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Name:

**Unit Specification: Unit 3 – Personal and Business Finance**

**Method of assessment**

Externally marked exam (80 marks – 2 hours)

**Unit in brief**

Learners study the purpose and importance of personal and business finance. They will develop the skills and knowledge needed to understand, analyse, and prepare financial information.

**Unit introduction**

This unit includes aspects of both personal and business finance. Personal finance involves the understanding of why money is important and how managing your money can help prevent future financial difficulties. It is vital you understand the financial decisions you will need to take throughout your life and how risk can affect you and your choices. This unit will also give you an insight into where you can get financial advice and support.

The business finance aspects of the unit introduce you to accounting terminology, the purpose and importance of business accounts and the different sources of finance available to businesses. Planning tools, such as cash flow forecasts and break-even, will be prepared and analysed. Measuring the financial performance of a business will require you to prepare and analyse statements of comprehensive income and statements of financial position.

This unit will provide a foundation for a number of other finance and business units and will help you to analyse profitability, liquidity, and business efficiency. It will give you the knowledge and understanding to manage your personal finances and will give you a background to business finance and accounting as you progress to employment or further training.

**Summary of assessment**

This unit is assessed by a written examination set by Pearson. The examination will be two hours in length. The number of marks for the examination is 80. (Section A contains questions on the personal finance unit content and approximately one-third of the marks, and Section B contains questions on the business finance unit content and approximately two-thirds of the marks).

**Assessment outcomes**

AO1 Demonstrate knowledge and understanding of business and personal finance principles, concepts, key terms, functions, and theories. Command words: describe, explain, give, identify, outline Marks: ranges from 1 to 4 marks.

AO2 Apply knowledge and understanding of financial issues and accounting processes to real-life business and personal scenarios Command words: analyse, assess, calculate, describe, discuss, evaluate, explain Marks: ranges from 2 to 12 marks.

AO3 Analyse business and personal financial information and data, demonstrating the ability to interpret the potential impact and outcome in context Command words: analyse, assess, discuss, evaluate Marks: ranges from 6 to 12 marks.

AO4 Evaluate how financial information and data can be used, and interrelate, in order to justify conclusions related to business and personal finance Command words: analyse, assess, discuss, evaluate Marks: ranges from 6 to 12 marks.

**Learning Outcome F - Complete statements of comprehensive income and financial position and evaluate a business's performance.**

**Activity 1 – What is it & Key Words.**

As we go through a statement of comprehensive income you need to explain what it is, and the key words associated with it.

Use the table in your student workbook to explain the key words. Add any extra ones you may come across.

Explain what a statement of comprehensive income is and why it is used.

A statement of comprehensive income provides a business with an accurate account of its profit and loss.

Its records sales, costs, gross and net profit over a period of time usually 1 year.

|  |  |
| --- | --- |
| **Key word** | **Explanation** |
| Sales revenue | Sales revenue is the money a company earns from selling its goods and services to customers. It is income the company earns exclusively from the sale of goods or services. It does not include sources of income that derive from anything other than sales. |
| Cost of goods sold | Cost of goods sold (COGS) includes all of the costs and expenses directly related to the production of goods. It excludes indirect costs such as overhead and sales & marketing. Cost of goods sold is deducted from revenues (sales) in order to calculate gross profit and gross margin. Higher COGS results in lower margins. |
| Inventory | Inventory is the term for the goods available for sale and raw materials used to produce goods available for sale. Inventory represents one of the most important assets of a business because the turnover of inventory represents one of the primary sources of revenue generation. |
| Gross profit | Gross profit is the profit a company makes after deducting the costs associated with making and selling its products, or the costs associated with providing its services. Gross profit will appear on a company's income statement and can be calculated by subtracting the cost of goods sold from revenue (sales). |
| Expenses | An expense is the cost of operations that a company incurs to generate revenue. As the popular saying goes, “it costs money to make money.”  Common expenses include payments to suppliers, employee wages, leases, and equipment depreciation. |
| Depreciation | Depreciation is an accounting method of allocating the cost of a tangible or physical asset over its useful life or life expectancy. Depreciation represents how much of an asset's value has been used up. |
| Net profit | Net profit is the measurement of a company's profit once operating costs, taxes, interest and depreciation have all been subtracted from its total revenues. The term is often referred to as a company's 'bottom line' and may also be described as 'net earnings' or 'net income'. |

**Activity 2 – Annotating & Explaining Gross Profit**

As we go through the top half of a statement of comprehensive income. Annotate the example below (as I am on the board) and answer the questions provided.

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| Sales |  | 100,000 |
| Less cost of goods sold | | |
| Opening inventory | 12,000 |  |
| Purchases | 18,000 |  |
| Closing inventory | 5,000 |  |
|  |  | 25,000 |
| Gross profit |  | 75,000 |

What is gross profit & how is it calculated?

Gross profit is the amount of money left over after the cost of goods sold is deducted from sales revenue.

Sales turnover – cost of goods sold.

How is cost of goods sold calculated?

Opening inventories + Purchases – Closing inventories

Explain cost of goods sold.

The costs of goods sold is the costs directly linked to providing that good or service.

Sales is calculated by:

Quantity sold x Selling price.

Explain what the first half of the statement of comprehensive income shows about the business’s financial performance.

It shows the total amount of profit the business is making before expenses. This sis the gross profit figure and calculated by taking the cost of goods sold away from sales.

**Activity 3 – Full Statement of Comprehensive Income**

Answer the questions and then fill in the statement of comprehensive income using the information provided.

Provide examples of 3 different expenses.

Rent, advertising, salaries, wages, distribution, equipment, admin.

Explain what an expense is.

Expenses need to be subtracted from the gross profit figure as these are costs that are associated with selling a product or service.

Describe revenue income.

This is income generated by the business other than its core business activity. Interest from the bank can be classed as revenue income.

How do you calculate Net profit and what does it mean?

This is the final figure on the statement of comprehensive income and is calculated by.

**Gross profit – expenses + other revenue income**

This is the figure that the business will pay tax on.

**Information for Statement of comprehensive income**

* Jessica runs her own T-shirt design business. She sold 2000 t-shirts at a price of £40 from April 2019 to April 2020.
* She started that year with stock worth £6,000 and purchased another £10,000 of stock.
* She ended the year with £3,000 in stock.
* She stores her stock in a small storage facility costing £3,000 annually.
* She spends £100 a month on Instagram advertising.
* Her postage costs are £400 a month.
* She has depreciation of her equipment of £800 for the year *(we will cover depreciation in detail later)*
* She has no revenue income.

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| Sales |  | 80,000 |
| Less cost of goods sold | | |
| Opening inventory | 6,000 |  |
| Purchases | 10,000 |  |
| Closing inventory | 3,000 |  |
|  |  |  |
| Gross profit |  | 67,000 |
| Less Expenses |  |  |
| Rent |  | 3,000 |
| Advertising |  | 1,200 |
| Postage |  | 4,800 |
| Depreciation |  | 800 |
| Total expenses |  | 9,800 |
| Revenue Income |  | 0 |
| Net profit |  | 57,200 |

Assess the statement of financial position by commenting on key points and figures that have been produced.

