

Module 4

INTERPRETATION OF FINANCIAL STATEMENTS AND ACCESS
TO FINANCE

Module 4 - Interpretation of financial statements and access to finance

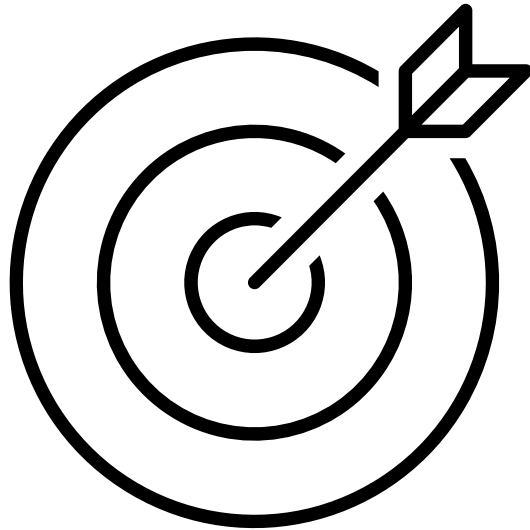
Learning outcomes:

At the end of this module, you should have an understanding of:

- The horizontal method of financial analysis
- The vertical method of financial analysis
- The financial ratios method of financial analysis
- The importance of a cash budget
- How to access finance through various options
- The importance of timely and accurate financial statements
- The difference between simple interest and compound interest



Module 4 - Interpretation of financial statements and access to finance



Overall objectives are:

- To introduce the interpretation of financial statements
- To discuss the need for a forecasted cash flow budget
- To discuss some alternative means of accessing finance
- To create awareness of how to go about accessing finance



Module 4 – Topics



Financial statement analysis

- The horizontal method of financial analysis
- The vertical method of financial analysis
- The financial ratios method of financial analysis



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Access to finance

- Budgeting
- Leases
- Asset-based financing
- Government grants
- Attracting partners or shareholders



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Accessing finance



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Accessing finance



Interest



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Accessing finance



Interest



Exercises



4.1 Financial statement analysis

Used to assess:

- the performance of the enterprise over a period of time
- its financing needs
- its ability to make investments
- its ability to meet obligations
- whether the resources of the enterprise have been used efficiently
- whether the enterprise is meeting its objectives
- the future operations of the enterprise

4.1.1 Horizontal method

Shows the last two accounting periods side-by-side and compares changes in amounts

To calculate the variation from one period to another a simple formula is used:

$$\frac{(\text{Current} - \text{Previous}) \times 100}{\text{Previous}}$$

Taking the financial statements of the business 'Angus and Siphon (Proprietary) Limited', the calculation for the cash row would be as follows:

$$\frac{(71,500 - 69,500)}{69,500} \times 100 = 2.87\%$$

Illustrative example 4.1: Horizontal method of financial statement analysis (Balance sheet)

Angus and Sipho (Pty) Limited - Balance Sheets (in CUs)

ASSETS				LIABILITIES			
	March	April			March	April	
<u>Current assets</u>				<u>Current liabilities</u>			
Cash	69,500	71,500	3%	Suppliers	25,000	26,500	6%
Accounts receivable	25,000	26,000	4%	Accounts payable	5,000	5,000	-
Inventories	7,000	10,640	52%	Taxes payable	390	448	15%
Total current assets	101,500	108,140	7%	Total current liabilities	30,390	31,948	5%
				<u>Non-current liabilities:</u>			
<u>Non-current assets</u>				Bank loan	-	49,500	
Net furniture	30,000	29,583	-1%	Total non-current liabilities	-	49,500	
Land	-	45,000		Total liabilities	30,390	81,448	168%
Total non-current assets	30,000	74,583	149%	EQUITY			
				Paid-in capital	100,000	100,000	-
TOTAL ASSETS	131,500	182,723	39%	Profit after tax	1,110	165	-85%
				Retained earnings		1,110	
				Total equity:	101,110	101,275	0.2%
				TOTAL LIABILITIES + EQUITY	131,500	182,723	39%



Illustrative example 4.1: Analysis of the results

General comments:

Totals in the balance sheet have increased by 39%

Specific comments:

Why has there been this 39% change? What specific comments can be made

Illustrative example 4.2: Horizontal method of financial statement analysis (Income statement)

Solution:

Angus and Sipho (Pty) Limited

Income Statements (in CUs)

