A STUDY OF LEVERAGE AND PROFITABILITY POSITION OF SELECTED TEXTILE COMPANIES

Ms. Sunita Sukhija
Assistant Professor, Department of Management Studies,
Jan Nayak Ch. Devi Lal Memorial College of Engineering
SIRSA (Haryana)-125055

Abstract

The Indian textile industry has a significant presence in the economy as well as in the international textile economy. Its contribution to the Indian economy is manifested in terms of its contribution to the industrial production, employment generation and foreign exchange earnings. It contributes 20 percent of industrial production, 9 percent of excise collections, and 18 percent of employment in the industrial sector, nearly 20 percent to the countries total export earning and 4 percent to the Gross Domestic Product. The objective of this paper is to understand and analyze the leverage positions of Textile Industries in India and to examine the impact if leverage on EPS of selected Textile Companies. The study reveals that overall leverage of Lakshmi Mills Co. Ltd is maximum indicating higher profits and also ensuring that any small change will lead to more reflection, the mean value of EPS for Raymond Ltd. is high as compared to the other five companies. Visaka Industries Ltd shows an average performance during the study period.

Key words: leverage, EPS, GDP, MSP, UCTA etc.

Introduction

India Textile Industry is one of the leading textile industries in the world. Though was predominantly unorganized industry even a few years back, but the scenario started changing after the economic liberalization of Indian economy in 1991. The opening up of economy gave the much-needed thrust to the Indian textile industry, which has now successfully become one of the largest in the world. India textile industry depends upon textile largely the manufacturing and export. It also plays a major role in the economy of the country. India earns about 27% of its total foreign exchange through textile exports. Further, the textile industry of India contributes nearly 14% of the total industrial production of the country. It also contributes around 3% to the GDP of the country. India textile industry is also the largest in the country in terms of employment generation. It not only generates jobs in its own industry, but also opens up scopes for the other ancillary sectors. India textile industry currently generates employment to more than 35 million people. India textile industry is one of the leading in the world. Currently it is estimated to be around US\$ 52 billion and is also projected to be around US\$ 115 billion by the year 2012. The current domestic

market of textile in India is expected to be increased to US\$ 60 billion by 2012 from the current US\$ 34.6 billion. The textile export of the country was around US\$ 19.14 billion in 2006-07, which saw a stiff rise to reach US\$ 22.13 in 2007-08. The share of exports is also expected to increase from 4% to 7% within 2012.

Current Facts on India Textile Industry

- India retained its position as world's second highest cotton producer.
- Acreage under cotton reduced about 1% during 2008-09.
- The productivity of cotton which was growing up over the years has decreased in 2008-09.
- Substantial increase of Minimum Support Prices (msps).
- Cotton exports couldn't pick up owing to disparity in domestic and international cotton prices.
- Imports of cotton were limited to shortage in supply of Extra Long staple cottons.

Export At Glance:

Textile exports plays a crucial role in the overall exports from India. Throught export friendly government policies and positive efforts by the exporting community, textile exports increased substantially from US\$ 5.07 billion in 1991-92 to US\$ 12.10 billion during 2000-01. The textile export basket contributing over 46 percent of total textile export. In world textile trade has

risen to 3.1 percent in 1999-2000 as against 1.80 percent in early nineties. Exports have grown at an average of 11 percent per annum over the last few years, while world textile trade has grown only about 5.4 per cent per annum in the same years. During the year 2000-01 India's textile export was US\$ 12014.4 million. It was increased the year 2004-05 US\$ 13038.64 million. The exports of textiles (including handicrafts, jute, and coir) formed 24.6% of total exports in 2001-2002, however this percentage decreased to 16.24% during 2004-2005. The textile exports recorded a growth of 15.3% in 2002-2003 and 8.7% in 2003-2004. Textile exports during the period of April-2003-2004 February amounted \$11,698.5 million. During 2004-05 textile exports were US\$ 13,039.00 million, recording a decline of 3.4% as compared to the corresponding period of previous year. However, during April-November, 2005, the textile exports have shown growth of 8.2% as compare to the corresponding period of previous year. Against a target of US\$ 15,160 million during 2004-05, the textile exports were of US\$13039 million, registering a shortfall of 14% against the target. The overall export target for 2005-06 has been fixed at US\$ 15,565 million. In 2005 textile and garments accounted for about 16% of export earning. India's textile export to the

US has shown a good rise of 29.5% between January and June 2005.

