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The Impact of Cost of Production on Gross Profit - A Study with Cotton Industry

KEYWORDS: Cost of production – Gross profit – Leverages – Management efficiency.

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ABSTRACT *The gross profit is the return earned out of company's investment and best indicator of performance of production department. Its mainly depends upon cost of production. If cost of production increases the gross profit will decreases and vice-versa. The present study concentrates on the impact of cost of production on gross profit and to assess the relationship between components of cost production i.e. raw materials, labour & other manufacturing expenses and gross profit. For evaluating the above objectives, the leverage and mean are used. Suryajyothi spinning mills Ltd have been taken as sample unit and data collected from the year 2002-03 to 2011-12. The results show that there is a significant impact of cost of production on gross profit. The company has to reduce the cost of production; thereby they can increase the gross profit and improve the wealth of the company.*

Introduction
Gross profit is the difference between sales and cost of goods sold. This financial metric is a good indicator of the company's operating efficiency. Gross profit is affected by a number of items that need to be closely monitored by managers. The important factors influencing gross profit are changes in materials price, changes in labour price, changes in inventory method, changes in sales and other manufacturing expenses. If there is any change in the cost of goods sold automatically there will be a change in the gross profit.

Costs of goods sold are all of the costs associated with manufacturing a product or service. Costs include all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition. Costs of goods made by the business include material, labour, and allocated overhead. If the cost of raw materials used to manufacture products and services increases, then your costs of goods sold will be higher, and your gross profit will be lower.

The present study concentrated on what are the impacts of cost of production on gross profit.

Objectives of the study
1) To analyse the leverage of gross profit to cost of goods sold.
2) To evaluate the relationship between gross profit and raw materials.
3) To assess the effectiveness of labour cost on gross profit.
4) To examine the other manufacturing expenses and gross profit.

Research Methodology
This study is based on secondary data. The data required for this study have been extracted from the annual reports of Suryajyothi spinning mills Ltd, Hyderabad. The study covered a period of ten years starting from 2002-03 to 2011-12. The study covers mainly the following aspects of gross profit analysis (i) Components of cost of goods sold, (ii) raw materials consumed, (iii) Trends of labour cost, (iv) Usage of other manufacturing expenses and (v) cost of goods sold impact on gross profit.

Tools and techniques used
For this study mean, leverage, ratio and percentage are used to calculate the prescribed objectives. In dictionary meaning, leverage is the ability to influence situations or people so that you can control what happens.

Limitations of the study
The study has restricted to gross profit and cost of goods sold. It does not consider the office and administrative expenses and general expenses. Similarly net profit and earnings per share are also neglected.

Analysis of the study
Table: 1 shows that leverage of gross profit to cost of goods sold. The average leverage of gross profit to cost of goods sold is 1.40 times. The gross profit has increased from Rs. 5.03 crores in 2002-03 to Rs.41.18 crores in 2010-11. But in 2011-12, it has decreased abnormally to Rs. 6.22 crores. Whereas, in case of cost of goods sold having increasing trend during the study period except in the year 2008-09. The percentage change in gross profit was highest in the year 2011-12 i.e. 695.03 percent. But it has negatively changed i.e.818.69 percent to 123.66 percent. As far as concerned to percentage change in cost of goods sold it has increased from 377.22 percent in 2010-11 to 421.01 percent in 2011-12. Therefore leverage of gross profit to cost of goods sold was 0.29 only in the year 2011-12.

Table:1 Leverage of Gross profit to Cost of goods sold

				(Rs. In crores)	
Year	Gross profit	COGS	% change in GP	% change in COGS	Leverage of GP to COGS
2002-03	5.03	93.60	100.00	100.00	1.00
2003-04	6.29	103.10	125.05	110.15	1.14
2004-05	9.64	123.29	191.50	131.72	1.45
2005-06	13.29	127.36	264.21	136.07	1.94
2006-07	18.25	147.50	362.82	157.59	2.30
2007-08	18.19	276.79	361.36	295.72	1.22
2008-09	13.00	196.52	258.45	209.96	1.23

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2009-10	17.18	252.35	341.55	269.60	1.27
2010-11	41.18	353.08	818.69	377.22	2.17
2011-12	6.22	394.07	123.66	241.01	0.29
Mean	14.83	206.77	294.73	216.53	1.40

Source: Annual reports of Suryajyothi spinning mills Ltd.

The leverage of gross profit to raw materials shown on Table: 2. Raw materials have increased from Rs. 65.03 crores in 2002-03 to Rs. 254.24 crores in 2011-12. The highest percentage change in raw materials was in the year 2010-11. Incidentally the gross profit also increased from Rs. 17.18 crores to Rs. 41.18 crores in 2011-12. It shows that investment in raw materials improved the gross profit significantly. But the percentage change in gross profit and percentage change in raw materials is 477.14 percent and 132.67 percent respectively. The overall average leverage of gross profit to raw materials is 1.50 times. This is more than the average leverage of gross profit to cost of goods sold i.e. 1.40 times.

