Accounting 3.5

Externally assessed
4 credits

Demonstrate understanding of management accounting to inform decision-making

In this chapter, we deal with the requirements of Achievement Standard 91408, Accounting 3.5. This chapter focuses on how management uses budgets for decision-making. It also covers the preparation of cash budgets. In order to demonstrate a comprehensive understanding for Excellence you must be able to prepare extensive financial information and justify the application of management accounting information to inform decisions.

Management accounting

Decision-making

The financial tools illustrated in this chapter are for use within a business. Business owners and/or managers use these tools to help them make decisions.

This chapter looks at the types of decisions that business managers make and identifies a number of helpful calculations that aid management decision-making.

The types of decisions that business managers need to make can be divided into two main categories: routine decisions and strategic decisions.

Routine decisions are the decisions business managers make on a regular basis, as often as daily or weekly. For example, the personnel manager may prepare a staff roster on a weekly basis. The production manager decides, on a regular basis, the quantity of materials that need to be ordered, perhaps weekly or monthly. These types of decisions do not require CEO or Board approval. The expenditure on regular items is generally *revenue expenditure* because it does not affect business profits beyond the current accounting period.

Strategic decisions are big decisions. The decision may be a change of product, market or production technique for the business. Strategic decisions typically involve significant *capital expenditure*. These big decisions definitely have an impact on the business beyond the current accounting period and generally require CEO or Board approval.

Unit 1 – Budgets

Many businesses use **budgeting** as an essential planning strategy. Budgets come in many different forms, but they essentially look toward future commitments and are therefore very useful for management decision-making.

Some different types of budgets are:

- cash budgets
- sales budgets
- production budgets
- capital expenditure budgets
- budgeted financial statements.

Cash budgets

Cash budgets are extremely useful for planning cash flow. A cash budget allows a business to plan for cash-flow fluctuations and helps it determine if it needs additional finance or funding in the short term. Cash budgets are generally prepared on a monthly basis and may plan for several months at a time. They show all cash receipts and cash payments and often predict a closing bank balance.

A cash budget is an essential planning tool for businesses making a strategic decision, because many strategic decisions involve substantial capital expenditure. A cash budget allows the management to plan for the extra spending and helps them identify the amount they might need to borrow to undertake the new project.

Sales budgets

Sales budgets are a great tool for allowing businesses to plan for future income. Many businesses have seasonal fluctuations in sales, so they need to plan for these variations. While a sales budget shows only forecast sales, it can be used to help other managers plan for production, staffing requirements and cash flow. It can also help staff set targets for sales, and may be used as an incentive for staff bonuses or remuneration.

Production budgets

Production budgets are essential for manufacturing firms that need to plan their production around seasonal fluctuations in sales or any large one-off orders. Once a firm has identified its desired level of upcoming production, it must source the raw materials required for that production. If raw materials are coming from overseas, firms may be planning months in advance to ensure they have the required amount of stock on hand. A production budget helps a business plan for all the costs of producing items for sale.

Capital expenditure generally involves large sums.

Capital expenditure budgets

Capital expenditure budgets are used for planning, often in the longer term, the capital expenditure requirements of a business. As capital expenditure generally involves large sums, this is a very useful tool for long-term planning. Capital expenditure may include items such as extensions to buildings, purchase of vehicles, or replacement or new machinery. Most businesses have to plan very carefully how to fund such large-expenditure items.

Budgeted financial statements

Budgeted financial statements show the expected financial performance and financial position of a business at some point in the future.

Budgeted Income Statements help businesses plan towards future profit levels. These budgets can then be compared with actual results as a way of monitoring business performance.

A budgeted Statement of Financial Position helps a business forecast future levels of assets and liabilities. This is helpful when looking at possible future debt levels and planning for targeted debt reduction.

Comparison of actual results with budgeted

A budget is, of course, only a plan around what we think will happen in the future. Therefore, it is essential to compare the budget with what actually happens in order to identify any overspending or other major variances. It also helps inform future budgeting, to make that budgeting as accurate as possible.

