3 Suggestions
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Chapter – VI

Conclusion and Suggestions

6.1 Introduction

The present study has been carried out to understand the relevance in management of components of working capital and its policy adequacy of textile industry in the state of Gujarat as well as to find out the best optimum profitable policy of the firm under different combination of current assets investment approach and financing approach. The study has also determined the significant relationship between liquidity, profitability and risk in textile industry with the help of correlation coefficient and ‘t’ test. Basically, ratio analysis techniques, average, standard deviation and coefficient of variance have been applied for indepth analysis and interpretation of financial data for management of working capital components and it would enable management to understand the intricate aspect of working capital management and its policy. It is first of its kind, significant and pioneering research on working capital policy and management of selected textile manufacturing textile companies in Gujarat.

Moreover, first chapter consists of the introduction to textile industries in state of Gujarat and importance of working capital management and its policy in textile industry. It also deals with the nature and growth of the textile industries in Gujarat state. Second chapter has carried out the review of literature. Third chapter has elaborated the conceptual analysis of working capital management and its policy and how components of working capital should be controlled by various techniques. Fourth chapter designs the research methodology of the study in which its significance, objectives, limitation of the study, list of hypothesis etc. are explained in detail. Fifth chapter contains five sections of analysis and interpretation of data i.e. working capital policy, inventory management, receivable management, cash management and working capital management during the period from 1999-00 to 2010-11.

At last, the current chapter concludes with the summarized findings in term of conclusions and some suggestions to textile manufacturing companies in the state of Gujarat on the basis of analysis and interpretation of data during the period of study. This chapter summarizes all the findings of the study that have been analyzed in the fifth chapter. The findings and conclusions of the study are as follows:

6.2 Findings and Conclusions

6.2.1 Working Capital Policy

- ❖ Percentages of short term funds to total funds (current assets financing policy) of ADEL were 0.00% throughout the study period. ADEL was not financing its working capital by short term funds during the course of study; working capital of ADEL was financed by long term funds only. Moreover, current assets investment policy indicated that it had an average of 38.57% of total assets, invested in current assets. It showed that ADEL had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). There is no other standard ratio or percentage for working capital investment policy prescribed by any financial expert. However, 38.57% is not very less to conclude that its liquidity position was not fair. Hypothesis testing between liquidity and profitability of ADEL showed that there was significant correlation between liquidity and profitability. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in ADEL. Current assets financing policy and current assets investment policy indicate that the ADEL is very conservative company.
- ❖ Average current assets financing policy (short term funds to total funds) of Arvind Limited was 1.90% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of Arvind Limited was higher than overall average of all selected textile companies. Though, Arvind Limited was financing its working capital more from long term funds during the course of study. Moreover, current assets investment policy indicated that it had an average of 40.13% of total assets, invested in current assets. It showed that Arvind Limited had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 40.13% is not very less to conclude that its liquidity position was not fair. Hypothesis testing between liquidity and profitability of Arvind Limited showed that there was significant correlation between liquidity and profitability in Arvind Limited. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in Arvind Limited. Current assets financing policy and current assets investment policy reveal that the Arvind Limited follows conservative working capital policy.

- ❖ Average current assets financing policy (short term funds to total funds) of Ashima Limited was 3.02% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of Ashima Limited was higher than overall average of all selected textile companies. Though, Ashima Limited was financing its working capital more from long term funds during the course of study. Moreover, current assets investment policy indicated that it had an average of 33.32% of total assets, invested in current assets. It showed that Ashima Limited had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 33.32% is not very low to conclude that its liquidity position was not fair. Current assets financing policy and current assets investment policy reveal that the Ashima Limited follows conservative working capital policy. Hypothesis testing between liquidity and profitability of Ashima Limited showed that there was mild correlation between liquidity and profitability in Ashima Limited. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in Ashima Limited.
- ❖ Average current assets financing policy of GSML was 1.06% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of GSML was higher than overall average of all selected textile companies. Though, GSML was financing its working capital more from long term funds during the course of study. Moreover, current assets investment policy indicated that it had an average of 33.87% of total assets, invested in current assets. It showed that GSML had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 33.87% is not very low to conclude that its liquidity position was not fair. Current assets financing policy and current assets investment policy reveal that the GSML follows conservative working capital policy, which is also supported by hypothesis testing between risk and profitability that indicated there was no association between risk and profitability in GSML. Hypothesis testing between liquidity and profitability of GSML also showed that there was mild correlation between liquidity and profitability in GSML.
- ❖ Average current assets financing policy of Nakoda Limited was 0.55% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of Nakoda Limited was

even lower than overall average of all selected textile companies. It is clear that Nakoda Limited was financing its working capital more from long term funds during the course of study. Moreover, current assets investment policy indicated that it had an average of 63.04% of total assets, invested in current assets. It showed that Nakoda Limited had more investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 63.04% is very high to conclude that its liquidity position was sound. Current assets financing policy and current assets investment policy reveal that the Nakoda Limited follows conservative working capital policy, which is also supported by hypothesis testing between liquidity and profitability of Nakoda Limited that showed there was significant correlation between liquidity and profitability. It has been observed that liquidity of Nakoda Limited was increased by sales. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in Nakoda Limited.

- ❖ Average current assets financing policy of MTL was 0.00% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. MTL was financing its entire working capital from long term sources during the course of study. Moreover, current assets investment policy indicated that it had an average of 57.55% of total assets, invested in current assets. It showed that MTL had higher investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 57.55% is sufficient to conclude that its liquidity position was sound. Current assets financing policy and current assets investment policy reveal that the MTL follows conservative working capital policy, which is also supported by hypothesis testing between risk and profitability that indicated there was no association between risk and profitability in MTL. Hypothesis testing between liquidity and profitability of MTL also showed that there was no significant correlation between liquidity and profitability in MTL. It has been observed that its liquidity was high but profitability was not as high as its liquidity.
- ❖ PBMPL had an average current assets financing policy of 1.20% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of PBMPL was higher than overall average of all selected textile companies. Though, PBMPL was financing its working capital more than 98% from long term sources during the period of study. Moreover,

current assets investment policy indicated that it had an average of 39.65% of total assets, invested in current assets. It showed that PBMPL had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 39.65% is not very less to conclude that its liquidity position was not fair. Hypothesis testing between liquidity and profitability of PBMPL showed that there was significant correlation between liquidity and profitability in PBMPL. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in PBMPL. Current assets financing policy and current assets investment policy reveal that the PBMPL follows conservative working capital policy.

- ❖ Average current assets financing policy of SDML was 0.13% during the course of study. The overall average of current assets financing policy of all selected units was 0.81%. SDML was financing almost its entire working capital from long term sources during the period of study. Moreover, current assets investment policy indicated that it had an average of 52.70% of total assets, invested in current assets. It showed that SDML had higher investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 52.70% is sufficient to conclude that its liquidity position was sound. Current assets financing policy and current assets investment policy reveal that the SDML follows conservative working capital policy, which is also supported by hypothesis testing between risk and profitability that indicated there was no association between risk and profitability in SDML. Hypothesis testing between liquidity and profitability of SDML also showed that there was no significant correlation between liquidity and profitability in SDML. It has been observed that its liquidity was not related to its profitability but still profitability could be increased by reducing its liquidity.
- ❖ Average current assets financing policy of SNSTL was 0.26% during the course of study period. The overall average of current assets financing policy of all selected units was 0.81%. Average of short term fund to total fund of SNSTL was lower than overall average of all selected textile companies. Though, SNSTL was financing its working capital more than 99% from long term sources during the period of study. Moreover, current assets investment policy indicated that it had an average of 32.21% of total assets, invested in current assets. It showed that SNSTL had quite less investment in current assets as it compared with overall average percentage of current

assets investment policy of selected textile companies (43.05%). However, 32.21% is not very low to conclude that its liquidity position was not fair. Current assets financing policy and current assets investment policy reveal that the SNSTL follows conservative working capital policy. Hypothesis testing between liquidity and profitability of SNSTL showed that there was not exactly significant correlation between liquidity and profitability in SNSTL though there was mild relationship between liquidity and profitability. Hypothesis testing between risk and profitability indicated that there was a mild association between risk and profitability in SNSTL.

- ❖ STML had an average current assets financing policy of 0.00% during the course of study period. It means that STML was financing its entire working capital from long term sources only throughout the study period. It had very conservative current assets financing policy. Moreover, current assets investment policy indicated that it had an average of 39.44% of total assets, invested in current assets. It showed that STML had quite less investment in current assets as it compared with overall average percentage of current assets investment policy of selected textile companies (43.05%). However, 39.44% is sufficient to conclude that it had conservative working policy. Hypothesis testing between liquidity and profitability of STML showed that there was significant correlation between liquidity and profitability. Hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in STML.
- ❖ The overall average of current assets financing policy of all selected textile units was 0.81% which was very less and overall average of current assets investment policy of all textile companies was 43.05% which was high. Both policies indicate that textile industry of Gujarat state was very conservative during the study period. Hypothesis testing between liquidity and profitability of all selected units showed that there was significant correlation between liquidity and profitability but hypothesis testing between risk and profitability indicated that there was no association between risk and profitability in all selected textile units.
- ❖ Maximum permissible bank finance of textile industry has been calculated with the help of standards and norms prescribed by Tandon Committee. This shows that the textile industry borrowed very less short term funds as compare to actual maximum permissible bank finance throughout the study period from 1999-00 to 2010-11. In 3rd method of Tandon Committee where core current assets was assumed very high i.e. 40% of total current assets, though short term borrowing of textile industries was

found lower than actual maximum permissible bank finance during the period of study. It is inferred that they had tendency to follow the policy of utilizing long term funds rather than short term bank borrowing for financing working capital.

6.2.2 Inventory Management

- ❖ Size of inventory of textile companies showed an increasing trend throughout the study period. It increased from Rs. 43124.34 lakh in 1999-00 to Rs. 188674.94 lakh in 2010-11. It was highly fluctuated industry that was supported by overall CV of 150%.
- ❖ Inventory represents the second largest component of current assets in textile companies. The overall average percentage of inventory to current assets of all selected textile companies was 40.70% in the state of Gujarat during the period from 1999-00 to 2010-11.
- ❖ The percentage of total inventory to gross working capital indicates that it varied between 37.21% in 2000-01 and 48.63% in 2010-11. This shows that the consistent share of working capital funds were tied up in inventories of sample units during the period of study. PBMPL registered the highest average percentage of total inventory to total current assets of 72.99% and Nakoda Limited reported the lowest average percentage of total inventory to total current assets of 17.65% among all selected sample units.
- ❖ The overall inventory turnover ratio of all selected samples was 7.01 times which could be considered as high inventory turnover ratio. It means that the textile industry was converting its inventory into sales quickly. Nakoda Limited had very high turnover ratio of 19.36 times due to less holding of total inventory. SDML registered very low inventory turnover ratio of 2.75 times because its volume of sales were less in proportion of inventory holding. Though, it was the most consistent company among all selected companies.
- ❖ The overall inventory holding period of all selected textile companies was 82 days during the study period. Its consistency level was quite fair that was supported by overall CV of 47%. It was observed that inventory holding period of selected textile companies was 68 days in 1999-000, which increased to 123 days in 2010-11. It shows year after year textile companies decreased the quickness of converting the inventory into sales. Further, it was seen that MTL, PBMPL, SDML and SNSTL reported their average inventory holding period of 119, 99, 135 and 139 days

respectively. Their average inventory holding periods were also higher than the overall average inventory holding period. This shows that they were maintaining their inventories for long time period.

- ❖ Structure of inventory comprised of raw material, work in progress, finished goods, and stores and spares. The study also found the other inventory in the textile industry of Gujarat.
- ❖ The overall average percentage of raw material to total inventory of selected units was 36.81%. It was found that the PBMPL had very high average percentage of raw material to total inventory of 75.93%. The overall average percentage of work in progress to total inventory of selected companies was 14.68%. Nakoda Limited never maintained stock in progress throughout the study. The overall average percentages of finished goods to total inventory and stores and spares to total inventory were 34.69% and 9.54% respectively. It was found that good quantity of other inventory maintained in STML on average of 40.59%.
- ❖ The overall average turnover ratio of raw material was 13.72 times. It shows that the speed of 13.72 times raw materials of textile companies is consumed in relation to stock of raw materials. It also reveals that proportionately fewer raw materials were maintained to carry out the production process.
- ❖ In the year 2005-06, 2009-10 and 2010-11, the average raw materials holding periods were over 100 days. The overall average of holding period of raw material was 81 days. Arvind Limited, PBMPL, SDML, SNSTL had overstocked the raw materials as per average 81 days standard.
- ❖ The overall average of turnover ratio of work in progress of textile units was 121.68 times, which was an indicator of high rate conversion of raw materials into finished goods or low level of work in progress was held to carry out production process. Holding period of work in progress of textile industry had on an average of 15 days and it varied from 12 days in 2000-01 and 18 days in 2008-09 and 2009-10. SDML had on an average of 50 days work in progress holding period that was very high due to overstocking of semi finished goods throughout the study. GSML had the lowest work in progress holding period of average 2 days; it shows that it had very fast process of converting semi finished goods into finished goods.
- ❖ Finished goods turnover ratio of textile companies in the year 1999-00 was 27.94 which increased continuously till 2004-05 and again decreased to 15.99 times in 2010-11. The overall average finished goods turnover ratio was 41.41 times which

indicates that they were converting finished goods into sales quite fast. The overall CV of 161.26% shows that they were not following uniform policy. The overall finished goods holding period of selected textile units was 29 days. The average holding period of Arvind Limited, MTL, SDML and SNSTL was higher than overall average of 29 days in textile companies.

