

## FNSACC503A – Manage Budgets and Forecasts

### WEEK 2 – CHAPTER 3 – SALES & REVENUE BUDGETS

|                               |  |
|-------------------------------|--|
| <b>Key learning outcomes:</b> | By the end of the lesson, students will be able to: <ul style="list-style-type: none"> <li>* Discuss qualitative and quantitative methods of forecasting revenue.</li> <li>* Discuss the factors affecting revenue forecasting.</li> <li>* Prepare a sales budget for a merchandising firm and a revenue (or fees) budget for a professional services firm.</li> </ul> |
|-------------------------------|--|

## CHAPTER 3 – SALES & REVENUE BUDGETS

### 5. Sales budgets

$$P \times Q$$

#### a. SALES BY PRODUCT

|                           |   |                       |   |                       |
|---------------------------|---|-----------------------|---|-----------------------|
| Est. sales volume (units) | x | Est. sales price (\$) | = | Est. total sales (\$) |
| (PRODUCT 1 volume)        | x | (PRODUCT 1 price)     |   |                       |

#### A: Hays Ltd

\* Produces three (3) different types of school bags, each for a different market - small kids at kindy, medium for students at primary school and large for students at high school.

\* The sales manager has put together a forecast for the coming year. His team should be able to sell 12,000 small bags for \$20 each, 9,600 medium-sized bags for \$30 each and 8,000 large bags for \$40 each.

Required: Prepare the sales budget for the year ended 30 June 2013.

#### SOLUTION: Hays Ltd

#### Sales budget for the year ended 30 June 2013

| Bag size (PRODUCT) | Est. sales volume (units) (Q) | Est. sales price (P) | Est. total sales (\$) |
|--------------------|-------------------------------|----------------------|-----------------------|
| Small              | 12,000                        | \$20                 | \$240,000             |
| Medium             | 9,600                         | \$30                 | \$288,000             |
| Large              | 8,000                         | \$40                 | \$320,000             |
| <b>Total</b>       | <b>29,600</b>                 |                      | <b>\$848,000</b>      |

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\* The next example uses prior period figures adjusted for factors likely to affect future sales \*

#### B: Gourmet Biscuits

- \* Is a retailer of specialty biscuits which are sold in one kilo lots.
- \* It is estimated that demand for PLAIN will decrease by 10%, demand for CHOCOLATE will increase by 12.5% and demand for ICED will decrease by 5%.
- \* There will be an across-the-board price increase of 5%.

#### Gourmet Biscuits Ltd

Actual sales for the year ended 30 June 2012

| Flavour (PRODUCT) | Sales volume (kilos)<br>(Last Year) (Q) | Sales price<br>(Last Year) (P) | Total sales (\$)<br>(Last Year) |
|-------------------|---|--------------------------------|---------------------------------|
| Plain             | 50,000                                  | \$8.00                         | \$400,000                       |
| Chocolate         | 40,000                                  | \$7.00                         | \$280,000                       |
| Iced              | 30,000                                  | \$5.00                         | \$150,000                       |
| <b>Total</b>      | <b>120,000</b>                          |                                | <b>\$830,000</b>                |

Required: Prepare the sales budget for the year ended 30 June 2013.

#### SOLUTION: Gourmet Biscuits Ltd

Sales budget for the year ended 30 June 2013

| Flavour (PRODUCT) | Est. sales volume<br>(kilos) (Q) | Est. sales price<br>(P)       | Est. total sales (\$) |
|-------------------|----------------------------------|-------------------------------|-----------------------|
| Plain             | $50,000 \times 0.9 = 45,000$     | $\$8.00 \times 1.05 = \$8.40$ | \$378,000             |
| Chocolate         | $40,000 \times 1.125 = 45,000$   | $\$7.00 \times 1.05 = \$7.35$ | \$330,750             |
| Iced              | $30,000 \times 0.95 = 28,500$    | $\$5.00 \times 1.05 = \$5.25$ | \$149,625             |
| <b>Total</b>      | <b>118,500</b>                   |                               | <b>\$858,375</b>      |

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**b. SALES BY PERIOD**

$$\text{Est. sales volume (units)} \times \text{Est. sales price (\$)} = \text{Est. total sales (\$)}$$

$$(\text{PERIOD 1 volume}) \times (\text{PERIOD 1 price})$$

\* Sales budgets produced so far have been for one year \*

\* Typically, budgets can also be broken down by quarter and/or month \*

**C: Canon Ltd**

\* Manufactures calculators.