Example – Comparison of results

Native Trees Ltd Cash budget for June			
	Budgeted	**Actual**	**Variance**
Estimated receipts			
Cash from accounts receivable	10 000	9 800	(200)
Cash sales	15 000	16 000	1 000
Rent received	8 000	8 000	Nil
Total receipts	**33 000**	**33 800**	**800**
Less **Estimated payments**			
Payments to suppliers	11 000	11 200	(200)
General expenses	4 700	4 900	(200)
Wages	5 200	5 200	Nil
Loan repayment	1 000	1 000	Nil
Total payments	**21 900**	**22 300**	**(400)**
Net increase in cash	11 100	11 500	400
Opening bank balance	5 000	5 000	
Closing bank balance	16 100	16 500	

A cash budget shows a plan of all cash transactions, generally over a month. A cash budget may show several months at a time and it often shows an estimated closing bank balance.

The following example is of a cash budget prepared for a three-month period.

Example – Cash budget for a three-month period

Farm Fencing Ltd Cash budget for January to March			
	January	**February**	**March**
Estimated receipts			
Cash from accounts receivable	30 000	21 000	42 000
Cash sales	5 000	1 000	8 000
Interest received	500	600	650
Total receipts	**35 500**	**22 600**	**50 650**
Less **Estimated payments**			
Payments to suppliers	11 000	5 200	16 000
Vehicle expenses	700	1 900	2 300

Wages	4 200	5 000	4 800
Vehicle hire purchase	1 000	1 000	1 000
Purchase of new post driver			5 000
Total payments	**16 900**	**13 100**	**29 100**
Net increase/decrease in cash	18 600	9 500	21 550
Opening bank balance	(2 000)	16 600	26 100
Estimated closing bank balance	16 600	26 100	47 650

By looking at the cash budget, you can start to identify trends. *Farm Fencing Ltd* is closed for two weeks in January to let staff have a holiday. You can see the impact this has on *Farm Fencing*'s cash flow in February.

Activity 1A – Preparing a cash budget

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The *Magpie Café* serves great coffee and food. The café is open six days a week and it has only cash sales.

Income from café sales is expected to be $40 000 in April and $38 000 in May. The café manager purchases supplies from local suppliers and pays the accounts in the month following purchase. Purchases were $12 000 in March, $11 500 in April and $13 000 in May. Wages and rent are $7 000 and $2 000 per month, respectively. There is a quarterly loan repayment of $1 500 due in April. The *Magpie Café* has a bank balance of $800 on 1 April.

Prepare a cash budget for the *Magpie Café* for April and May.

Magpie Café **Cash budget for April and May**		
	April	**May**
Estimated receipts		
Cash sales		
Total receipts		
Less **Estimated payments**		
Payments to suppliers		
Wages		
Rent		
Loan repayment		
Total payments		
Net increase/decrease in cash		
Opening bank balance		
Estimated closing bank balance		

Cash from accounts receivable

Many businesses sell goods or provide services on credit. It therefore becomes necessary to estimate when the cash will be received from credit customers, because unfortunately not all customers pay within specified credit terms.

Example – Cash from accounts receivable

Tom's Home Maintenance completes most of its work on credit. The firm finds that, on average, 70% of clients pay in the month following the invoice. Tom provides a 5% discount to those clients as an incentive to pay quickly. Then, generally, 20% pay in the second month after invoice and the remaining clients pay in the third month after invoice.

The following is a breakdown of *Tom's Home Maintenance* credit sales and estimated credit sales for the first 6 months of the year.

Actual sales: January $20 000, February $42 000, March $44 000

Estimated sales: April $38 000, May $36 000, June $32 000

Schedule of accounts receivable in order to determine the cash received from accounts receivable customers during April, May and June:

Month of sale	$ amount	April	May	June
January	20 000	2 000		
February	42 000	8 400	4 200	
March	44 000	29 260	8 800	4 400
April	38 000		25 270	7 600
May	36 000			23 940
June	32 000			
Total		39 660	38 270	35 940

For the January credit sales of $20 000, 70% will pay in February, 20% will pay in March and the final 10% will pay in April. Just the April amount appears in the table above, because we are trying to calculate cash only from April, May and June. For the February credit sales of $42 000, 70% will pay in March, 20% will pay in April and the final 10% will pay in May. For the March credit sales of $44 000, 70% will pay in April and receive a 5% discount, 20% will pay in May and the final 10% will pay in June. And so the pattern continues.