2. Review of Literature

Don Wells (2007) has examined that International trade agreements have been widely criticized for their failure to effective promote regulation of international labor rights and standards. This article assesses the singular exception to this failure: the US Cambodia Textile Agreement (UCTA). The article evaluates evidence of the impact of this international trade agreement on labor standards in Cambodia's apparel industry, concluding that, although monitoring procedures are imperfect and labor standards compliance is uneven, the UCTA provides a "best practice" model for the global governance of international labor standards.

Indrajit Ray(2009) This article seeks to answer three basic questions about the nineteenth-century cotton textile industry in Bengal that still remain unresolved in the literature; namely, when did the industry begin to decay, what was the extent of its decay during the early nineteenth century, and what were the factors that led to this? In the absence of data on production, this article seeks to settle the debate on the basis of the industry's market performance and its consumption of raw materials. It contests

the prevailing hypothesis that the industry's perpetual decline started in the late eighteenth or the early nineteenth century. Regarding the extent of its decay, this article concludes that the industry was diminished by about 28 per cent by the mid-1800s. However, it survived in the high-end and low-end domestic markets.

Devanathan Sevilimedu Veeravalli (2010) has examined that It's a known fact that unless and until women are given their rightful place, no society or country can progress. The Tirupur People Forum (TPF), a Non-Government Organisation in Tamil Nadu studied the state of affairs of the women workers in textile industries during 2001 to 2008. Young unmarried women below the poverty line had under gone worst form of exploitation in their working environment and the social activists that this continues accuse unabated.

Seshadri Ramkumar (2011) has examined that India is the 11th largest economy in the world. Although this may be exciting news, reality is that there are about 6 crores and 52 lakh families in poverty. India's per capita GDP is 3 to 4 times less than that of China. The Indian economy is dependent on agriculture and manufacturing. Within manufacturing textiles and automobiles play an important role in giving jobs to the skilled, semi-

skilled and rural people. There are both opportunities and constraints. Important constraints are: 1) Raw material; 2) Power and 3) Skilled workforce. The western hemisphere has not started planting cotton for the 2011 season and the world is facing severe shortage of the white fluff. A good discussion on the cotton scenario will be of help to the Indian textile industry.

Dr. D. Narasimha Reddy (2011) has examined that India has the largest cotton acreage in the world, and cotton is the dominant fibre in the Indian textile industry. Most of the cotton used in India is grown locally, even though the low quantum of imports have started registering significant growth during the last few years. Despite recent market setbacks, cotton continues to play a significant role in the rural economy of semi-arid regions in India, influencing the livelihoods of an estimated 20 million people.The advent of mechanisation during the nineteenth and twentieth century, and the continuing decline of the household industry saw both growers and weavers becoming the clients of the intermediary spinning mills.

Objective:

 To understand and analyze the leverage positions of Textile Industries in India. To examine the impact if leverage on EPS of selected Textile Companies.

Methodology

This study covers a period of six years from Jan 2005 to Dec 2010. The study is confined to Textile Industry. In India, there are many Textile industries of which only six industries are selected for the analysis based on continuous data availability for six years. The needed data belonging to these industries have been collected from Prowess.

Hypotheses:

The study tests whether the selected variables of sample companies vary significantly during the study period. This

specific hypothesis is tested at appropriate time while analyzing and interpreting the results.

The following hypotheses have been formed:

- 1. There is a significance relationship between DFL and EPS.
- 2. There is a significance relationship between DFL and EPS.
- 3. There is a significance relationship between DFL and EPS.

Degree of financial leverage (dfl)

The degree of financial leverage is determine as the percentage change in earning per share (EPS) that results from a given percentage change in earning before interest and taxes (EBIT).