	March	April	
Sales	37,500	18,500	-51%
(-) Cost of goods sold	<u>(21,000)</u>	<u>(10,360)</u>	-51%
Gross profit	16,500	8,140	-51%
(-) Selling expenses	(500)	-	-100%
(-) Administrative expenses	(14,500)	(6,917)	-52%
(-) Finance expense (Interest)	<u>-</u>	<u>(1,000)</u>	
Profit before tax	1,500	223	-85%
(-) Income taxes	<u>(390)</u>	<u>(58)</u>	-85%
Profit after tax	1,110	165	-85%

Illustrative example 4.2: Analysis of the results

- Sales has declined with the corresponding decline in Cost of goods sold.
- GP% is 44% for both months.
- Although the profit after tax of 1,110CU in March does not necessarily mean that cash increased by 1,100CU (as sales could have been made on credit), it does seem that any cash earned in March was used to pay the interest expense in April.
- The main issue seems to be the decline in sales. Reasons for this should be investigated.



4.1.2 Vertical method

- Also known as common-size analysis
- This method uses a base figure to which all other numbers are related.
- The formula used for the vertical analysis is:

$$\frac{\text{Individual item} \times 100}{\text{Total base figure}}$$

- Assets are shown as a % of total assets
- Liabilities and equity are shown as a % of Total liabilities and Equity
- In the income statement, sales is usually considered the base figure

Illustrative example 4.3: Vertical method of financial statement analysis (Balance sheet)

Angus and Sipho (Pty) Limited – Balance Sheet as at 30 April (in CUs)

ASSETS			LIABILITIES		
<u>Current assets</u>			<u>Current liabilities</u>		
Cash	71,500	39%	Suppliers	26,500	15%
Accounts receivable	26,000	14%	Accounts payable	5,000	3%
Inventories	10,640	6%	Taxes payable	448	0%
Total current assets	108,140	59%	Total current liabilities	31,948	17%¹
<u>Non-current assets</u>			<u>Non-current liabilities</u>		
Net furniture	29,583	16%	Bank loan	49,500	27%
Land	45,000	25%	Total non-current:	49,500	27%
Total non-current assets	74,583	41%	Total liabilities	81,448	45%¹
TOTAL ASSETS			EQUITY		
			Paid-in capital	100,000	55%
			Profit after tax	165	0%
			Retained earnings	1,110	1%
			Total equity	101,275	55%¹
			TOTAL LIABILITIES + EQUITY	182,723	100%



Illustrative example 4.3: Analysis of the results

- Which asset or liability is represented by the highest %?
- Why would the company need to have such a high % of its assets tied up in cash?
- Is the % of current assets too high?
- What type of business would have a high % of non-current assets and why?
- What could be inferred from the liabilities and equity side of the balance sheet?

Vertical method cont. – Income statement

For the income statement, each item is compared to total sales

$$\frac{\text{Item}}{\text{Total sales}} \times 100$$

The calculation for the cost of goods sold is as follows:

$$\text{Cost of goods sold/sales} = \frac{10,360}{18,500} \times 100 = 56\%$$

Illustrative example 4.4: Vertical method of financial statement analysis (Income statement)

Angus and Sipho (Pty) Limited

Income Statements (in CUs)

	March		April	
Sales	37,500	100%	18,500	100%
(-) Cost of goods sold	(21,000)	56%	(10,360)	56%
Gross profit	16,500	44%	8,140	44%
(-) Selling expenses	(500)	1%	-	0%
(-) Administrative expenses	(14,500)	39%	(6,917)	37%
(-) Finance expense	-	0%	(1,000)	5%
Profit before tax	1,500	4%	223	1%
(-) Income tax	(390)	1%	(58)	0%
Profit after tax	1,110	3%	165	1%

Illustrative example 4.4: Vertical method of financial statement analysis (Income statement)

- Is there a change in the GP%?
- Is there a change in the profit before tax %?
- Are new businesses generally profitable when they start operations?
- Does the seasonality of the business affect its profitability?
 - annually?
 - monthly?



4.1.3 Financial ratios

4.1.3.1 Liquidity ratios

a) current ratio and b) acid-test ratio

4.1.3.2 Profitability ratios

a) profit margin, b) return on assets and c) return on equity

4.1.3.3 Activity ratios

a) accounts receivable turnover, b) inventory turnover and

c) accounts payable turnover

4.1.3.4 Debt management ratios

a) debt ratio, b) debt-equity ratio and c) interest expense coverage



4.1.3.1 Liquidity ratios

a) Current ratio: The current ratio shows how many times or how well the current assets can cover the current liabilities.