The totals from the accounts receivable are then transferred to the receipts section of the cash budget.

Activity 1B – Preparing a schedule of accounts receivable to determine the cash received from accounts receivable customers

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Aaron's Plumbing completes most of its work on credit. Aaron finds that on average 80% of clients pay in the month following the invoice. Aaron offers a 5% prompt payment discount to those clients. Then 15% pay in the second month after invoice and 3% pay in the third month after invoice. Generally, 2% needs to be written off as bad debts. The following gives *Aaron's Plumbing*'s actual credit sales and estimated credit sales for the period July to December.

Actual sales: July $60 000, August $55 000, September $75 000

Estimated sales: October $80 000, November $83 000, December $65 000

Prepare a schedule of accounts receivable in order to determine the cash received from accounts receivable customers during October, November and December.

Aaron's Plumbing Schedule of accounts receivable October–December				
Month of sale	**$ amount**	**October**	**November**	**December**
July	60 000			
August	55 000			
September	75 000			
October	80 000			
November	83 000			
December	65 000			
Total				

Activity 1C – Preparing a cash budget and a schedule of accounts receivable

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1. Pete has asked you to complete a cash budget for him. He is considering buying a new van and wants to know if he can pay for it himself from business funds or if he will need to take out a loan. *Peter's Building Services* has a bank balance of $2 000 on 30 June. The business completes a lot of work on credit, so you will need to complete a schedule of accounts receivable too.

   Sales and expected sales: April $125 000, May $108 000, June $132 000, July $105 000, August $148 000, and September $181 000. Of all sales, 20% are for cash and the remainder are on credit.

   Pete finds that on average 75% of clients pay in the month following invoice and 20% pay in the second month after invoice. In the third month after invoice, 3% pay and are charged a 5% late payment fee.

   Pete pays for all his materials in the month after purchase, to take advantage of the 2% prompt payment discount. His materials' costs are as follows: June $67 000, July $58 000, August $79 000 and September $108 000.

   His existing vehicle expenses are $8 000 per month. This includes depreciation on vans of $1 200 per month. Wages are $15 000 for July, $19 000 for August and $28 000 for September. Pete also allows $500 per month for replacement tools and $2 000 per month for general expenses. He currently has an interest-only loan of $80 000, interest rate 6% p.a. payable monthly.

   a. Prepare the schedule of accounts receivable for *Peter's Building Services*.

Peter's Building Services Schedule of accounts receivable July–September				
Month of credit sale	**$ amount**	**July**	**August**	**September**
April				
May				
June				
July				
August				
Total				

b. Prepare a cash budget for *Peter's Building Services*. You will need to round dollar amounts to the nearest whole dollar.

Peter's Building Services **Cash budget for the 3 months ended September**			
	July	**August**	**September**
Estimated receipts			
Cash from accounts receivable			
Cash sales			
Total receipts			
Less **Estimated payments**			
Payments for building materials			
Vehicle expenses			
Wages			
Replacement tools			
General expenses			
Interest expense			
Total payments			
Net increase/decrease in cash			
Opening bank balance			
Estimated closing bank balance			

c. Recommend to Pete how to use some of his present cash surplus.

d. Based on your cash budget, advise Pete on how likely it is that he will be able to cover the cost of the new van, $45 000, at the end of September.

e. Explain to Pete why buying the new van is considered to be a 'strategic decision'.

2. *So Good Sushi* is owned by Megumi. Megumi makes sushi to sell to local cafés and supermarkets. All her sales are on credit. She finds that on average 50% of her customers pay in the month of sale because they receive a 5% discount; 45% pay in the month following sale; and 3% pay in the second month after sale. The final 2% are written off as bad debts in the third month after sale.

Sales for October, November and December were $52 000, $55 000 and $60 000 respectively.

Expected sales are: January $70 000, February $65 000, March $62 000. (Hint: You will not need the October sales for calculating cash received from customers but you will need the October sales to calculate bad debts written off in January.)

Megumi pays her suppliers in the month of purchase in order to take advantage of the 8% prompt payment discount. Her purchases are expected to be: January $22 200, February $20 800 and March $19 000.

General expenses are $6 000 per month. This includes bad debts and depreciation on equipment, of $900 per month.