TABEL NO – 1 Degree of Financial Leverage (DFL) (Rupees in crores)

YEAR	Bombay	Lakshmi Mills	Raymond	Supreme Tex	Visaka	Welspun
	Dyeing &	Co. Ltd.	Ltd.	Mart Ltd.	Industries Ltd.	India Ltd.
	Mfg. Co. Ltd.					
05-Dec	1.35	2.08	1.3	6.30	1.30	1.38
06-Dec	1.41	1.60	1.31	1.23	1.36	1.79
07-Dec	-086	1.65	1.25	1.50	1.36	2.12
08-Dec	-1.64	0.35	1.80	2.26	2.20	4.16
09-Dec	0.028	-0.47	0.65	-1.45	1.30	7.37
10-Dec	9.88	-10.8	7.4	4.20	1.13	1.99
Mean	1.70	-0.94	2.3	2.34	1.45	3.14
Standard	4.19	4.93	2.53	2.66	0.38	2.29
Deviation						
Skewness	2.05	-2.25	2.33	0.20	2.15	1.67

From Table No-1 it is clear that the DFL shows a fluctuating trend and calculated mean value of Welspun India ltd. were maximum and standard deviation value of lakshmi mills co. ltd .were maximum when compared to other given companies. skewness results is negative of lakshmi mills co.ltd .but remain five companies are positive. DFL for Bombay Dyeing & Mfg. Co. Ltd was maximum in Dec2010 9.88, but in 2007 to 2008 it goes negative. During the study period the average/mean value of DFL was 1.70 and standard deviation was 4.19. DFL for Lakshmi Mills Co. Ltd. was maximum in Dec 2005 is 2.08 but after this year it goes in decreasing till Dec2010 it goes to -10.8. During the study period the average/mean value of DFL was -0.94 and standard

deviation was 4.93. DFL for Raymond Ltd. Was maximum in Dec 2010 is 7.4. During the study period the average/mean value of DFL was 2.3 and standard deviation was 2.53. DFL for Supreme Tex Mart Ltd. Was maximum in Dec 2005 is 6.30.but in Dec2009 it goes negative. During the study period the average/mean value of DFL was 2.34 and standard deviation was 2.66. DFL for Visaka Industries Ltd. Was maximum in Dec2008 is 2.20. During the study period the average/mean value of DFL was 1.45 and standard deviation was 0.38. DFL for Welspun India Ltd. was maximum in Dec 2009 is 7.37.that have the maximum mean value 3.14 from given companies. During the study period the standard deviation was 2.29

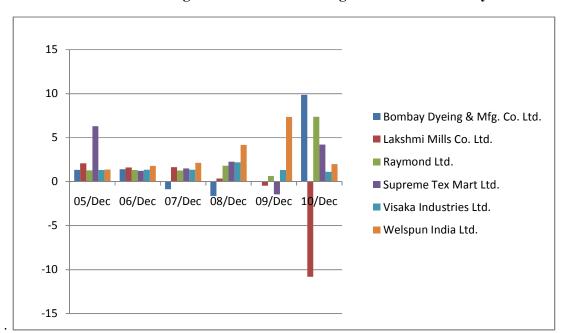


EXHIBIT:1 Degree of Financial Leverage For Textile Industry

Degree of operating leverage (dol)

The degree of operating leverage (DOL) is defined as the percentage change in operating income or EBIT that results from a given percentage change in sales.DOL depends upon the of fixed elements in the cost structure.

TABEL NO - 2 Degree of Operating Leverage (DOL) (Rupees in crores)

YEAR	Bombay Dyeing	Lakshmi Mills Co.	Raymond	Supreme Tex	Visaka	Welspun
	& Mfg. Co. Ltd.	Ltd.	Ltd.	Mart Ltd.	Industries Ltd.	India Ltd.
05-Dec	3.94	4.47	4.40	3.55	2.37	2.89
06-Dec	2.75	4.01	3.12	1.51	2.35	2.82
07-Dec	4.16	3.51	2.35	1.57	2.68	2.24
08-Dec	2.71	-9.59	4.10	2.63	3.33	2.71
09-Dec	-107.54	11.53	-3.94	9.94	3.09	3.25
10-Dec	4.36	4.69	5.79	3.91	1.93	2.15
Mean	-14.94	3.10	2.64	3.85	2.63	2.68
Standard Deviation	45.37	6.89	3.43	3.14	0.52	0.42
Skewness	-2.45	-1.32	-1.82	1.93	0.16	-0.14

