

Q5 ? What is the company's cost and margin structure? How has it changed in the past?

Objective:

This question will help the investor get a grip on the past cost and margin structure, and changes in the same. The same can be used to estimate future margins.

What to look for:

- ◆ Long-term trend of costs and margins using common-size analysis (Framework #9).

Framework #9

Common-size Analysis

We believe Common-size Analysis is a dying art among investors; yet we find it a very powerful framework for insights into a company's business.

Under Common-size Analysis, the Sales of the company are set to 100 across the years. Then all other heads of cost and margins are presented as a percentage of that 100. This gives a good trend of costs and margins over the years.

Example #1: Consider Bata's Common-size Analysis from 2005 to 2010, tabled below.

Year ending	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10
Net Sales	100.0	100.0	100.0	100.0	100.0	100.0
Expenditure:						
Raw Materials	46.7	47.4	47.1	47.1	44.9	45.6
Power & Fuel Cost	3.2	3.1	3.0	2.9	2.6	2.6
Employee Cost	25.3	23.8	20.8	17.2	15.1	13.6
Manufacturing Exps	4.9	4.5	3.4	3.0	3.0	2.6
Selling and Admin Exps	14.3	14.3	16.4	19.1	20.6	21.1
Miscellaneous Exps	3.0	1.1	1.9	1.7	2.0	1.1
Total Expenditure	97.3	94.1	92.6	91.0	88.3	86.7
EBITDA	2.7	6.0	7.4	9.0	11.7	13.4
Depreciation	1.7	1.8	1.9	1.9	2.6	2.6
EBIT	1.0	4.2	5.5	7.1	9.1	10.8
Interest	1.7	1.4	1.2	1.1	0.9	0.6
Other Income	2.7	3.6	1.6	1.3	1.0	1.2
Profit Before Tax	1.9	6.4	5.9	7.3	9.2	11.4
Tax	0.2	1.2	0.4	1.1	3.0	3.8
Profit After Tax	1.8	5.2	5.5	6.1	6.2	7.6

Framework #9

There are clear insights from the above -

- ◆ Employee cost collapsed 12 percentage points from 25.3% in 2005 to 13.6% in 2010.
- ◆ Most other costs were also controlled.
- ◆ Hence, despite a 7 percentage point increase in Selling & Admin expenses, EBITDA Margin shot up from 2.7% in 2005 to 13.4% in 2010.
- ◆ Further, despite rise in tax, PAT Margin is up from 1.8% in 2005 to 7.6% in 2010.

Example #2: Consider BHEL's Common-size Analysis from 2015 to 2020, tabled below.

BHEL - Common-size Analysis

Year ending	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20
Net Sales	100.0	100.0	100.0	100.0	100.0	100.0
Expenditure:						
Raw Materials	44.2	51.9	49.6	44.5	46.0	50.1
Power & Fuel Cost	1.8	2.0	1.6	1.6	1.6	2.1
Employee Cost	17.5	21.1	19.0	21.1	18.1	25.2
Manufacturing Exps	14.6	14.4	13.1	15.0	15.0	16.4
Selling and Admin Exps	4.7	4.1	5.1	4.7	5.9	7.2
Miscellaneous Exps	10.4	12.2	7.8	7.3	6.7	-0.4
Total Expenditure	93.2	105.6	96.2	94.3	93.3	100.6
EBITDA	6.8	-5.6	3.8	5.7	6.7	-0.6
Depreciation	3.5	3.67	2.98	2.73	1.56	2.34
EBIT	3.4	-9.3	0.9	3.0	5.1	-3.0
Interest	0.3	1.4	1.5	1.2	1.2	2.9
Other Income	3.9	5.9	2.6	2.4	2.2	2.8
Profit Before Tax	7.0	-4.8	2.0	4.2	6.0	-3.1
Tax	2.4	-1.8	0.5	2.7	2.8	3.8
Profit After Tax	4.6	-3.0	1.6	1.5	3.3	-6.8

Insights from the above -

- ◆ 2015 to 2020 is a period of economic slowdown.
- ◆ So even as virtually every cost line item has gone up for BHEL, the sharpest rise is in Employee Cost from 17.5% to 25.2%. This is not necessarily because absolute Employee Cost has gone up; but because it is fairly fixed in nature, its percentage rises when Sales fall due to the slowdown.
- ◆ As a result, EBITDA Margin is down from 6.8% in 2015 to a loss in 2020. Same is the case with PAT Margin.

Thus, Common-size Analysis provides powerful insights into a company's costs and margin structure. This also forms the basis for questioning the company's management on how they plan to rectify problems in some of the line items, if any.

Having understood the past cost and margin structure, the key next question is - how will it play out in the future? We discuss this under Q#10, using the framework of CVPM Analysis (Cost, Volume, Price, Mix).