- ❖ The overall average turnover ratio of stores and spares of all textile units was 2.75 times and overall average holding period of stores and spares was 191 days, which is lower than Nakara committee's standard of 360 days. SDML was the only company among selected units which had average stores and spares holding period of 463 days that was higher than 360 days prescribed by Nakara committee.
- ❖ The actual amount of inventory increased significantly with increase in volume of sales of the textile companies during the period under study. It was supported by correlation of 0.96 between inventory and sales. The rate of increase in sales was not faster than that of inventory. This exhibits that management had exercised slack control over inventories, which maintained liquidity in textile companies but profitability was low.

6.2.3 Receivable Management

- ❖ Size of receivables of textile companies was in increasing trend from 2001-02 to 2010-11. It increased from Rs. 88279.98 lakh in 2001-02 to Rs. 223399.83 lakh in 2010-11. It was highly fluctuated industry that was supported by overall CV of 179.99%.
- ❖ Total receivables represent the largest component of current assets. The overall average percentage of total receivables to current assets of all selected textile companies was 47.14% in the state of Gujarat during the period from 1999-00 to 2010-11.
- ❖ Total receivables of the sample units consist of loan and advances and sundry debtors. The overall average percentage of total debtors to total receivables was 56.99% and overall average of loan and advances to total receivables was 43.01% during the period under study. This shows that 43.01% of total receivables were blocked as working capital in loan and advances of textile companies. Apart from this, individual company analysis showed that the Nakoda Limited had just 4.98% average percentage of loan and advances to total receivables while Arvind Limited had on average 65.18% of total receivables invested in loan and advances.

- ❖ The overall average of debtors turnover of textile companies was 13.30 times and average debt collection period was 59 days under the period of study. Average debt collection period of textile companies reported more or less an upward trend throughout the period from 1999-00 to 2010-11. It indicates that textile companies were following more liberal credit policy year after year. Moreover, average debtor turnover and average debt collection period of STML found 46.75 times and 12 days respectively as the best among all selected textile units.
- ❖ The overall average of payable conversion period was 75 days under the period of study. It has been observed that textile companies were paying their short term obligations later than collecting their receivables (Debtors). It shows that they had shorter length of debtors' collection period than that of payable conversion period. It is a signal of better current liabilities management by textile companies in the state of Gujarat.
- ❖ The year wise average percentage of loan and advances to total receivables varied between 34.80% in 2010-11 and 51.94% in 2006-07. It blocks the working capital but doesn't fetch good returns, so it is considered as least productive among all current assets.
- ❖ Receivables to sales of textile companies evaluated the credit granting policy of textile companies. The overall average of receivables to total sales was 32.18%. Under the normal situation the company's receivable management is considered to be fair if 30% of receivables are outstanding against its sales. It means 32.18% of receivables of textile units were outstanding against their sales. This compels to conclude that policy of textile companies was liberal under the period of study.
- ❖ It has been observed that the overall average of debtors exceeding six months to total debtors of textile companies was 11.06% and total bad debts to sales was 0.49%. The overall percentage of bad debts to debtors was 2.90%, which was not very high but it could be negligible. The average percentage of bad debts to debtors of SNSTL was the highest of 18.50% among all selected units under the period of study. It reveals that the textile companies had allowed long length of period to some of their debtors but their bad debt was not high. Though, this can be concluded that 11.06% of total debtors of textile companies blocked working capital more than 180 days during the period under study.
- ❖ The correlation between total receivables and sales was 0.89 during the study period from 1999-00 to 2010-11. It shows that increase in sales led to increase in

receivables of textile companies. This is an indicator of liberal credit policy followed by textile companies during the study period.

6.2.4 Cash Management

- ❖ Size of cash was Rs. 8212.44 lakh in the year 1999-00, which increased to Rs. 36456.03 lakh in 2001-02 and again declined to Rs. 33676.97 lakh in 2010-11. This indicates that the textile companies in Gujarat state were highly fluctuated companies in term of maintaining cash, which was supported by overall CV of 110.13% during the period under study.
- ❖ Total cash forms last place among three components of current assets. The overall average percentage of total cash to current assets of all selected textile companies was 12.13% in the state of Gujarat during the period from 1999-00 to 2010-11.
- ❖ The overall average current ratio of all selected units was 3.48 times, which was higher than 2:1 standard for current ratio. It also reveals that all the selected units had maintained the current ratio above the standard norm. This highlights the fact that they all were following conservative working policy as they had very high investment in their current assets during the period of study. On an average of 3.48 times current ratio indicated strong liquidity position of textile companies.
- ❖ The overall average of quick ratio of textile companies was 2.10 times, which was higher than standard of 1:1. It shows after deducting the inventory from current assets, the liquidity position was sound of textile companies in the state of Gujarat. STML was the only unit that had quick ratio of 0.71 times, which was lower than standard norm and rest of all units reported above the standard norm throughout the study period.
- ❖ The overall average of absolute liquidity ratio of textile companies was 0.42 times, which was slightly lower than standard of 0.5:1. It varied between 0.30 times in 2000-01 and 0.58 times in 2007-08 during the period of study. However, it can be concluded that they had good position of liquid cash.
- ❖ Cash to sales is an essential tool to keep check on level of cash in a business unit. This ratio shows the fluctuating trend throughout the study period. It had an average of 13.24% during 1999-00 to 2010-11. This shows that the textile companies were maintaining sufficient cash balances in order to maintain adequate liquidity of the firm.

- ❖ The overall average of cash turnover ratio of textile companies was 49.29 times. This shows that the textile companies were using cash of 49.29 times for generation of sales revenue. It varied between 40.03 times in 2007-08 and 76.68 time in 2010-11. As a matter of principle, a higher cash turnover is generally better than a lower one.
- ❖ The cash conversion cycle calculates the time between disbursing cash and collecting cash. The duration of this cycle is the length of time for which enterprises need to finance their business operation from short term or long term funds. The overall average days of cash conversion cycle of textile companies was 125 days. This indicates that the textile units had to finance its working capital for 125 days. The individual company's analysis shows that the SNSTL had the highest average cash conversion cycle of 287 days and the STML had the lowest average cash conversion period of just 39 days.
- ❖ Net cash flow of textile companies has been found many times in negative figure. Though, the overall average of net cash flow was in positive during the period of study from 1999-00 to 2010-11. Moreover, the overall average net cash flow to current liabilities was 5.35%. This indicates that ability of textile companies to pay their short term outstanding obligations on a particular date was 5.35%. The year wise average net cash flow to current liabilities was in fluctuating trend during the period of study.
- ❖ Low net cash flow to current liabilities ratio and negative cash flow in many years in many sample units under the study period indicated that the textile companies were overall solvent but not able to pay short term obligations instantly.

6.2.5 Working Capital Management

- ❖ Size of net working capital of textile companies increased from Rs. 108642.52 lakh in year 1999-00 to Rs. 258180.38 lakh in 2010-11. It was increased by 137.64%. However, size of net working capital of textile companies was in fluctuated trend during the period of study.
- ❖ Comparison between original values of working capital and sales shows that the yearly increase of sales was much higher as compared to yearly increase of working capital during the period under study. This is favorable situation for textile companies in the state of Gujarat.
- ❖ Comparison between original values of current assets and current liabilities reveals that the yearly increase in current assets was higher as compared to yearly increase in

current liability during the period of study. The rate of increase in current assets trend was more than that of current liabilities trend, which indicated that the required level of working capital of textile companies increased year after year.

- ❖ Trend analysis between working capital and components of current assets indicates that each component of working capital had been cause for increasing trend in working capital of textile companies during the period of study from 1999-00 to 2010-11.
- ❖ The overall average percentage of total receivables to net working capital was the highest (74.49%) followed by inventory (64.64%) and cash (20.14%) during the study period. The analysis shows that inventory, total receivables and cash as a percentage of net working capital were following fluctuating trend during the period from 1999-00 to 2010-11. The company wise analysis shows that PBMPL, SDML, and STML had very high average percentage of total inventory to net working capital (i.e. 97.17%, 90.51% and 131.95% respectively). This means that PBMPL, SDML, and STML had a signal of injudicious purchase of raw material or slow process of materials.

Average percentage of receivables to net working capital of Arvind Limited (90.00%), Nakoda Limited (131.33%) and SNSTL (102.14%) had very high percentage. It exhibits that they were following very liberal credit policy.

The average percentages of cash to net working capital of MTL (31.47%), Nakoda Limited (28.95%), SDML (50.38%), and SNSTL (31.42%) were higher than the overall average percentage of cash to net working capital of textile companies.

- ❖ The overall percentage of net working capital to sales of textile companies was 47.61% during the period of study. This reveals that the net working capital of 47.61% was directly related to sales size of textile units during the period from 1999-00 to 2010-11. Apart from this, a high average percentage of net working capital to sales of MTL and SNSTL also highlighted the inefficient use of short term funds, which was not desirable.
- ❖ The overall percentage of net working capital to fixed assets of textile companies was 57.35% during the study period. This shows that the textile companies required working capital of 57.35% of fixed assets in order to use their fixed assets in an effective manner.
- ❖ The overall average of working capital turnover ratio of textile companies was 3.86 times under the study period. This exhibits that there was more investment in current

assets which resulted into high liquidity but low profitability during the period from 1999-00 to 2010-11. A moderate working capital turnover ratio of textile companies was the result of an excess working capital, which also indicated low speed of converting inventories into sales i.e. account receivables and then into cash, which further led to an inefficient use of working capital by textile companies in the state of Gujarat. Individual analysis of textile units shows that ADEL, GSML, Nakoda Limited and STML had higher working capital turnover than the overall average working capital turnover ratio and SNSTL, PBMPL, SDML, MTL, Ashima Limited and Arvind Limited had lower working capital turnover ratio than the overall average working capital turnover ratio.

- ❖ The current assets turnover ratio of textile companies shows the efficiency of working capital components on collective basis. The overall average ratio of current assets turnover of textile companies was 2.43 times during the period of study from 1999-00 to 2010-11. STML had the best average current turnover ratio of 4.81 times among all selected textile companies.

6.3 Suggestions

- ❖ The overall average percentage of STF/TF (current assets financing policy) of all selected textile units was 0.81%, which was very less and overall average of current assets investment policy of all textile companies was 43.05% which was high. Therefore, it is suggested that the textile company should raise some level of short term fund to finance working capital and should reduce their investment in current assets. The study found that textile companies can attain more margins of profit if they will follow moderate current assets financing and current assets investment policy.
- ❖ As per Tandon Committee norms, maximum permissible bank finance for short term funds of textile companies was more than whatever short term fund borrowed by textile companies under the period of study. And hence, it is suggested that textile companies should make an effort to maintain their short term funds as same level of maximum permissible bank finance stated by Tandon Committee. As a result of that their short term funds would be increased, which may improve the percentage of short term funds to total funds. It is suggested to textile manufacturing companies in the state of Gujarat on the basis of in-depth study of working capital policy and management that CA/TA should not exceed 35%.

- ❖ More liquidity (more CA) decreases the profitability is the generally accepted principle, the study indicated that in textile companies in the state of Gujarat, profitability had significant relationship with liquidity of the textile companies, and therefore, excessive liquidity which may lead to lower profitability should be controlled through skilful liquidity management. Hypotheses testing indicated that ADEL, Arvind Limited, Nakoda Limited, PBMPL and STML had significant correlation between liquidity and profitability, thus, special attention should be paid on liquidity management in these textile units.
- ❖ As it has been observed that there were lots of fluctuations in maintaining cash balance in all selected textile manufacturing companies during the period of study from 1999-00 to 2010-11. If cash balances fluctuate randomly, then Miller-Orr Model can be used to set optimum cash balances. And hence, it is suggested to all textile companies to use Miller-Orr Model for better cash management.
- ❖ The study indicated that the textile companies in the state of Gujarat had a no association between risk and profitability. The overall state of risk should be optimum through skilful risk management as to put a favorable impact on profitability of the textile companies. All selected units are being suggested to follow adequate risk management in order to attain high margin of profit.
- ❖ It was seen that MTL, PBMPL, SDML and SNSTL reported their average inventory holding period of 119, 99, 135 and 139 days respectively. Long period of inventory holding leads to high carrying costs. It is suggested that they should reduce their inventory holding period. Proper coordination between purchase, production and sales departments and appropriate inventory control techniques may help sample units to avoid overstocking and under stocking of inventory.
- ❖ It is suggested that the textile companies should reduce the quantum of total receivables, especially their loan and advances through skillful receivable management. Loan and advances is the least productive component of working capital.
- ❖ Financial costs of textile companies traced very high which was the one of the major cause of low profitability. It is advised that they should minimize their interest and other borrowing costs by using more short term funds in order to maximize their profitability.
- ❖ High inventory conversion period showed weak inventory management policy of textile companies. They should work on to improve their inventory management

policy in order to maintain moderate inventory. However, average payable conversion period of SDML shows that it had the best policy for its short term obligations among sample units.

- ❖ None of units was found using factoring method (i.e. receivable managed by third party, it may be bank or other financial institution) during the period of study. It is suggested to textile companies to apply factoring method if there is difficult to maintain effective credit and collection policy. However, factoring is still considered very complex in India.
- ❖ Management of the textile companies should also try to adopt a ‘Zero Working Capital’ technique where current assets are always equal to current liabilities. This can help the companies to save opportunity costs on working capital and the interest costs would also be saved as the short term funds would not be used by companies to finance working capital.
- ❖ In order to avoid overburden of current assets, the best technique is to monitor both inventories and receivables by measuring their size to the firm’s investment in total assets. Once the percentage of inventory or receivables or total cash balances to total assets increases, attentive decisions required to be made considering whether this increase is desired and willful or is harmful and unplanned. The following standards have been derived from the present study, that could be adopted by textile manufacturing companies in the state of Gujarat:

Table 6.1: Standards for Current Assets Components Derived from the Present Study for Textile Manufacturing Companies

Serial No.	Particular	Standard
1.	Percentage of total inventories to current assets	It should not be more than 40.70%
2.	Inventory Holding Period	It should be less than 82 days
3.	Percentage of raw materials to total inventory	It should not be more than 36.81%

Serial No.	Particular	Standard
4.	Raw Materials Holding Period	It should be less than 58 days (average of SNSTL excluded as it had some abnormality)
5.	Work in Progress to Total Inventory	It should not be more than 15.87%
6.	Work in Progress Holding Period	It should be less than 15 days
7.	Percentage of Finished Goods to Total Inventory	It should be around 34.69%
8.	Finished Goods Holding Period	It should be less than 29 days
9.	Percentage of Stores and Spares to Total Inventory	It should be around 9.54%
10.	Stores and Spares Holding Period	It should be around 191 days
11.	Percentage of Total Receivable to Total Current Assets	It should not be exceeded 47.14%
12.	Average Debt Collection Period	It should be less than 59 days
13.	Total Payable Conversion Period	It should be more than 75 days
14.	Percentage of Total Cash to Total Current Assets	It should be around 12.13%

Serial No.	Particular	Standard
15.	Cash Conversion Cycle	It should not be more than 98 days (exclusion of all more than 300 days as they had some abnormality)

- ❖ Lastly, the management of textile companies should follow innovative techniques and professional skill for working capital management and its policy and look broadly for better prevailing options, rather than resisting themselves to traditional and conventional techniques. As the collective current assets have many components viz., inventories, receivables, cash etc. and all are closely coordinated and interdependent, therefore each and every component of current asset has to be managed and controlled with equal care and in a systematic manner.

