

Management Accounting

Week 6 Part 3

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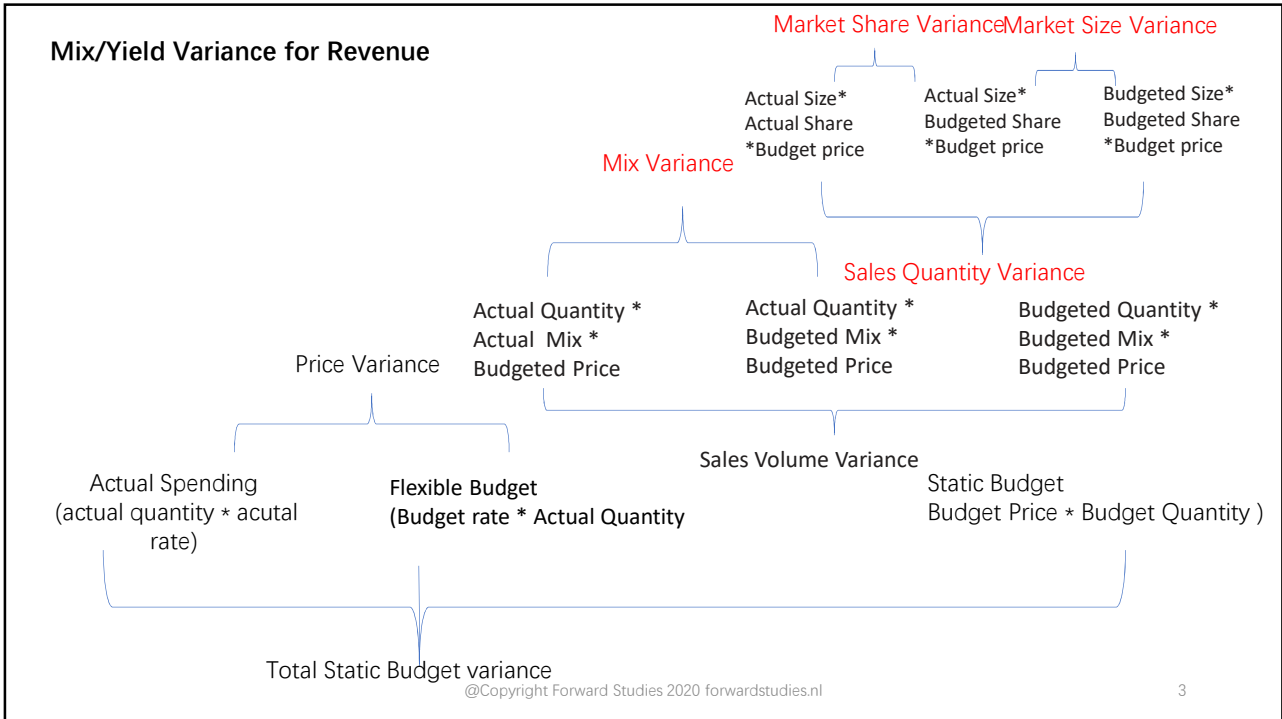
Yield and Mix Variance for Revenue

- When selling a mixed of products, the sales volume variance can further divided into sales mix variance and sales quantity (kind of like sales yield) variance
- When using the market size to estimate the sales quantity, the sales quantity variance can be further divided into market size variance and market share variance
- Always using the budgeted rate