From Table No-2 it is clear that the DOL shows a fluctuating trend and calculated mean value of lakshmi mills co. ltd. were maximum and standard deviation value of Bombay Dyeing & Mfg. Co. Ltd. were maximum when compared to other given companies. skewness results is negative of Bombay Dyeing & Mfg. Co. Ltd., lakshmi mills co.ltd., Raymond Ltd. and Welspun India Ltd. but remain two companies are positive. DOL for Bombay Dyeing & Mfg. Co. Ltd was maximum in Dec2010 4.36, but in 2009 it goes negative. During the study period the average/mean value of DOL was -14.94 and standard deviation was 45.37. DOL for Lakshmi Mills Co. Ltd. was maximum in Dec 2009 is 11.53 but in 2008 it goes negative. During the study period the average/mean

value of DOL was 3.10 and standard deviation was 6.89. DOL for Raymond Ltd. Was maximum in Dec 2010 is 5.79. During the study period the average/mean value of DOL was 2.64 and standard deviation was 3.43. DOL for Supreme Tex Mart Ltd. Was maximum in Dec 2009 is 9.94. During the study period the average /mean value of DOL was 3.85 and standard deviation was 3.14. DOL for Visaka Industries Ltd. Was maximum in Dec2008 is 3.33. During the study period the average/mean value of DOL was 2.63 and standard deviation was 0.52. DOL for Welspun India Ltd. was maximum in Dec 2009 is 3.25. During the study period the average/mean value of DOL was 2.68 and standard deviation was 0.42.

20.00 0.00 05/Dec 06/Dec 07/Dec 08/Dec **0**9/Dec 10/Dec -20.00 ■ Bombay Dyeing & Mfg. Co. Ltd. ■ Lakshmi Mills Co. Ltd. -40.00 ■ Raymond Ltd. ■ Supreme Tex Mart Ltd. -60.00 ■ Visaka Industries Ltd. ■ Welspun India Ltd. -80.00 -100.00 -120.00

EXHIBIT:2 Degree of operating leverage for Textile Industry

Degree of combined leverage (dcl)

'Total leverage' is simply expressed as financial leverage multiplied by operating leverage. The operating leverage has its effect on operating risk and is measured by the percentage change in sales. The financial leverage has its effects on financial risk and is measured by the percentage change in EPS due to percentage change in EBIT. If both are combined, the result is total leverage and the risk associated with combined leverage is known as total leverage.

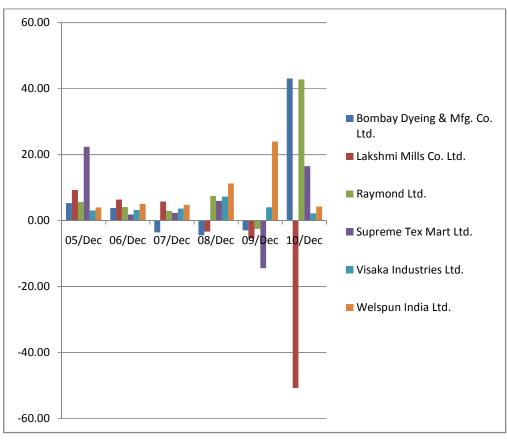
TABEL NO -3 Degree of Combined Leverage (DCL) (Rupees in crores)

YEAR	Bombay Dyeing	Lakshmi Mills	Raymond	Supreme Tex	Visaka	Welspun
	& Mfg. Co. Ltd.	Co. Ltd.	Ltd.	Mart Ltd.	Industries Ltd.	India Ltd.
05-Dec	5.29	9.27	5.64	22.36	3.09	3.97
06-Dec	3.87	6.38	4.08	1.84	3.20	5.05
07-Dec	-3.56	5.77	2.96	2.34	3.64	4.74
08-Dec	-4.44	-3.33	7.41	5.94	7.29	11.27
09-Dec	-2.93	-5.39	-2.55	-14.40	4.04	23.93
10-Dec	43.03	-50.73	42.76	16.46	2.17	4.26
Mean	6.88	-6.34	10.05	5.76	3.91	8.87
Standard Deviation	18.17	22.51	16.38	12.83	1.77	7.87
Skewness	2.18	-2.10	2.21	-0.35	1.76	1.90