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

Angus and Sipho (Pty) Ltd

Current ratio (**Illustrative example 4.5**):

March: $3.34 = 101,500 / 30,390$

April: $3.38 = 108,140 / 31,948$

Discussion:

4.1.3.1 Liquidity ratios cont.

b) Acid-Test Ratio: The acid-test ratio is a strong indicator of whether a firm has sufficient short-term assets to cover its immediate liabilities. Also known as the quick ratio, this metric does not consider less liquid assets such as inventory:

$$\frac{\text{Current assets - inventory}}{\text{Current liabilities}}$$

Angus and Siphon (Pty) Ltd

Acid-test ratio (Illustrative example 4.6):

Solution:

March: $3.11 = (101,500 - 7,000) / 30,390$

April: $3.05 = (108,140 - 10,640) / 31,948$

Discussion:



4.1.3.2 Profitability ratios

a) Profit Margin: The profit margin is the percentage of profit or loss after tax related to each currency unit obtained for the sales of goods. (This ratio is also known as profit to revenue.)

$$\frac{\text{Profit after tax}}{\text{Sales}}$$

Angus and Siphon (Pty) Ltd

Calculation of the profit margin (Illustrative example 4.7):

Solution:

March: $2.96\% = 1,110 / 37,500 \times 100$

April: $0.89\% = 165 / 18,500 \times 100$

Discussion:



4.1.3.2 Profitability ratios cont.

b) Return on Assets (ROA): This ratio shows how profitable an enterprise is in relation to the enterprise's assets, i.e. the profit generated from the invested capital (assets). It further indicates how efficient the management uses the assets to generate the profit. The ratio is calculated by dividing the enterprise's annual profit after tax by the total assets.

$$\frac{\text{Profit after tax}}{\text{Total Assets}}$$

Angus and Siphon (Pty) Ltd

Calculation of the return on assets (**Illustrative example 4.8**):

Solution:

$$\text{March: } 0.8\% = (1,110 / 131,500) \times 100$$

$$\text{April: } 0.105\% = \{165 / [(182,723 + 131,500) / 2] \times 100\} = 165 / 157,111.5 \times 100$$

Discussion:



4.1.3.2 Profitability ratios cont.

c) Return on Equity (ROE): The return on equity ratio shows how much profit each currency unit is generated by the equity. This means that it measures the ability of the enterprise to generate income from the investments made by the shareholders.

$$\frac{\text{Profit after tax}}{\text{Equity}}$$

Angus and Siphon (Pty) Ltd

Calculation of the return on equity (ROE) (**Illustrative example 4.9**):

Solution:

March: $1\% = (1.110 / 101.110) \times 100$

April: $0.1\% = (165 / 101,275) \times 100$

Discussion:



4.1.3.3 Activity ratios

a) Accounts Receivable Turnover: The ratio reflects the number of times per year that an enterprise is able to collect its average accounts receivable, i.e. it shows the ability of an enterprise to efficiently issue credit to its customers and collect the debt from them again in time.

$$\frac{\text{Net credit sales}}{\text{Average accounts receivable}}$$



Illustrative example 4.10: Accounts receivable turnover

The following information relates to **March**.

Net credit sales: 25,000

Accounts receivable: 25,000

Accounts receivable turnover: $25,000 / 25,000 = 1.0$

In days: $30/1 = 30$ days

Required: Calculate the ratio for **April** and discuss the results for the two months.

Solution:

April:

Net credit sales: 11,000

Average Customer Accounts Receivable $(26,000 + 25,000) / 2 = 25,500$

Accounts Receivable turnover: $11,000 / 25,500 = 0.43$

In days¹: $30 / 0.43 = 69.76$ days

¹days are used as the calculation is only for one month.

Discussion:



4.1.3.3 Activity ratios cont.

b) Inventory Turnover: The ratio indicates how many times the inventory is sold (i.e. turns over) during a period.

For the calculation, the cost of goods sold during a specific period is divided by the average inventory for the same period.

$$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$$



Illustrative example 4.11: Inventory turnover

The following information relates to **March**.

March:

Cost of goods sold: 21,000

Average inventory: 7,000

Inventory turnover ratio: $21,000 / 7,000 = 3$

In days: $30 / 3 = 10$ days

Required: Calculate the ratio for **April** and discuss the results for the two months.

Solution:

April:

Cost of goods sold: 10,360

Average inventory: $(10,640 + 7,000) / 2 = 8,820$

Inventory turnover ratio: $10,360 / 8,820 = 1.17$

In days: $30 / 1.17 = 25.64$ days

Discussion:

4.1.3.3 Activity ratios cont.

c) Accounts Payable Turnover Ratio (Suppliers): This measures how long it takes the enterprise to pay its suppliers (creditors).

$$\frac{\text{Inventory purchases}}{\text{Average accounts payable}}$$

In order to calculate the number of days it takes the enterprise to pay its suppliers, the days of the year (i.e. 360 or 365) are divided by the turnover ratio.