6.4 Scope for Further Research

This is an indepth study of working capital policy and management of selected textile manufacturing companies in the state of Gujarat. It is expected that the present study would encourage and provoke further research on various aspects of working capital policy and management. A few recommendations are given for further studies are as follows:

- ❖ The coverage of the present study is confined to only twelve years and ten textile manufacturing companies of Gujarat state, which can further be increased in order to broaden up the scope of the present study.
- ❖ Separate in-depth studies can be made for each aspect of working capital policy and management of foreign textile companies in order to compare the working capital policy and management of Indian textile companies as well as Gujarat textile companies.
- ❖ Specific study can be carried out to compare working capital management and policy of textile companies with other capital intensive companies in India.
- ❖ The present study can be further compared with the working capital policy and management of pre-liberalization period of textile companies in the state of Gujarat or in India and pre-liberalization working capital policy's impact on liquidity, profitability and risk should also be measured.

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APPENDIX

APPENDIX

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11

Share capital

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDMI	SNSITL	STMI	Total
1999-00	1799.00	17005.00	3785.18	3829.06	556.03	1100.00	812.94	527.75	1479.16	6704.07	37598.19
2000-01	1799.00	17005.00	5386.88	3829.06	556.03	1100.00	812.94	527.75	1479.23	6704.07	39199.96
2001-02	1799.00	20955.00	5386.88	3829.06	556.03	1100.00	812.94	527.75	1479.23	6704.07	43149.97
2002-03	1799.00	24806.00	5386.88	3829.06	556.03	1100.00	812.94	527.75	1479.41	6704.07	47001.15
2003-04	1799.00	26487.00	5386.88	3829.06	556.03	1100.00	812.95	527.75	1479.41	6704.07	48682.15
2004-05	1799.00	26140.00	N.A	3829.06	556.03	1100.00	812.96	527.75	1479.41	6704.07	42948.28
2005-06	3831.50	26548.00	5386.88	3829.06	556.03	1500.00	812.96	527.75	1484.68	6704.21	51181.07
2006-07	3845.11	25558.00	5386.88	3829.06	556.03	1500.00	812.96	527.75	1484.68	6704.21	50204.68
2007-08	3845.11	27330.00	5386.88	3829.06	556.03	1578.00	812.96	527.75	1484.68	2220.64	47571.11
2008-09	3845.11	26010.00	5386.88	3829.06	556.03	1660.00	812.96	527.75	1484.68	2220.64	46333.11
2009-10	2345.98	23955.00	5386.88	3829.06	556.03	6320.00	812.96	527.75	1484.68	2220.64	47438.98
2010-11	2345.98	25440.00	5386.88	3829.06	556.03	9920.00	812.96	527.75	1484.68	2220.64	52523.98
Total	30852.79	287239.00	57653.98	45948.72	6672.38	29078.00	9755.44	6333.00	17783.93	62515.40	553832.64

Reserve & Surplus

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDMI	SNSITL	STMI	Total

Rs. in lakh

1999-00	15.00	82900.00	21112.52	28853.62	17.34	2176.47	4124.32	3612.82	515.32	4571.15	147898.56
2000-01	0.00	81978.00	19328.59	30224.60	31.35	2469.77	4138.84	3654.38	502.81	4571.15	146899.49
2001-02	241.87	79799.00	15365.62	26653.49	5.63	2065.92	2745.51	3373.17	477.97	4571.15	135299.33
2002-03	1279.63	81952.00	15365.62	27078.95	6.96	1607.14	2882.86	3568.67	477.97	4571.15	138790.94
2003-04	2482.22	91646.00	15822.36	28634.74	0.89	1798.02	3167.77	3802.32	477.97	4571.15	152403.43
2004-05	4855.11	101975.00	N.A	28858.78	1.53	1973.63	3195.86	4146.81	452.12	4571.15	150030.00
2005-06	11011.61	126647.00	15891.72	30414.31	11.75	2850.31	3486.79	4894.06	452.12	4571.29	200230.96
2006-07	14292.19	113145.00	15891.72	32068.31	3.83	4430.85	4050.16	6189.87	452.12	4571.29	195095.35
2007-08	13810.31	119705.00	21438.74	35396.71	(14.50)	5569.36	3916.98	6737.34	452.12	0.00	207012.06
2008-09	12390.98	94047.00	21438.74	39683.21	15.27	7871.84	3910.79	7488.61	452.12	228.31	187526.87
2009-10	14049.56	118045.00	21342.80	45199.97	70.31	17517.75	4120.42	8039.67	452.12	940.00	229777.61
2010-11	17519.36	154111.00	20792.13	53185.49	140.30	29005.05	5568.91	8697.58	452.12	2737.33	292209.27
Total	91947.84	1245950.00	203790.56	406252.18	290.67	79336.11	45309.21	64205.30	5616.88	40475.12	2183173.87

Secured loans

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	4861.78	118328.00	27769.57	9645.37	51.63	2203.37	5040.32	6.48	4362.86	9040.52	181309.91
2000-01	5177.27	132332.00	36911.92	9512.75	33.49	2870.34	6021.68	0.00	4831.85	8972.18	206663.48
2001-02	4943.81	114470.00	41800.27	9336.48	3.36	1374.00	5114.74	0.00	4803.95	8864.60	190711.20
2002-03	4972.22	109388.00	46579.52	9939.26	4.39	765.89	5278.95	183.41	4553.02	8686.32	190350.99
2003-04	4493.54	110733.00	50870.33	20721.26	32.55	2295.36	5522.13	146.61	3305.26	8760.27	206880.32
2004-05	3840.64	149123.00	N.A	48496.87	15.11	3492.12	4274.24	1498.41	0.00	8366.99	219107.38
2005-06	4759.32	168838.00	54157.85	49321.99	87.61	3637.72	5043.14	1481.81	0.00	8361.53	295688.97
2006-07	5623.53	177274.00	54160.81	63491.84	159.96	6425.34	4679.49	1882.66	0.00	8595.79	322293.42

2007-08	8170.28	177494.00	44766.16	67986.85	218.08	7230.13	5181.74	1834.10	0.00	312881.34
2008-09	8002.83	192090.00	45052.22	83809.02	445.70	12084.72	4743.53	2282.74	0.00	348510.75
2009-10	15022.84	172873.00	45087.22	94857.36	752.82	40494.88	5773.42	3080.60	0.00	380842.13
2010-11	15897.88	176323.00	45087.22	121232.52	1088.88	44201.71	5773.57	2322.71	0.00	414827.49
Total	85765.94	1799266.00	492243.09	588351.57	2893.58	127075.59	62446.95	14719.53	21856.94	3270067.39

Unsecured loans

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	442.17	80490.00	5455.48	254.09	0.00	799.01	40.00	963.87	427.16	1250.00	90121.78
2000-01	561.89	100350.00	7016.52	84.40	0.00	891.82	40.00	723.56	496.42	1250.00	111414.60
2001-02	1261.54	49401.00	6211.22	4764.55	0.00	23.18	40.00	731.71	489.52	1250.00	64172.72
2002-03	1549.43	24632.00	5992.69	7224.22	0.00	161.26	40.00	538.54	593.25	1250.00	41981.39
2003-04	1793.34	24807.00	8342.05	11453.02	0.00	114.11	40.00	386.04	1503.25	1050.00	49488.81
2004-05	2130.99	19119.00	N.A	10672.30	0.00	143.86	40.00	388.50	2285.25	750.00	35529.90
2005-06	1309.68	15299.00	2857.05	14588.87	0.00	1538.12	40.00	478.93	1485.75	450.00	38047.40
2006-07	2251.55	16157.00	2634.01	5631.61	0.00	2648.86	40.00	509.85	1434.75	450.00	31757.63
2007-08	10885.56	13097.00	2349.09	12227.95	0.00	5966.27	0.00	463.55	1429.25	3200.00	49618.67
2008-09	14826.31	10304.00	2292.72	6588.21	0.00	16806.36	0.00	501.90	1397.50	3200.00	55917.00
2009-10	8114.16	14185.00	1986.35	7934.56	10.00	11874.90	0.00	787.47	1342.50	0.00	46234.94
2010-11	9673.22	4889.00	1982.59	8579.48	10.00	13195.10	0.00	863.54	1342.50	0.00	40535.43
Total	54799.84	372730.00	47119.77	90003.26	20.00	54162.85	320.00	7337.45	14227.10	14100.00	654820.27

Rs. in lakh

Total fixed assets including investments

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	4856.77	225009.00	40922.36	25106.45	379.85	5403.71	7711.74	3142.39	4624.07	16003.17	333159.50
2000-01	5022.47	206255.00	39809.14	30283.19	343.09	5084.94	8392.33	2787.45	4189.12	15194.63	317361.36
2001-02	5200.54	185655.00	36130.66	32411.99	308.94	2984.29	7726.63	2943.39	3818.54	14220.59	291400.57
2002-03	6123.56	174055.00	32934.54	40628.55	285.48	2476.22	7427.23	2808.60	3504.19	13363.89	283607.25
2003-04	7635.07	164351.00	30805.48	54880.40	266.97	3119.75	7141.43	2901.41	3012.89	12495.48	286609.88
2004-05	11338.42	163778.00	N.A	79328.78	246.46	3088.40	6784.03	4770.41	1766.45	3732.26	274833.21
2005-06	15452.59	173729.00	34236.42	82292.17	341.13	2913.06	6334.92	4838.86	706.79	3532.73	324377.66
2006-07	28047.18	216439.00	32059.14	85156.76	338.39	6138.45	7111.61	6491.18	624.63	3351.20	385757.54
2007-08	31741.16	225734.00	28711.04	86652.39	298.53	7224.74	7701.65	6527.48	576.86	3171.15	398338.99
2008-09	31807.44	223070.00	26099.89	104041.41	415.38	17395.98	7186.28	8381.77	520.05	3803.26	422721.46
2009-10	30423.50	226420.00	21345.27	121922.60	669.63	43830.32	6607.02	9764.55	492.68	4224.54	465700.10
2010-11	34661.32	245289.00	19866.99	138542.86	972.30	50575.51	6672.01	9215.20	443.62	3662.79	509901.60
Total	212310.02	2429784.00	342920.93	881247.55	4866.13	150235.37	86796.88	64572.69	24279.89	96755.69	4293769.15

Raw materials

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	30.78	3441.00	1437.70	1701.88	28.02	308.14	2518.79	254.10	77.78	374.00	10172.20
2000-01	474.60	4734.00	1055.89	1780.53	30.88	410.89	2256.66	238.27	56.96	487.10	11525.78
2001-02	1092.22	6692.00	2053.45	1781.53	21.73	424.79	1903.27	259.51	80.45	307.42	14616.37
2002-03	2437.36	20192.00	1834.61	1641.81	26.88	431.89	2985.07	395.65	84.67	194.34	30224.28

Rs. in lakh

Rs. in lakh

2003-04	1942.37	16797.00	1763.67	3415.85	18.59	655.29	3553.46	649.66	54.22	217.83	29067.94
2004-05	2502.72	28205.00	N.A	2889.58	12.38	1194.73	2094.21	297.62	9.69	492.96	37698.89
2005-06	3150.85	25712.00	1082.77	4171.06	17.45	1390.77	3312.54	488.98	7.66	66.49	39400.57
2006-07	2545.81	26427.00	933.76	4245.21	65.85	782.20	2767.72	392.33	20.42	93.31	38273.61
2007-08	1304.47	13977.00	811.39	4850.48	54.40	2436.52	2032.61	512.23	25.87	188.38	26193.35
2008-09	2589.06	9317.00	747.44	6707.01	90.17	2743.62	1575.52	681.86	40.43	334.13	24826.23
2009-10	3785.22	9505.00	672.07	14342.10	67.89	4547.76	3791.31	526.46	36.94	725.47	38000.21
2010-11	7588.08	29596.00	1400.85	29856.52	136.30	17884.85	3190.09	743.93	39.76	832.93	91269.31
Total	29443.54	194595.00	13793.60	77383.56	570.53	33211.46	31981.25	5440.58	534.85	4314.36	391268.74

