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CASE 3 - DALLAS CONSULTING GROUP

Use your knowledge of profit variance analysis to quantify the performance of DCG for 2012 and explain the significance of each variance to Mr. Lundberg.

The total income variance was $80,000 more than expected. A favorable total Sale Volume Variance of $60,000; the unfavorable variance for reengineering (Re) is more than balanced by the favorable variance for rearrangement. There was a favorable Price Variance of $20,000 due to the increase in the rate charged for product Re (from $60 up to $70 per hour). A total unfavorable Sales Quantity Variance of $84,000 due to the decline in actual number of billed hours (from 15,000 down to 14,000). There was also a favorable Sales Mix Variance of 143,976 because of the shift in the product mix resulting in a higher relative percentage of sales of the higher priced product (St) than expected (and a corresponding decrease in the relative percentage sales of Re). Market size variance is unfavorable. The total market decline of 38,000 hours (from 150,000 hours down to 112,000 hours) caused Dallas Consulting Group (DCG) to lose $319,200 of revenue based on their expected market share of 10 percent. Market share variance is favorable. By increasing its market share from 10 percent to 12.5 percent, DCG increased revenues by $235,200.

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APPENDIX

Total Income Variance:

Total static budget revenue variance = Actual income – Master budget income = $420,000 – $340,000 = $80,000 F (Static budget income variance)

Flexible budget revenue: = ∑ AQ x BP = 2,000 (Re) x $60 +12,000 (St)x $100 = $1,320,000

Static budget revenue = ∑ BQ x BP = $360,000 + $900,000 = $1,260,000

Sales volume variance (in revenue):

= Flexible budget revenue – Static budget revenue = ∑ AQ x BP – ∑ BQ x BP = $ 1,320,000 – 1,260,000 = $60,000 F

Selling price variance: due to changes in selling price = Actual revenue – Flexible budget revenue = ∑ (AP – BP) x AQ = $1,340,000 – 1,320,000 = $ 20,000 F

Sales Quantity and Sales Mix Variances:

Budgeted sales mix: Re: 6,000 / (6,000 + 9,000) = 40%; St: 9,000 / (6,000 + 9,000) = 60%

Actual sales mix: Re: 2,000 / (2,000 + 12,000) = 14.29%; St: 12000 / (2000 + 12000) = 85.71%

Sales quantity variances

Re: (Total AQ – Total BQ) x BM x BP = (14000 – 15000) x 0.4 x 60 = - $24,000 u

St: (14000 – 15000) x 0.6 x 100 = - $60,000 u

Total = - $84,000 u

Sales mix variance:

Re: (AM – BM) x Total AQ x BP = (0.1429 – 0.40) x 14000 x 60 = - $215,964 u

St: (0.8571 – 0.6) x 14000 x 100 = $359,940 F

Total : $143, 976 F

Sales volume variance = Sales quantity variance + Sales mix variance

= -84,000 + 143,976 = $ 59,976 F

Market Size and Market Share Variances:

Budgeted market share = 15,000 / 150,000 = 10% Actual market share = 14,000 / 112,000 = 12.5% Budgeted average price per unit: $60 x 0.4 + $100 x 0.6 = $84

Market size variance

= [Actual market size – Estimated market size] x Budgeted market share x Budgeted average price per unit

= [112,000 – 150,000] x 10% x 84 = - $319,200 u

Market share variance

= [Actual market share – Budgeted market share] x Actual mkt size x Budgeted average price = [0.125 – 0.1] x 112,000 x 84 = $235,200 F

Total sales quantity variance = Market size variance + Market share variance = - 319,200 + 235,200 = - $84,000 u