* Low cost of goods sold.
* Healthy gross profit
* Low expenses in relation to sales
* Very health net profit
* Could investigate ways to reduce postage costs but not essential.

**Activity 4 – Calculating Depreciation**

Watch the video on how to calculate straight line and reducing balance depreciation. Then answer the following questions.

[Video Link: Depreciation](https://youtu.be/_OiuLxg-rj0)

Describe the term depreciation.

Depreciation is an accounting method of allocating the cost of a tangible or physical asset over its useful life or life expectancy. Depreciation represents how much of an asset's value has been used up over time.

What two methods are used to calculate depreciation?

Straight line

Reducing balance

Explain why depreciation is important for a business to monitor.

If a business buys a car valued at £30,000 when bought. This same car will not be valued at £30,000 in a years’ time as it will have depreciated in value.

This needs to be represented as an expense to the business in its statement of comprehensive income.

What is the calculation for straight line depreciation?

Historic value – residual value / expected life.

Historic value is…

The cost of an asset when it was first purchased e.g., a Mac Book at £1400

Residual value is…

Expected life is…

How long the asset is expected to be used within the business e.g., 3 years.

Write down the calculation for the reducing balance method and explain what happens with the value of the van at the end of year one.

Historic value x percentage decrease

Now you have finished the video apply your knowledge to the following questions on both the straight-line method and reducing balance method.

**Questions on Straight Line Depreciation**

**A business buys a company car for the managing director that costs £50,000. Its residual value is £22,000 after 4 years.**

How much does the car depreciate by each year?

50,000 – 22,000 / 4 = 7,000

Depreciates by £7,000 a year.

**A graphic design company buys a brand-new computer for £2,500. Its residual value after 2 years is £1200.**

How much does the computer depreciate by each year?

2,500 – 1200 / 2 = 650

Depreciates by £650 a year.

**The same business buys 4 new machines at a total cost of £80,000. The residual value of those machines after 5 years is £40,000.**

How much does each individual machine depreciate by each year?

80,000 – 40,000 / 5 = 8000

In one year, 4 machines depreciate by £8000.

Depreciation of 1 machine = 8,000 / 4 = £2,000

**A new delivery business buys a fleet of 4 vans at a total cost of £120,000. Each van depreciates by £6,000 per year for a total of 3 years.**

What is the **residual value** of all 4 vans at the end of 3 years?

Historic value = 120,000

Total depreciation per van 6,000 x 3 = 18,000

Total depreciation of 4 vans = 18,000 x 4 = 72,000

Residual value of 4 vans after 3 years = 120,000 – 72,000 = £48,000

**Questions on Reducing Balance Depreciation**

A piece of office equipment is bought for £10,000. It depreciates at a rate of 20% for 6 years. Calculate the piece of office equipment’s residual value at the end of 6 years.

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Value at start of year (£)** | **Depreciation (£)** | **Value at end of year (£)** |
| **1** | 10,000 | 10,000 x 0.8 = 8,000 | 8,000 |
| **2** | 8,000 | 8,000 x 0.8 = 6,400 | 6,400 |
| **3** | 6,400 | 6,400 x 0.8 = 5,120 | 5,120 |
| **4** | 5,120 | 5,120 x 0.8 = 4,096 | 4,096 |
| **5** | 4,096 | 4,096 x 0.8 = 3,276.8 | 3,276.8 |
| **6** | 3,276.8 | 3,276.8 x 0.8 = 2,621.44 | **2,621.44** |

A college has just purchased a brand-new printer for £6,000. The printer will depreciate by 15% for 3 years before it is replaced. Calculate the total amount of depreciation after 3 years.

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Value at start of year (£)** | **Depreciation (£)** | **Value at end of year (£)** |
| **1** | 6,000 | 6,000 x 0.85 = 5,100 | 5,100 |
| **2** | 5,100 | 5,100 x 0.85 = 4,335 | 4335 |
| **3** | 4,335 | 4,335 x 0.85 = 3,684.75 | 3684.75 |

**TOTAL DEPRECIATION AFTER 3 YEARS = 6,000 – 3,684.75 = 2,315.25**

A factory buys a large piece of manufacturing machinery for its warehouse. The machinery cost £125,000. It will depreciate by 22% for 8 years. What will the value of the machinery be at the start of year 6?

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Value at start of year (£)** | **Depreciation (£)** | **Value at end of year (£)** |
| **1** | 125,000 | 125,000 x 0.78 = 97,500 | 97,500 |
| **2** | 97,500 | 97,500 x 0.78 = 76,050 | 76,050 |
| **3** | 76,050 | 76,050 x 0.78 = 59,319 | 59,319 |
| **4** | 59,319 | 59,319 x 0.78 = 59,319 | 46,268.82 |
| **5** | 46,268.82 | 46,268.82 x 0.78 = 36,089.68 | 36,089.68 |
| **6** | **36,089.68** |  |  |

**Activity 5 – Analysing a Statement of Comprehensive Income**

**Business X 2019 & 2020 Statement of Comprehensive Income**

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2019** | | |
|  | **£** | **£** |
| Sales |  | 100,000 |
| Less cost of goods sold | | |
| Opening inventory | 12,000 |  |
| Purchases | 18,000 |  |
| Closing inventory | 5,000 |  |
|  |  | 25,000 |
| Gross profit |  | 75,000 |
| Less Expenses |  |  |
| Rent |  | 12,000 |
| Salaries |  | 20,000 |
| Advertising |  | 3,000 |
| Business rates |  | 5,000 |
| Distribution |  | 12,000 |
| Depreciation |  | 8,000 |
| Total expenses |  | 60,000 |
| Revenue Income |  | 0 |
| Net profit |  | 15,000 |

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| Sales |  | 125,000 |
| Less cost of goods sold | | |
| Opening inventory | 5,000 |  |
| Purchases | 36,000 |  |
| Closing inventory | 8,000 |  |
|  |  | 33,000 |
| Gross profit |  | 92,000 |
| Less Expenses |  |  |
| Rent |  | 13,000 |
| Salaries |  | 30,000 |
| Advertising |  | 4,000 |
| Business rates |  | 5,000 |
| Distribution |  | 16,000 |
| Depreciation |  | 5,000 |
| Total expenses |  | 73,000 |
| Revenue Income |  | 0 |
| Net profit |  | 19,000 |

Compare the gross profit & net profit for 2019.

The gross profit is higher than net profit which is normal however it is significantly reduced in this case. This is mainly down to salaries. However, distribution and rent are also a factor contributing to high expenses.

Compare the gross profit and net profit from 2020.

Despite an increase of £25,000 in sales this has only resulted in £17,000 more of gross profit for the business as their cost of goods sold has increased. Furthermore, they have increased their salaries and distribution costs which has meant they’re not profit is still significantly lower than gross profit.