Work in process

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	543.72	6188.00	988.48	406.07	0.00	0.00	176.43	568.06	58.81	158.58	9088.15
2000-01	515.62	6788.00	826.82	228.20	0.00	0.00	168.37	442.65	63.69	180.10	9213.44
2001-02	352.71	5374.00	609.14	192.66	0.00	0.00	172.47	485.03	68.59	141.68	7396.28
2002-03	217.62	6199.00	1126.01	193.24	0.00	0.00	162.30	629.42	100.36	575.41	9203.36
2003-04	391.08	6901.00	1139.69	69.67	0.00	0.00	207.73	664.46	38.44	188.48	9600.55
2004-05	350.17	8773.00	N.A	125.16	0.00	0.00	152.50	733.30	0.16	1310.16	11444.46
2005-06	358.36	11256.00	962.91	312.04	6.14	0.00	194.14	884.74	0.26	222.60	14197.20
2006-07	761.89	14012.00	895.52	208.14	7.63	0.00	204.97	803.35	3.34	439.60	17336.44
2007-08	1506.91	14658.00	726.81	311.96	0.00	0.00	239.39	967.90	5.00	218.97	18634.95
2008-09	1567.03	20219.00	776.21	531.69	0.00	0.00	232.92	940.52	6.39	217.59	24491.35
2009-10	1313.44	20661.00	712.63	743.65	0.00	0.00	247.17	840.05	7.98	46.51	24572.43
2010-11	1699.13	24598.00	1162.69	689.66	0.00	0.00	362.10	921.99	6.67	61.90	29502.14

Total	9577.68	145627.00	9926.91	4012.14	13.78	0.00	2520.49	8881.47	359.69	3761.58	184680.74
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Finished stock

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	129.83	7948.00	3007.61	2439.39	70.93	109.40	406.08	1089.50	188.08	465.30	15854.12
2000-01	216.58	7844.00	2661.55	2343.56	61.18	48.80	351.57	998.98	209.80	639.31	15375.34
2001-02	245.46	5870.00	2534.46	2803.80	92.56	40.21	367.85	896.54	119.28	710.05	13680.21
2002-03	237.99	8686.00	2034.89	2495.49	55.58	23.74	225.71	666.72	129.52	1059.71	15615.35
2003-04	215.58	10950.00	1743.30	4151.75	64.08	13.52	456.61	590.98	72.53	730.83	18989.18
2004-05	182.66	10354.00	N.A	2620.27	59.27	22.81	169.49	520.37	36.35	346.58	14311.80
2005-06	948.65	7119.00	2344.86	3653.15	66.26	1076.32	274.96	759.09	36.78	612.04	16891.11
2006-07	1745.65	19842.00	2305.56	3868.29	102.73	2468.39	374.13	700.52	43.63	375.02	31825.92
2007-08	2313.59	24323.00	1939.00	6800.41	61.04	3076.02	389.75	771.98	50.75	773.85	40499.39
2008-09	3102.65	25539.00	1489.74	7342.97	111.80	4574.75	514.25	951.05	47.28	499.36	44172.85
2009-10	1839.90	9234.00	1452.25	13839.70	157.30	5856.65	211.28	934.90	46.74	890.72	34463.44
2010-11	1577.88	12033.00	1699.89	23154.19	270.72	6155.74	1956.51	810.39	43.08	1912.73	49614.13
Total	12756.42	149742.00	23213.11	75512.97	1173.45	23466.35	5698.19	9691.01	1023.82	9015.50	311292.83

Stores and spares

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	127.91	2035.00	663.21	289.55	3.32	0.00	151.48	539.06	34.13	214.08	4057.73
2000-01	149.64	2484.00	842.53	331.57	2.83	0.00	149.36	522.29	29.80	250.39	4762.41

2001-02	150.60	2517.00	615.94	445.59	3.00	113.97	131.22	500.07	35.56	261.40	4774.34
2002-03	170.67	2476.00	560.79	692.16	2.70	114.78	124.60	398.50	50.84	161.39	4752.43
2003-04	251.23	2484.00	559.97	927.15	4.03	168.95	123.94	375.86	39.45	127.96	5062.54
2004-05	284.83	3116.00	N.A	886.69	3.57	178.83	182.88	375.12	30.71	262.39	5321.01
2005-06	248.34	3501.00	631.54	1549.60	4.38	184.01	190.85	357.23	0.00	178.24	6845.19
2006-07	177.29	3637.00	555.12	1529.13	5.00	218.94	196.51	349.79	0.00	254.86	6923.64
2007-08	354.78	3937.00	528.74	1948.85	3.92	361.57	242.10	384.49	0.00	194.30	7955.74
2008-09	305.82	2516.00	502.78	2053.12	5.19	401.36	223.16	363.51	0.00	99.16	6470.10
2009-10	264.00	3523.00	413.34	2490.43	7.97	459.57	190.54	379.05	0.00	292.49	8020.38
2010-11	170.27	3035.00	315.95	5276.57	8.68	564.56	168.19	465.40	0.00	126.51	10131.13
Total	2655.38	35261.00	6189.91	18420.41	54.58	2766.54	2074.82	5010.35	220.49	2423.17	75076.64

Other inventories

Rs. in lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	0.00	426.00	1231.72	795.08	0.19	0.00	0.00	8.65	0.00	1490.51	3952.14
2000-01	0.00	949.00	1883.33	744.48	0.17	0.00	0.00	0.00	0.00	1482.91	5059.89
2001-02	0.00	855.00	1200.01	654.94	0.75	0.00	0.00	73.65	0.00	1299.48	4083.83
2002-03	0.00	785.00	838.27	100.54	0.78	0.00	0.00	1.35	0.00	1122.55	2848.49
2003-04	0.00	906.00	860.86	78.69	2.04	0.00	0.00	11.05	0.00	1124.10	2982.75
2004-05	0.00	667.00	N.A	63.69	3.06	0.00	0.00	38.55	0.00	1128.84	1901.15
2005-06	43.02	338.00	567.65	22.23	3.22	0.00	0.00	28.75	0.00	1156.34	2159.21
2006-07	0.00	583.00	442.13	3151.82	4.50	0.00	0.00	67.33	0.00	1151.26	5400.04
2007-08	0.00	639.00	423.34	4664.19	1.69	0.00	0.00	63.86	0.00	1155.55	6947.64
2008-09	0.00	556.00	401.62	5120.32	0.66	0.00	0.00	50.82	0.00	339.95	6469.36

2009-10	0.00	277.00	290.48	5120.32	0.92	0.00	1.21	36.78	0.00	341.34	6068.06
2010-11	0.00	654.00	564.81	5132.32	1.19	0.00	0.00	187.68	0.00	1618.23	8158.23
Total	43.02	7635.00	8704.22	25648.62	19.18	0.00	1.21	568.47	0.00	13411.06	56030.79

Total inventories

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	832.24	20038.00	7328.72	5631.97	102.45	417.54	3252.79	2459.36	358.80	2702.47	43124.34
2000-01	1356.44	22799.00	7270.12	5428.34	95.05	459.70	2925.96	2202.19	359.75	3039.81	45936.36
2001-02	1840.99	21308.00	7013.00	5878.52	118.04	578.97	2574.81	2214.79	303.88	2720.03	44551.02
2002-03	3063.64	38338.00	6394.57	5123.24	85.95	570.41	3497.68	2091.63	365.39	3113.40	62643.91
2003-04	2800.26	38038.00	6067.49	8643.11	88.74	837.76	4341.74	2292.01	204.64	2389.20	65702.95
2004-05	3320.38	51115.00	N.A	6585.39	78.28	1396.37	2599.09	1964.96	76.91	3540.93	70677.30
2005-06	4749.22	47926.00	5589.73	9708.08	97.45	2651.11	3972.49	2518.78	44.70	2235.71	79493.27
2006-07	5230.64	64501.00	5132.09	13002.59	185.71	3469.53	3543.33	2313.33	67.39	2314.05	99759.66
2007-08	5479.75	57534.00	4429.28	18575.89	121.05	5874.11	2903.85	2700.47	81.62	2531.05	100231.07
2008-09	7564.56	58147.00	3917.79	21755.11	207.82	7719.73	2545.85	2987.75	94.10	1490.19	106429.90
2009-10	7202.56	43200.00	3540.77	36536.20	234.08	10863.98	4441.51	2717.24	91.65	2296.53	111124.52
2010-11	11035.36	69916.00	5144.19	64109.26	416.89	24605.15	5676.89	3129.39	89.51	4552.30	188674.94
Total	54476.04	532860.00	61827.75	200977.70	1831.52	59444.34	42275.97	29591.89	2138.34	32925.67	1018349.23

Debtors over six months

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total

1999-00	50.44	7354.00	337.94	564.11	16.73	47.76	0.51	45.47	109.94	77.68	8604.57
2000-01	27.78	5124.00	1658.57	326.19	30.33	47.66	0.43	69.20	85.61	76.42	7446.19
2001-02	7.66	2969.00	2396.72	215.52	36.90	24.87	0.05	77.52	66.34	63.96	5858.53
2002-03	10.07	3088.00	2036.58	328.96	43.53	19.73	0.00	43.25	39.87	72.23	5682.21
2003-04	55.93	6404.00	2808.96	271.04	30.29	13.45	2.16	28.30	47.88	75.54	9737.55
2004-05	20.33	7140.00	N.A	323.79	58.47	5.20	1.19	38.74	37.19	156.28	7781.19
2005-06	98.15	6098.00	26.08	210.44	45.36	5.20	3.49	38.50	43.17	78.42	6646.81
2006-07	85.50	2447.00	23.77	249.66	57.21	6.16	3.25	36.96	42.46	101.81	3053.77
2007-08	323.86	2523.00	27.82	312.43	66.89	4.29	2.68	31.52	23.09	91.17	3406.74
2008-09	410.88	2641.00	39.71	553.76	45.57	0.87	0.00	55.71	0.00	31.77	3779.27
2009-10	254.31	1112.00	48.71	527.00	76.17	14.24	0.00	50.88	0.00	34.12	2117.43
2010-11	710.34	4503.00	3.58	908.88	69.27	6.53	0.00	36.92	0.00	21.77	6260.29
Total	2055.25	51403.00	9408.44	4791.78	576.69	195.95	13.75	552.96	495.55	881.17	70374.54

Other debtors less than six months

Companies		Rs. in lakh									
Years	ADDEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	1706.10	12475.00	5549.93	5968.17	48.79	1299.22	484.36	540.11	533.89	547.83	29153.41
2000-01	1543.18	15872.00	16403.02	2793.81	60.14	2334.53	510.49	490.05	457.93	435.50	40900.64
2001-02	1866.51	20656.00	12588.39	3208.21	35.48	2468.84	376.95	484.20	416.34	268.26	42369.18
2002-03	2129.74	20347.00	13855.73	3468.61	19.87	2542.08	338.19	485.17	360.27	194.94	43741.60
2003-04	2527.60	17136.00	13457.14	4535.72	109.64	2913.21	469.65	497.79	191.14	225.40	42063.29
2004-05	2263.22	24771.00	N.A	2639.21	64.38	4735.57	633.13	609.29	219.13	575.80	36510.73
2005-06	1736.39	30730.00	1294.95	4634.49	73.99	9363.75	954.57	602.53	55.31	305.94	49751.92
2006-07	3157.18	18038.00	1375.01	6224.49	128.59	15179.41	689.34	698.79	15.53	647.83	46154.17

2007-08	3212.14	23654.00	1392.29	10477.86	153.38	20745.89	720.99	645.15	29.77	777.75	61809.22
2008-09	5953.81	32443.00	1784.37	6193.55	257.15	27706.48	862.82	779.56	14.46	348.98	76344.18
2009-10	7628.88	41304.00	2001.47	12159.88	270.85	35660.49	987.13	875.80	48.83	174.25	101111.59
2010-11	8394.04	51860.00	1776.72	15045.44	641.92	58083.07	1529.33	938.02	38.33	436.48	138743.35
Total	42118.79	309286.00	71479.02	77349.44	1864.19	183032.54	8556.95	7646.47	2380.93	4938.96	708653.28

Total debtors

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMI	MTL	Nakoda Ltd.	PBMPL	SDMI	SNSTL	STMIL	Total
1999-00	1756.54	19829.00	5887.87	6532.28	65.52	1346.98	484.87	585.58	643.83	625.51	37757.98
2000-01	1570.96	20996.00	18061.59	3120.00	90.47	2382.18	510.93	559.24	543.54	511.92	48346.83
2001-02	1874.17	23625.00	14985.11	3423.73	72.38	2493.70	376.99	561.72	482.68	332.22	48227.71
2002-03	2139.81	23435.00	15892.31	3797.57	63.39	2561.81	338.19	528.42	400.14	267.17	49423.81
2003-04	2583.53	23540.00	16266.10	4806.76	139.93	2926.65	471.81	526.09	239.02	300.94	51800.83
2004-05	2283.55	31911.00	N.A	2963.00	122.85	4740.77	634.32	648.03	256.32	732.08	44291.92
2005-06	1834.54	36828.00	1321.03	4844.93	119.35	9368.95	958.05	641.03	98.48	384.36	56398.73
2006-07	3242.68	20485.00	1398.78	6474.15	185.80	15185.57	692.58	735.75	57.99	749.64	49207.94
2007-08	3536.00	26177.00	1420.11	10790.29	220.27	20750.18	723.67	676.66	52.86	868.92	65215.96
2008-09	6364.69	35084.00	1824.08	6747.31	302.72	27717.35	862.82	835.27	14.46	380.75	80133.45
2009-10	7883.19	42416.00	2050.18	12686.88	347.02	35674.73	987.13	926.69	48.83	208.37	103229.01
2010-11	9104.38	56363.00	1780.30	15954.32	711.19	58089.60	1529.33	974.94	38.33	458.25	145003.64
Total	44174.04	360689.00	80887.46	82141.22	2440.88	183238.48	8570.69	8199.43	2876.48	5820.13	779037.82

