## Chapter 12 : Q. 41 - Page 230

Query : Is it possible to calculate Market Size and Market Share Variance? If yes, then how to calculate it?

## Solution :

Dear Student Friend,
In this question, ICAI had not asked for calculation of Market Size and Market Share Variance. But if someone wishes to calculate it, then it can be done in the following manner :
(1) Contribution Volume Variance will get divided into two parts :
(a) Mix Variance and (b) Quantity Variance
(2) Contribution Quantity Variance will get further divided into two parts:
(a) Market Size Variance and (b) Market Share Variance

Note : For this calculation, the Std. Mix Ratio of $50: 50$ will be maintained at all the places. Because, we have already captured the difference due to mix under Mix Variance.
(3) Let's make the data ready for calculation purpose :

| Size | Std. Cont. | Bud. Qty. <br> $\mathbf{( 5 0 : 5 0 )}$ | *Actual Mkt. <br> Size x Bud. <br> Mkt. Share | Std. Mix <br> $\mathbf{( 5 0 : 5 0 )}$ |
| :---: | :---: | ---: | ---: | ---: |
| Col. (A) | Col. (B) | Col. (C) | Col. (D) | Col. (E) |
| Large | 8 | 60,000 | 70,800 | 77,880 |
| Medium | 10 | 60,000 | 70,800 | 77,880 |
| Total |  | $1,20,000$ | $1,41,600$ | $1,55,760$ |

(4) Let's understand the above figures carefully :

Bud. Qty. = Bud. Mkt. Size $\times$ Bud. Mkt. Share
Std. Mix = Actual total Qty. sold in Std. proportion
Actual Qty. is influenced by Actual Mkt. Size and also Actual Mkt. Share
Now we want, how much quantity we should have sold in the actual market.
i.e. *(Actual market size $\times$ Bud. market share) = Bud. share in actual market size

Check key calculation part (a) and you will find actual market size as 14,16,000 units.
Our budgeted share in it should be $=14,16,000 \times 10 \%=1,41,600$ units
It is to be divided into $50: 50$ ratio i.e. 70,800 units each as written in the table above. Now, with this data, the calculation of variances shall be done as follows :
(5) Contribution Market Size Variance : Col. (C) - Col. (D) in WN 3 above
= Std. Contribution p.u. x ( Bud. Qty. - Bud. share in actual market size )

| Size | Std. Cont. | Bud. Qty. <br> (Bud. share <br> in Bud. size) | Actual Mkt. <br> Size x Bud. <br> Mkt. Share | Variance <br> $₹$ |
| :---: | :---: | ---: | ---: | ---: |
| Large | 8 | 60,000 | 70,800 | $86,400(\mathrm{~F})$ |
| Medium | 10 | 60,000 | 70,800 | $1,08,000(\mathrm{~F})$ |
| Total |  | $1,20,000$ | $1,41,600$ | $1,94,400(\mathrm{~F})$ |

(6) Contribution Market Share Variance : Col. (D) - Col. (E) in WN 3 above
= Std. Contribution p.u. x ( Bud. share in actual market size - Std. Mix )

| Size | Std. Cont. | Actual Mkt. <br> Size x Bud. <br> Mkt. Share | Std. Mix <br> $\mathbf{( 5 0 : 5 0 )}$ | Variance <br> $₹$ |
| :---: | :---: | ---: | ---: | ---: |
| Large | 8 | 70,800 | 77,880 | $56,640(\mathrm{~F})$ |
| Medium | 10 | 70,800 | 77,880 | $70,800(\mathrm{~F})$ |
| Total |  | $1,41,600$ | $1,55,760$ | $1,27,440(\mathrm{~F})$ |

(7) Contribution Quantity Variance $=$ Market Size Variance + Market Share Variance 3,21,840 (F) = 1,94,400 (F) + 1,27,440 (F)

