

A Study on the Effect of Material Price Fluctuations on the Profitability of Yarn Industry in India (with Special Reference to Precot Meridian Ltd)

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Abstract

This article focuses on the effect in profitability of yarn producers when the prices of cotton are fluctuating with special reference to Precot Meridian Ltd. Even though there is an increase in the sales volume and reduction in the cost, Yarn producers facing the risk of maintaining the profitability margin. The only raw material of yarn production is Cotton. And the cotton is a seasonal product. So the purchase of raw material is on seasonal basis. Cotton price in Domestic Market and International Market are different and it is always fluctuating. After Globalization as the yarn producers have both domestic and export sales, they have to face heavy competition in domestic market with importers and in the foreign market with other yarn export countries.

Keywords: Cotton, Yarn, Price fluctuations, Precot meridian

Introduction

Cotton textile industry is quite widespread in the world and as many as 90 countries are producing cotton yarn and/or cloth in varying quantity. The leading producers of cotton cloth in the world are China, India, Russia, USA, Japan, Italy, Germany, Hong Kong, Egypt, France and Romania. India has the world's second largest spinning capacity, commanding a share of the global Cotton Yarn market – currently producing over 4700 Mn.Kgs of spun yarn of which over 3,400 Mn.Kgs is cotton yarn. Cotton Yarn accounts for nearly 73% of total spun yarn production.

Precot is one of the premium textile groups in India which produce world class yarn. It is dedicated services for more than forty three years and various steps are implemented for achieving customers as well as employees satisfaction has helped Precot to earn an eminent position in the industrial horizon of South India. The fundamental objectives of Precot Meridian Ltd is to produce good quality products and to strengthen company's base through increased productivity, effective utilization of the materials and manpower resource and applied a continues application of modern, scientific methods for achieving company objectives.

Since the precot has grown by leaps and bounds and has spread its wings to all the southern state of India. It has now under its umbrella six production units and four satellite units involved in production of cotton and polyester and also high quality dyed and mercerized fabrics. Precot got ISO certification in 1995 and has now successfully implemented 5s system. It has already initiated steps to implement the Total Productive Management and total Quality Management. Precot groups have 12 mills. It has mill in Andhra Pradesh, Kerala, Tamilnadu and Karnataka. The central office which controls there 12 mills located at Coimbatore. The final decision about the qualities of the products, sales and contracts and contracts approval of production planning, policy decision etc, takes in the central office.

The company has domestic as well as export sales. So the company's purchase policy, inventory policy, and distribution policy depends on internal and external market conditions. The raw material of company is cotton and it is a seasonal product so the purchase and inventory policy depends on season too. Precot meridian mainly use Indian cotton like LK, DCH, MECH, MCU-S, KDCH, MPDCH and these are purchased from Andharapradesh, Maharashtra, and Karnataka. Precot import cotton like GIZA-70, 86, 88, 89, PIMA-US, from Australia, America, Egypt & Africa for producing the best quality yarn. Cotton purchase in form of bales and one bale weight up to 160 to 200kgs. Since cotton is an agricultural product they purchase the maximum quantity for the production of the Whole year during the seasons.

RESEARCH PROBLEM

This project addresses the overall problem of fluctuations in cotton price and its effect in the profitability of yarn producers in India with special reference to Precot Meridian Ltd. The fluctuations in cotton price will vary the yarn price. Yarn producers facing the hard competition in the Domestic as well as International market. So these price fluctuations will adversely affect the profitability margin. Awareness in national and international cotton pricing policies and introduction of strategic purchase procedures and cost control measures will help the company to withstand the contingencies.

OBJECTIVES

- To study the financial performance of Precot Meridian Limited.
- To study the relationship between Profitability and sales.
- To analyze the influence of price fluctuations in the Profitability of Precot Limited.

NEED FOR THE STUDY

The textile industry is one of the leading sectors in the Indian economy as it contributes nearly 14 percent to the total industrial production. The textile industry in India is claimed to be the biggest revenue earners in terms of foreign exchange among all other industrial sectors in India. This industry provides direct employment to around 35 million people, which has made it one of the most advantageous industrial sectors in the country.

Some of the important benefits offered by the Indian textile industry are as follows:

- India covers 61 percent of the international textile market
- India covers 22 percent of the global market
- India is known to be the third largest manufacturer of cotton across the globe
- India claims to be the second largest manufacturer as well as provider of cotton yarn and textiles in the world
- India holds around 25 percent share in the cotton yarn industry across the globe
- India contributes to around 12 percent of the world's production of cotton yarn and textiles.