Rs. in lakh

Cash and bank balances

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	73.38	2750.00	2181.33	1248.23	25.66	326.69	78.21	1232.81	122.83	173.29	8212.44
2000-01	119.49	7916.00	1451.63	1553.20	72.10	488.97	95.65	1364.01	69.12	105.64	13235.80
2001-02	103.94	28271.00	1539.32	4457.39	54.59	517.15	164.09	1037.20	73.40	237.95	36456.03
2002-03	597.20	1233.00	1745.11	1000.27	142.28	505.52	116.78	890.25	96.58	189.78	6516.76
2003-04	292.14	1270.00	1500.58	1719.20	110.34	521.69	193.90	815.77	42.25	159.75	6625.63
2004-05	891.92	1287.00	N.A	3136.44	152.86	592.03	117.22	872.41	138.78	223.85	7412.51
2005-06	2068.23	959.00	820.77	2844.30	130.71	1461.54	141.65	1916.41	65.69	235.53	10643.83
2006-07	562.13	2231.00	560.85	1941.83	137.42	2904.95	114.73	2128.81	41.81	282.92	10906.46
2007-08	939.34	1632.00	703.08	7616.56	162.98	3544.58	131.27	2122.08	89.98	168.55	17110.42
2008-09	394.51	2683.00	461.27	7287.86	157.04	6503.75	118.81	1196.28	130.91	517.22	19450.65
2009-10	431.24	4314.00	773.69	3480.63	173.66	18790.87	105.47	1741.48	148.12	1226.56	31185.72
2010-11	969.70	2909.00	641.86	2112.09	231.36	24509.94	185.05	1844.28	170.00	103.69	33676.97
Total	7443.22	57455.00	12379.49	38398.00	1551.01	60667.68	1562.83	17161.79	1189.47	3624.73	201433.21

Loans & Advances

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSSTL	STMIL	Total
1999-00	348.19	60551.00	3290.11	8019.90	72.18	278.25	209.95	1376.99	344.20	527.23	75018.00
2000-01	484.93	51560.00	7089.74	6390.76	88.59	273.80	312.68	1220.63	381.47	498.08	68300.68
2001-02	533.66	25469.00	5592.29	5915.06	75.21	241.19	336.88	1004.39	432.59	452.01	40052.27
2002-03	550.32	28419.00	2786.89	7352.98	49.83	47.35	294.42	951.52	459.24	293.11	41204.66

Rs. in lakh

Rs. in lakh

2003-04	609.36	44556.00	2341.60	6508.06	83.56	35.19	242.81	1001.11	302.25	266.12	55946.06
2004-05	783.58	75850.00	N.A	9914.39	86.48	22.94	300.53	1039.44	178.88	241.61	88417.84
2005-06	2359.14	108012.00	5729.24	10329.64	98.09	203.82	384.67	1040.75	136.68	293.88	128587.91
2006-07	1395.26	75093.00	5508.15	12452.78	47.35	166.68	591.76	475.99	156.00	245.40	96132.37
2007-08	695.17	61771.00	1046.00	15435.57	45.23	449.87	654.16	614.88	139.16	221.05	81072.09
2008-09	1257.13	63337.00	1094.82	20283.14	81.26	2095.58	799.75	590.50	132.86	390.10	90062.14
2009-10	1740.79	58070.00	838.04	22028.67	233.99	1560.91	946.13	407.04	82.60	1744.15	87652.31
2010-11	1647.10	51419.00	646.32	20775.48	152.93	2121.00	659.32	387.36	88.84	498.84	78396.19
Total	12404.63	704107.00	35963.20	145406.43	1114.68	7496.57	5733.07	10110.58	2834.77	5671.58	930842.51

Total receivables

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	2104.73	80380.00	9177.98	14552.18	137.70	1625.23	694.82	1962.57	988.03	1152.74	112775.98
2000-01	2055.89	72556.00	25151.33	9510.76	179.05	2655.98	823.61	1779.87	925.01	1010.00	116647.51
2001-02	2407.83	49094.00	20577.40	9338.79	147.59	2734.89	713.87	1566.11	915.27	784.23	88279.98
2002-03	2690.13	51854.00	18679.20	11150.55	113.22	2609.15	632.62	1479.94	859.38	560.28	90628.47
2003-04	3192.89	68096.00	18607.70	11314.82	223.48	2961.85	714.62	1527.20	541.27	567.06	107746.89
2004-05	3067.13	107761.00	N.A	12877.39	209.32	4763.71	934.85	1687.47	435.20	973.69	132709.76
2005-06	4193.68	144840.00	7050.27	15174.57	217.44	9572.77	1342.73	1681.78	235.16	678.24	184986.64
2006-07	4637.94	95578.00	6906.93	18926.93	233.15	15352.25	1284.34	1211.74	213.99	995.04	145340.31
2007-08	4231.17	87948.00	2466.11	26225.86	265.49	21200.05	1377.83	1291.54	192.02	1089.97	146288.05
2008-09	7621.82	98421.00	2918.90	27030.45	383.98	29812.93	1662.57	1425.77	147.32	770.85	170195.58
2009-10	9623.98	100486.00	2888.22	34715.55	581.01	37235.64	1933.26	1333.72	131.43	1952.52	190881.32
2010-11	10751.48	107782.00	2426.62	36729.80	864.12	60210.60	2188.65	1362.30	127.17	957.09	223399.83

Total	56578.67	1064796.00	116850.66	227547.65	3555.56	190735.06	14303.76	18310.01	5711.25	11491.71	1709880.33
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Total current assets

Rs. in lakh

Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
Years											
1999-00	3010.35	103168.00	18688.03	21432.38	265.81	2369.46	4025.82	5654.74	1499.66	4028.50	164142.76
2000-01	3531.82	103271.00	33873.08	16491.94	346.21	3604.65	3845.21	5346.07	1353.88	4155.45	175819.31
2001-02	4352.76	98673.00	29129.72	19674.70	320.22	3831.00	3452.77	4818.09	1292.55	3742.21	169287.03
2002-03	6350.97	91425.00	26818.88	17274.06	341.45	3685.08	4247.07	4461.82	1348.13	3863.46	159815.92
2003-04	6285.29	107404.00	26175.77	21677.13	422.57	4321.30	5250.26	4634.98	788.16	3116.01	180075.47
2004-05	7279.43	160163.00	N.A	22599.22	440.46	6752.11	3651.16	4524.83	649.89	4738.47	210798.57
2005-06	11011.13	193725.00	13460.77	27726.95	445.59	13685.42	5456.87	6116.97	345.55	3149.48	275123.73
2006-07	10430.71	162310.00	12599.87	33871.35	556.28	21726.73	4942.40	5653.88	323.19	3592.01	256006.43
2007-08	10650.26	147114.00	7598.47	52418.31	549.53	30618.74	4412.95	6114.09	363.61	3789.57	263629.53
2008-09	15580.89	159251.00	7297.96	56073.42	748.85	44036.41	4327.22	5609.80	372.33	2778.26	296076.13
2009-10	17257.78	148000.00	7202.68	74732.38	988.75	66890.49	6480.23	5792.44	371.20	5475.61	333191.56
2010-11	22756.54	180607.00	8212.67	102951.15	1512.37	109325.69	8050.59	6335.97	386.71	5613.08	445751.77
Total	118497.93	1655111.00	191057.90	466922.99	6938.10	310847.08	58142.55	65063.69	9094.86	48042.11	2929718.21

Net working capital

Rs. in lakh

Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
Years											
1999-00	2196.96	62910.00	16113.78	17432.61	231.57	1909.44	2303.02	1968.53	998.37	2578.24	108642.52
2000-01	2475.19	65580.00	27021.81	13313.93	266.92	1773.36	2618.99	2118.23	865.92	2530.22	118564.57

2001-02	3285.00	68849.00	24822.41	15581.20	253.72	1887.08	2417.14	2068.85	909.58	2362.17	122436.15
2002-03	4526.40	66723.00	21663.02	11552.12	281.44	1586.44	3156.67	2358.14	876.22	2076.06	114799.51
2003-04	4251.65	89777.00	21517.83	13945.49	324.45	2727.28	3927.83	2263.17	532.30	2169.69	141436.69
2004-05	2884.50	133034.00	N.A	16669.71	330.27	4371.22	3072.85	2255.37	130.54	1542.27	164290.74
2005-06	7255.69	164885.00	9424.89	20902.05	313.45	6750.66	4516.44	3279.72	235.85	1479.03	219042.78
2006-07	(35.05)	116977.00	8900.44	26842.62	390.56	10331.14	3848.33	3390.72	251.31	1847.74	172744.81
2007-08	6969.85	112224.00	3788.72	41873.27	471.30	13934.91	3566.95	3721.07	280.77	1856.93	188687.77
2008-09	9257.54	99656.00	4008.65	40212.82	615.23	21741.58	3604.21	3142.71	305.53	1845.69	184389.96
2009-10	11934.00	103920.00	4262.80	41650.37	748.67	35561.50	5313.67	3427.36	304.69	1845.10	208968.16
2010-11	13749.54	116756.00	5260.00	60948.89	856.84	46409.42	6678.88	3858.78	306.70	3355.33	258180.38
Total	68751.27	1201291.00	146784.35	320925.08	5084.43	148984.03	45024.98	33852.64	5997.78	25488.47	2002184.04

Total current liabilities/Total payables

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	813.39	40258.00	2574.25	4008.77	34.24	460.02	1722.80	3686.21	471.29	1450.26	55479.23
2000-01	1056.63	37691.00	6851.27	3178.01	79.29	1831.29	1226.22	3227.84	487.96	1625.23	57254.73
2001-02	1067.76	29824.00	4307.31	4093.50	66.50	1943.92	1035.63	2749.25	382.97	1380.04	46850.88
2002-03	1824.57	24702.00	5155.86	5721.94	60.01	2098.64	1090.40	2103.68	445.13	1787.40	44989.63
2003-04	2033.64	17627.00	4657.94	7731.64	98.12	1594.02	1322.43	2371.81	255.86	946.32	38638.78
2004-05	4394.93	27129.00	N.A	5929.51	110.19	2380.89	578.30	2269.46	519.35	3196.20	46507.83
2005-06	3755.44	28840.00	4035.88	6824.90	132.15	6934.75	940.43	2837.26	109.70	1670.45	56080.96
2006-07	10465.76	45333.00	3699.43	7028.73	165.72	11395.59	1094.07	2263.17	71.88	1744.27	83261.62
2007-08	3680.41	34890.00	3809.75	10545.04	78.23	16683.83	846.00	2393.02	82.84	1932.64	74941.77
2008-09	6323.35	59595.00	3289.31	15860.60	133.61	22294.82	723.01	2467.09	66.80	932.57	111686.16

2009-10	5323.78	44080.00	2939.88	33082.01	240.08	31328.99	1166.56	2365.08	66.52	3630.51	124223.41
2010-11	9007.00	63851.00	2952.67	42002.26	655.53	62916.27	1371.71	2477.19	80.01	2257.75	187571.39
Total	49746.66	453820.00	44273.55	146006.91	1853.67	161863.03	13117.57	31211.04	3040.31	22553.64	927486.39

Creditors

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total	
1999-00	813.39	24161.00	417.63	2631.58	20.69	150.34	1470.44	2571.61	397.26	531.37	33165.32	
2000-01	1056.63	30483.00	468.89	1696.07	13.39	137.20	919.23	2420.70	330.95	423.99	37950.06	
2001-02	1037.76	20919.00	367.02	2575.36	19.28	21.65	594.95	2520.24	345.02	399.89	28800.18	
2002-03	1491.62	12824.00	588.95	2473.88	11.39	20.16	658.63	1701.20	351.80	510.95	20632.59	
2003-04	1345.69	10930.00	1994.09	5668.21	50.07	18.15	921.18	1776.00	169.84	410.72	23283.95	
2004-05	3279.80	16401.00	N.A	3865.65	37.38	22.41	219.96	1694.94	65.27	425.77	26012.18	
2005-06	2088.05	17085.00	2602.79	4596.09	25.62	22.43	555.01	2003.51	29.07	445.96	29453.54	
2006-07	9871.53	27800.00	2309.84	3930.71	103.02	23.21	667.60	1949.30	27.55	306.74	46989.50	
2007-08	2981.94	20446.00	2487.61	6616.53	63.71	25.16	550.15	2066.41	21.67	1786.42	37045.60	
2008-09	4086.61	34446.00	2058.39	10138.06	116.70	23.15	442.87	2075.09	24.36	645.63	54056.86	
2009-10	3232.11	34784.00	1706.90	9844.43	186.35	35.16	413.95	1990.13	11.44	537.32	52741.78	
2010-11	6622.49	42456.00	1708.12	14389.46	586.77	84.27	721.38	2140.79	10.86	1637.38	70357.52	
Total	37907.62	292735.00	16710.23	68426.03	1234.38	583.30	8135.36	24909.92	1785.09	8062.14	460489.07	

Other payables

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total	

1999-00	0.00	16097.00	2156.62	1377.19	13.55	309.69	252.35	1114.60	74.03	918.89	22313.92
2000-01	0.00	7208.00	6382.38	1481.94	65.89	1694.09	306.98	807.14	157.01	1201.24	19304.67
2001-02	30.00	8905.00	3940.29	1518.14	47.22	1922.27	440.68	229.01	37.95	980.15	18050.71
2002-03	332.95	11878.00	4566.91	3248.06	48.62	2078.48	431.77	402.48	93.33	1276.45	24357.05
2003-04	687.95	6697.00	2663.85	2063.43	48.05	1575.87	401.25	595.81	86.02	535.60	15354.83
2004-05	1115.13	10728.00	N.A	2063.86	72.80	2358.48	358.34	574.53	454.08	2770.43	20495.65
2005-06	1667.39	11755.00	1433.09	2228.81	106.52	6912.32	385.42	833.74	80.63	1224.49	26627.42
2006-07	594.23	17533.00	1389.59	3098.02	62.70	11372.38	426.47	313.87	44.33	1437.53	36272.12
2007-08	698.47	14444.00	1322.14	3928.51	14.52	16658.67	295.85	326.61	61.17	146.22	37896.17
2008-09	2236.74	25149.00	1230.92	5722.54	16.92	22271.67	280.14	391.99	42.44	286.94	57629.31
2009-10	2091.67	9296.00	1232.98	23237.58	53.73	31293.83	752.62	374.95	55.08	3093.19	71481.63
2010-11	2384.51	21395.00	1244.55	27612.80	68.76	62832.00	650.33	336.40	69.15	620.37	117213.87
Total	11839.04	161085.00	27563.32	77580.88	619.29	161279.73	4982.21	6301.12	1255.22	14491.50	466997.32