Compare the net profit from 2019 to 2020.

Although the business has increased sales and gross profit from 2019 to 2020 this has only resulted in an increase of £4,000 in net profit. This is due to the business significantly increasing their wages salaries and distribution cost from 2019 to 2020.

Evaluate the business profitability as a whole using key points and data from each year’s statement of comprehensive income.

* Increase in sales from 2019 to 2020.
* Not too big of an increase in cost of goods sold.
* £17,000 increase in gross profit which is good.
* However, a £13,000 increase in expenses which has eaten away at that gross profit increase.
* Salaries and distribution biggest reason for increase in expenses.
* Overall, after £25,000 more in sales this only resulted in £4,000 extra profit.

Recommend what action the business could take to improve its profitability.

* Reduce salaries.
* Find alternative distribution methods to reduce this expense.
* Increase prices.
* Increase volume of sales.
* Advertise more.

**Business Y 2019 & 2020 Statement of Comprehensive Income**

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2019** | | |
|  | **£** | **£** |
| Sales |  | 90,000 |
| Less cost of goods sold | | |
| Opening inventory | 0 |  |
| Purchases | 30,000 |  |
| Closing inventory | 2,000 |  |
|  |  | 28,000 |
| Gross profit |  | 62,000 |
| Less Expenses |  |  |
| Rent |  | 8,000 |
| Salaries |  | 12,000 |
| Advertising |  | 7,000 |
| Business rates |  | 3,000 |
| Distribution |  | 8,000 |
| Depreciation |  | 3,000 |
| Total expenses |  | 41,000 |
| Revenue Income |  | 0 |
| Net profit |  | 21,000 |

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| Sales |  | 150,000 |
| Less cost of goods sold | | |
| Opening inventory | 2,000 |  |
| Purchases | 50,000 |  |
| Closing inventory | 12,000 |  |
|  |  | 40,000 |
| Gross profit |  | 110,000 |
| Less Expenses |  |  |
| Rent |  | 8,000 |
| Salaries |  | 20,000 |
| Advertising |  | 10,000 |
| Business rates |  | 4,000 |
| Distribution |  | 11,000 |
| Depreciation |  | 5,000 |
| Total expenses |  | 58,000 |
| Revenue Income |  | 2,000 |
| Net profit |  | 54,000 |

Compare the gross profit & net profit for 2019.

Gross it good in comparison to sales however after expenses it is significantly lower. Depending on the industry this net profit figure may be low in comparison to sales.

Compare the gross profit and net profit from 2020.

Gross profit in comparison to sales is very good. Salaries and distribution are the biggest expenses. However, the business is making a healthy net profit in comparison to gross profit.

Compare the net profit from 2019 to 2020.

Net profit is significantly higher in 2020 than 2019 and this is in large part down to an increase in sales. As sales increased by £60,000 but expenses only increased by £17,000. This meant that despite the increase in sales they managed to keep their expenses in control and therefore they saw more of those sales in net profit.

Evaluate the business’s profitability as a whole using key points and data from each year’s statement of comprehensive income.

* Profitability is good especially in 2020.
* Increased sales haven’t meant a too large increase in expenses which is good.
* Salary is biggest expense.
* Possible increase in advertising in 2020 could be the reason for more sales.

Recommend what action the business could take to improve its profitability.

* Decrease salaries if possible.
* Continue to increase advertising.
* Investigate cost effectiveness of distribution.

Compare the two businesses profitability performance and provide clear examples of which one is performing better.

EITHER ONE WOULD BE ACCEPTABLE DEPENDING ON HOW STUDENTS JUSTIFY THEIR ANSWER.

KEY POINTS FROM ABOVE SHOULD BE USED TO JUSTIFY THE CHOICE OF WHICGH ONE IS PERFORMING BETTER FINANCIALLY.

The obvious answer would be Business Y in 2020 as they are making the highest net profit but also are making a good net profit in comparison to sales.

**Outcome F2 – Statement of Financial Position**

**Activity 6 – Statement of Financial Position Explained.**

While I go through the statement of financial position and the various sections. Take notes and annotate the various key points about the statement.

Explain what a statement of financial position is and its purpose.

A statement of financial position (also known as a balance sheet) shows a business’s net worth at a particular point in time and is usually produced at the end of the financial year.

It shows everything that the business owns (assets) and everything the business owes (liabilities).

**Statement of Financial Position 2020**.

Current liabilities:

Current liabilities are debts that the business owes that need repaying in under one year.

Current assets:

Current assets are all the assets of a company that are expected to be sold or used as a result of standard business operations within the current year.

Non-current assets:

As you can see, these are things such as premise, vehicles and equipment.

They can either be tangible or intangible.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost  £ | Depreciation  £ | Carrying Amount  £ |
| Non – current assets | | | |
| Premises | 150,000 | 10,000 | 140,000 |
| Vehicles | 20,000 | 5,000 | 15,000 |
| Equipment | 18,000 | 4,000 | 14,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 23,000 |
| Trade receivables |  |  | 12,000 |
| Cash at bank |  |  | 6,000 |
| Cash in hand |  |  | 3,000 |
| **44,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 13,000 |
| Overdraft |  |  | 2,000 |
|  |  |  | **15,000** |
| Working capital |  |  | **29,000** |
|  | | | |
| Non – current liabilities | | | |
| Bank loan |  |  | 65,000 |
| Net assets |  |  | **133,000** |
|  | | | |
| Financed by | | | |
| Capital |  |  | 85,000 |
| Retained profit |  |  | 48,000 |
| Capital employed |  |  | **133,000** |

Capital employed:

This shows the capital that has been used to finance the business.

Net assets:

Net assets = Non current assets + current assets – (current liabilities + non current liabilities)

Non-Current liabilities:

Non-current liabilities are long-term debts that need to be paid back in more than one year’s time i.e., mortgage.

Explain a tangible asset and provide examples.

**Tangible** (something that can be physically touched)

* Premises
* Vehicles
* Fixtures and Fittings

Explain an intangible asset with examples.

**Intangible** (something that cannot be touched)

* Patents
* Goodwill
* Branding

A statement of financial position can be used to analyse:

1. Compare figures such as the current assets and current liabilities. What is the difference between the two figures? and what can be done?
2. Compare years. Have assets increased or decreased? Has the business got more or less working capital? Has the business increased or decreased in value?
3. Compare how the business is performing in relation to its competitors. For example, how is Nike performing financially in comparison to GymShark.

**Activity 7 – Interpreting & Analysing a Statement of Financial Position**

First answer the questions regarding a statement of financial position and then complete both of the financial statements for 2019 and 2020 by filling in the missing amounts in the grey boxes.

Finish the activity by justifying which year the business was in the best financial position.

Explain what a Non-current asset is.

A non-current asset is something that the business owns that is a long terms asset to the business. These assets can either be tangible i.e., buildings or intangible like patents or copyrights.