As it has a great role in our Indian economy, its existence and growth is also important. This study aims at bringing the attention with regard to price fluctuations of cotton price on the profitability of yarn industry. This study will definitely help to understand the influence of cotton price in profit margin of yarn industry.

HYPOTHESIS

H₀ - There is a perfect linear correlation between Profitability and Sales

METHODOLOGY

PERIOD OF THE STUDY

Period of study is ten years from 2004-2005 to 2013-2014

SOURCE OF DATA

Secondary Data is used for the study

Secondary data collected from Company Annual Reports, Websites, Newspapers, and Journals

TOOL FOR ANALYSIS

The tools used for analysis are Ratios and Correlation.

REVIEW OF LITERATURE

Vijaya Switha Grandhi(2007), " Price Volatility in the Cotton Yarn Industry: Lessons from India" © 2007 International Institute for Sustainable Development (IISD) Published by the International Institute for Sustainable Development, discussed the impacts of cotton yarn price volatility on handloom weavers, and the public and private interventions that have been employed to address them. Efforts to date have been sporadic and disjointed, with the issues associated with cotton yarn price volatility often marginalized by policy-makers more focused on interventions in the cotton sector. Interventions to date have included pricing controls, technological improvements, decentralization in the spinning sector, vertical integration and micro-level yarn stock maintenance schemes. The failure of these interventions made a significant impact to the need for a more integrated approach to tackling cotton yarn price volatility.

Dr. Devendra Shrimali(2011), in his paper "Performance of Indian Textile & clothing Industry in the United States Market : A Post ATC Analysis" attempts to study the global textile & clothing trade pattern and export performance of Indian textile & clothing industry vis-à-vis its competitors in the United States market. The empirical findings suggest that India in textile & clothing market of United States not only losing its share to China but also find it difficult to compete with countries like Bangladesh and Cambodia in certain segments. It

has also been noticed that Indian exports of textiles & clothing is highly correlated with global trade pattern in contrast to China, Bangladesh etc.

Chong Yu-han(2012) TIER Industry Report - Yarn Spinning Mills, Cotton. 7/2/2012, p1-13. 13p. 6 Charts, 3 Graphs, discussed the average price of cotton falls below the 100 cent US\$ mark in the world marketplaces in the second quarter of 2012, bringing down the selling price of cotton. Meanwhile, downstream firms stood on the sidelines when it came to buying cotton fearing a further slide in cotton prices worldwide and the escalation of euro-zone sovereign debt crisis from Greece to Spain. A decline in cotton price worldwide, cautious demand from the downstream firms in China and the ongoing euro-zone sovereign debt crisis bode ill for demand and prices of cotton yarn products, suggesting that the industry sales will slightly fall in the second half of 2012 from the same period a year earlier.

DATA ANALYSIS AND INTEPRETATION

Data analysis and interpretation is the process of assigning meaning to the collected information and determining the conclusions, significance, and implications of the findings.

Ratio analysis is a fundamental means of examining the health of a company by studying the relationships of key financial variables. Here Profitability ratios based on sales such as Net profit ratio, Gross profit ratio, Operating ratio, and Operating profit ratio are discussed.

1. Table showing the Sales and Net Profit for the Past Ten years

Net profit ratio=Net profit/Net sales*100,

this ratio measures the overall profitability of the firm. The ideal net profit ratio is 5% to 10%.

(Rs. In crores)

Year	Sales	Net Profit	Net profit ratio (%)
2005	240.41	8.1	3.369244
2006	232.01	15.02	6.473859
2007	336.48	18.89	5.614004
2008	370.7	5.12	1.381171
2009	383.86	-8.71	-2.26906
2010	441.35	15.72	3.561799
2011	574.72	32.6	5.672327
2012	594.04	-52.83	-8.89334
2013	667.17	20.69	3.101159
2014	738.19	30.45	4.124954