Table:2 Leverage of Gross profit to Raw materials

				(Rs. In crores)	
Year	Gross profit	Raw Materials	% change in GP	% change in Raw Materials	Leverage of GP to Raw Materials
2002-03	5.03	65.03	100.00	100.00	1.00
2003-04	6.29	73.61	125.05	113.19	1.10
2004-05	9.64	92.55	191.50	142.32	1.35
2005-06	13.29	88.45	264.21	136.01	1.94
2006-07	18.25	103.14	362.82	158.60	2.29
2007-08	18.19	126.35	361.36	194.29	1.86
2008-09	13.00	128.05	258.45	196.91	1.31
2009-10	17.18	147.03	341.55	226.10	1.51
2010-11	41.18	233.31	818.69	358.77	2.28
2011-12	6.22	254.24	123.66	390.96	0.32
Mean	14.83	131.18	294.73	201.72	1.50

Source: Annual reports of Suryajyothi spinning mills Ltd.

The leverage of gross profit to labour explains the changes in gross profit due to changes labour cost. The average leverage of gross profit to labour is 1.30. Labour cost increased from Rs. 3.88 crores in 2002-03 to Rs. 22.78 crores in 2011-12. Similarly the percentage change in labour also having an increasing trend except in the year 2003-04. The leverage of gross profit to labour was highest in 2005-06 i.e. 2.23 times and there was a huge change in percentage of gross profit when compared to percentage change in labour. It shows that planning and control in labour cost and management's efficiency. But in the year 2011-12, it was lowest i.e. 0.21 times only. The average leverage of gross profit to labour is 1.30 times.

The average leverage of gross profit to other manufacturing expenses is 1.33 times. This is more than the average leverage of gross profit to cost of goods sold i.e. 1.40 times. The other manufacturing expenses have increased slowly up to 2006-07. But in 2007-08, it has increased abnormally i.e. Rs. 139.98 crores. The percentage change in other manufacturing expenses has also increased from 147.71 percent in 2006-07 to 599.95 percent in 2007-08. The leverage of gross profit to other manufacturing expenses was .64 times only. It has happened due to decrease in gross profit i.e. Rs. 18.25 crores in 2006.07 to Rs. 18.19 crores in 2007-08. The leverage of gross profit to other manufacturing expenses ranged from 0.26 times to 2.46 times. (Table: 3)

Table:3 Leverage of Gross profit to Labour and leverage of Gross profit to Other manufacturing expenses

					(Rs. In crores)			
Year	Gross profit	Labour	Other ME	% change in GP	% change in Labour	% change in Other ME	Leverage of GP to Labour	Leverage of GP to Other ME
2002-03	5.03	3.88	24.69	100.00	100.00	100.00	1.00	1.00
2003-04	6.29	3.81	25.68	125.05	98.20	104.01	1.27	1.20
2004-05	9.64	3.96	26.78	191.50	102.06	108.46	1.88	1.77
2005-06	13.29	4.60	34.31	264.21	118.56	138.96	2.23	1.90
2006-07	18.25	7.89	36.47	362.82	203.35	147.71	1.78	2.46
2007-08	18.19	10.46	139.98	361.36	269.59	599.95	1.34	0.64
2008-09	13.00	11.31	57.16	258.45	291.49	231.51	0.89	1.12
2009-10	17.18	14.73	90.59	341.55	379.64	366.91	0.90	0.93
2010-11	41.18	20.70	99.07	818.69	533.51	401.26	1.53	2.04
2011-12	6.22	22.78	117.05	123.66	587.11	474.08	0.21	0.26
Mean	14.83	10.41	65.18	294.73	268.35	269.29	1.30	1.33

Source: Annual reports of Suryajyothi spinning mills Ltd.

Conclusion

The raw materials occupies significant portion of cost of goods sold. Moreover the average leverage of gross profit to raw materials is more than the average leverage of gross profit to cost of goods sold. Therefore the company has to control the raw materials cost. The labour has less impact on gross profit to labour was moderate i.e. 1.30 percent only. But the company has to concentrate much on other manufacturing expenses. Because of not only leverage of gross profit to other manufacturing expenses i.e. 1.33 percent but also the other manufacturing expenses occupies a sizable portion in cost of goods sold. It can be understood through the average other manufacturing expenses i.e. Rs. 65.18 crores.

Finally the average of gross profit to cost of goods sold and other leverages showed a positive sign of profitability. But leverage is a double-edged knife. If there is one percentage decrease in cost of goods sold automatically there will be 1.40 percent decrease in gross profit. Therefore, the company has to maintain the balance between the gross profit and cost of goods sold.

REFERENCE

Annual reports of Suryajyothi spinning mills Ltd, from 2002-03 to 2011-12. | Maheshwari, S.N. "Management Accounting and Financial Control." Sultan Chand & Sons, New Delhi: 1996. | Pandey, I.M. "Financial Management". Ninth Edition,Vikas Publishing House, New Delhi. | Jain, S.P. & Narang,K.L. "Cost and management accounting." Kalyani Publishers, New Delhi: Fourth edition, 2005.