From Table No-3 it is clear that the DCL shows a fluctuating trend and calculated mean value of Raymond ltd. were maximum and standard deviation value of Lakshmi Mills Co. Ltd. were maximum when compared to other given companies. skewness results is negative of lakshmi mills co.ltd. and Supreme Tex Mart Ltd. but remain four companies are positive. DCL for Bombay Dyeing & Mfg. Co. Ltd was maximum in Dec2010 43.03,but in 2007 to 2009 it goes negative. During the study period the average/mean value of DCL was 6.88 and standard deviation was 18.17. DCL for Lakshmi Mills Co. Ltd. was maximum in Dec 2005 is 9.27 but in 2008 to 2010 it goes negative. During the study period the average/mean value of

DCL was -6.34 and standard deviation was 22.51. DCL for Raymond Ltd. Was maximum in Dec 2010 is 42.76. During the study period the average/mean value of DCL was 10.05 and standard deviation was 16.38. DCL for Supreme Tex Mart Ltd. Was maximum in Dec 2005 is 22.36. During the study period the average/mean value of DCL was 5.76 and standard deviation was 12.83. DCL for Visaka Industries Ltd. Was maximum in Dec2008 is 7.29. During the study period the average/mean value of DCL was 3.91 and standard deviation was 1.77. DCL for Welspun India Ltd. was maximum in Dec 2009 is 23.93. During the study period the average/mean value of DCL was 8.87 and standard deviation was 7.87.

EXHIBIT: 3 Degree of combined leverage for Textile Industry



Earning per share

The EPS is a good measure of profitability. EPS is a small Variation of

return on equity capital and is calculated by dividing the net profit after taxes and preference dividend by the total number of equity shares

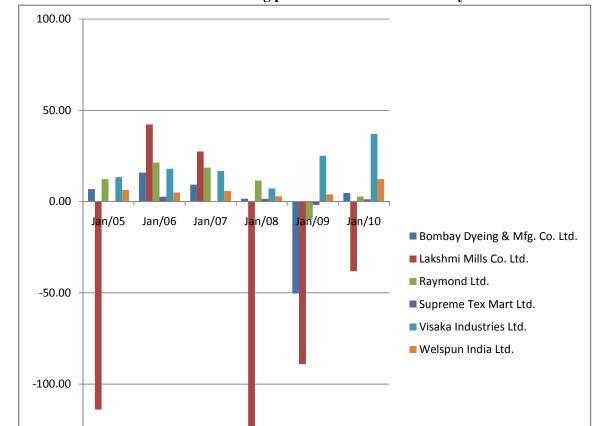
Tabel no – 4 earning per share (eps)

(Rupees in crores)

YEAR	Bombay Dyeing &	Lakshmi	Raymond	Supreme Tex	Visaka	Welspun India
	Mfg. Co. Ltd.	Mills Co. Ltd.	Ltd.	Mart Ltd.	Industries Ltd.	Ltd.
05-Dec	6.88	-113.87	12.34	0.27	13.44	6.43
06-Dec	15.89	42.27	21.36	2.61	18.04	5.01
07-Dec	9.31	27.46	18.58	-0.26	16.78	5.81
08-Dec	1.61	-168.21	11.50	1.57	7.24	2.94
09-Dec	-50.40	-88.99	-9.68	-1.85	25.09	3.96
10-Dec	4.77	-38.10	2.86	1.27	37.13	12.22
Mean	-1.99	-56.57	9.49	0.60	19.62	6.06
Standard						
Deviation	24.20	82.42	11.38	1.57	10.38	3.27
Skewness	-2.23	-0.03	-1.00	-0.48	0.90	1.66