\* Provides you with an estimate of sales figures for the quarter ended 30 September 2013.

\* It is predicted that 1,500 calculators will be sold for \$35.00 each (on average) in July; 2,500 calculators will be sold for \$34.00 each (on average) in August; and 2,200 calculators will be sold for \$36.00 each (on average) in September.

Required: Prepare the sales budget for the quarter ended 30 September 2013.

**SOLUTION: Canon Ltd**

**Sales budget for the quarter ended 30 September 2013**

| Month (PERIOD) | Est. sales volume (Q) | Est. sales price (P) | Est. total sales (\$) |
|----------------|-----------------------|----------------------|-----------------------|
| July           | 1,500                 | \$35.00              | \$52,500              |
| August         | 2,500                 | \$34.00              | \$85,000              |
| September      | 2,200                 | \$36.00              | \$79,200              |
| <b>Total</b>   | <b>6,200</b>          |                      | <b>\$216,700</b>      |

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#### c. SALES BY PRODUCT and PERIOD

**Est. sales volume (units) x Est. sales price (\$) = Est. total sales (\$)**  
**(PRODUCT 1; PERIOD 1 volume) x (PRODUCT 1; PERIOD 1 price)**

\* Sales budgets can be prepared to show details for individual products by period \*

#### D: Sarah Lee

\* Operates a mobile fast food business that sells soft drinks & pies at major sporting events.

\* Provides you with the actual sales figures for the quarter ended 30 June 2012.

Required: She asks you to prepare the sales budget for the quarter ended 30 June 2013, assuming that next financial year, the price of each soft drink will increase by 50c and the price of each pie will increase by \$1.00. Despite price rise, Sarah expects the demand for these items to increase by 5%.

#### Sarah Lee

**Actual sales for the quarter ended 30 June 2012**

| Month (PERIOD) | Pies          |                                 |                  | Soft Drinks   |                                 |                  |
|----------------|---------------|---------------------------------|------------------|---------------|---------------------------------|------------------|
|                | Units (Q)     | Price (P)                       | Total sales (\$) | Units (Q)     | Price (P)                       | Total sales (\$) |
| April          | 10,500        | \$3.00                          | \$31,500         | 21,000        | \$2.50                          | \$52,500         |
| May            | 10,000        | \$3.00                          | \$30,000         | 20,000        | \$2.50                          | \$50,000         |
| June           | 11,500        | \$3.00                          | \$34,500         | 23,000        | \$2.50                          | \$57,500         |
| <b>Total</b>   | <b>32,000</b> | <b>\$3.00 + \$1.00 = \$4.00</b> | <b>\$96,000</b>  | <b>64,000</b> | <b>\$2.50 + \$0.50 = \$3.00</b> | <b>\$160,000</b> |

Calculate the average sales price for each product.

#### SOLUTION: Sarah Lee

**Sales budget for the quarter ended 30 June 2013**

| Month (PERIOD) | Pies                      |           |                  | Soft Drinks               |           |                  | TOTAL (\$)       |
|----------------|---------------------------|-----------|------------------|---------------------------|-----------|------------------|------------------|
|                | Units (Q)                 | Price (P) | Total sales (\$) | Units (Q)                 | Price (P) | Total sales (\$) |                  |
| April          | 10,500 x 1.05<br>= 11,025 | \$4.00    | \$44,100         | 21,000 x 1.05<br>= 22,050 | \$3.00    | \$66,150         | <b>\$110,250</b> |
| May            | 10,000 x 1.05<br>= 10,500 | \$4.00    | \$42,000         | 20,000 x 1.05<br>= 21,000 | \$3.00    | \$63,000         | <b>\$105,000</b> |
| June           | 11,500 x 1.05<br>= 12,075 | \$4.00    | \$48,300         | 23,000 x 1.05<br>= 24,150 | \$3.00    | \$72,450         | <b>\$120,750</b> |
| <b>Total</b>   | <b>33,600</b>             |           | <b>\$134,400</b> | <b>67,200</b>             |           | <b>\$201,600</b> | <b>\$336,000</b> |