Short term funds

Companies		Rs. in lakh									
Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	0.00	0.00	1520.67	501.38	0.00	171.14	62.98	0.00	14.19	0.00	2270.36
2000-01	0.00	0.00	6252.16	579.91	0.00	112.39	44.84	0.00	12.97	0.00	7002.26
2001-02	0.00	3015.00	3813.51	734.10	0.00	6.08	125.56	0.00	12.62	0.00	7706.87
2002-03	0.00	5368.00	4416.38	1681.71	0.00	23.47	232.55	16.70	44.57	0.00	11783.37
2003-04	0.00	5134.00	2507.37	705.84	0.00	9.13	163.97	29.36	12.52	0.00	8562.19
2004-05	0.00	6310.00	N.A	473.83	0.00	9.55	88.18	10.41	6.50	0.00	6898.47
2005-06	0.00	6799.00	1243.27	497.01	0.00	27.88	119.04	9.84	0.00	0.00	8696.04
2006-07	0.00	12719.00	1191.41	538.80	0.00	31.25	112.86	8.99	0.00	0.00	14602.31

2007-08	3.62	9023.00	1034.26	623.20	0.00	140.19	38.42	8.28	11.58	0.00	10882.55
2008-09	3.62	8381.00	905.52	1350.43	0.00	119.61	51.52	4.36	16.34	0.00	10832.40
2009-10	0.41	7106.00	1028.29	989.51	0.00	278.12	162.89	4.66	13.07	0.00	9582.95
2010-11	0.87	9275.00	1030.30	994.57	0.00	199.18	222.93	3.06	16.82	0.00	11742.73
Total	8.52	73130.00	24943.14	9670.29	0.00	1127.98	1425.74	95.66	161.18	0.00	110562.51

Total funds

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	7117.95	298723.00	59643.42	43083.52	625.00	7500.00	10080.57	5110.92	6798.69	21565.74	460248.80
2000-01	7538.16	331665.00	74896.07	44230.72	620.88	8494.32	11058.29	4905.68	7323.28	21497.40	512229.81
2001-02	8246.22	267640.00	72577.50	45317.68	565.02	5319.18	8838.75	4632.63	7263.29	21389.82	441790.09
2002-03	9600.28	246146.00	77741.09	49753.20	567.38	4407.76	9247.30	4835.07	7148.22	21211.54	430657.85
2003-04	10568.10	258807.00	82928.99	65343.92	589.47	6066.62	9706.81	4892.08	6778.41	21085.49	466766.89
2004-05	12625.74	302667.00	N.A	92330.84	572.67	7469.16	8411.25	6571.88	4723.28	20392.21	455764.04
2005-06	20912.11	344131.00	79536.77	98651.24	655.39	9554.03	9501.93	7392.40	3772.55	20087.03	594194.45
2006-07	26012.38	344853.00	79264.83	105559.62	719.83	16136.30	9695.47	9119.12	3721.55	20321.29	615403.39
2007-08	36714.88	346649.00	74975.13	120063.77	759.61	20768.35	9950.10	9571.02	3727.63	5420.64	628600.14
2008-09	39068.85	330832.00	75076.08	135259.93	1017.00	38542.53	9518.80	10805.35	3700.64	5648.95	649470.13
2009-10	39532.95	336164.00	74831.54	152810.46	1389.16	79185.65	10869.69	12440.15	3642.37	6060.64	716926.62
2010-11	45437.31	370038.00	74279.12	187821.12	1795.21	96521.04	12378.37	12414.64	3646.12	7857.97	812188.90
Total	263374.93	3778315.00	825750.54	1140226.02	9876.63	299964.94	119257.34	92690.94	62246.03	192538.72	6784241.09

Rs. in lakh

Average Capital Employed

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPPL	SDML	SNSSTL	STMIL	Total
1999-00	7235.97	298807.00	57851.51	44760.31	596.60	7426.26	9438.79	5115.00	5980.44	19028.78	456240.64
2000-01	7275.70	279877.00	61933.55	43068.09	610.71	7085.73	10513.04	5008.30	5338.74	18153.13	438863.98
2001-02	7991.60	263169.50	63892.01	45795.16	586.33	5864.84	10577.55	4958.96	4891.58	17153.81	424881.33
2002-03	9567.75	247641.00	57775.32	50086.93	564.79	4467.02	10363.83	5089.49	4554.27	16011.36	406121.74
2003-04	11268.34	247453.00	53460.44	60503.28	579.17	4954.84	10826.58	5165.66	3962.80	15052.56	413226.67
2004-05	13054.82	275470.00	N.A	82412.19	584.07	6653.32	10463.07	6095.19	2721.09	9969.85	407423.61
2005-06	18465.60	317713.00	47992.31	99596.36	615.65	8561.67	10354.12	7572.18	1419.82	5143.15	517433.85
2006-07	25360.21	336015.00	42310.45	107596.80	691.76	13066.66	10905.65	9000.23	909.29	5105.35	550961.40
2007-08	33361.57	335687.00	36729.67	120262.52	749.39	18814.62	11114.27	10065.22	866.79	5113.51	572764.56
2008-09	39888.00	330342.00	31304.15	136389.95	900.22	30148.61	11029.54	10886.51	841.61	5338.52	597069.09
2009-10	41711.24	326533.00	27858.31	153913.60	1224.46	59264.69	11355.59	12358.19	811.48	5859.30	640889.84
2010-11	45384.18	346192.50	25367.53	181532.36	1623.72	88188.38	12635.79	13132.94	773.85	6543.88	721375.12
Total	260564.97	3604900.00	506475.22	1125917.54	9326.88	254496.62	129577.82	94447.88	33071.73	128473.18	6147251.82

Current liabilities other than short term bank borrowings

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPPL	SDML	SNSSTL	STMIL	Total
1999-00	813.39	40258.00	1053.58	3507.39	34.24	288.88	1659.82	3686.21	457.10	1450.26	53208.87
2000-01	1056.63	37691.00	599.11	2598.10	79.29	1718.90	1181.38	3227.84	474.99	1625.23	50252.47
2001-02	1067.76	26809.00	493.80	3359.40	66.50	1937.84	910.07	2749.25	370.35	1380.04	39144.01
2002-03	1824.57	19334.00	739.48	4040.23	60.01	2075.17	857.86	2086.98	400.56	1787.40	33206.26

Rs. in lakh

Rs. in lakh

2003-04	2033.64	12493.00	2150.57	7025.80	98.12	1584.89	1158.46	2342.45	243.34	946.32	30076.59
2004-05	4394.93	20819.00	N.A	5455.68	110.19	2371.34	490.12	2259.05	512.85	3196.20	39609.36
2005-06	3755.44	22041.00	2792.61	6327.89	132.15	6906.87	821.39	2827.41	109.70	1670.45	47384.92
2006-07	10465.76	32614.00	2508.02	6489.93	165.72	11364.34	981.21	2254.18	71.88	1744.27	68659.30
2007-08	3676.79	25867.00	2775.49	9921.84	78.23	16543.64	807.59	2384.74	71.26	1932.64	64059.22
2008-09	6319.73	51214.00	2383.79	14510.17	133.61	22175.21	671.50	2462.73	50.46	932.57	100853.77
2009-10	5323.37	36974.00	1911.59	32092.50	240.08	31050.87	1003.67	2360.42	53.45	3630.51	114640.45
2010-11	9006.13	54576.00	1922.37	41007.69	655.53	62717.09	1148.78	2474.13	63.19	2257.75	175828.66
Total	49738.14	380690.00	19330.41	136336.62	1853.67	160735.05	11691.83	31115.38	2879.13	22553.64	816923.87

Average current assets

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	3010.35	103168.00	18688.03	21432.38	265.81	2369.46	4025.82	5654.74	1499.66	4028.50	164142.76
2000-01	3271.09	103219.50	26280.56	18962.16	306.01	2987.06	3935.52	5500.41	1426.77	4091.98	169981.03
2001-02	3942.29	100972.00	31501.40	18083.32	333.21	3717.83	3648.99	5082.08	1323.22	3948.83	172553.17
2002-03	5351.87	95049.00	27974.30	18474.38	330.84	3758.04	3849.92	4639.96	1320.34	3802.84	164551.48
2003-04	6318.13	99414.50	26497.33	19475.60	382.01	4003.19	4748.66	4548.40	1068.15	3489.74	169945.69
2004-05	6782.36	133783.50	N.A	22138.18	431.52	5536.70	4450.71	4579.91	719.03	3927.24	182349.13
2005-06	9145.28	176944.00	19818.27	25163.09	443.03	10218.76	4554.01	5320.90	497.72	3943.98	256049.04
2006-07	10720.92	178017.50	13030.32	30799.15	500.94	17706.07	5199.64	5885.43	334.37	3370.75	265565.08
2007-08	10540.49	154712.00	10099.17	43144.83	552.91	26172.74	4677.68	5883.99	343.40	3690.79	259817.98
2008-09	13115.58	153182.50	7448.22	54245.87	649.19	37327.58	4370.09	5861.94	367.97	3283.92	279852.83
2009-10	16419.34	153625.50	7250.32	65402.90	868.80	55463.45	5403.73	5701.12	371.77	4126.94	314633.84
2010-11	20007.16	164303.50	7707.68	88841.77	1250.56	88108.09	7265.41	6064.20	378.96	5544.35	389471.66

Total	108624.84	1616391.50	196295.58	426163.61	6314.82	257368.96	56130.17	64723.07	9651.34	47249.82	2788913.70
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Sales

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPPL	SDML	SNSSTL	STMIL	Total
1999-00	9682.20	121597.00	31606.39	40347.01	399.68	9454.19	11678.22	5875.25	3890.12	16476.30	251006.37
2000-01	10652.03	185625.00	67081.91	44459.79	689.58	10884.25	11717.46	5259.02	3936.33	21128.87	361434.24
2001-02	14928.90	69891.00	41762.09	45167.17	364.08	14066.29	11333.69	5008.75	3204.93	19388.36	225115.27
2002-03	14764.66	147917.00	42844.43	52431.08	168.15	13866.38	11257.62	5328.18	3367.57	23086.05	315031.12
2003-04	17291.64	143528.00	47016.15	60786.12	249.21	15088.10	12132.32	5834.93	1848.52	21653.72	325428.71
2004-05	23681.02	167886.00	N.A	75429.66	158.90	18918.09	10468.04	5937.75	1443.07	11318.77	315241.31
2005-06	27627.23	158869.00	44900.89	107923.89	157.82	35503.69	11436.23	6873.81	642.91	22132.22	416067.68
2006-07	24783.17	184491.00	23613.73	151341.92	429.46	58004.26	12652.28	7555.92	99.53	10659.31	473630.58
2007-08	24296.60	217081.00	22320.88	182338.89	572.84	80141.18	12738.31	7905.21	201.39	9547.39	557143.69
2008-09	31956.42	229770.00	20819.97	138475.35	825.91	102930.73	13704.83	8187.89	185.91	17521.73	564378.74
2009-10	37477.47	225409.00	22476.97	266233.59	1166.95	133889.22	14932.71	8339.05	123.59	26023.92	736072.47
2010-11	48751.98	260761.00	25935.72	366741.39	1675.56	213869.71	19124.50	8689.44	54.22	29917.63	975521.15
Total	285893.32	2112825.00	390379.13	1531675.86	6858.13	706616.10	153176.21	80795.20	18998.09	228854.27	5516071.32

Raw materials consumed

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPPL	SDML	SNSSTL	STMIL	Total
1999-00	6248.82	51876.00	0.00	19543.91	343.03	5358.35	6815.82	984.81	1883.59	9306.58	102360.91
2000-01	7055.67	79469.00	0.00	24079.43	522.47	6056.61	6665.17	971.50	2061.40	12644.19	139525.44

2001-02	9147.33	22662.00	13220.74	23611.85	301.92	7508.12	6621.27	1010.70	1779.54	10359.44	96222.92
2002-03	6515.13	49608.00	11786.22	29673.28	101.22	8215.46	5829.93	1350.66	1928.05	13953.87	128961.82
2003-04	7934.47	51336.00	13839.72	26617.44	212.46	9140.00	7328.22	1590.55	1166.10	10363.07	129528.02
2004-05	11471.04	61224.00	N.A	39388.18	122.93	13733.20	5875.70	1628.98	653.76	5202.19	139299.98
2005-06	13359.38	50025.00	15596.34	62771.75	145.48	31335.66	5890.64	1980.89	6.03	6141.22	187252.38
2006-07	11722.21	57193.00	11261.15	99296.16	336.01	52476.64	6614.01	1719.44	16.53	6642.69	247277.84
2007-08	13377.84	61126.00	10408.68	123242.83	406.56	70618.46	7102.47	2001.78	35.72	5793.95	294114.28
2008-09	17590.32	69583.00	9225.79	93031.96	664.13	90443.01	7795.70	2037.98	32.48	11992.63	302397.00
2009-10	17775.71	96873.00	9439.67	192804.92	942.25	116465.50	8384.29	2001.31	21.44	11315.99	456024.08
2010-11	29024.34	129015.00	12652.51	264008.53	1189.23	180220.72	12273.98	2286.47	10.89	13300.00	643981.67
Total	151222.26	779990.00	107430.82	998070.24	5287.68	591571.73	87197.20	19565.07	9595.53	117015.82	2866946.35