Explain how current assets are different to non-current assets.

Current bassets are known as liquid assets. These are thing that the business owns but they usually stay within the business for less than a year i.e., stock and cash.

Describe trade receivables.

These are current assets to the business and are debts that are owed to the business.

Describe trade payables.

These are a current liability to the business and are debts that the business owes.

How do you calculate working capital?

Working capital is the current assets – current liabilities.

Explain what capital employed is.

This shows the capital that has been used to finance the business.

In this case it is the capital that has been put into the business, plus any retained profits that the business has.

Capital + Retained profit.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 200,000 | 20,000 | 180,000 |
| Vehicles | 20,000 | 5,000 | 15,000 |
| Equipment | 35,000 | 8,000 | 27,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 30,000 |
| Trade receivables |  |  | 11,000 |
| Cash at bank |  |  | 6,000 |
| Cash in hand |  |  | 3,000 |
| **50,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 8,000 |
| Overdraft |  |  | 4,000 |
|  |  |  | **12,000** |
| Working capital |  |  | **38,000** |
|  | | | |
| Non – current liabilities | | | |
| Bank loan |  |  | 85,000 |
| Net assets |  |  | **175,000** |
|  | | | |
| Financed by | | | |
| Capital |  |  | 100,000 |
| Retained profit |  |  | 75,000 |
| Capital employed |  |  | **175,000** |

**Statement of Financial Position April 2019**

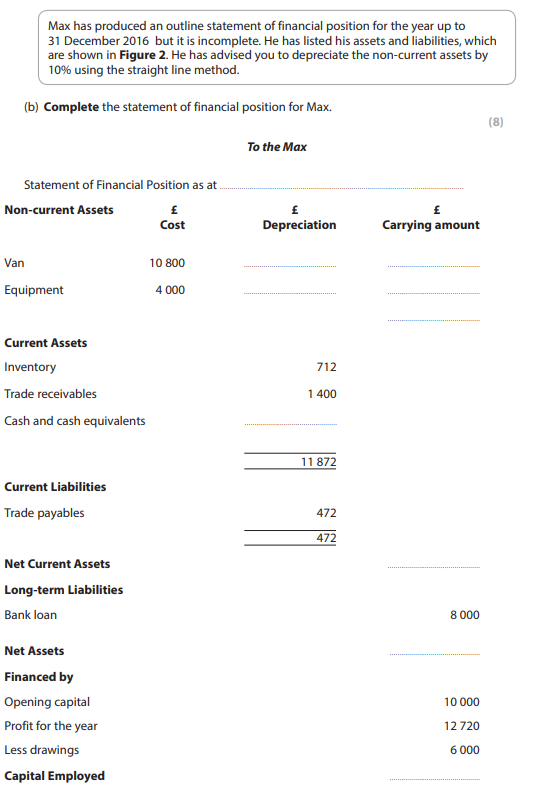
|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 180,000 | 18,000 | 162,000 |
| Vehicles | 17,000 | 5,000 | 12,000 |
| Equipment | 49,000 | 9,000 | 40,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 10,000 |
| Trade receivables |  |  | 20,000 |
| Cash at bank |  |  | 20,000 |
| Cash in hand |  |  | 2,000 |
|  | | | **52,000** |
| Less current liabilities | | | |
| Trade payables |  |  | 4,000 |
| Overdraft |  |  | 3,000 |
|  |  |  | **7,000** |
| Working capital |  |  | **45,000** |
|  | | | |
| Non – current liabilities | | | |
| Bank loan |  |  | 100,000 |
| Net assets |  |  | **159,000** |
|  | | | |
| Financed by | | | |
| Capital |  |  | 49,000 |
| Retained profit |  |  | 110,000 |
| Capital employed |  |  | **159,000** |

**Statement of Financial Position April 2020**

Justify which year the business was in the best financial position. Ensure you comment on both statements and make clear comparisons to both throughout your answer.

Key points:

* More non-current assets in 2019 than 2020
* Less current assets in 2019 than 2020
* Also holding more stock and less cash in 2019 than 2020
* 2020 has better working capital and more cash making it better in terms of being able to pay off debts.
* 2020 has less of a bank loan so this is positive.
* Less capital has been employed in 2020.
* Overall, 2020 seems to be stronger financially but depends on how the student justifies their answer.

**Activity 8 - Exam Question**

16,720

16,720

11,400

9,760

13,320

3,600

9,720

400

1080

**Outcome F3 – Measuring Profitability**

**Activity 9 – Quick Practice Questions on Gross & Net Profit**

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| **Sales** |  | 217,000 |
| Less cost of goods sold | | |
| Opening inventory | 13,500 |  |
| Purchases | 58,000 |  |
| Closing inventory | 27,250 |  |
|  |  | 44,250 |
| **Gross profit** |  | **172,750** |
| Less Expenses |  |  |
| Rent |  | 10,000 |
| Salaries |  | 22,000 |
| Advertising |  | 4,000 |
| Business rates |  | 5,000 |
| Distribution |  | 32,000 |
| Depreciation |  | 12,000 |
| Total expenses |  | 85,000 |
| Revenue Income |  | 0 |
| **Net profit** |  | **87,750** |

Calculate the gross profit margin using the information above.

Full workings are on PowerPoint.

Gross profit = 79.61%

Explain whether the business is performing well in terms of its gross profit margin.

This is a very good gross profit percentage as it is stating that for every £1 of sales the business makes 79.61p in gross profit.

Calculate the net profit margin using the information above.

Full workings are on PowerPoint.

Net profit = 40.44%

Explain whether the business is performing well in terms of its net profit margin.

This is a very good figure and depending on the industry is above average. It shows that the business is making 40.44p in net profit for every £1 of sales.

**Activity 10 - Gross & Net Profit Margin**

Watch the video **named ‘Gross Profit vs Net Profit | Differences, Calculations and Interpretation Explained’** and answer the questions below.

[Video Link: Gross & Net Profit Margin](https://www.youtube.com/watch?v=DM7TqljUues)

Explain what gross profit is, how it is calculated and why it is important for a business.

It is the difference between sales revenue and the cost of goods sold. Revenue – cost of goods sold.

The gross profit of a business essentially shows how good they are at producing products or services at a cost-effective price.

Explain what net profit is, how it is calculated and why it is important for a business.

It is the amount of money that the business is left after expenses. It takes away the business’s expenses from its gross profit and is important as it shows the business’s true profitability.

Compare the difference between net/gross profit vs net/gross profit margins. Is one more important than the other? Justify your answer.

Margins are a better indication rather than the raw data as the margins show you the figure as a percentage of sales, so it is easier to compare.

.

Explain how a business could increase their gross profit margin %.

Increase sales and reduce cost of goods sold by acquiring cheaper materials.

Explain how a business could increase their net profit figure.

Increase sales and reduce expenses.

A business has a gross profit margin of 45%, what does that mean?