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#### d. SALES BY AREA

|                           |   |                          |   |                       |
|---------------------------|---|--------------------------|---|-----------------------|
| Est. sales volume (units) | x | Est. sales price (\$)    | = | Est. total sales (\$) |
| (AREA 1; PERIOD 1 volume) | x | (AREA 1; PERIOD 1 price) |   |                       |

\* Sales budgets can be prepared to show details for individual products by period \*

#### E: Apple Inc.

- \* Operate several retail outlets across Sydney, their top two being the Chatswood Chase store and the City store.
  - \* Sells two (2) types of MacBook Pros – a 13-inch and a 15-inch.
  - \* Provides you with estimated sales prices & volumes for the quarter ended 31 December 2012.
  - \* A price increase of 2% across all Apple products starting on 1 October 2012 is being considered by the leadership team. Given the price increase, demand for each of these products is expected to fall by 2%.
- Required: Prepare a sales budget for the quarter ended 31 December 2012 by retail store.

#### SOLUTION: Apple Inc.

Sales budget for the quarter ended 31 December 2012

| Store           | MacBook Pro 13-inch |                             |                  | MacBook Pro 15-inch |                             |                  | TOTAL (\$)         |
|-----------------|---------------------|-----------------------------|------------------|---------------------|-----------------------------|------------------|--------------------|
|                 | Units (Q)           | Price (P)                   | Total sales (\$) | Units (Q)           | Price (P)                   | Total sales (\$) |                    |
| Chatswood Chase | 150 x 0.98<br>= 147 | \$1,350 x 1.02<br>= \$1,377 | <b>\$202,419</b> | 200 x 0.98 =<br>196 | \$2,000 x 1.02<br>= \$2,040 | <b>\$399,840</b> | <b>\$602,259</b>   |
| City            | 200 x 0.98<br>= 196 | \$1,350 x 1.02<br>= \$1,377 | <b>\$269,892</b> | 100 x 0.98 =<br>98  | \$2,000 x 1.02<br>= \$2,040 | <b>\$199,920</b> | <b>\$469,812</b>   |
| <b>Total</b>    | <b>343</b>          |                             | <b>\$472,311</b> | <b>294</b>          |                             | <b>\$599,760</b> | <b>\$1,072,071</b> |

Is the planned price increase a good idea?

#### Apple Inc.

Sales budget for the quarter ended 31 December 2012 (prior to planned price increase of 2%)

| Store Location  | MacBook Pro 13-inch |           |                  | MacBook Pro 15-inch |           |                  | TOTAL (\$)         |
|-----------------|---------------------|-----------|------------------|---------------------|-----------|------------------|--------------------|
|                 | Units (Q)           | Price (P) | Total sales (\$) | Units (Q)           | Price (P) | Total sales (\$) |                    |
| Chatswood Chase | 150                 | \$1,350   | <b>\$202,500</b> | 200                 | \$2,000   | <b>\$400,000</b> | <b>\$602,500</b>   |
| City            | 200                 | \$1,350   | <b>\$270,000</b> | 100                 | \$2,000   | <b>\$200,000</b> | <b>\$470,000</b>   |
| <b>Total</b>    | <b>350</b>          |           | <b>\$472,500</b> | <b>300</b>          |           | <b>\$600,000</b> | <b>\$1,072,500</b> |

No because no additional sales revenue will be generated as a result of the price increase based on the fact that the price increase is predicted to cause a small drop in demand for each of these products. In reality, demand for the product may not change at all, however, it could also drop quite significantly. Is it worth taking the risk given that Apple Inc. won't be significantly better off following the price rise.

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## 6. Fees income budgets

|                           |   |                       |   |                       |
|---------------------------|---|-----------------------|---|-----------------------|
| Est. sales volume (units) | x | Est. sales price (\$) | = | Est. total sales (\$) |
| (chargeable hours)        | x | (hourly rate)         | = | (total fees income)   |

### F: Janet Hardy & Associates

\* Janet Hardy owns a small Accounting practice in the City.