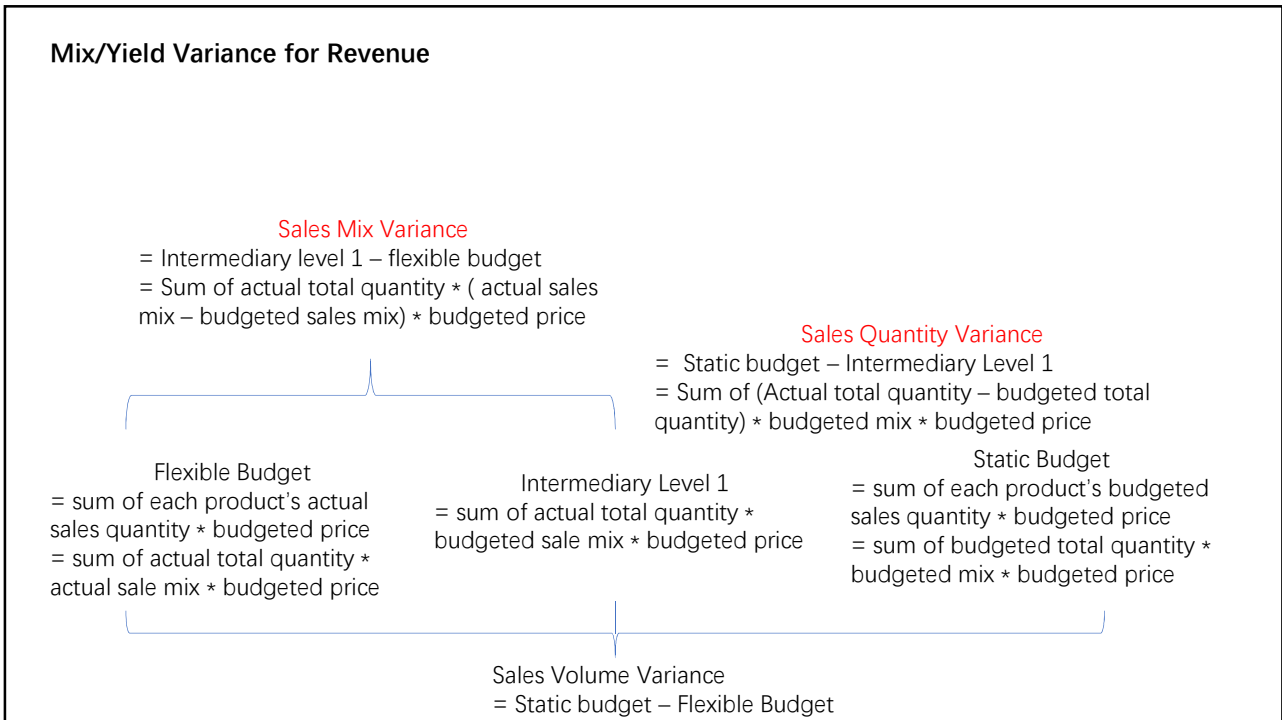
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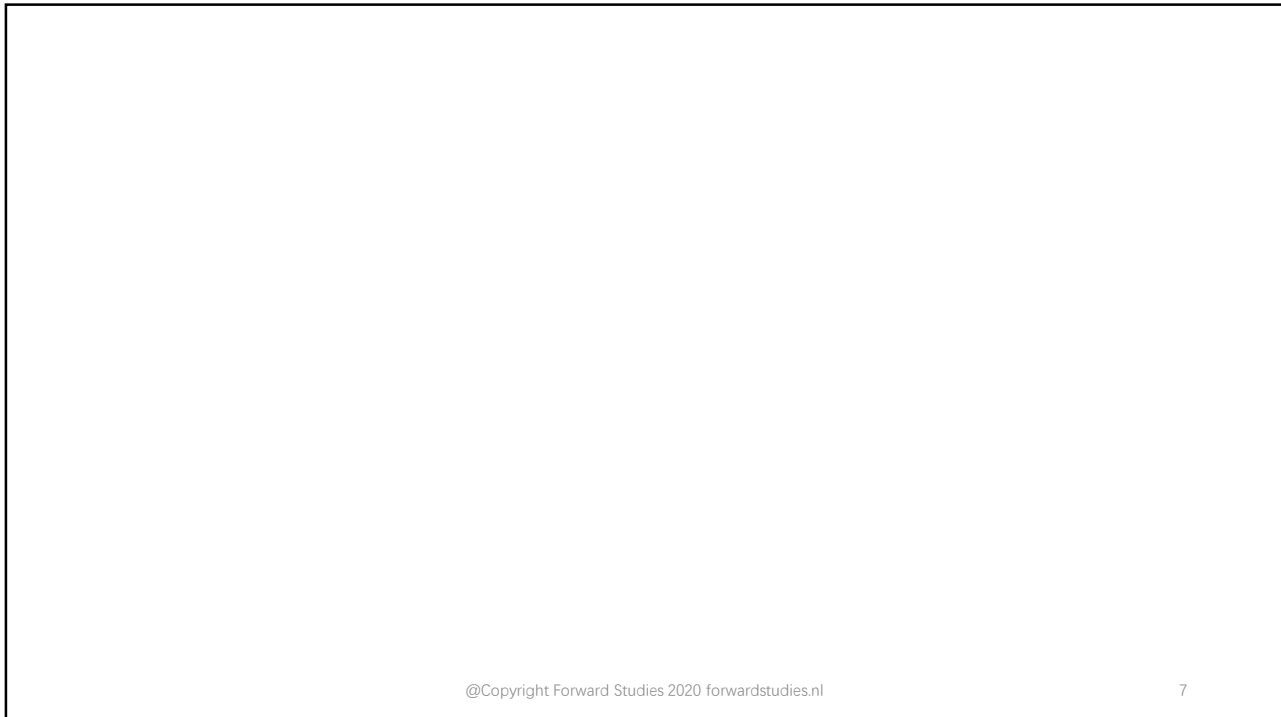


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Global Air operates flights between New York and London. It has three classes of service: first class, business class and economy class. It is currently examining results for August 2015. Unit volume is measured in terms of a round-trip ticket (one-way tickets are converted into equivalent round-trip tickets). Budgeted and actual results for August 2015 are as follows:

	Budget for August 2015				Actual for August 2015			
	Selling price per unit	Unit volume	Sales mix	Revenue	Selling price per unit	Unit volume	Sales mix	Revenue
First class	€3200	1 000	5%	€3 200 000	€2600	2 400	10%	€6 240 000
Business class	2400	3 000	15%	7 200 000	1600	6 000	25%	9 600 000
Economy class	900	<u>16 000</u>	<u>80%</u>	<u>14 400 000</u>	700	<u>15 600</u>	<u>65%</u>	<u>10 920 000</u>
Total		<u>20 000</u>	<u>100%</u>	<u>€24 800 000</u>		<u>24 000</u>	<u>100%</u>	<u>€26 760 000</u>

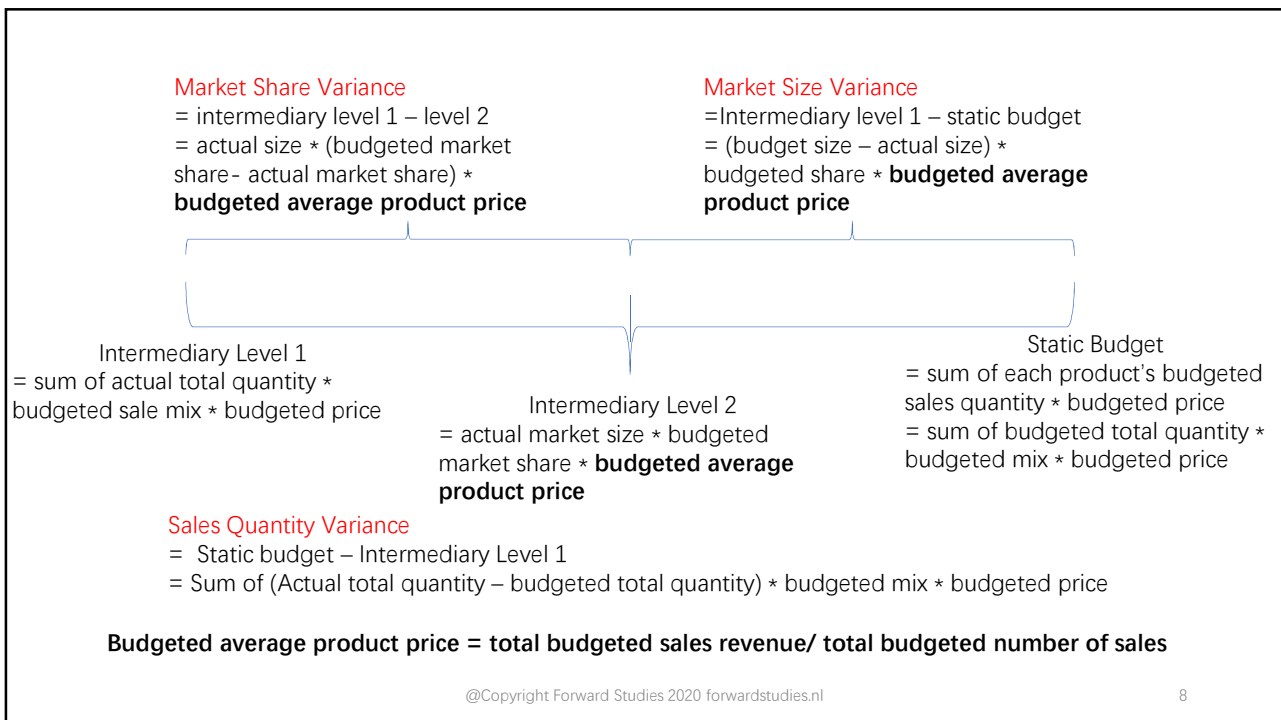
In July 2015, Pan Air, a major competitor of Global, went bankrupt. It was acquired by Easy Travel, a low-cost economy travel operator. Pan Air had a sizable presence in the first- and business-class markets. Easy Travel immediately offered deep price discounts for all classes of travel. Its reputation among first-class and business-class travellers, however, was poor. Global Air dropped all its fares in late July (after its budget was prepared) to meet the new competition.



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Sales depend on overall market demand as well as the company's ability to maintain its share of the market. Assume that the budgeted unit sales of 20 000 units (round-trip tickets) came from a management estimate of a 50% market share on the New York to London route in August 2015 and an industry sales forecast by the Travel Information Group (TIG) of 40 000 round-trip tickets for the route. In September, TIG reported the following:

	Budgeted industry volume for August 2015	Actual industry volume for August 2015
First class	1 500	3 000
Business class	6 000	9 000
Economy class	<u>32 500</u>	<u>38 000</u>
Total	<u>40 000</u>	<u>50 000</u>

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Example Exam 2019 Q3

Question 3 (30 points)

HB Ltd produces perfume for which it uses three different types of liquid inputs. The following data is available regarding the inputs for the production of 80 litres of the perfume.