It means that before tax the business makes a profit of 45% which is relatively high depending on the industry. It means for every £1 in sales the business makes 45p in net profit.

True or false? Net profit will always be higher than gross profit. Explain the reasons for your answer.

True as net profit is after expenses. Therefore, this will lower the figure. It could stay the same if the business has 0 expenses which is highly unlikely.

What is the net profit also known as?

Bottom line.

**Income Statements**

|  |  |  |
| --- | --- | --- |
| Basic Income Statement Example | | |
| Year Ended 31st December | **2020** | **2019** |
|  | **£** | **£** |
| Revenue | 300,000 | 285,000 |
| Cost of Sales | (90,000) | (85,000) |
| Gross Profit | 210,000 | 200,000 |
| Total Business Expenses | (35,000) | (30,000) |
| Net Profit | 175,000 | £170,000 |

Complete the income statement to calculate the Gross Profit and Net Profit for AJ’s Hats for years 2019 and 2020 using the following information:

|  |  |  |
| --- | --- | --- |
|  | 2020 | 2019 |
| Year Ended 31st December | £ | £ |
| Selling price per hat | 25 | 20 |
| Number of hats sold | 10,000 | 11,000 |
| Cost of direct material | 5 | 4 |
| Cost of direct labour | 8 | 7 |
| Monthly rent | 1200 | 1200 |
| Other monthly overhead expenses | 4000 | 3500 |

|  |  |  |
| --- | --- | --- |
| Basic Income Statement | | |
| Year Ended 31st December | **2020** | **2019** |
|  | **£** | **£** |
| Revenue | 250,000 | 220,000 |
| Cost of Sales | 130,000 | 121,000 |
| Gross Profit | 120,000 | 99,000 |
| Total Business Expenses | 62,400 | 56,400 |
| Net Profit | 57,600 | 42,600 |

You are now required to calculate the gross profit margin and net profit margin for the business for both 2019 and 2020.

|  |  |  |  |
| --- | --- | --- | --- |
|  | | 2020 | 2019 |
| Gross Profit Margin | 48% | | 45% |
| Net Profit Margin | 23% | | 19.36% |

Analyse the key factors which have caused change in both the gross profit margin and net profit margin. Recommend what the business should do to improve their margins in 2021.

Key points:

* Sales have increased from 2019 to 2020 due to each price increases not an increase in volume of sales.
* Cost of goods sold has increased in 2020.
* Expenses have increased in 2020.
* Despite increases in costs in 2020 the rise in prices has meant a higher net profit percentage making the business more profitable.

**Activity 11 – Quick Practice Questions on Mark-up and ROCE**

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| **Sales** |  | 217,000 |
| Less cost of goods sold | | |
| Opening inventory | 13,500 |  |
| Purchases | 58,000 |  |
| Closing inventory | 27,250 |  |
|  |  | 44,250 |
| **Gross profit** |  | **172,750** |
| Less Expenses |  |  |
| Rent |  | 10,000 |
| Salaries |  | 22,000 |
| Advertising |  | 4,000 |
| Business rates |  | 5,000 |
| Distribution |  | 32,000 |
| Depreciation |  | 12,000 |
| Total expenses |  | 85,000 |
| Revenue Income |  | 0 |
| **Net profit** |  | **87,750** |

Calculate the mark-up in this statement of comprehensive income.

Full workings are on PowerPoint.

Mark-up = 390.4% (rounded up)

Explain whether the mark-up is good or bad.

Excellent mark-up

Calculate the return on capital employed.

Full workings are on PowerPoint.

ROCE = 13.91%

Explain whether the business is performing well in this area.

This is a good return for the capital invested and is a much higher return than putting the money in a bank.

**Activity 12 – Calculate, Interpret and Analyse Profitability Ratios**

You are working as a financial advisor for **DC Socks LTD** and they have provided you with a statement of comprehensive income for 2019 & 2020.

They have also provided you with the amount of capital they employed.

**Capital employed 2019 - £114,500 Capital employed 2020 - £66,000**

They would like you to perform some profitability ratios and the use them to analyse the profitability of the business.

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2019** | | |
|  | **£** | **£** |
| **Sales** |  | 228,000 |
| Less cost of goods sold | | |
| Opening inventory | 48,000 |  |
| Purchases | 55,000 |  |
| Closing inventory | 12,000 |  |
|  |  | 91,000 |
| **Gross profit** |  | **137,000** |
| Less Expenses |  |  |
| Rent |  | 18,000 |
| Salaries |  | 30,000 |
| Advertising |  | 10,000 |
| Business rates |  | 6,000 |
| Distribution |  | 20,000 |
| Telephone & Broadband |  | 1,200 |
| Depreciation |  | 17,000 |
| Total expenses |  | 102,200 |
| Revenue Income |  | 0 |
| **Net profit** |  | **34,800** |

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| **Sales** |  | 256,000 |
| Less cost of goods sold | | |
| Opening inventory | 12,000 |  |
| Purchases | 130,000 |  |
| Closing inventory | 32,000 |  |
|  |  | 110,000 |
| **Gross profit** |  | **146,000** |
| Less Expenses |  |  |
| Rent |  | 20,000 |
| Salaries |  | 40,000 |
| Advertising |  | 12,000 |
| Business rates |  | 6,000 |
| Distribution |  | 20,000 |
| Telephone & Broadband |  | 1,200 |
| Depreciation |  | 14,000 |
| Total expenses |  | 113,200 |
| Revenue Income |  | 0 |
| **Net profit** |  | **32,800** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ratio** | **Ratio Formula** | **2019** | **2020** | **Good or bad?** | **Is there a significant change?** |
| **Gross profit margin** | Gross profit / revenue x 100 | 60.09% | 57.03% | Good | No |
| **Net profit margin** | Net profit / revenue x 100 | 15.26% | 12.81% | Average | No |
| **Mark-up** | Gross profit / cost of goods sold x 100 | 150.55% | 132.73% | Good | No |
| **ROCE** | Net profit / capital employed x 100 | 30.39% | 49.7% | Good | Yes |

Compare what the gross profit margin and net profit margin suggest about the business financially for 2019.

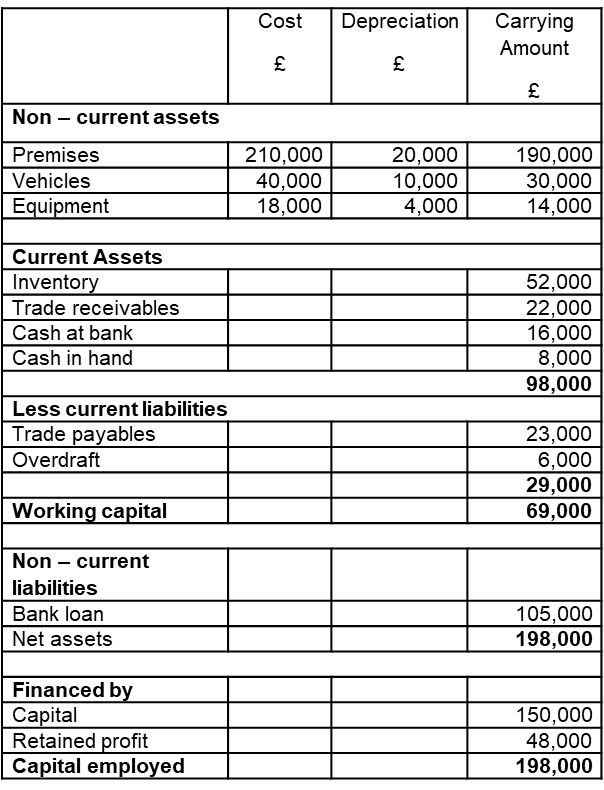
Suggests that the business has a rather large amount of expenses as the margin has decreased from 60% to 15%.