Figure 1

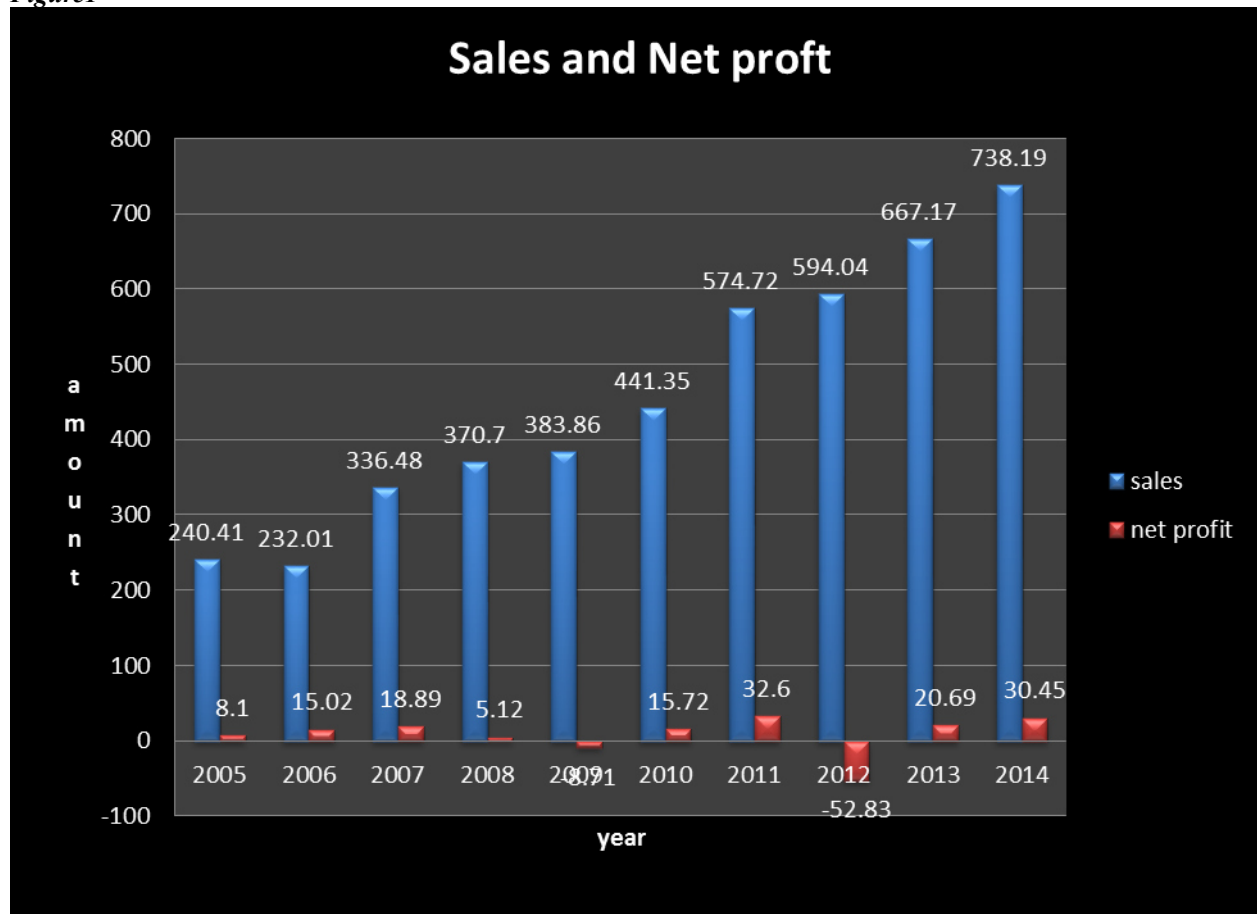
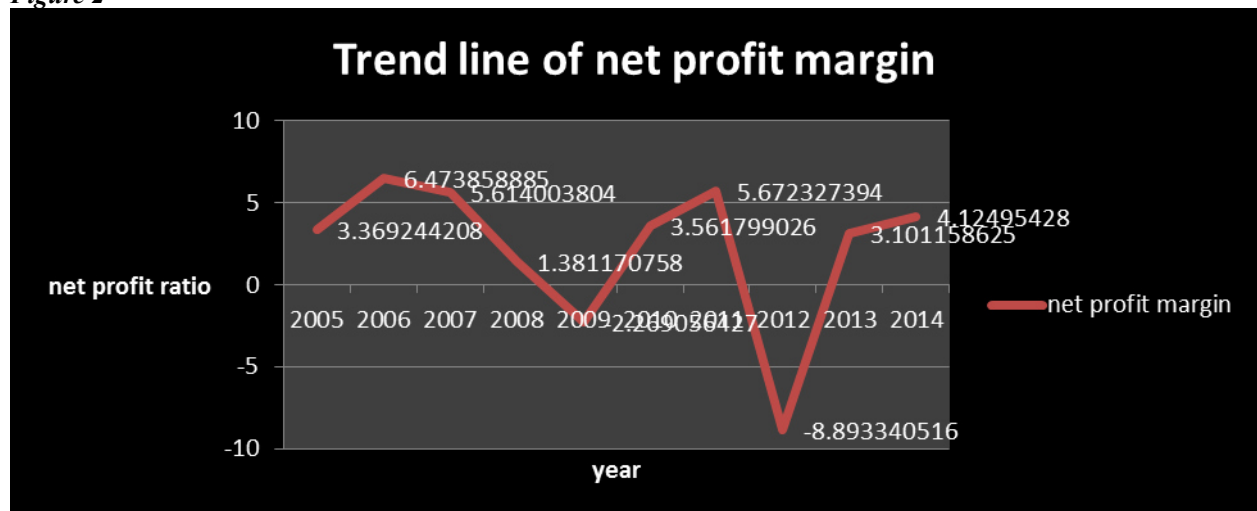