Wages are $12 000 for January, $10 000 for February and $10 000 for March. Eighty per cent of the wages are paid in the month the cost of the wages is incurred and the remaining 20% is PAYE, which is paid the following month. December wages were $11 000.

There is a quarterly rates account due in February, of $1 260.

So Good Sushi has a term deposit of $10 000 that is due to mature in March. Interest to be received is 5% p.a. The term deposit has been invested for 6 months.

So Good Sushi has a revolving credit facility, which is like a giant overdraft. The account currently has a balance of $80 000 overdrawn. Megumi was hoping to have the balance paid off by the end of the summer because winter months are her quieter months. Interest for the facility is 6% p.a., payable monthly based on the closing balance of the facility at the end of the previous month.

In your answers to the following, round dollar amounts to the nearest whole dollar.

a. Prepare a schedule of accounts receivable for *So Good Sushi* for the months January to March 2016.

So Good Sushi **Schedule of accounts receivable January–March**				
Month of credit sale	**$ amount**	**January**	**February**	**March**
November				
December				
January				
February				
March				
Total				

b. Prepare a cash budget for *So Good Sushi* for the months January to March 2016.

So Good Sushi **Cash budget for January–March**			
	January	**February**	**March**
Estimated receipts			
Total receipts			
Less **Estimated payments**			
Total payments			
Net increase/decrease in cash			
Opening bank balance	(80 000)		
Estimated closing bank balance			

c. Advise Megumi as to whether she will be able to meet her goal of paying off her revolving credit overdraft of $80 000 by the end of March.

d. Describe the advantages to Megumi's business of having the revolving credit paid off before the winter months.

Unit 2 – Cost concepts for cost-volume-profit analysis

Cost-volume-profit analysis (CVP analysis) is a method used by management to determine the profitability of producing a particular good or service. When producing a product, cost information is available per unit. When a business is providing a service, cost information is generally based on an hourly rate.

Costs

A number of different terms describe the costs involved in producing goods and providing services. The different costs can be used in determining the viability and/or profitability of a particular product or service.

The following explanation of each cost uses a business, *Scooters Galore*, as an example. *Scooters Galore* sells children's scooters on the New Zealand toy market, offering scooters in a range of colours and styles.

Type of cost	Explanation	Example
Direct costs	These costs are traced easily to an individual product or product range.	Wheels for the scooters are a direct cost because two wheels are needed for every scooter produced.
Indirect costs	These costs are incurred in production but are not directly linked to an individual product or product range.	Depreciation on equipment is a cost of producing the scooters that cannot be linked directly to individual products.
Variable costs	These costs are linked directly to level of production.	Wages for production staff fluctuate, based on how many scooters are produced each week.
Fixed costs	These costs remain unchanged irrespective of the level of production, as long as the business does not exceed the relevant range.	Insurance expenses remain unchanged, even when production levels vary.
Semi-variable costs	These costs have a fixed component and a variable component and are likely to increase when production increases.	Internet costs: Most internet providers offer an agreement with a fixed monthly cost and a maximum usage clause. As soon as usage exceeds the maximum, additional costs are incurred.

Break-even analysis calculations

Important terms

The following terms are important in break-even calculations.

- **Relevant range** identifies the maximum level of production that is available given the existing resources. Fixed costs remain unchanged only within this range. For example, *Scooters Galore* has a relevant range of 0–20 000 scooters per annum, meaning 20 000 scooters are the most scooters *Scooters Galore* can produce in a year without needing to purchase additional equipment and machinery and therefore increase its fixed costs.
- **Contribution margin** is the difference between the selling price and the variable cost per item (or per hour, for a service). This margin is what remains to cover the fixed costs and to generate a profit.
- **Break-even** occurs where total revenue equals total costs. At break-even, the business is not operating at either a profit or a loss, but all costs are covered.
- **Margin of safety** is the difference between the existing level of sales and the level of sales required for break-even.