Compare the gross & net profit margin from 2019 to 2020. Discuss what this suggests about the business financially.

The net profit margin is much lower than the gross margin in both years meaning that they have a large number of expenses. Despite this their net profit is relatively normal but they could look into reducing expenses to improve this margin as their gross profit margin is rather healthy.

**Outcome F3 – Measuring Liquidity**

**Activity 13 – Quick Practice Questions on Current Ratio and Liquid Capital Ratio**

****

Calculate the current ratio.

Full workings on PowerPoint slide.

Current ratio = 3.38:1

Explain whether the business is performing well in this area.

This is a very good indicator of the businesses liquidity and shows that the business has over 3 times the amount of current assets than current liabilities.

Calculate the liquid capital ratio.

Full workings on PowerPoint slide.

Liquid capital ratio = 1.59:1

Compare the current ratio with the liquid capital ratio and suggest what it means for the business.

The liquid capital ratio has reduced from a current ratio of 3.38:1 to 1.59:1. Meaning that the business has a significant amount of current assets tied up in stock. Despite this 1.59:1 is still a respectable liquid capital ratio and means that the business has enough current assets to cover it current liabilities even excluding stock.

**Activity 14 – Liquidity Video**

Watch the video on liquidity ratios and complete the tasks below to apply your knowledge.

[Video: Ratio Analysis](https://www.youtube.com/watch?v=LBW_IR9_eP8&t=113s)

Explain why businesses use liquidity ratios.

A business uses liquidity ratios to assess its ability to meet its short-term financial obligations.

They are of particular interest to those who may be providing short term credit to the firm as the ratios will show how easily the business will be able to repay its debt.

What three bits of information are needed from a statement of financial position in order to calculate the current and liquid capital ratio?

Current assets

Current liabilities

Inventory

Write down the formula for the current ratio.

Current assets / current liabilities

Explain why the current ratio is useful to a business.

It shows whether the business has enough current assets to cover its short-term financial obligations. If the business has a health current ratio then it is said to be in a stable financial position.

Write down the formula for the liquid capital ratio and explain why a business may want to exclude inventory from the calculation.

Current assets (excluding inventory) / current liabilities.

This formula is very similar to the current ratio however the key difference is that this ratio excludes inventory from the business’s current assets. This is useful to know as inventory takes time to sell and possibly could not be used immediately to settle debts as easily as cash could.

Evaluate the usefulness of both ratios in analysing a business’s liquidity.

You can use it to make comparisons to competitors within the industry and also investigate liquidity trends from within the business year on year.

Current ratio could show that the business needs to reinvest some of its cash if it is too high.

Could show that the business does not have enough to cover short term obligations and needs to improve liquidity.

**Calculating Liquidity Ratios**

Below is a balance sheet for Company Z. The owners want you to provide them with some information and advice on the liquidity of their business.

|  |  |  |
| --- | --- | --- |
| **Balance Sheet Company Z** | **2019** | **2020** |
|  | **£** | **£** |
| Current Assets | | |
| Cash | 35,000 | 115,000 |
| Inventory | 95,000 | 15,000 |
| Accounts Receivable | 7,000 | 2,000 |
| Total Current Assets | 137,000 | 132,000 |
|  |  |  |
| Fixed Assets | | |
| Building | 100,000 | 100,000 |
| Land | 20,000 | 20,000 |
| Machinery | 20,000 | 20,000 |
| Equipment | 5,000 | 2,000 |
| Total Fixed Assets | 145,000 | 142,000 |
|  |  |  |
| Total Assets | 322,000 | 314,000 |
|  |  |  |
| Current Liabilities | | |
| Accounts Payable | 2,000 | 8,000 |
| Wages Payable | 40,000 | 46,000 |
| Interest Payable | 4,000 | 4,000 |
| Total Current Liabilities | 46,000 | 58,000 |
|  |  |  |
| Long Term Liabilities | | |
| Bank Loan | 78,000 | 66,000 |
| Total Long-Term Liabilities | 78,000 | 66,000 |
|  |  |  |
| Total Liabilities | 124,000 | 124,000 |
|  |  |  |
| Net Assets | 198,000 | 190,000 |

Use the balance sheet to calculate the current ratio and liquid capital ratio in the table provided for 2019 and 2020. Then answer the questions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratio** | **2019** | **2020** | **Good or bad** |
| **Current Ratio** | 2.98:1 | 2.28:1 | Good both years |
| **Liquid Capital Ratio** | 0.91:1 | 2.02:1 | Bad 2019  Good 2020 |

Assess the liquidity of the business using both ratios for 2019.

* Current ratio very good as the business has nearly three times the amount of current assets to current liabilities
* This means that in 2019 the business can cover any unexpected bills.
* However, a downside is that the liquid capital ratio is low.
* This is due to the business holding a lot of inventory.
* It may struggle to pay its liabilities if they struggle to sell their inventory quick enough.
* Current ratio very good as the business has over two times the amount of current assets to current liabilities
* This means that in 2020 the business can cover any unexpected bills.
* It also has a strong liquid capital ratio as the business has a ratio of 2.02 to one meaning that are not holding large sums of stock and have a lot of cash.
* They could reinvest this cash to help make more money.

Assess the liquidity of the business using both ratios for 2020.

Compare the liquidity of both years and whether it has significantly changed or not.

* In both years the business has a good current ratio of over 2 to one which means that they are in a healthy position in terms of their asset to liability ratio.
* However, in 2019 the business has a significantly lower liquid capital ratio compared to 2020. This is due to them having much more inventory in 2019 compared to 2020.
* Having a liquid capital ratio in 2019 means that the business may not be able to pay off its liabilities if needed without the sale of inventory which cannot be relied upon.
* Despite both business having very similar figures in terms of current assets they have improved their liquid capital ratio in 2020 by selling inventory and having it as cash. However, they do have some room to reinvest this cash as they have nearly two times the amount of liquid capital to current liabilities. This cash may be more useful elsewhere.

Provide advice to the business owners on what they could do to improve the liquidity of their business for 2021.