Illustrative example 4.12: Accounts payable turnover ratio

The following information relates to **March**.

Inventory purchases: 25,000

Suppliers: 25,000

Turnover Ratio: 1

In days: $30/1 = 30$ days

Required: Calculate the ratio for **April** if inventory purchases for April on credit are 14,000 and discuss the results for the two months.

Solution:

Inventory purchases: 14,000

Suppliers: $(25,000 + 26,500) / 2 = 25,750$

Turnover Ratio: 0.54

In days: $30 / 0.54 = 55.5$ days

Discussion:

4.1.3.4 Debt management ratios

a) Debt Ratio: This ratio shows the proportion of assets that have been financed with liabilities, i.e. the enterprise's ability to pay off its liabilities with its assets.

$$\frac{\text{Total liabilities (i.e. debt)}}{\text{Total assets}}$$

Illustrative example 4.13: Calculation of debt ratio

Required:

Take the data from the balance sheets of Angus and Siphon (Pty) Limited and determine the debt ratio for March and April and discuss the results.

Solution:

$$\text{March: } 23\% = (30,390 / 131,500) \times 100$$

$$\text{April: } 44\% = (81,448 / 182,723) \times 100$$

Discussion:

4.1.3.4 Debt management ratios cont.

b) Debt-equity Ratio (also known as a leverage ratio): This ratio also indicates the risk of the enterprise as it shows the proportion of finance supplied by the non-current liabilities. It therefore compares the non-current liabilities of an enterprise to the total assets or equity.

$$\frac{\text{Non-current Liabilities}}{\text{Equity}}$$

Illustrative example 4.14: Calculation of the debt-equity ratio

Required:

Take the data from the balance sheet of Angus and Siphon (Pty) Limited and determine the debt-equity (leverage) ratio for March and April and discuss the results.

Solution:

March: $30,390 / 101,110 = 0.30$

April: $81,448 / 101,275 = 0.80$

Discussion:

4.1.3.4 Debt management ratios cont.

c) Interest Expense Coverage: This shows the number of times that the enterprise can cover the financial costs with the profit or loss for the period.

$$\frac{\text{Profit / loss before tax} + \text{Interest expense}}{\text{Interest expense}}$$

Illustrative example 4.15: Calculation of the interest expense coverage

Required:

Take the data from the balance sheets of Angus and Siphon (Pty) Limited and determine the interest expense coverage for March and April and discuss the results.

Solution:

March: No finance (interest) expense

April: Profit before tax = 223

Interest Expense = 1,000

$(223 + 1000) / 1000 = 1.23$

Discussion:

Financial analysis: Key points to remember

- Although the calculations may be easy, the real value of financial analysis is in the interpretation of the ratios.
- The industry the business operates in must also be considered when interpreting the results (and also the state of the economy).
- In practice, there are different ways of calculating ratios and many other different ratios which can be calculated.



Quick quiz

1. What is: vertical analysis, horizontal analysis, and ratio analysis?
2. What do the above techniques NOT tell the user about the enterprise?



4.2 Access to finance

4.2.1 Budgeting

4.2.2 Leases

4.2.3 Asset-based financing

4.2.4 Government grants

4.2.5 Attracting new partners or shareholders



4.2.1 Budgeting

A budget is a carefully prepared schedule of the predicted results of the business, including the timing and amounts of cash receipts and payments in order that the lenders of finance can evaluate the future outlook of the business. In Module 1 it was noted that:

Financial institutions, such as banks, use the financial statements to:

- Evaluate people and businesses applying for financing.
- Evaluate credit risk (the possibility that the money is not reimbursed).
- Establish credit records.
- To assess payment capability and profitability of the entity.

For small businesses, managing cash is critical to the survival of the enterprise and to managing relationships with banks and other providers of finance.

Refer to Illustrative example 4.16 in the manual.

	Mar-actual	April-actual	May – budget	May – actual	June – budget	June – actual	July – budget	July – actual
Sales								
No of units	900	1300	1500		2000		2000	
Cash received	8,000	6,750	22,500 ⁶		30,000 ⁶		30,000 ⁶	
Cash – May (Bank)	-	-	6,000		-		-	
Inflow:	8,000	6,750	28,500		30,000 ⁶		30,000	
Outflow:								
April creditors to be paid in May	-	-	9,000		-		-	
Purchases – cash	5,000	7,000	15,000 ¹		20,000 ¹		20,000 ¹	
Travelling	200	200	300		300		400	
Wages	0	1,000	1,500		1,500		1,500	
Other expenses	0	0	100		150		150	
Total outflow:	5,200	8,200	25,900		21,950		22,050	
Net inflow (outflow) before capital items	2,800	(1,450)	2,600		8,050		7,950	
Payments:								
Metal stand	0	(2,500)	(2,500)		0		0	
Sewing machine			(6,000)					
Repayment:								
Loan	0	0	(1,000) ²		(1,000)		(1,000)	
Interest on loan	0	0	(50) ³		(42) ⁴		(33) ⁵	
Net cash inflow	2,800	(3,950)	(6,950)		7,008		6,917	
Cash at beginning	5,000	7,800	3,850		(4,000)		(992)	
Drawings	0	0	(900)		(4,000)		(4,000)	
Cash at end	7,800	3,850	(4,000)		(992)		1,925	