Figure 2



Inference: from the above it is clear that company shows an increasing trend in sales but the company's net profit margin shows a fluctuating trend. In the year 2009 and 2012 the company incurred loss. Increasing trend in sales is not proportionately influencing the profitability of the company.

2. Table showing the Sales and Gross Profit for the Past Ten years

1. GROSS PROFIT RATIO

Gross profit ratio = $\frac{\text{Gross profit}}{\text{Net sales}} \times 100$

This ratio is calculated to determine the efficiency in trading or production activity.

The ideal ratio is 20% to 25%

(Rs. In crores)

Year	Sales	Gross profit	Gross profit ratio (%)
2005	240.41	25.43538	10.58
2006	232.01	35.33512	15.23
2007	336.48	47.14085	14.01
2008	370.7	18.57207	5.01
2009	383.86	7.331726	1.91
2010	441.35	36.98513	8.38
2011	574.72	53.33402	9.28
2012	594.04	-52.4537	-8.83
2013	667.17	45.70115	6.85
2014	738.19	41.33864	5.6

Figure 3

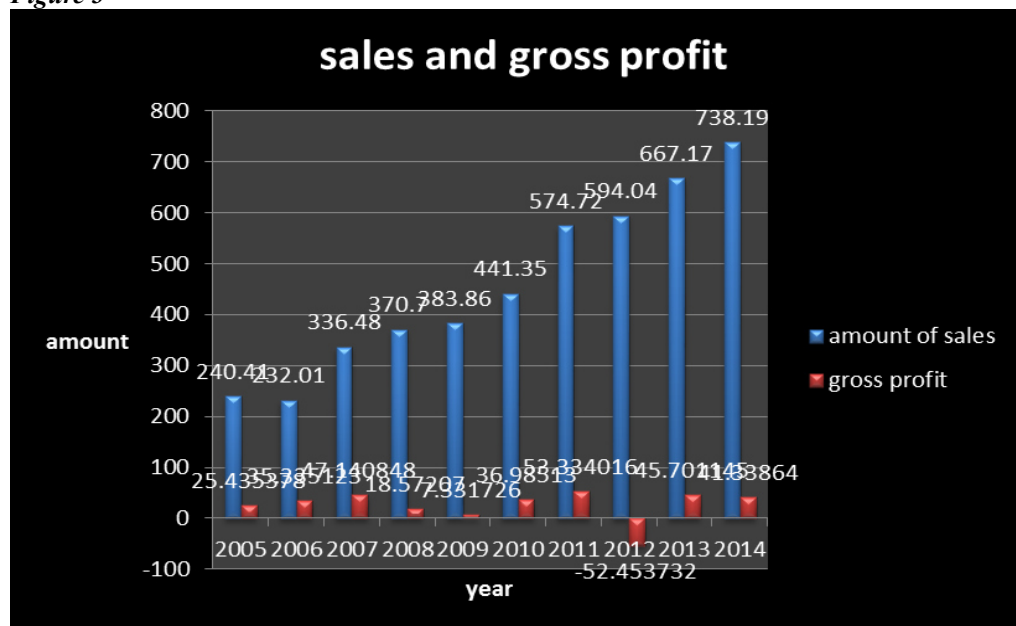
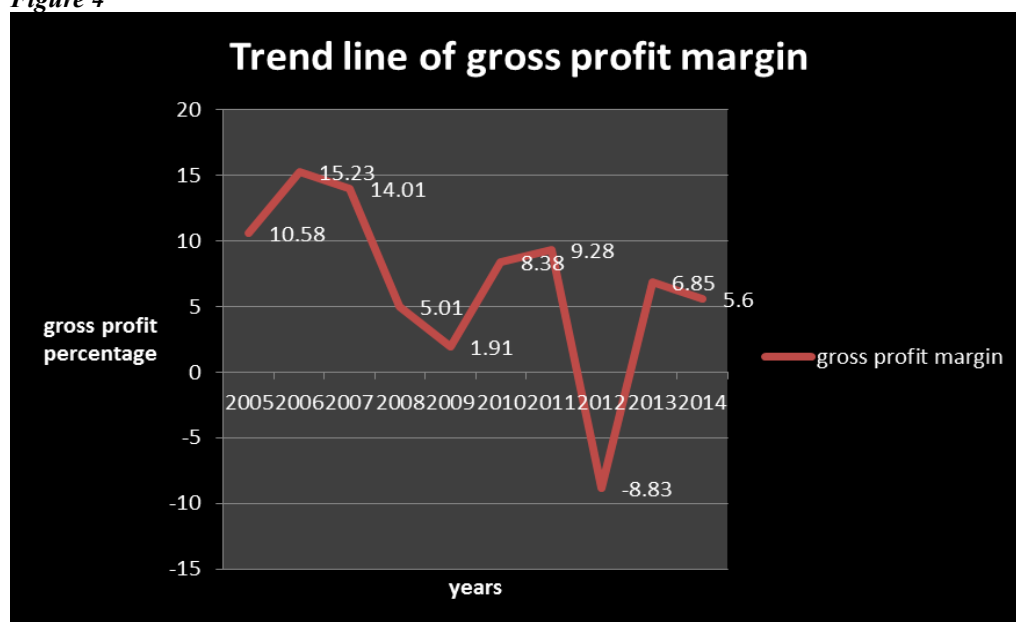