From Table No-5.4 it is clear that the EPS shows a fluctuating trend and calculated mean value of Visaka Industries Ltd. were maximum and standard deviation value of Lakshmi Mills Co. Ltd. were maximum when compared to other given companies. skewness results is negative of Bombay Dyeing & Mfg. Co. Ltd., lakshmi mills co.ltd., Raymond Ltd. and Supreme Tex Mart Ltd. but remain two companies are positive. EPS for Bombay Dyeing & Mfg. Co. Ltd was maximum in Dec2006 15.89,but 2009 it goes negative. During the study period the average/mean value of EPS was -1.99 and standard deviation was 24.20. EPS for Lakshmi Mills Co. Ltd. was maximum in Dec 2006 is 42.27 but in 2005 and 2008 to 2010 it goes negative. During the study period the average/mean

value of EPS was -56.57 and standard deviation was 82.42. EPS for Raymond Ltd. Was maximum in Dec 2010 is 42.76. During the study period the average/mean value of EPS was 9.49 and standard deviation was 11.38. EPS for Supreme Tex Mart Ltd. Was maximum in Dec 2006 is 2.61. During the study period the average/mean value of EPS was 0.60 and standard deviation was 1.57. EPS for Visaka Industries Ltd. Was maximum in Dec2010 is 37.13. During the study period the average/mean value of EPS was 19.62 and standard deviation was 10.38. DCL for Welspun India Ltd. was maximum in Dec 2010 is 12.22. During the study period the average/mean value of DCL was 6.06 and standard deviation was 3.27.



-150.00

-200.00

EXHIBIT: 4 Earning per share for Textile Industry

TABEL NO 5 Financial Leverage and Earning Per Share

Company name	r' value	correlation	't'value	Sig(p)
Bombay	7 / 4140	VVII VIIIVIVII		≈- s (P)
Dyeing & Mfg.				
Co. Ltd.	0.17	Low positive	0.73	N.Sig.
Lakshmi Mills				
Co. Ltd.	-0.02	Low negative	0.14	N.Sig.
Raymond Ltd.	-0.19	Low negative	0.18	N.Sig.
Supreme Tex				
Mart Ltd.	0.37	Moderate positive	0.21	N.Sig.
Visaka				
Industries Ltd.	-0.73	Moderate negative	0.01	N.Sig.
Welspun India				
Ltd.	-0.48	Moderate negative	0.11	N.Sig.

The table 5 reveals that the correlation between the financial leverage and EPS is negative for all companies accept Bombay Dyeing & Mfg. Co. Ltd. As per the 't'test results it is clear that the table value is high

than the calculated value. Therefore, the hypothesis is accepted. Hence, there exists no relationship between financial leverage and EPS for all the six companies.

TABLE NO 6 Operating Leverage and Earning Per Share

			't'	31 ()
Company name	r' value	correlation	value	Sig(p)
Bombay Dyeing & Mfg. Co. Ltd.	0.98	High positive	0.56	N.Sig.
Wilg. Co. Ltd.	0.96	riigii positive	0.50	IV.Sig.
Lakshmi Mills Co. Ltd.	0.43	Moderate positive	0.14	N.Sig.
Raymond Ltd.	0.60	Moderate positive	0.21	N.Sig.
Supreme Tex Mart Ltd.	-0.76	High negative	0.06	N.Sig.
Visaka Industries Ltd.	-0.62	Moderate negative	0.01	N.Sig.
Welspun India Ltd.	-0.67	Moderate negative	0.05	N.Sig.

Table No- 6 reveals that the correlation between the Operating leverage and EPS is positive for Bombay Dyeing & Mfg. Co. Ltd., Lakshmi Mills Co. Ltd. And Raymond Ltd. And remain three is negative correlation of Supreme Tex Mart Ltd, Visaka Industries Ltd and Welspun India Ltd. As per the 't'test results it is clear that the table value is high than the calculated value. Therefore, the hypothesis accepted. Hence, there exists relationship between Operating leverage and EPS for all the six companies.

is negative correlation are Raymond Ltd, Visaka Industries Ltd and Welspun India Ltd. As per the 't'test results it is clear that the table value is high than the calculated value. Therefore, the hypothesis is accepted. Hence, there exists no relationship between Operating leverage and EPS for all the six companies.

TABLE NO: 7 Combined Leverage and Earning Per Share

Company name	r' value	correlation result	't'value	Sig (p)
Bombay Dyeing & Mfg. Co. Ltd.	0.22	Low positive	0.49	N.Sig.
Lakshmi Mills Co. Ltd.	0.02	Low positive	0.20	N.Sig.
Raymond Ltd.	-0.14	Low negative	0.95	N.Sig.
Supreme Tex Mart Ltd.	0.46	Moderate positive	0.37	N.Sig.
Visaka Industries Ltd.	-0.70	Moderate negative	0.01	N.Sig.
Welspun India Ltd.	-0.50	Moderate negative	0.45	N.Sig.