Information that may be required

- Cash flow analysis with three scenarios
- Explanation of any internal controls
- Environmental matters
- Financial analysis
- How will his business be affected by the vaccine roll-out
- Any cost accounting analysis
- The effect of any macroeconomic variables
- SWOT analysis

4.2.2 Leases

Illustrative example 4.17: Recording a lease

Market Enterprises leases a delivery van from Auto Traders on 1 January 20X1. In terms of the lease, Market Enterprises must pay Auto Traders CU1,000 per month for five years. The lease was approved after Market Enterprises provided its latest financial statements to Auto Traders including a detailed forecasted cash budget.

Required:

Show how Market Traders would disclose this lease in its financial statements for the year ending 31 December 20X2.

Solution:

Market Enterprises

Income statement for the year ended 31 December 20X2 (in CUs)

	Note	20X2	20X1
Expenses:			
Lease payments	1	12,000	12,000

Notes to the financial statements

1. Lease payments

The remaining lease payments at 31 December 20X2 are 36,000CU (20X1: 48,000CU).



4.2.3 Asset-based financing

Illustrative example 4.18: Asset-based financing

Market Enterprises requires money to use as working capital. The owner approaches Auto Banking and enters into an agreement to acquire a loan for 5,000CU using the equipment of the business as collateral on 1 January 20X1. The loan was for 5 years bearing interest at 10% per annum. At the end of 5 years the full amount of the loan must be repaid. The loan was approved after Market Enterprises provided its latest financial statements to Auto Banking including a detailed forecasted cash budget.

Required: Show how Market Enterprises would disclose this asset-based financing in its financial statements for the year ending 31 December 20X2.

Solution:

Market Enterprises

Income statement for the year ended 31 December 20X2 (in CUs)

	Note	20X2	20X1
Expenses:			
Interest		500	500

Notes to the financial statements

1. Note to equipment (Balance sheet)

The equipment is subject to a securitization loan repayable at the end of 31 December 20X5 bearing interest at 10% per annum.



4.2.4 Government grants

Illustrative example 4.19: Government Grant

Because of the COVID-19 pandemic, the government has made a once-off grant payment of CU2,000 to all small businesses provided they have up-to-date financial records. Joe Ngibe receives his grant on the 1 September 20X1.

Required:

Prepare the journal entry to record the receipt of this government grant.

Solution:

Joe Ngibe

Journal (in CUs)

	20X2	20X1
	Debit	Credit
Cash received (balance sheet)	2,000	
Government grant received (Income statement)		2,000

Government grant received on 1 September 20X1



4.2.5 Using your financial statements to attract new partners or shareholders

If a business does not meet the criteria to obtain finance from registered financial institutions, then the owner's contacts could be used as a source of finance.

Sole trader – one source of contacts

Partnership – the partner(s) would bring in finance plus the partner(s) will also have contacts who could be sources of finance

Company – on initial formation, the shareholders would pay the company for their shares, bringing in more finance