Figure 4



Inference: from the above it is clear that in the year 2009 has comparatively less Gross profit, and in the year 2012 the company incurs a heavy loss. Even though the company shows an increasing sales trend, Company was unable to maintain an increasing trend in gross profit margin.

3. Table showing the Sales and Operating Profit for the Past Ten years

Operating margin or **operating profit margin** measures what proportion of a company's revenue is left over, after deducting direct costs and overhead and before taxes and other indirect costs such as interest. **Operating margin formula** is:

$$\text{Operating profit ratio} = \text{Operating profit} / \text{Net sales} * 100$$

(In crores)

Year	Sales	Operating profit	Operating profit ratio (%)
2005	240.41	30.74	12.78649
2006	232.01	35.11	15.13297
2007	336.48	54.91	16.31895
2008	370.7	45.27	12.21203
2009	383.86	37.26	9.706664
2010	441.35	64.92	14.70941
2011	574.72	80.31	13.97376
2012	594.04	-22.59	-3.80277
2013	667.17	76.06	11.40039
2014	738.19	80.82	10.9484

Figure 5



Figure 6



Inference: from the above it is clear that in the year 2009 has comparatively less Operating profit, and in the year 2012 the company incurs a heavy loss. Even though the company shows an increasing sales trend, Company was unable to maintain an increasing trend in Operating profit margin.

4. Table showing the Sales and Total cost for the Past Ten years

The cost-to-sales ratio measures operation efficiency by comparing operating costs as a proportion of the total revenue.

$$\text{Cost to sales ratio} = (\text{total cost} / \text{sales}) * 100$$

(Rs. In crores)

Year	Sales	Total Cost	Total cost to sales ratio
2005	240.41	206.76	86.00308
2006	232.01	197.82	85.26357
2007	336.48	291.26	86.56087
2008	370.7	328.06	88.49744
2009	383.86	337.45	87.90965
2010	441.35	379.49	85.98391
2011	574.72	540.03	93.96402
2012	594.04	590.03	99.32496
2013	667.17	583.05	87.39152
2014	738.19	678.2	91.87337