Cost of production/manufacturing

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	8336.44	116943.00	27936.28	32410.32	531.53	8793.27	10835.05	4757.09	3504.65	16283.20	230330.83
2000-01	9581.72	186760.00	59942.95	34458.75	785.98	10110.29	10841.92	4270.41	3891.06	21130.38	341773.45
2001-02	12910.28	57573.00	40597.45	34837.31	493.47	13202.38	10505.71	4360.81	3333.99	17563.17	195377.57
2002-03	11107.47	121225.00	42164.15	41852.70	266.50	13049.76	10001.92	4411.29	3489.72	24494.21	272062.71
2003-04	14043.76	123056.00	45800.60	42697.94	383.10	14279.54	11424.01	4951.51	2222.39	20749.94	279608.78
2004-05	18424.06	142836.00	N.A	53068.08	290.11	17918.35	9529.67	4781.42	1540.72	10219.19	258607.60
2005-06	22513.61	129483.00	41833.82	84447.55	341.41	35160.68	10511.37	5049.52	888.53	11240.19	341469.68
2006-07	21893.63	163177.00	23625.39	124072.72	583.84	57662.08	11547.86	5187.63	135.45	10322.35	418207.96
2007-08	24281.34	173847.00	22980.28	150973.42	612.84	77730.37	12374.25	6145.82	206.57	9460.17	478612.06
2008-09	30349.19	188182.00	20877.45	117315.43	857.60	99991.95	13079.80	6191.77	227.49	16456.05	493528.74

2009-10	31743.88	202488.00	22413.05	232865.90	1220.84	128508.55	13900.76	6157.44	159.96	16626.37	656084.75
2010-11	41970.06	242265.00	26353.11	314005.55	1508.70	204257.52	18196.11	7085.17	170.31	19948.92	875760.46
Total	247155.44	1847835.00	374524.53	1263005.67	7875.91	680664.73	142748.44	63349.88	19770.84	194494.14	4841424.58

Cost of goods sold

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	8933.25	121000.00	27276.86	34108.65	473.04	8779.35	10802.86	4757.09	3628.67	16356.06	236115.83
2000-01	9523.07	186319.00	59306.25	34732.45	795.73	10170.88	10906.03	4486.34	3869.34	20934.85	341043.94
2001-02	13044.31	60947.00	41731.66	34412.61	462.09	13210.97	10483.80	4420.87	3424.51	17530.85	199668.66
2002-03	11250.03	117587.00	42452.19	42160.43	303.47	13066.24	10154.22	4496.72	3479.48	23710.82	268660.60
2003-04	13892.71	120078.00	46091.00	41165.25	372.64	14289.75	11149.34	4992.21	2275.38	21465.75	275772.03
2004-05	18497.89	141560.00	N.A	54544.07	294.92	17909.06	9870.36	4783.19	1576.90	9481.76	258518.15
2005-06	21739.43	130476.00	41746.66	83227.79	328.28	34107.17	10365.37	4659.36	888.10	12062.29	339600.45
2006-07	20693.10	153382.00	23747.94	120783.57	547.37	56270.01	11447.83	5325.06	128.60	10342.37	402667.85
2007-08	22968.38	172898.00	23485.96	146533.11	654.53	77122.74	12313.50	5906.64	199.45	9281.97	471364.28
2008-09	29494.06	184696.00	21325.69	116486.42	806.84	98493.22	12961.41	6034.55	230.95	16731.92	487261.06
2009-10	33220.38	204366.00	22601.00	226875.77	1175.34	127226.65	14189.45	6305.75	160.51	16225.11	652345.96
2010-11	41846.39	232906.00	25533.14	305173.22	1508.70	203958.43	16335.95	7148.28	173.97	17723.72	852307.81
Total	245103.00	1826215.00	375298.35	1240203.34	7722.95	674604.47	140980.11	63316.06	20035.86	191847.47	4785326.62

Stores and spares consumed

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total

1999-00	92.94	11651.00	1662.21	558.40	13.72	0.00	351.05	213.80	69.91	702.30	15315.33
2000-01	112.96	17578.00	3093.56	836.77	13.18	0.00	373.92	522.29	89.65	774.50	23394.83
2001-02	171.94	5365.00	1781.99	1138.28	13.06	0.00	359.86	500.07	88.80	577.41	9996.41
2002-03	245.55	11943.00	1734.83	1064.45	10.66	0.00	366.85	398.50	124.90	610.86	16499.60
2003-04	277.97	11784.00	1874.65	1279.33	10.79	0.00	370.69	375.86	62.95	688.13	16724.37
2004-05	326.71	14544.00	N.A	1442.30	10.96	184.81	331.71	375.12	39.29	695.56	17950.45
2005-06	594.24	14357.00	2627.90	2997.31	15.13	187.85	451.09	357.23	54.60	843.40	22485.75
2006-07	658.40	17167.00	2103.98	3009.16	14.03	209.71	502.96	248.14	1.74	741.41	24656.52
2007-08	685.25	20781.00	2089.94	3139.67	14.88	345.84	446.82	317.63	5.33	503.38	28329.74
2008-09	630.47	19810.00	1828.74	4067.97	21.97	458.12	427.12	328.71	18.36	637.54	28229.00
2009-10	869.74	20253.00	1829.50	5188.03	30.52	542.34	423.44	280.97	6.74	682.53	30106.80
2010-11	998.32	19283.00	2023.11	9363.48	59.38	927.18	475.68	291.21	18.75	797.21	34237.33
Total	5664.49	184516.00	22650.41	34085.15	228.27	2855.85	4881.18	4209.52	581.02	8254.23	267926.12

Interest

Companies Years	Rs. in lakh										
	ADDEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	923.06	26433.00	1678.71	1446.27	14.65	481.03	697.90	178.46	752.48	295.21	32900.77
2000-01	901.02	47984.00	7203.97	906.26	11.62	486.39	682.89	142.01	860.91	83.83	59262.90
2001-02	961.77	5940.00	7647.66	787.05	3.41	417.13	689.36	135.36	121.33	116.79	16819.87
2002-03	830.87	15279.00	7941.16	1243.84	2.41	396.56	581.13	124.58	108.73	76.21	26584.49
2003-04	809.23	11329.00	8229.66	1040.87	2.54	388.54	455.04	95.02	45.76	30.77	22426.42
2004-05	502.80	11791.00	N.A	1625.72	3.35	422.36	363.10	87.51	26.56	48.95	14871.35
2005-06	552.25	13533.00	2551.21	4020.11	2.16	551.06	295.74	154.32	0.49	150.54	21810.88
2006-07	529.54	15026.00	314.22	5149.26	11.94	891.48	287.47	191.35	0.31	181.01	22582.59

2007-08	1221.02	13140.00	227.83	5702.01	10.03	1561.88	299.87	187.16	0.07	125.09	22474.95
2008-09	1097.40	22213.00	425.58	4698.15	18.99	2013.66	255.95	218.84	0.22	7.67	30949.45
2009-10	1484.71	15547.00	94.52	7316.98	54.26	2498.15	290.82	293.67	0.04	399.72	27979.87
2010-11	1928.62	19459.00	89.18	8893.48	70.36	3565.36	342.57	313.56	0.11	385.35	35047.59
Total	11742.29	217674.00	36403.70	42830.00	205.72	13673.59	5241.83	2121.85	1917.01	1901.14	333711.13

Provision for taxes

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
1999-00	0.00	0.00	110.00	3.00	3.00	0.00	21.00	133.10	0.00	0.00	270.10
2000-01	0.00	0.00	160.00	2.50	5.20	0.00	12.00	66.00	0.00	0.00	245.70
2001-02	136.88	0.00	1.00	989.99	0.86	0.00	33.00	15.02	0.00	0.00	1176.75
2002-03	937.24	0.00	1.00	866.00	2.90	0.00	95.00	104.77	0.00	0.00	2006.91
2003-04	753.73	455.00	4.00	539.32	5.76	0.00	158.00	124.50	0.00	0.00	2040.31
2004-05	1196.11	0.00	N.A	97.24	23.00	3.84	96.45	207.45	0.00	0.00	1624.09
2005-06	1582.49	922.00	30.91	977.26	25.00	4.18	301.86	433.95	0.00	1.00	4278.65
2006-07	666.46	244.00	20.58	2683.25	23.00	104.93	237.23	488.37	0.00	0.90	4468.71
2007-08	81.45	225.00	16.57	2873.57	0.00	325.49	17.39	331.22	0.15	0.90	3871.74
2008-09	36.83	186.00	16.08	2040.84	4.00	465.10	11.49	481.94	0.17	82.00	3324.45
2009-10	722.97	0.00	0.61	2988.41	11.00	791.96	223.52	332.92	0.00	146.00	5217.39
2010-11	961.51	0.00	0.48	3316.98	21.79	1236.33	847.08	317.69	0.00	325.11	7026.97
Total	7075.67	2032.00	361.23	17378.36	125.51	2931.83	2054.01	3036.93	0.32	555.91	35551.77

Rs. in lakh

EBIT

Rs. in lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSML	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Total
1999-00	600.48	(5134.00)	3419.44	2042.77	47.29	707.25	963.72	459.84	36.49	(599.53)	2543.75
2000-01	912.56	(1964.00)	6011.63	2970.60	74.44	782.26	1102.53	286.17	(235.60)	(708.84)	9231.75
2001-02	1509.31	7966.00	(2306.05)	4703.55	14.68	782.95	1165.73	309.59	(176.47)	(936.73)	13032.55
2002-03	3007.47	28012.00	(878.12)	5968.79	39.41	716.72	1311.07	413.96	(85.58)	(892.77)	37612.96
2003-04	2970.74	21459.00	(406.68)	5031.02	30.51	690.59	1054.63	505.76	(477.82)	(620.00)	30237.74
2004-05	4379.10	24721.00	N.A	2601.92	54.57	812.28	660.24	648.67	(110.05)	(71.31)	33696.41
2005-06	5553.45	27171.00	2476.35	7207.82	78.39	1169.49	917.86	1448.82	(14.56)	191.91	46200.52
2006-07	4096.96	17797.00	(642.95)	10158.48	83.56	1926.62	1078.60	1638.23	(9.88)	134.83	36261.46
2007-08	1805.83	16155.00	(1716.44)	12575.95	(5.11)	3231.36	303.55	1210.48	(12.53)	156.03	33704.13
2008-09	1381.19	17517.00	(1491.58)	11697.46	56.65	4750.35	221.80	1437.76	0.05	710.54	36281.22
2009-10	4523.24	20747.00	(885.83)	16625.86	124.39	6605.42	766.45	1360.29	9.85	1266.41	51143.09
2010-11	6234.01	32939.00	(276.20)	20997.02	162.14	9743.73	2696.59	1409.90	(43.81)	1548.11	75410.49
Total	36974.34	207386.00	3303.57	102581.24	760.93	31919.01	12242.76	11129.47	(1119.91)	178.65	405356.06

Profit after interest, taxes and other adjustment considered as net profit

Rs. in lakh

Companies Years	ADEL	Arvind Ltd.	Ashima Ltd.	GSM L	MTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STM L	Total
1999-00	(322.58)	(27143.00)	1630.73	593.50	29.64	226.22	244.82	148.28	(715.99)	(894.74)	(26203.12)
2000-01	11.54	(49948.00)	(1352.34)	2061.84	57.62	295.87	407.64	78.16	(1096.51)	(792.67)	(50276.85)
2001-02	410.66	2026.00	(9954.71)	2926.51	10.21	365.81	322.98	159.21	(297.80)	(1053.52)	(5084.65)
2002-03	1239.36	12933.00	(11336.15)	3858.95	34.79	320.16	496.95	184.61	(194.31)	(968.98)	6568.40

2003-04	1407.78	9675.00	(9174.72)	3450.83	21.80	302.05	484.53	286.24	(523.58)	(650.77)	5279.17
2004-05	2680.19	13125.00	N.A	878.96	28.82	386.08	193.50	353.71	(136.61)	(120.26)	17389.39
2005-06	3418.71	12716.00	(6525.21)	2210.45	49.66	614.25	385.83	860.54	(15.05)	40.37	13755.55
2006-07	3043.74	11956.00	(2159.12)	2325.97	32.55	930.21	645.25	958.51	(10.19)	(47.08)	17675.85
2007-08	503.36	2790.00	(4310.49)	4000.37	(18.33)	1343.99	(75.98)	692.10	(12.75)	30.04	4942.31
2008-09	246.96	(4882.00)	(2823.30)	4958.47	29.77	2271.59	8.75	861.10	(0.34)	620.87	1291.87
2009-10	2315.56	5200.00	(4327.28)	6320.47	55.05	3315.31	382.10	733.69	9.81	720.69	14725.40
2010-11	3343.88	13480.00	(524.24)	8786.56	69.99	4942.04	1546.05	778.65	(43.92)	837.65	33216.66
Total	18299.16	1928.00	(50856.83)	42372.88	401.57	15313.58	5042.43	6094.81	(3037.24)	(2278.40)	33279.98

Net cash flow

Companies Years	Rs. in lakh										
	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STML	Total
1999-00	(2.19)	149.00	143.90	592.26	0.21	(24.60)	(0.14)	(316.00)	(22.76)	9.33	529.01
2000-01	46.12	5166.00	(713.12)	304.97	46.43	163.20	17.44	131.00	(53.71)	(67.65)	5040.68
2001-02	(15.56)	20355.00	42.82	2904.19	(17.50)	28.18	69.44	(327.00)	4.28	132.31	23176.15
2002-03	493.25	(27038.00)	724.05	(3457.12)	87.68	(16.63)	(47.31)	(146.95)	23.18	(48.17)	(29426.02)
2003-04	(102.10)	37.00	(541.58)	718.93	(22.43)	16.18	77.13	(74.48)	(54.33)	(30.03)	24.29
2004-05	599.77	17.00	N.A	1417.24	42.52	74.17	(76.69)	56.64	96.53	64.10	2291.28
2005-06	1176.30	(328.00)	(706.77)	(292.14)	(21.02)	873.70	24.43	1044.00	73.09	11.68	1855.27
2006-07	(1506.10)	409.00	(246.75)	(902.47)	6.72	1443.43	(26.92)	204.15	(23.88)	47.39	(595.43)
2007-08	377.21	(599.00)	66.18	5674.73	25.56	639.62	16.54	(6.73)	48.17	(114.37)	6127.91
2008-09	(544.95)	1051.00	(171.64)	(328.70)	(5.94)	2959.17	(12.46)	(925.81)	40.94	348.67	2410.28
2009-10	40.23	1671.00	320.24	(3087.23)	16.62	12287.12	(13.34)	545.95	17.20	709.34	12507.13
2010-11	539.39	(1405.00)	(150.42)	(1368.54)	57.70	5719.07	79.58	99.36	21.91	(1122.87)	2470.17

