



भारतीय प्रबंध संस्थान बेंगलूर
INDIAN INSTITUTE OF MANAGEMENT
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**General Management Program for Young Leaders
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Accounting for Decision Making

Project 3: Summary of Cost Volume Profit (CVP) Index of Select Indian Companies

Introduction

Cost-Volume-Profit (CVP) analysis is used to understand how volume affects cost which in turn affects the profit. Cost is divided into variable cost and fixed cost. The difference between selling price and variable cost is called contribution margin. The firm reaches break-even point if the total contribution is equal to fixed cost. The difference between current sales and break-even sales is called Margin of Safety. While Contribution Margin shows how profitable a firm is, the Margin of Safety tells how risky a firm is to get into loss status when there is a downtrend. Ideally, a firm should have high contribution margin and high MOS. It is possible to develop an Index that integrates risk and return. The CVP Index is defined as follows:

$$CVP\ Index = \frac{Contribution}{Sales} \times \frac{Sales}{BEP\ sales}$$

The first term in the index is a measure of return. If the Contribution/Sales is high, it shows the firm's profitability is good. The second term in the index is a measure of risk. If the Sales/BEP Sales is high, it means the firm's current sales is far away from BEP sales and hence probability of the firm getting into loss position is low. Thus, if the CVP Index value is high, it shows the firm is profitable and less risky. The CVP Index uses cost structure to measure both profitability and risk dimension.

The YLP participants computed CVP Index for 25 companies as shown in the Table 1. The analysis shows the following:

1. The contribution margin ranges between 37.22% (Dr Reddy's Lab) and 8.31% (TVS Srichakra)
2. On risk dimension (Sales/BEP Sales), Wockhardt has the highest risk whereas Bajaj Motors scores least risk.
3. On risk-return dimension, Eicher Motor scores high (3.35) and Wockhardt scores least (0.12)
4. Bajaj Motors, Pidilite and Dabur India are three other companies whose CVP Index is more than 1. They score not only high on contribution margin, but their current sales are far above Break-even sales.

Sl. No.	Company	Industry	CVP Index	Contribution Margin	Fixed Cost	BEP Sales	Current Sales	Sales/BEP Sales
1	Eicher motor	Automobile	3.3538	29.12%	225.38	773.95	8913.43	1151.68%
2	Bajaj Motor	Automobile	2.5587	18.10%	316.11	1746.88	24700.30	1413.97%
3	PIDILITE	Chemical	1.6968	19.52%	135.49	694.05	6032.40	869.15%
4	Dabur India	FMCG	1.1286	17.81%	215.23	1208.15	7653.82	633.51%

5. Top firms on CVP Index in each industry are given below:

Sl.No.	Company	Industry	CVP Index	Contribution Margin	Fixed Cost	BEP Sales	Current Sales	Sales/BEP Sales
1	Ambuja	Cement	0.3595	29.84%	2587.80	8671.25	10446.85	120.48%
2	Apollo	Tyre	0.3280	14.90%	883.72	5932.19	13062.97	220.20%
3	Indigo	Airline	0.3997	27.91%	4386.90	15715.74	22500.52	143.17%
4	PIDILITE	Chemical	1.6968	19.52%	135.49	694.05	6032.40	869.15%
5	Pfizer	Pharmaceuticals	0.7243	31.80%	274.76	864.13	1968.47	227.80%
6	Eicher Motor	Automobile	3.3538	29.12%	225.38	773.95	8913.43	1151.68%
7	Dabur India	FMCG	1.1286	17.81%	215.23	1208.15	7653.82	633.51%

Table: Industry-wise CVP Index of select Indian companies.

Sl.No.	Company	Industry	CVP Index	Contribution Margin	Fixed Cost	BEP Sales	Current Sales	Sales/BEP Sales
1	Ambuja	Cement	0.3595	29.84%	2587.80	8671.25	10446.85	120.48%
2	Ultratech	Cement	0.2870	24.79%	5372.13	21672.81	25091.62	115.77%
3	ACC	Cement	0.2818	19.41%	1728.56	8906.34	12930.95	145.19%
4	JK Cement	Cement	0.1406	12.60%	519.61	4124.21	4602.00	111.58%
5	Apollo	Tyre	0.3280	14.90%	883.72	5932.19	13062.97	220.20%
6	MRF	Tyre	0.2894	13.71%	856.86	6248.85	13186.48	211.02%
7	CEAT	Tyre	0.1721	11.39%	787.42	6914.41	10446.85	151.09%
8	TVS Srichakra	Tyre	0.1772	8.31%	75.80	912.36	1945.58	213.25%
9	Indigo	Airline	0.3997	27.91%	4386.90	15715.74	22500.52	143.17%
10	PIDILITE	Chemical	1.6968	19.52%	135.49	694.05	6032.40	869.15%
11	SOLAR	Chemical	0.5755	27.02%	235.78	872.68	1858.90	213.01%
12	JUBILANT	Chemical	0.5120	21.95%	699.33	3185.87	7431.03	233.25%
13	PCBL	Chemical	0.2817	18.49%	308.71	1669.39	2542.63	152.31%
14	Pfizer	Pharmaceuticals	0.7243	31.80%	274.76	864.13	1968.47	227.80%
15	Dr. Reddy	Pharmaceuticals	0.5303	37.22%	3711.16	9969.55	14202.80	142.46%
16	Cipla	Pharmaceuticals	0.2881	19.52%	1943.19	9953.83	14687.32	147.55%
17	Wockhardt	Pharmaceuticals	0.1171	10.98%	405.02	3689.80	3936.90	106.70%
18	Eicher Motor	Automobile	3.3538	29.12%	225.38	773.95	8913.43	1151.68%
19	Bajaj Motor	Automobile	2.5587	18.10%	316.11	1746.88	24700.30	1413.97%
20	TVS motor	Automobile	0.4945	11.43%	395.35	3459.34	14966.78	432.65%
21	Maruti Suzuki	Automobile	0.3771	14.49%	4346.08	30003.59	78104.80	260.32%
22	Dabur India	FMCG	1.1286	17.81%	215.23	1208.15	7653.82	633.51%
23	P&G	FMCG	0.9852	33.63%	281.88	838.17	2455.29	292.94%
24	Britannia	FMCG	0.9765	12.19%	149.66	1227.41	9829.52	800.83%
25	Godrej Consumer	FMCG	0.6623	31.37%	1451.42	4626.84	9768.02	211.12%