Figure 7

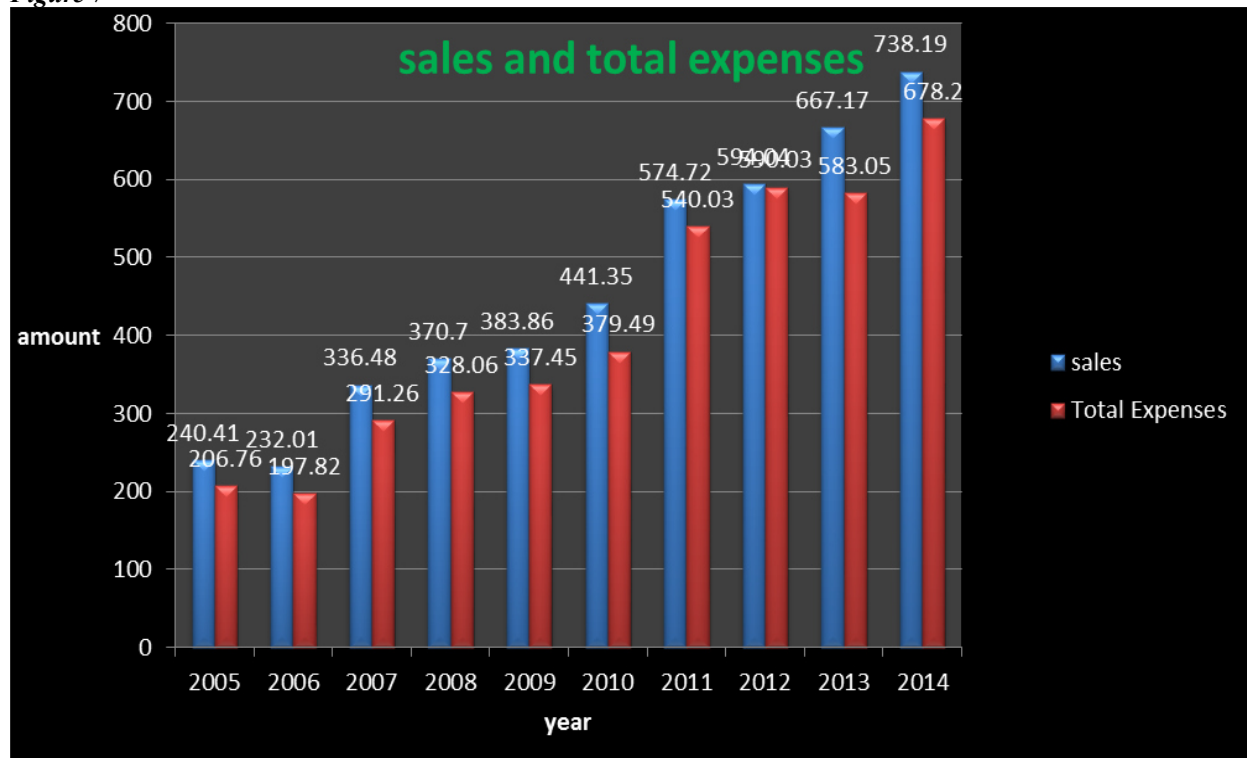
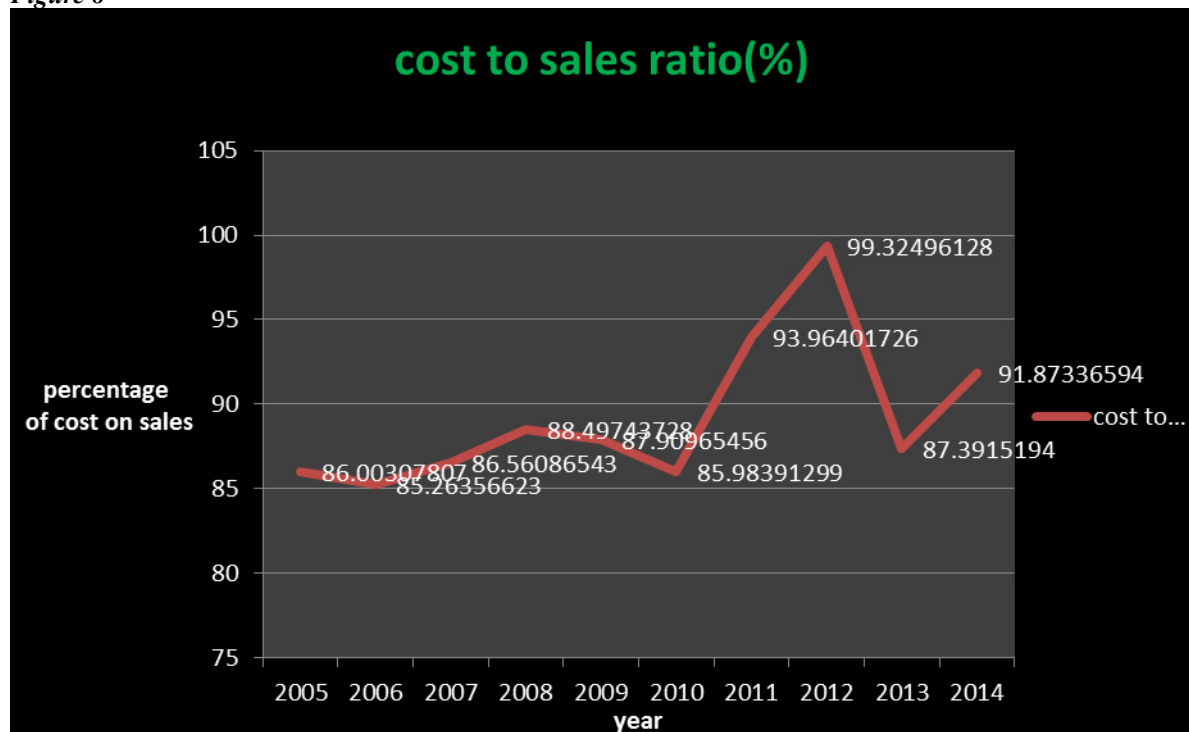