Total	1101.37	(515.00)	(1233.09)	2176.12	216.55	24162.60	107.70	284.13	170.61	(60.27)	26410.73
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Bad debt

Rs. in lakh

Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
Years											
1999-00	0.00	82.00	69.60	226.36	0.00	0.00	0.45	0.10	19.44	0.00	397.95
2000-01	0.00	360.00	2.72	57.92	5.07	0.00	0.00	0.00	51.47	0.00	477.18
2001-02	0.00	115.00	0.00	555.43	0.00	0.00	0.00	7.70	25.82	0.00	703.95
2002-03	0.00	127.00	13.63	1854.20	0.00	0.00	7.53	1.57	49.65	0.00	2053.57
2003-04	0.00	0.14	0.00	1.84	0.00	0.00	0.86	0.00	2.65	0.00	5.49
2004-05	31.56	45.00	N.A	8.75	0.00	0.00	0.00	0.00	16.69	0.00	102.00
2005-06	22.57	18.00	0.00	0.00	8.52	0.00	0.11	0.00	1.36	0.00	50.56
2006-07	17.23	37.00	28.80	0.00	1.91	0.00	2.68	0.00	0.04	53.55	141.21
2007-08	13.28	63.00	12.25	0.00	14.93	0.00	0.00	0.00	30.34	0.00	133.80
2008-09	0.00	8.00	0.00	0.00	7.83	0.00	2.68	0.00	14.15	0.00	32.66
2009-10	74.12	9.00	1.04	5.79	19.08	0.00	0.00	0.00	13.37	0.00	122.40
2010-11	3.14	0.00	0.03	147.60	6.15	0.00	0.00	2.96	0.00	0.00	159.88
Total	161.90	864.14	128.07	2857.89	63.49	0.00	14.31	12.32	224.98	53.55	4380.66

Total Assets

Rs. in lakh

Companies	ADEL	Arvind Ltd.	Ashima Ltd.	GSMIL	MTTL	Nakoda Ltd.	PBMPL	SDML	SNSTL	STMIL	Total
Years											
1999-00	7867.12	328177.00	40922.36	46538.83	645.66	7773.17	11737.56	8797.13	6123.73	20031.67	478614.23
2000-01	8554.29	309526.00	39809.14	46775.13	689.29	8689.59	12237.54	8133.52	5543.00	19350.08	459307.59

2001-02	9553.30	284328.00	36130.66	52086.69	629.17	6815.29	11179.40	7761.49	5111.09	17962.80	431557.89
2002-03	12474.53	265480.00	32934.54	57902.61	626.93	6161.30	11674.30	7270.42	4852.32	17227.35	416604.29
2003-04	13920.36	271755.00	30805.48	76557.53	689.54	7441.05	12391.69	7536.39	3801.05	15611.49	440509.58
2004-05	18617.85	323941.00	N.A	101928.00	686.92	9840.51	10435.19	9295.25	2416.34	8470.73	485631.78
2005-06	26463.72	367454.00	34236.42	110019.12	786.72	16598.47	11791.79	10955.83	1052.34	6682.21	586040.63
2006-07	38477.89	378749.00	32059.14	119028.11	894.68	27865.18	12054.01	12145.06	947.82	6943.21	629164.10
2007-08	42391.42	372848.00	28711.04	139070.70	848.06	37843.48	12114.60	12641.57	940.47	6960.72	654370.05
2008-09	47388.33	382321.00	26099.89	160114.83	1164.23	61432.39	11513.50	13991.57	892.38	6581.52	711499.64
2009-10	47681.28	374420.00	21345.27	196654.98	1658.38	110720.81	13087.25	15556.98	863.88	9700.15	791688.98
2010-11	57417.86	425896.00	19866.99	241494.01	2484.67	159901.20	14722.60	15551.17	830.33	9275.87	947440.70
Total	330807.95	4084895.00	342920.93	1348170.54	11804.23	461082.44	144939.44	129636.38	33374.75	144797.80	7032429.46

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11

CALCULATION OF TREND VALUES BY LEAST SQUARE METHOD

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11

Calculation of trend values for working capital

Rs. in Lakh							
Year	Y (Original Value)	X (2005.50-Year)	XY	X^2	a (ΣY / 12)	b (ΣXY / ΣX^2)	Trend Value (a+bX)
2000	108642.52	(5.50)	(597533.88)	30.25	166848.67	11924.28	101265.15
2001	118564.57	(4.50)	(533540.59)	20.25	166848.67	11924.28	113189.41
2002	122436.15	(3.50)	(428526.53)	12.25	166848.67	11924.28	125113.69
2003	114799.51	(2.50)	(286998.77)	6.25	166848.67	11924.28	137037.97

2004	141436.69	(1.50)	(212155.03)	2.25	166848.67	11924.28	148962.25
2005	164290.74	(0.50)	(82145.37)	0.25	166848.67	11924.28	160886.53
2006	219042.78	0.50	109521.39	0.25	166848.67	11924.28	172810.81
2007	172744.81	1.50	259117.22	2.25	166848.67	11924.28	184735.09
2008	188687.77	2.50	471719.42	6.25	166848.67	11924.28	196659.37
2009	184389.96	3.50	645364.85	12.25	166848.67	11924.28	208583.65
2010	208968.16	4.50	940356.73	20.25	166848.67	11924.28	220507.93
2011	258180.38	5.50	1419992.09	30.25	166848.67	11924.28	232432.21

Calculation of trend values for current assets

Rs. in Lakh

Year	Y (Original Value)	X (2005.50-Year)	XY	X ²	a ($\Sigma Y / 12$)	b ($\Sigma XY / \Sigma X^2$)	Trend Value (a+bX)
2000	164142.76	(5.50)	(902785.16)	30.25	244143.18	21722.93	124667.04
2001	175819.31	(4.50)	(791186.88)	20.25	244143.18	21722.93	146390.00
2002	169287.03	(3.50)	(592504.61)	12.25	244143.18	21722.93	168112.93
2003	159815.92	(2.50)	(399539.80)	6.25	244143.18	21722.93	189835.86
2004	180075.47	(1.50)	(270113.20)	2.25	244143.18	21722.93	211558.79
2005	210798.57	(0.50)	(105399.28)	0.25	244143.18	21722.93	233281.72
2006	275123.73	0.50	137561.87	0.25	244143.18	21722.93	255004.65
2007	256006.43	1.50	384009.64	2.25	244143.18	21722.93	276727.58
2008	263629.53	2.50	659073.83	6.25	244143.18	21722.93	298450.51
2009	296076.13	3.50	1036266.46	12.25	244143.18	21722.93	320173.44
2010	333191.56	4.50	1499362.01	20.25	244143.18	21722.93	341896.37
2011	445751.77	5.50	2451634.74	30.25	244143.18	21722.93	363619.30

Calculation of trend values for sales

Rs. in Lakh							
Year	Y (Original Value)	X (2005.50-Year)	XY	X^2	a ($\sum Y$ / 12)	b ($\sum XY$ / $\sum X^2$)	Trend Value (a+bX)
2000	251006.37	(5.50)	(1380535.03)	30.25	459672.61	54098.76	162129.42
2001	361434.24	(4.50)	(1626454.10)	20.25	459672.61	54098.76	216228.18
2002	225115.27	(3.50)	(787903.43)	12.25	459672.61	54098.76	270326.95
2003	315031.12	(2.50)	(787577.79)	6.25	459672.61	54098.76	324425.71
2004	325428.71	(1.50)	(488143.06)	2.25	459672.61	54098.76	378524.47
2005	315241.31	(0.50)	(157620.65)	0.25	459672.61	54098.76	432623.23
2006	416067.68	0.50	208033.84	0.25	459672.61	54098.76	486721.99
2007	473630.58	1.50	710445.86	2.25	459672.61	54098.76	540820.75
2008	557143.69	2.50	1392859.22	6.25	459672.61	54098.76	594919.51
2009	564378.74	3.50	1975325.59	12.25	459672.61	54098.76	649018.27
2010	736072.47	4.50	3312326.10	20.25	459672.61	54098.76	703117.04
2011	975521.15	5.50	5365366.33	30.25	459672.61	54098.76	757215.80

Calculation of trend values for inventory

Rs. in Lakh							
Year	Y (Original Value)	X (2005.50-Year)	XY	X^2	a (ΣY / 12)	b (ΣXY / ΣX^2)	Trend Value (a+bX)
2000	43124.34	(5.50)	(237183.88)	30.25	84862.43	10209.18	28711.97
2001	45936.36	(4.50)	(206713.60)	20.25	84862.43	10209.18	38921.12
2002	44551.02	(3.50)	(155928.57)	12.25	84862.43	10209.18	49130.30
2003	62643.91	(2.50)	(156609.77)	6.25	84862.43	10209.18	59339.48
2004	65702.95	(1.50)	(98554.42)	2.25	84862.43	10209.18	69548.66
2005	70677.30	(0.50)	(35338.65)	0.25	84862.43	10209.18	79757.84

2006	79493.27	0.50	39746.63	0.25	84862.43	10209.18	89967.02
2007	99759.65	1.50	149639.47	2.25	84862.43	10209.18	100176.20
2008	100231.07	2.50	250577.68	6.25	84862.43	10209.18	110385.38
2009	106429.90	3.50	372504.65	12.25	84862.43	10209.18	120594.56
2010	111124.52	4.50	500060.32	20.25	84862.43	10209.18	130803.74
2011	188674.94	5.50	1037712.17	30.25	84862.43	10209.18	141012.92

Calculation of trend values for total receivables

Rs. in Lakh

Year	Y (Original Value)	X (2005.50-Year)	XY	X ²	a ($\sum Y / 12$)	b ($\sum XY / \sum X^2$)	Trend Value (a+bX)
2000	112775.98	(5.50)	(620267.87)	30.25	142490.03	10145.91	86687.51
2001	116647.51	(4.50)	(524913.78)	20.25	142490.03	10145.91	96833.43
2002	88279.98	(3.50)	(308979.93)	12.25	142490.03	10145.91	106979.34
2003	90628.47	(2.50)	(226571.18)	6.25	142490.03	10145.91	117125.25
2004	107746.89	(1.50)	(161620.33)	2.25	142490.03	10145.91	127271.16
2005	132709.76	(0.50)	(66354.88)	0.25	142490.03	10145.91	137417.07
2006	184986.64	0.50	92493.32	0.25	142490.03	10145.91	147562.98
2007	145340.31	1.50	218010.47	2.25	142490.03	10145.91	157708.89
2008	146288.05	2.50	365720.12	6.25	142490.03	10145.91	167854.80
2009	170195.58	3.50	595684.54	12.25	142490.03	10145.91	178000.71
2010	190881.32	4.50	858965.96	20.25	142490.03	10145.91	188146.62
2011	223399.83	5.50	1228699.07	30.25	142490.03	10145.91	198292.53

Calculation of trend values for total cash balances

Rs. in Lakh							
Year	Y (Original Value)	X (2005.50-Year)	XY	X^2	a (ΣY / 12)	b (ΣXY / ΣX^2)	Trend Value (a+bX)
2000	8212.44	(5.50)	(45168.42)	30.25	16786.10	1369.45	9254.11
2001	13235.80	(4.50)	(59561.11)	20.25	16786.10	1369.45	10623.58
2002	36456.03	(3.50)	(127596.11)	12.25	16786.10	1369.45	11993.03
2003	6516.76	(2.50)	(16291.89)	6.25	16786.10	1369.45	13362.48
2004	6625.63	(1.50)	(9938.45)	2.25	16786.10	1369.45	14731.93
2005	7412.51	(0.50)	(3706.25)	0.25	16786.10	1369.45	16101.38
2006	10643.83	0.50	5321.91	0.25	16786.10	1369.45	17470.83
2007	10906.46	1.50	16359.68	2.25	16786.10	1369.45	18840.28
2008	17110.42	2.50	42776.06	6.25	16786.10	1369.45	20209.73
2009	19450.65	3.50	68077.26	12.25	16786.10	1369.45	21579.18
2010	31185.72	4.50	140335.73	20.25	16786.10	1369.45	22948.63
2011	33676.97	5.50	185223.34	30.25	16786.10	1369.45	24318.08

Calculation of trend values for total current liabilities

Rs. in Lakh							
Year	Y (Original Value)	X (2005.50-Year)	XY	X^2	a (ΣY / 12)	b (ΣXY / ΣX^2)	Trend Value (a+bX)
2000	55479.23	(5.50)	(305135.78)	30.25	77290.53	9799.93	23390.90
2001	57254.73	(4.50)	(257646.29)	20.25	77290.53	9799.93	33190.83
2002	46850.88	(3.50)	(163978.08)	12.25	77290.53	9799.93	42990.76
2003	44989.63	(2.50)	(112474.08)	6.25	77290.53	9799.93	52790.70
2004	38638.78	(1.50)	(57958.17)	2.25	77290.53	9799.93	62590.63
2005	46507.83	(0.50)	(23253.91)	0.25	77290.53	9799.93	72390.57

2006	56080.96	0.50	28040.48	0.25	77290.53	9799.93	82190.50
2007	83261.62	1.50	124892.43	2.25	77290.53	9799.93	91990.43
2008	74941.77	2.50	187354.41	6.25	77290.53	9799.93	101790.37
2009	111686.16	3.50	390901.57	12.25	77290.53	9799.93	111590.30
2010	124223.41	4.50	559005.33	20.25	77290.53	9799.93	121390.23
2011	187571.39	5.50	1031642.65	30.25	77290.53	9799.93	131190.17

Source: Annual Reports of Selected Textile Companies for the year 1999-00 to 2010-11