\* Last year, 11,000 hours were charged to various clients and the average hourly rate charged to these clients was \$110. Janet recently had some market research done which indicated that her practice controls 10% of the market and that this should rise to 12% next year.

\* Janet has decided to increase her hourly rate charged to clients by 5%.

Required: Prepare a fees income budget for Janet for the year ended 30 June 2013.

### SOLUTION: Janet Hardy & Associates

#### Fees income budget for the year ended 30 June 2013

|                         |                   |                    |                    |
|-------------------------|-------------------|--------------------|--------------------|
| (Q)                     | Est. client hours | (refer note below) | 13,200             |
| (P)                     | Est. hourly rate  | \$110 x 1.05 =     | \$115.50           |
| <b>Total fee income</b> |                   |                    | <b>\$1,524,600</b> |

### Note:

We know that 10% of the market is represented by 11,000 hours. This means that all firms operating in this particular market charged clients a total of 110,000 hours last year (i.e.  $X \times 10\% = 11,000$ ;  $X = 11,000 / 10\%$ ). If Janet's market share will increase by 2% next year, her chargeable hours will increase to 13,200 (i.e.  $110,000 \times 12\%$ ).

### FEES INCOME by TYPE and PERIOD

### G: Carol Stewart - Naturopath

It is estimated that Carol will:

1. Work 5 days per week for 8 hours per day and will take 4 weeks holiday per year.
2. Starting work on 1 July.
3. Work for 65 days during the quarter ending 30 September and will be fully occupied (i.e. 65 days x 8 hours per day = 520 hours).
4. Consult for 80% of the time in her rooms. The remainder of the time will be spent doing home visits. Home visits will take 1 hour per patient and normal consultations will take 0.5 hours per patient.
5. Charge \$60 per home visit and \$35 per normal consultation.

Required: Carol wants you to prepare a fees income budget for the first quarter of operations.

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#### Part 1: Workings

|                                  |          |                              |          |                              |
|----------------------------------|----------|------------------------------|----------|------------------------------|
| <b>Est. sales volume (units)</b> | <b>x</b> | <b>Est. sales price (\$)</b> | <b>=</b> | <b>Est. total sales (\$)</b> |
| <b>(no. consultations)</b>       | <b>x</b> | <b>(hourly rate)</b>         | <b>=</b> | <b>(total fees income)</b>   |

|                               | <b>NORMAL CONSULT.</b>         | <b>HOME VISIT</b>              | <b>TOTAL</b>                     |
|-------------------------------|--------------------------------|--------------------------------|----------------------------------|
| Time allocation               | 80%                            | 20%                            | 100%                             |
| Hours worked                  | 520 hours x 80% =<br>416 hours | 520 hours x 20% =<br>104 hours | 65 days x 8 hours =<br>520 hours |
| Consultation length           | 0.5 hours                      | 1 hour                         |                                  |
| No. consultations<br>(VOLUME) | 832                            | 104                            |                                  |
| Charge out rate<br>(PRICE)    | \$35 per hour                  | \$60 per hour                  |                                  |
| <b>Total fees income</b>      | <b>\$29,120</b>                | <b>\$6,240</b>                 | <b>\$35,360</b>                  |

#### Part 2: Work out the number of consultations per month by type using the following split:

July = 23/65 days

August = 22/65 days

September = 20/65 days

#### SOLUTION: Carol Stewart - Naturopath

Fee income budget for the quarter ended 30 September 2013 (extract)

|                       | <b>Normal Consultation (PERIOD)</b> |                        |                               |
|-----------------------|-------------------------------------|------------------------|-------------------------------|
| <b>Month (PERIOD)</b> | <b>No. consults (Q)</b>             | <b>Hourly rate (P)</b> | <b>Total fees income (\$)</b> |
| July                  | 832 x 23/65 = 294                   | \$35                   | \$10,290                      |
| August                | 832 x 22/65 = 282                   | \$35                   | \$9,870                       |
| September             | 832 x 20/65 = 256                   | \$35                   | \$8,960                       |
| <b>Total</b>          | <b>832</b>                          | <b>\$35</b>            | <b>\$29,120</b>               |

#### **HYBRID : Distributor / Professional service provider**

e.g. Vet (they provide a vet service to your pet and they sell pet-related products in-store)

(refer to instructor notes)