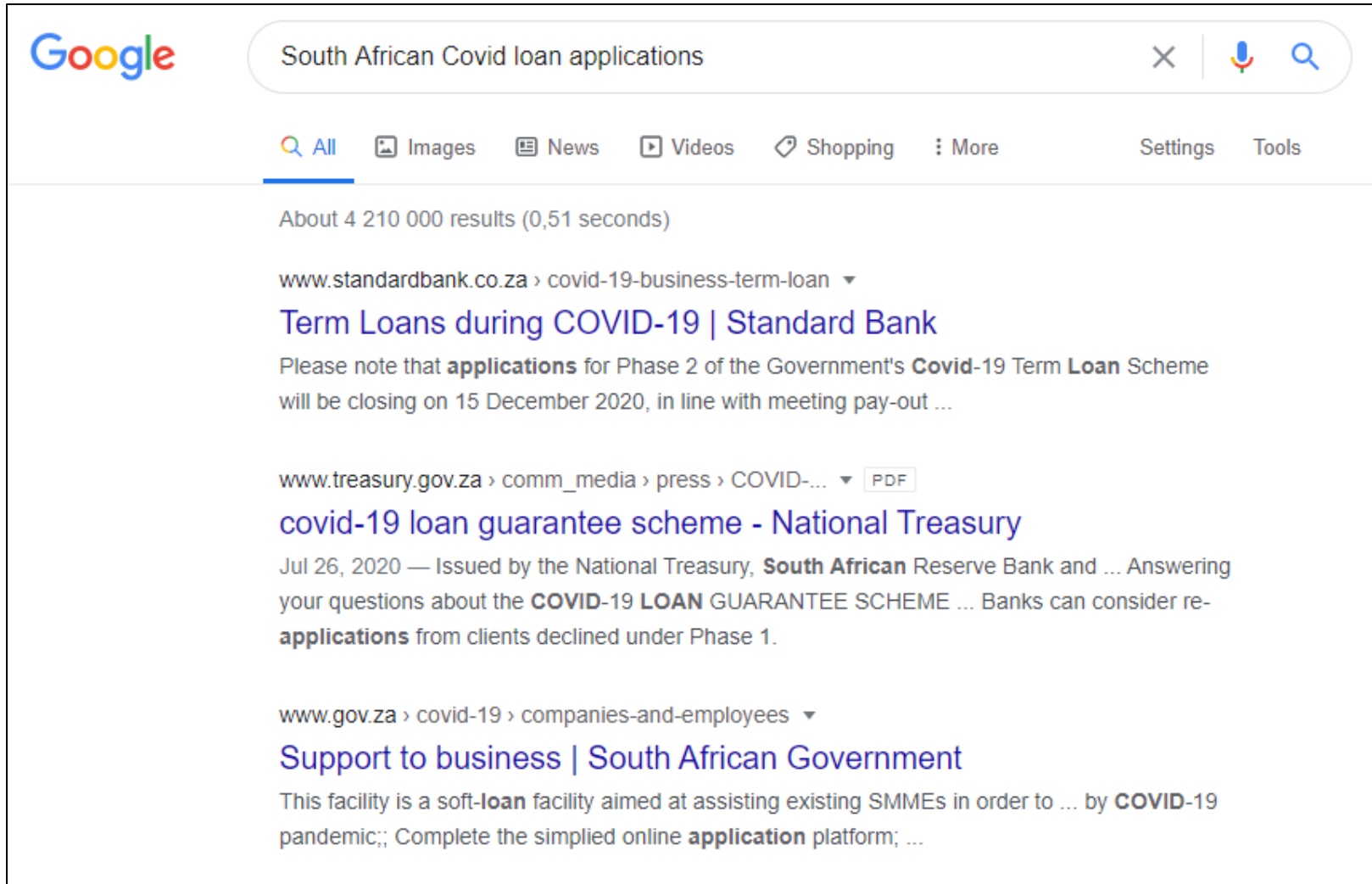
Up-to-date financial statements would be required to attract future investors or shareholders.



4.3 Accessing finance

- Latest financial statements
- Latest bank statements
- Cash flow projections
- Business plan, including a business profile and financial analysis
- Certified copies of IDs
- Copy of lease agreement if operating from rented premises
- Copy of any business license
- Proof of being tax compliant
- Registration if required as an SME

Applying for finance in your jurisdiction



Google

South African Covid loan applications

All Images News Videos Shopping More Settings Tools

About 4 210 000 results (0,51 seconds)

www.standardbank.co.za > covid-19-business-term-loan

Term Loans during COVID-19 | Standard Bank

Please note that **applications** for Phase 2 of the Government's **Covid-19 Term Loan Scheme** will be closing on 15 December 2020, in line with meeting pay-out ...

www.treasury.gov.za > comm_media > press > COVID-... PDF

covid-19 loan guarantee scheme - National Treasury

Jul 26, 2020 — Issued by the National Treasury, **South African Reserve Bank** and ... Answering your questions about the **COVID-19 LOAN GUARANTEE SCHEME** ... Banks can consider re-**applications** from clients declined under Phase 1.

www.gov.za > covid-19 > companies-and-employees

Support to business | South African Government

This facility is a soft-**loan** facility aimed at assisting existing SMMs in order to ... by **COVID-19** pandemic;; Complete the simplified online **application** platform; ...



Quick quiz

1. What documentation would you require if you were the provider of finance?
2. What information would you want to see in the documentation?
3. What assumptions made in illustrative example 4.16 could change?