Answers

Achievement Standard 91404 (Accounting 3.1)

Activity 1A – NZ Framework overview (page 3)

1. (For example) To assist users of financial statements in interpreting the information contained in financial statements prepared in compliance with IFRSs and to assist auditors in forming an opinion on whether financial statements comply with IFRSs
2. a. The IFRS should be followed.
   b. The IFRS is superior to the NZ framework because it outlines the international standards that entities must follow when presenting financial information. The NZ framework can only enhance these standards or be used to develop new standards.
3. (For example) The underlying assumption in the preparation of financial statements; qualitative characteristics of useful financial information.
4. Fundamental qualitative characteristics are essential to the preparation of financial information because they ensure that the information is of sufficient quality to enable useful decisions to be made, whereas enhancing qualitative characteristics enhance or add value to financial information that may already be relevant and faithfully represented. The enhancing characteristics ensure the information is more useful and gives guidance on how best to present information.
5. If the preparers of financial statements need clarification on a certain point that is not fully covered in the International Financial Reporting Standard then they will be able to refer to the NZ Framework as a back-up source of authority. For example, if a company has leasehold property, it may wish to refer to the asset definition and recognition criteria in the NZ Framework to see if the property should be classified as an asset in the Statement of Financial Position.
6. They would refer to the element definition and recognition criteria to check that items had been correctly recorded in the Statement of Financial Position. Auditors would also use the concept of materiality as a guide as to whether an item is of sufficient size or nature to influence the decisions of users.

Activity 1B – NZ Framework assumptions (page 5)

1. The purpose of the NZ Framework is to set out underlying concepts and assumptions that are used when preparing general-purpose financial statements
2. Suppliers, employees, investors, Inland Revenue Dept. (any three)
3. Financial statements intended to meet the needs of users who do not have the power to require an entity to prepare reports tailored to the users' particular information needs.
4. a. General Purpose Financial Reports consist of the Income Statement, Statement of Changes in Equity, Statement of Financial Position and Statement of Cash Flows.
   b. General-purpose financial reports provide financial information about the reporting entity that assists the decision-making of existing and potential investors, lenders and other creditors. Special-purpose financial reports are additional information requested by users who are affected by the operation of the entity and have the power to demand certain types of information. The NZ Framework does not cover special-purpose financial statements.
   c. Examples: A bank might request a cash budget to support a loan application or the IRD might request information about GST collected and paid to support a GST return.
5. The accrual basis states that financial information must be recorded when it occurred and reported to the period to which it relates. The interest of $600 owing on the loan will be added to the interest on loan expense that is reported in the Income Statement because this expense relates to the period ended 31 March 2018.

   The interest of $600 owing on the loan will be reported in the Statement of Financial Position as 'accrued expense', a current liability because there will be future economic benefit in the form of cash flowing out in the next accounting period to pay the bank interest for the use of the loan.
6. The going concern assumption is that an entity is assumed to continue to operate into the foreseeable future, so assets should be recorded at historical cost. If a company is not a going concern, buildings and vehicles should be recorded at their market value rather than their historical cost, because this is the price the company would be likely to receive for them if it had to stop operations due to financial difficulty. Recording the assets at market value would ensure the financial information is useful for making decisions about the entity.

Activity 1C – Fundamental characteristics (page 8)

1. Using historical cost as the basis for measurement can be described as neutral because doing so presents the value of the property (such as a fishing boat) free from bias. It does not involve estimates that might influence how the user interprets the information. A source document provides the original purchase price of the fishing boat, giving a true and fair view. A higher value (in order to manipulate users into thinking the boat is worth more than it is) is not stated.
2. *Sanford Limited* is likely to use estimates for the depreciation on property, plant and equipment (such as fish-processing factories) and the allowance for doubtful debts when selling on credit to fish markets. These estimates can be made free from material error by arriving at the estimates using specific and consistent methods from year to year. While the estimates might not result in precise values for the factories, any differences are likely to be small and would not influence users' decisions.
3. The notes to the financial statements showing details of property, plant and equipment demonstrate completeness by displaying all necessary information, such as how much fishing boats cost and how much they have depreciated. This information can be given to end users so they can gain a full understanding of the operations of *Sanford Limited* and of the methods and valuations that have been used for calculating property, plant and equipment. This indicates that information is faithfully represented and is useful for decision making.
4. The Statement of Financial Position can have predictive value because the information in it can be used as an input to establish what is likely to happen in the future. For example, the accounts receivable gives information about how much cash will come in during the next few months. Looking at interest payable will show how much cash is needed to pay this expense next year. Investors can also look at the amount

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