Table No- 7 reveals that the correlation between the Combined leverage and EPS is positive for Bombay Dyeing & Mfg. Co. Ltd., Lakshmi Mills Co. Ltd. And Supreme Tex Mart Ltd. and remain three

Conclusion

- Leverage is the employment of an assets/source of financial which a firm pays fixed cost/fixed return.
- Overall leverage of Lakshmi Mills Co. Ltd is maximum indicating higher profits and also ensuring that any small change will lead to more reflection.
- During the study period of six years from 2005 to 2010, the mean value of EPS for Raymond Ltd. is high as compared to the other five companies. Visaka Industries Ltd shows an average performance during the study period.

It is concuded that the companies could reframe their optimum capital structure and capacity utilization for futher profitabilty in future.

Suggestions

- DFL and EPS have a relationship with each other for Welspun India Ltd., hence it is suggested to reframe their optimum capital structure.
- 2. The DFL, DOL, DCL gives an evidence to conclude that Lakshmi Mills Co. Ltd is having high profits well as high variation chances; hence it is suggested that they move carefully to further improve themselves.
- Visaka Industries Ltd shows the highest EPS when compared to other five companies. But Standard deviation is much higher which indicates higher variation i.e. risk. Hence it is suggested to reduce the operating fluctuations.
- 4. It is suggested to Raymond Ltd, Visaka Industries Ltd and Welspun India Ltd. Industries to concentrate more on the earnings of its real owners and to reframe their capital structure for which they could select some cheap source of funds.
- It is suggested to Lakshmi Mills
 Co. Ltd and Bombay Dyeing & Mfg. Co. Ltd has to improve their overall capital structure position.

Bibliography

- Don Wells (2007) 'Best Practice' in the Regulation of International Labor Standards: Lessons of the US-Cambodia Textile Agreement', McMaster University, Comparative Labor Law & Policy Journal, Vol. 27, No. 3, p. 357, 2006.
- Aurora Gómez-Galvarriato and Gabriela Recio (2008) "The Indispensable Service of Banks: Commercial Transactions. Industry, and Banking in Revolutionary Mexico" Colegio de Mexico, Enterprise & Society: The International Journal of Business History, Vol. 8, Issue 1, pp. 68-105, 2007.
- Oona A. Hathaway (2008)
 "Positive Feedback: The Impact of Trade Liberalization on Industry Demands for Protection", Yale University - Law School, International Organization, Vol. 52, No. 3, 1998.
- Indrajit Ray(2009) "Identifying the Woes of the Cotton Textile Industry in Bengal: Tales of the Nineteenth Century", Department of Commerce, University of North Bengal, *The Economic History Review*, Vol. 62, Issue 4, pp. 857-892, November 2009.

- Devanathan Sevilimedu Veeravalli
 (2010) "Women Camp Labour: A
 Case Study on Tirupur Textile
 Industries, India ", Saranathan
 College of Engineering.
- G.Mohan Kumar & V.S.Sidharth (2011) Metallic Yarns and Fibres in Textiles , *The authors are associated with Department Of Textile Technology, Bannari Amman Institute of Technology, Sathyamangalam, Erode Dt, TN.*
- Seshadri Ramkumar (2011) "Indian Textiles: Opportunities constraints", author is The with Texas associated Tech University, USA, The views presented in article are of the author; based on the happenings in the industry.
- T. Karthik & P. Ganesan (2011)

 "Application of High Performance
 Auxetic Materials in Textiles", The
 authors are Assistant Professor in
 the Department of Textile
 Technology at PSG College of
 Technology, Coimbatore.
- Dr. D. Narasimha Reddy (2011)
 "Issues in Cotton Textile Supply Chain", The author is Independent Textile Analyst, This study was presented at National Workshop on National Fibre Policy: Small

Producers in Fibre Supply Chains on Hyderabad, 30th March, 2010.