Using financial statements to access finance: Key points to remember

- To obtain finance, it is important that you can produce up-to-date financial statements as well as a forecasted cash flow.
- Providers of finance may require you to enter into an agreement whereby one of your assets is held as collateral.
- Before applying for finance, ensure that you are familiar with all the requirements of the provider of finance.

4.4 Interest

When a person (physical or juridical) or a financial entity lends money to another it is expected that the amount is paid back after a certain period of time plus a compensation, such as interest. Such compensation must take into consideration three things:

- The risk of not recovering the money that is assumed by the lender.
- The opportunity cost of not having that amount available.
- The value deterioration of the lent amount due to inflation. This means that the amount would not have the same purchasing power when it is returned.





4.4 Interest cont.

4.4.1 Simple interest

Simple interest = initial amount x rate x number of time periods

4.4.2 Compound interest

Interest is calculated on the initial amount plus the accrued interest that has not yet been paid

Interest: Key points to remember

- The cost associated with obtaining finance is interest (which is an expense in the income statement).
- It is important to compare interest rates to ensure that the finance you choose to use, has the lowest interest rate.
- A loan agreement normally contains certain fees or expenses in addition to the interest, which also have to be taken into account when calculating the total costs of the loan.



4. 5 Exercises



Exercises

Exercise 4.1 – Senegal Limited – calculation and discussion of ratios

Exercise 4.2 – Takalani Enterprises – forecasted cash flow



Senegal Limited (Exercise 4.1)			
	20X3	20X2	20X1
Summarised Income statement:	CU	CU	CU
Revenue	550,000	525,000	500,000
Expenses	(525,000)	(400,000)	(300,000)
Profit	25,000	125,000	200,000
Summarised balance sheet:			
Non-current assets	500,000	400,000	300,000
Current assets:			
Inventory	220,000	200,000	80,000
Accounts receivable	250,000	80,000	20,000
Cash at bank	55,000	85,000	80,000
Total assets	1,025,000	765,000	480,000
Current liabilities	395,000	240,000	130,000
Non-current liabilities	180,000	100,000	50,000
Total liabilities	575,000	340,000	180,000
Equity	450,000	425,000	300,000 ¹
Total liabilities and equity	1,025,000	765,000	480,000

Senegal Limited (Exercise 4.1) solution

Ratios for the past three years:	20X3	20X2	20X1
Current ratio = current assets/current liabilities	$525,000/395,000 = 1.33$	$365,000/240,000 = 1.52$	$180,000/130,000 = 1.38$
Acid-test (quick ratio) = (current assets – inventory) /current liabilities	$305,000/395,000 = 0.77$	$165,000/240,000 = 0.69$	$100,000/130,000 = 0.77$
Profit to revenue (profit margin)	$25,000/550,000 \times 100 = 4.55\%$	$125,000/525,000 \times 100 = 23.81\%$	$200,000/500,000 \times 100 = 40\%$
Return on total assets	$25,000/1,025,000 \times 100 = 2.44\%$	$125,000/765,000 \times 100 = 16.34$	$200,000/480,000 \times 100 = 41.67\%$
Return on equity	$25,000/450,000 \times 100 = 5.56\%$	$125,000/425,000 \times 100 = 29.41\%$	$200,000/300,000 \times 100 = 66.67\%$
Debt ratio (total debt to total assets)	$575,000/1,025,000 = 0.56$	$340,000/765,000 = 0.44$	$180,000/480,000 = 0.375$
Leverage ratio (total liabilities to equity)	$575,000/450,000 = 1.28$	$340,000/425,000 = 0.80$	$180,000/300,000 = 0.60$

Requirement 3: Senegal Limited (Exercise 4.1) solution

These two ratios are known as **liquidity ratios**.

Although the current ratio is showing little variation over the 3 years (although it may be considered fairly low), the acid-test ratio shows that the liquidity position of the enterprise deteriorated in 20X2 before recovering in 20X3. However, the balance sheet shows that the enterprise has allowed its debtors (accounts receivable) to grow rapidly. This may mean that the debtors may be slow in settling what they owe to Senegal Limited and the company should be following up for payment. If only cash is compared to current liabilities, it can be seen that the company does not have enough cash to settle all its current liabilities should much of the accounts receivable prove to be uncollectible.

Requirement 4: Senegal Limited (Exercise 4.1) solution

These ratios (Profit to revenue or profit margin, Return on total assets and Return on equity) are known as **profitability ratios**.

