



# **Manage the Finance**

## **Handout 5**

### **Projected Income Statement**

## Projected Income Statement

An example of a projected Income Statement is shown below:

### Sunnyside Incorporated

#### Income statement for XYZ for the six months

	JAN	FEB	MARCH	APRIL	MAY	JUNE	TOTAL
Sales	30 000	25 000	35 000	50 000	30 000	70 000	210 000
Less: COS	9 000	10 500	15 500	19 000	9 500	25 000	86 500
<b>Gross Profit</b>	<b>21 000</b>	<b>14 500</b>	<b>19 500</b>	<b>31 000</b>	<b>20 500</b>	<b>45 000</b>	<b>123 500</b>
Less: Operating cost							
Employee cost	5 000	5 000	5 000	5 000	5 000	5 000	30 000
Other expenses	15 000	10 000	13 000	15 000	8 000	16 000	77 000
Total Operating cost	20 000	15 000	18 000	20 000	13 000	21 000	107 000
<b>Nett profit (loss)before interest and tax</b>	<b>1 000</b>	<b>(500)</b>	<b>1 500</b>	<b>11 000</b>	<b>7 500</b>	<b>24 000</b>	<b>44 500</b>
Interest and or tax	100	-	150	1 100	800	2 500	4 650
<b>Nett profit (loss)</b>	<b>900</b>	<b>(500)</b>	<b>1 350</b>	<b>9 900</b>	<b>6 700</b>	<b>21 500</b>	<b>39 850</b>

Key	
<b>A</b>	Sales are your sales forecasts.
<b>B</b>	Cost of sales needs to be calculated. (For example) Opening stock + Purchases – Closing stock. Cost of sales is calculated based on your sales forecasts.
<b>C</b>	Gross profit projections are your Sales Forecasts less your related Cost of Sales
<b>D</b>	Operating costs include employee and non-employee costs.
<b>E</b>	Employee costs would be calculated by using total cost per employee as per current headcount, as well as adding total costs for any additional employees that you project you will need based on your sales forecasts.
<b>F</b>	Other expenditure would include all non-employee costs. You would need to list and add all these to get a total figure. Your list would include things like marketing expenses, travel expenses, depreciation, communication expenses etc. You could list each item separately on your projections or have one total figure as in this example. All of these costs are estimates based on your sales forecasts.
<b>G</b>	Total operating costs is the total of employee and non-employee costs.
<b>H</b>	Net profit or loss before interest and tax is Gross Profit Less Total Operating Costs
<b>I</b>	Interest and tax would be calculated based on forecasts and knowledge of the amount of interest earned / owed and tax that needs to be paid. In this example it is shown in one row for the sake of simplicity, however they interest, and tax would be on separate lines.
<b>J</b>	The Net Profit or Loss projections can now be calculated.

### **Statistics to Assist in the Analysis of the Income Statement**

Two commonly used statistical calculations which could assist with your projections, include the calculation of the mean/average, as well as the standard deviation:

#### **a. The arithmetic mean**

This is the most commonly used measure of central tendency and is often being referred to as the average or the mean. It is the sum of the values of a data set divided by the number of observations:

**Calculation of a mean:**

$\tilde{x} = \frac{\sum x}{n}$	$\tilde{x}$ = arithmetic mean x = each observation value n = number of observations
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If you could, for example calculate the average net profit over the past 6 months, this could assist you to project profit for the following 6 months, provided all other variables stay unchanged.

**Example:**

Calculate the mean of the Net Profit of a company with a total net profit of R 490 676 over six months:

$$\begin{aligned}\tilde{x} &= \frac{\sum x}{n} \\ &= \frac{(490\,676)}{6} \\ &= (81\,779.33)\end{aligned}$$

Which means that the Company's average Net Profit for the past 6 months was (81 779.33)

**b. The standard deviation**

The standard deviation is the most widely used measure of dispersion, and measures differences from the mean. To prevent negative deviations from the mean, cancelling positive deviations, the deviations are squared. The standard deviation is useful in statistics because:

- Most distributions in statistics is described by their mean and standard deviation
- The measuring unit is the same as the mean (Rands, minutes, metres, etc.)
- The larger the standard deviation, the larger the variation of data. A standard deviation of zero means there is no variation.

The calculation of the standard deviation:

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n-1}}$$

Example:

$x$	$(x - \bar{x})$	$(x - \bar{x})^2$
<b><u>(73 456)</u></b>	$73456 - 81779.33 = -8323.33$	$(-8323.33)^2 = 69277822.29$
<b><u>(91 726)</u></b>	$91726 - 81779.33 = 9946.67$	$(9946.67)^2 = 98936244.09$
<b><u>(88 721)</u></b>	$88721 - 81779.33 = 6941.67$	$(6941.67)^2 = 48186782.39$
<b><u>(74 427)</u></b>	$74427 - 81779.33 = -7352.33$	$(-7352.33)^2 = 54056756.43$
<b><u>(86 505)</u></b>	$86505 - 81779.33 = 4725.67$	$(4725.67)^2 = 22331956.95$
<b><u>(75 841)</u></b>	$75841 - 81779.33 = -5938.33$	$(-5938.33)^2 = 35263763.19$
		<b>Sum = 328053325.3</b>

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n-1}}$$

$$s = \sqrt{65610665.07} = 8100.04$$

The Standard deviation means that *(The larger the standard deviation, the greater the variation on profit from month to month, the smaller the standard deviation the more stable the profit)*