Input	Litres	Cost per litre	Total
A	40	€ 6.00	€ 240.00
B	30	€ 3.50	€ 105.00
C	30	€ 2.50	€ 75.00
Totals	100		€ 420

Note that the required input for 80 litres of perfume is 100 litres in materials.
For the past month, the following production data is available:

Input	Litres	Total costs
A	45,000	€ 247,500
B	35,000	€ 147,000
C	20,000	€ 55,000
Total	100,000	€ 449,500

This input has resulted in 75,000 litres of perfume.

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Question a (8 points)

Calculate the direct materials price and efficiency variance for A, B and C, as well as at the process level

Question b (8 points)

Calculate the yield and mix variances for A, B and C.

Question c (4 points)

Explain how the results of question a and question b are related to each other. How should we interpret the yield and mix variance for input A, so how can we use it in managing the production process?

The sales department of HB is expected to sell the 75,000 litres of perfume at a cost per litre of € 20. At the end of the month, actual sales revenues are € 1,080,000, and the sales volume is 60,000 litres. While the sales department acknowledges that the volume fell short of the target, it claims that it actually did a decent job: it points to market research saying that the total market volume for the month was 340,000 litres instead of the budgeted 400,000 litres: 'Actually, we did quite ok in a declining market'.

Question d (4 points)

Calculate the sales price variance (flexible budget variance) and the sales volume variance.

Question e (4 points)

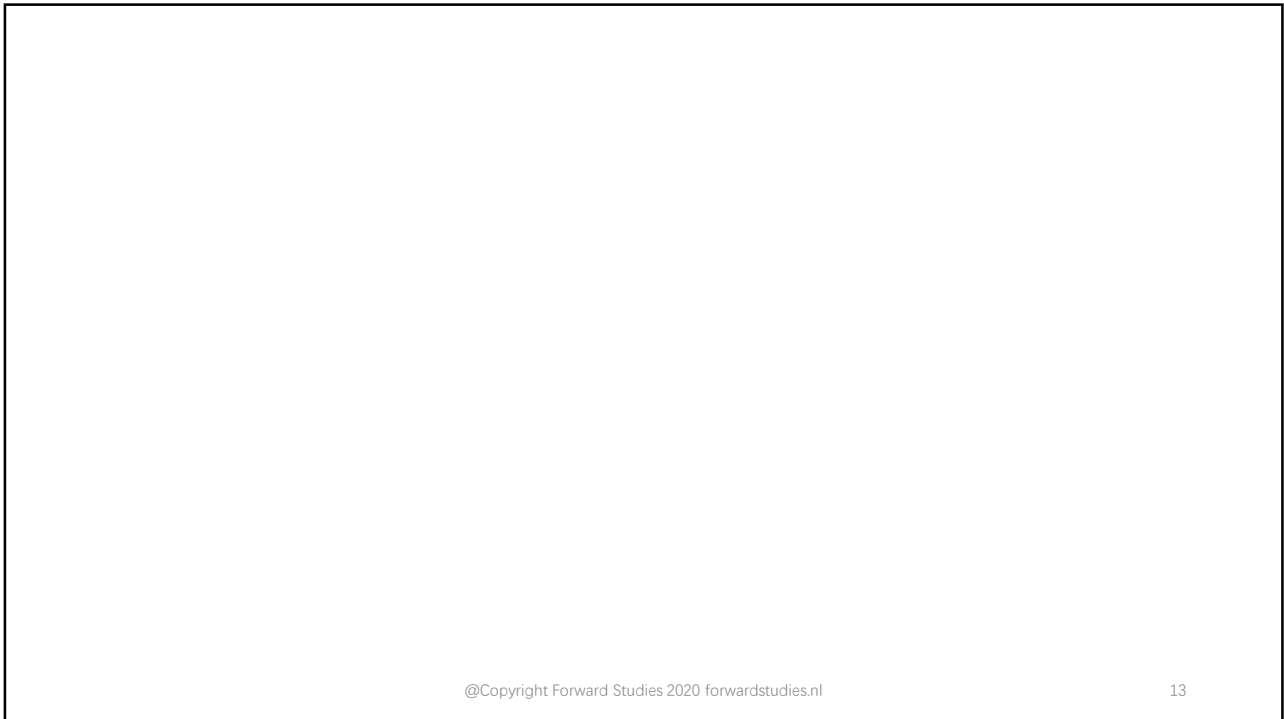
Calculate the market share variance and the market size variance

Question f (2 points)

Comment on the sales department's remark. Did they do a good job? Why?

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