From a healthy position in 20X1, the results from these ratios show a rapid deteriorating position for the company. Reasons for this need to be investigated. One reason may be that the tourism sector was hit particularly hard during the COVID-19 pandemic and the tourism industry came to a standstill in Africa. However, the company should not blame its bad results entirely on the pandemic as the intermediate year (20X2) also shows a deteriorating position. The company should question its operating model: Is the mark-up on its products too low? Is it allowing its debtors too much time to pay? What other costs are contributing to the increase in expenses and can any of them be reduced?

Requirement 5: Senegal Limited (Exercise 4.1) solution

The debt ratio has been steadily increasing. This means that the company is using more debt to finance its assets. As the debt is increasing, this places the company in a risky position as loans may need to be repaid and interest payments need to be made.

This is reflected in the leverage ratio (total liabilities to equity) which has more than doubled over the three years. This again indicates that the company is in a risky position.



Requirement 6: Senegal Limited (Exercise 4.1) solution

The ratios show the company in a deteriorating position for three years. It is unlikely that the company will be successful in its request for additional finance.

The owner could take the following steps:

1. Contact all debtors (accounts receivable) and request them to make immediate payment.
2. Consider whether it is holding too much inventory and whether by lowering prices on certain slow-moving items, these items would sell, and this would improve its cash position.
3. Are any of the fixed assets in excess of what is needed? These assets could be sold.
4. The company does have 50,000CU in the bank. The company should produce a forecasted cash flow and a business plan to show how it intends to improve its operations in the future.
5. In this plan, its pricing model should be questioned, as it could be that the company's mark-up on some of its products may be too low.
6. The company could consider leasing any assets required rather than outright purchase.

Takalani Enterprises (Exercise 4.2)

TAKALANI ENTERPRISES	Beginning CU	January CU	February CU	March CU	April CU
Cash (money) receipts					
Investment by owner	55,000	-	-	-	-
Loan received from family member	15,000	-	-	-	-
Sales – cash received	-	40,000	15,000	10,000	25,000
Cash received from previous sales ¹	-	-	18,000	36,000	32,000
Cash received in each month	70,000	40,000	33,000	46,000	57,000
Cash (money) payments					
Purchases of inventory	15,000	28,000	34,000	42,000	48,000
Equipment purchased	10,000	-	-	-	-
Wages	3,000	4,000	8,000	8,000	10,000
Rent, electricity and water	1,000	1,000	1,000	1,000	1,200
Telephone (cell phone and airtime)	800	900	1,100	1,200	1,200
Total spent in each month	29,800	33,900	44,100	52,200	60,400
Net cash flow in each month	40,200	6,100	(11,100)	(6,200)	(3,400)
Cash balance brought forward	-	40,200	46,300	35,200	29,000
Cash balance	40,200	46,300	35,200	29,000	25,600



Requirement 1: Takalani Enterprises (Exercise 4.2) solution

The cash flow position is deteriorating in the future. The owner needs to investigate reasons for this.

- Cash sales are not showing any growth, and the amounts from credit customers seems to be increasing. The owner may be giving credit to customers too freely.
- If purchases of inventory are compared to the sales figures, the profit margin may be set too low. For example, in January inventory costing 28,000CU was purchased, yet cash receipts are only 33,000CU in February.
- Wages has increased rapidly.
- Although April shows improvement, the forecast is too short to be able to make any predictions about the months after April.

Requirement 2: Takalani Enterprises (Exercise 4.2) solution

The advice I would give the owner is based on the above observations.

- Try to get customers to pay immediately using electronic funds transfers (EFTs) or similar.
- Consider increasing the gross margin on your sales. What is the current mark-up? Compared to competitors, is the current mark-up too low?
- Why have wages increased so rapidly? The business does not seem to have shown the growth one would expect with additional staff members being appointed.
- Extend the forecast to at least 12 months.

Requirement 3: Takalani Enterprises (Exercise 4.2) solution

Based on the forecasted cash flow, I would not extend additional finance to Takalani Enterprises. However, the owner could act on the following reasons for my decision, and it is possible I would extend additional finance in the future.

- The forecasted cash flow shows a decreasing cash balance over the four months. If the family member required the loan to be paid back, there would not be enough cash in the business to buy more inventory.
- Are customers paying within a 25 – 30 day period (which is the usual credit terms), or are they exceeding this period?
- Is the business paying immediately for its purchases of inventory, or has it negotiated credit terms with its suppliers? If it can negotiate credit terms with its suppliers, it may not need additional finance.
- However, the main issue seems to be linked to cash and credit sales, and the possibility that the inventory mark-up is too low, or the owner has invested too much in slow-moving inventory items. The owner should produce a business plan showing how sales are to be increased and expenses are to be reduced.
- A forecast of longer than 4 months is necessary together with some comparison of the forecast with actual cash flow so as to get some idea as to its accuracy.

End of Module 4