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. (50 : 50)	*Actual Mkt. Size x Bud. Mkt. Share	Std. Mix (50 : 50)
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 x 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 x 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 x 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. (Bud. share in Bud. size)	Actual Mkt. Size x Bud. Mkt. Share	Variance ₹
Large	8	60,000	70,800	86,400 (F)
Medium	10	60,000	70,800	1,08,000 (F)
Total		1,20,000	1,41,600	1,94,400 (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. Size x Bud. Mkt. Share	Std. Mix (50 : 50)	Variance ₹
Large	8	70,800	77,880	56,640 (F)
Medium	10	70,800	77,880	70,800 (F)
Total		1,41,600	1,55,760	1,27,440 (F)

(7) Quantity Variance = Market Size Variance + Market Share Variance

3,21,840 (F) = 1,94,400 (F) + 1,27,440 (F)

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