* Business could use some of the cash to pay off its liabilities.
* Could reduce costs such as wages as this would improve the ratio.
* Manage their receivables and payables better.
* Sell through their inventory at a quicker rate.
* Sell any unproductive fixed assets and use the money on assets that generate more income.

**Activity 15 – Calculate, Interpret and Analyse Liquidity Ratios**

You did such a great job with the evaluation of **DC Socks LTD** profitability that they now want you to advise them on their liquidity.

They have provided you with a statement of financial position for 2019 & 2020.

They would like you to calculate the current ratio and liquid capital ratio for both years and then use it to analyse the liquidity of the business.

**Statement of Financial Position 2019**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 220,000 | 11,000 | 209,000 |
| Vehicles | 90,000 | 22,000 | 68,000 |
| Equipment | 74,000 | 17,000 | 57,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 82,000 |
| Trade receivables |  |  | 12,000 |
| Cash at bank |  |  | 12,000 |
| Cash in hand |  |  | 6,000 |
| **112,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 28,000 |
| Overdraft |  |  | 4,000 |
|  |  |  | **32,000** |
| Working capital |  |  | **80,000** |
|  | | | |
| Non – current liabilities |  |  |  |
| Bank loan |  |  | 112,000 |
| Net assets |  |  | **302,000** |
|  | | | |
| Financed by |  |  |  |
| Capital |  |  | 188,000 |
| Retained profit |  |  | 114,000 |
| Capital employed |  |  | **302,000** |

**Statement of Financial Position 2020**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 209,000 | 9,000 | 200,000 |
| Vehicles | 68,000 | 18,000 | 60,000 |
| Equipment | 57,000 | 12,000 | 45,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 12,000 |
| Trade receivables |  |  | 8,000 |
| Cash at bank |  |  | 65,000 |
| Cash in hand |  |  | 9,000 |
| **94,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 34,000 |
| Overdraft |  |  | 1,000 |
|  |  |  | **35,000** |
| Working capital |  |  | **59,000** |
|  | | | |
| Non – current liabilities |  |  |  |
| Bank loan |  |  | 98,000 |
| Net assets |  |  | **266,000** |
|  | | | |
| Financed by |  |  |  |
| Capital |  |  | 120,000 |
| Retained profit |  |  | 144,000 |
| Capital employed |  |  | **266,000** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ratio** | **Ratio Formula** | **2019** | **2020** | **Good or bad?** | **Is there a significant change?** |
| **Current Ratio** | Current assets / current liabilities | 3.5:1 | 2.69:1 | Both years Good | No |
| **Liquid Capital Ratio** | Current assets – (inventory) / current liabilities | 0.94:1 | 2.34:1 | 2019 bad  2020 good | Yes |

Compare the current ratio & liquid capital ratio and suggest what it says about the business financially in 2019.

With a current ratio of 3.5:1 and a liquid capital ratio of under 1 it shows that the business is holding a lot of its current assets as stock. It shows without stock they do not have enough to cover short term financial obligations. However, they are not too far away and with a few sales of its inventory the ratio would be more acceptable.

Compare the liquid capital ratio in 2019 to 2020 again suggesting what it suggest about the business’s performance.

The liquid capital has vastly improved from 2019 to 2020. It is now very strong, and the business can easily meet any short-term financial obligations. However, it may have been improved too far in terms of having too much cash that has not been reinvested into stock or other areas of the business to help it grow.

**Outcome F4 – Measuring Efficiency**

**Activity 16 – Quick Practice Questions on Trade Receivable Days, Trade Payable Days and Inventory Turnover.**

**Trade Receivable Days**

A small business called Reed Guitars wants to know its trade receivable days. They have told you that they have £70,000 in credit sales and trade receivables of £40,000. Calculate their trade receivable days.

208.57 days.

Help Reed Guitars by explaining what this figure you have calculated means.

This means that for customers that pay on credit it takes them 208.57 days to pay the business for the guitar or product they have purchased.

**Trade Payable Days**

Reed Guitars have trade payables of £4,000 and credit purchases of £60,000. They were really happy with what you told them about their receivable days that they want you to:

Calculate their trade payable days and explain the figure to them.

24.33 days. This means that it takes Reed Guitar 24.33 days on average to pay creditors for the goods or service it has received.

Compare their trade receivable days and payable days so they understand what this means for the business financially.

This type of trade receivable days vs trade payable days is a clear sign that the business will have cash flow problems as it is paying its debts much quicker (24.33 days) than it is receiving money from debtor (208.57 days). This means that the business pays out money it owes 8 times before it receives the money it is owed.

**Inventory Turnover Days**

Reed Guitars have opening inventory of £26,000, closing inventory of £7,000 and cost of goods sold of £33,000.

Calculate their inventory turnover.

182.5 days.

Explain what this suggests about the business.

It shows that on average the business holds onto a guitar for 182.5 days until it is sold. Depending on the industry this may or may not be acceptable for example a fruit and vegetable shop would need to have a much lower inventory turnover than this due to produce expiring.

**Activity 17 – Calculate, Interpret and Analyse Efficiency Ratios**

What is the calculation for trade receivable days?

Trade receivables

credit sales x 365

Explain what trade payable days shows a business.

* This ratio measures the average amount of days it takes for debtors to pay for a product or service.
* It expresses the figure as the amount of days it takes for something to be paid for that is bought on credit.
* It is very important to know in terms of cash flow as you want to receive the money owed as quickly as possible. Certainly, quicker than it takes the business to pay its creditors.

What is the calculation for inventory turnover?

Average inventory

cost of goods sold x 365

Between a fruit and veg shop and a second hand car dealer, explain which would have the highest inventory turnover and why?

A second hand car dealer is more likely to have a higher inventory turnover in days as it is selling something luxury with no expiry date. Whereas fruit and vegetables will expire and be unsellable after a couple of days.

Justify whether or not efficiency ratios are useful for a business to use.

Efficiency ratios are used to help management determine how key areas of the business are performing, mainly in terms of cash flow and inventory.

Each ratio is useful as it shows you clear data such as trade receivable days and trade payable days that can be compared to assess the efficiency of the business’s cash flow. Inventory turnover is also useful in terms of telling the business if they need a more efficient way of selling its stock.

**DC Socks LTD want you to investigate the efficiency of their business in 2020** and have provided you with financial statements for you to analyse.

They want you to tell them some information about trade receivable days, trade payable days and inventory turnover. They also want you to calculate the ratios for them.