Figure 8



Inference: Sales are increasing year by year correspondingly cost is also increasing year by year, so company cannot attain any high profit margin even though the company shows an increasing trend in sales. In the year 2012 company shows high cost and in the year 2009 company shows his cost while compared to previous years.

5. Table showing the material cost and other cost to Total cost

Total cost = Material cost + other cost

Material cost to total cost is to find out the proportion of material cost in total cost

Material cost to total cost = (material cost/Total cost)*100

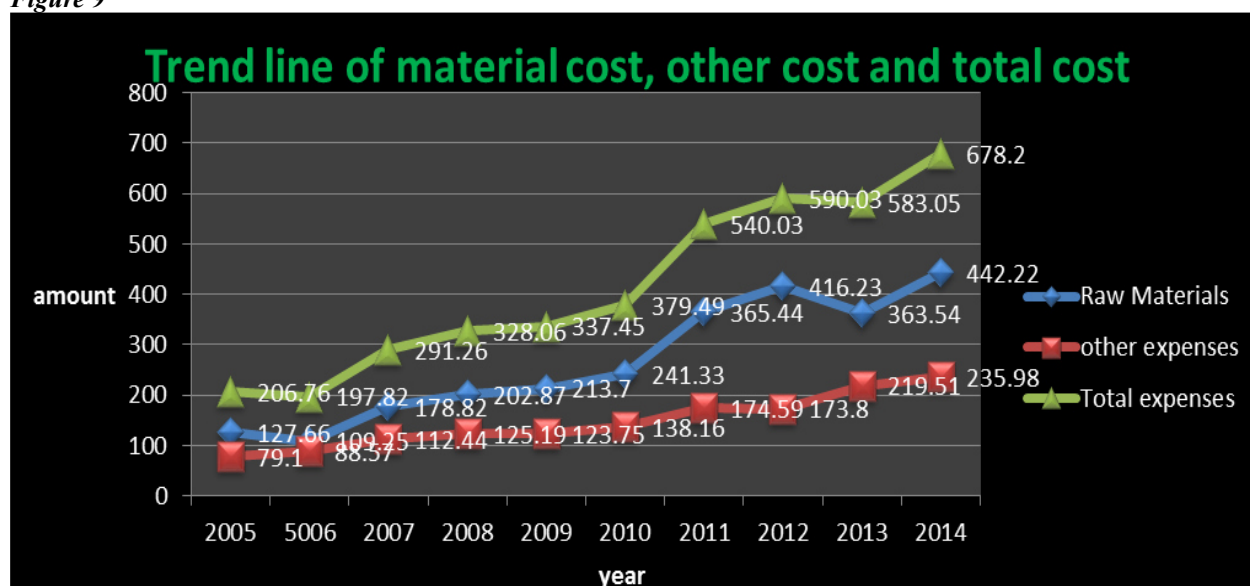
Other cost to total cost ratio is to find out the proportion of cost other than material from total cost

Other cost to total cost = (other cost/ total cost)*100

(Rs. In crores)

Year	Total Cost	Material cost	Material cost to total cost ratio (%)	Other cost	Other cost to total cost ratio (%)
2005	206.76	127.66	61.74308	79.1	38.25692
2006	197.82	109.25	55.22697	88.57	44.77303
2007	291.26	178.82	61.39532	112.44	38.60468
2008	328.06	202.87	61.8393	125.19	38.1607
2009	337.45	213.7	63.3279	123.75	36.6721
2010	379.49	241.33	63.59324	138.16	36.40676
2011	540.03	365.44	67.67031	174.59	32.32969
2012	590.03	416.23	70.54387	173.8	29.45613
2013	583.05	363.54	62.35143	219.51	37.64857
2014	678.2	442.22	65.20495	235.98	34.79505

Figure 9



Inference: Major cost element in Total cost is material cost, so that any price fluctuations in material will affect the total cost and profit margin. Trend line of total cost and material cost are similar to each other.

6. Table showing the position of sales, cost, and profit based on the two years 2009 and 2012 where the company incurred loss.
In crores

Year	Sales	Total Cost	Material cost	Other cost	Profit
2009	383.86	337.25	213.7	123.75	-8.71
2012	594.04	590.03	416.23	219.51	-52.83

Figure 10



Inference:

In the year 2009 and 2012 cost shows a higher increasing trend than sales and that resulted in to loss. Material cost is the largest portion of total cost. So any fluctuation in material price highly affected to profit margin.

HYPOTHESIS TESTING

Hypothesis H0: There is a perfect linear correlation between Profitability and Sales

CORRELATION ANALYSIS

A correlation is a single number that describes the degree of relationship between two variables. The correlation coefficient always takes a value between -1 and 1, with 1 or -1 indicating perfect correlation.

Four important interpretations of (1) are given below:

A correlation of -1 or +1 implies a perfect linear relationship between x and y: $y=cx$, for some constant c.

A positive correlation implies a positive relationship between x and y: as x increases, y increases.

A negative correlation implies a negative relationship between x and y: as x increases, y decreases.

CORRELATION BETWEEN SALES AND PROFIT OF PRECOT MERIDIAN

YEAR	SALES (X)	Profit (Y)
2005	240.41	8.1
2006	232.01	15.02
2007	336.48	18.89
2008	370.7	5.12
2009	383.86	-8.71
2010	441.35	15.72
2011	574.72	32.6
2012	594.04	-52.83
2013	667.17	20.69
2014	738.19	30.45

AS PER KARLPEARSON COEFFICIENT CORRELATION

$$r = .019$$

Inference: From the above analysis it is clear that there is no perfect linear correlation between sales and profit. So here null hypothesis rejected.

FINDINGS

It is clear that company shows an increasing trend in sales but the company's net profit margin shows a fluctuating trend. In the year 2009 and 2012 the company incur loss .Increasing trend in sales is not influencing the profitability of the company. In the year 2009 has comparatively less Gross profit, and in the year 2012 the company incurs a heavy loss. Even though the company shows an increasing sales trend, Company was unable to maintain an increasing trend in gross profit margin. it is clear that in the year 2009 has comparatively less

Operating profit, and in the year 2012 the company incurs a heavy loss. Even though the company shows an increasing Sales trend, Company was unable to maintain an increasing trend in Operating profit margin. Sales are increasing year by year correspondingly cost is also increasing year by year, so company cannot attain any high profit margin even though the company shows an increasing trend in sales. In the year 2012 company shows high cost and in the year 2009 company shows his cost while compared to previous years. Major cost element in Total cost is material cost, so that any price fluctuations in material will affect the total cost and profit margin. Trend line of total cost and material cost are similar to each other.

SUGGESTIONS

The company should adopt data mining strategy to survive in the global market. The company should take necessary measures to withstand the uncertain contingencies in the global economy. The company should be aware about the domestic and international market cotton pricing policies. Proper cost minimization techniques should be adopted to control production cost. Material cost should be minimised by applying proper purchase procedure.

CONCLUSION

In a vibrant market condition, doing business is a big challenge. And these buy-sell challenges can be met by taking informed decision. On analyzing the over all picture of Precot meridian Ltd in India, It can be said that the price of raw materials is the cost effecting key factor in the total cost the product. So any fluctuations in the material price will strongly affect the profitability of the product. As the yarn producers facing the hard competition in the Domestic as well as International market it is advisable to have a separate data warehouse and data mining department for updating the information with regard to the latest trend in the economy and market. Yarn Industry is one of privilege of our Indian economy, so the companies under such industry should be protected and guided. Precot meridian ltd in India suffered loss in 2009 and 2012 but it made better position in 2013. If the company make aware of updated information in the global economy and practice effective cost control system, it will succeed to best position.

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