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| **Sales** |  | 256,000 |
| Less cost of goods sold | | |
| Opening inventory | 12,000 |  |
| Purchases | 130,000 |  |
| Closing inventory | 32,000 |  |
|  |  | 110,000 |
| **Gross profit** |  | **146,000** |
| Less Expenses |  |  |
| Rent |  | 20,000 |
| Salaries |  | 40,000 |
| Advertising |  | 12,000 |
| Business rates |  | 6,000 |
| Distribution |  | 20,000 |
| Telephone & Broadband |  | 1,200 |
| Depreciation |  | 14,000 |
| Total expenses |  | 113,200 |
| Revenue Income |  | 0 |
| **Net profit** |  | **32,800** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Statement of Financial Position 2020** | | | |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 209,000 | 9,000 | 200,000 |
| Vehicles | 68,000 | 18,000 | 60,000 |
| Equipment | 57,000 | 12,000 | 45,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 12,000 |
| Trade receivables |  |  | 8,000 |
| Cash at bank |  |  | 65,000 |
| Cash in hand |  |  | 9,000 |
| **94,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 34,000 |
| Overdraft |  |  | 1,000 |
|  |  |  | **35,000** |
| Working capital |  |  | **59,000** |
|  | | | |
| Non – current liabilities |  |  |  |
| Bank loan |  |  | 98,000 |
| Net assets |  |  | **266,000** |
|  | | | |
| Financed by |  |  |  |
| Capital |  |  | 120,000 |
| Retained profit |  |  | 144,000 |
| Capital employed |  |  | **266,000** |

|  |  |  |  |
| --- | --- | --- | --- |
| Ratio | Ratio Formula | Calculation | Good or bad? |
| Trade Receivable Days | Trade receivables  credit sales x 365 | Remember sales can be used when credit sales not available.  Answer = 11.41 days | Good |
| Trade Payable Days | Trade payable  credit purchases x 365 | Remember purchases can be used when credit purchases not available.  Answer = 95.46 days | Good  (could be too long and annoy creditors) |
| Inventory Turnover | Average inventory  cost of goods sold x 365 | Answer = 73 days | Bad  (quite a long time to hold onto a pair of socks) |

Compare the trade receivable days with the trade payable days and suggest what it says about the business financially.

This is a very good situation for the business in terms of its cash flow as it shows that the business is paying out money it owes on average every 95.46 days but is receiving money it is owed every 11.41 days. Therefore, they are receiving money quicker than paying it out. However, suppliers may get annoyed with not being paid for over 95 days and is something the business should keep their eye on.

Suggest what DC Socks LTD could do to improve their inventory turnover days.

* Marketing
* Pricing strategy
* Discounts
* Promotion
* Sale
* Automation
* Stock control measures

**Activity 18 – Profitability, Liquidity Efficiency & Limitations**

Using the information provided in the statement of comprehensive income and statement of financial position, calculate the ratios and answer the questions based on the information found.

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2019** | | |
|  | **£** | **£** |
| **Sales** |  | 140,000 |
| Less cost of goods sold | | |
| Opening inventory | 40,000 |  |
| Purchases | 22,000 |  |
| Closing inventory | 19,000 |  |
|  |  | 43,000 |
| **Gross profit** |  | **97,000** |
| Less Expenses |  |  |
| Rent |  | 18,000 |
| Salaries |  | 30,000 |
| Advertising |  | 12,000 |
| Business rates |  | 3,000 |
| Distribution |  | 8,000 |
| Depreciation |  | 4,000 |
| Total expenses |  | 75,000 |
| Revenue Income |  | 0 |
| **Net profit** |  | **22,000** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Statement of Financial Position 2019** | | | |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 88,000 | 2,000 | 86,000 |
| Equipment | 15,000 | 2,000 | 13,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 66,000 |
| Trade receivables |  |  | 4,000 |
| Cash at bank |  |  | 18,000 |
| Cash in hand |  |  | 2,000 |
| **90,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 36,000 |
| Overdraft |  |  | 5,000 |
|  |  |  | **41,000** |
| Working capital |  |  | **49,000** |
|  | | | |
| Non – current liabilities |  |  |  |
| Bank loan |  |  | 35,000 |
| Net assets |  |  | **154,000** |
|  | | | |
| Financed by |  |  |  |
| Capital |  |  | 132,000 |
| Retained profit |  |  | 22,000 |
| Capital employed |  |  | **154,000** |

|  |  |  |
| --- | --- | --- |
| **Statement of Comprehensive Income year end April 2020** | | |
|  | **£** | **£** |
| **Sales** |  | 220,000 |
| Less cost of goods sold | | |
| Opening inventory | 19,000 |  |
| Purchases | 89,000 |  |
| Closing inventory | 7,000 |  |
|  |  | 101,000 |
| **Gross profit** |  | **119,000** |
| Less Expenses |  |  |
| Rent |  | 20,000 |
| Salaries |  | 45,000 |
| Advertising |  | 18,000 |
| Business rates |  | 4,000 |
| Distribution |  | 10,000 |
| Depreciation |  | 4,000 |
| Total expenses |  | 99,000 |
| Revenue Income |  | 0 |
| **Net profit** |  | **18,000** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Statement of Financial Position 2020** | | | |
|  | Cost (£) | Depreciation (£) | Carrying Amount (£) |
| Non – current assets | | | |
| Premises | 86,000 | 2,000 | 84,000 |
| Equipment | 13,000 | 2,000 | 11,000 |
|  | | | |
| Current Assets | | | |
| Inventory |  |  | 101,000 |
| Trade receivables |  |  | 12,000 |
| Cash at bank |  |  | 20,000 |
| Cash in hand |  |  | 4,000 |
| **137,000** | | | |
| Less current liabilities | | | |
| Trade payables |  |  | 72,000 |
| Overdraft |  |  | 8,000 |
|  |  |  | **80,000** |
| Working capital |  |  | **57,000** |
|  | | | |
| Non – current liabilities |  |  |  |
| Bank loan |  |  | 55,000 |
| Net assets |  |  | **97,000** |
|  | | | |
| Financed by |  |  |  |
| Capital |  |  | 75,000 |
| Retained profit |  |  | 22,000 |
| Capital employed |  |  | **97,000** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratio** | **2019 Calculation** | **2020 Calculation** | **Is it a significant change?** |
| **Gross Profit Margin** | 69.29% | 54.09% | Yes |
| **Net Profit Margin** | 15.71% | 8.18% | Yes |
| **Mark-up** | 225.58% | 117.82% | Yes |
| **ROCE** | 14.29% | 18.56% | No |
| **Current Ratio** | 2.2:1 | 1.71:1 | No |
| **Liquid Capital Ratio** | 0.59:1 | 0.45:1 | No |
| **Trade Receivable Days** | 10.43 days | 19.91 days | Yes |
| **Trade Payable Days** | 597.27 days | 295.28 days | Yes |
| **Inventory Turnover** | 250.41 days | 46.98 days | Yes |

Discuss the profitability of the business in 2019.

The gross profit margin for the business is very health and they are still making a profit margin of around 15% after expenses. Their mark-up is very good, and the ROCE is much greater than if that money was invested in a bank.

Compare the profitability of the business from 2019 to 2020.

The business’s profitability ratios all decline except for ROCE. This could be down to the mark-up decreasing by nearly half. As this has impacted the gross profit figure negatively from 2019 to 2020. Which has also impacted the net profit margin as expenses haven’t decreased. Overall, the business is less profitable in 2020.

Evaluate the businesses overall liquidity.

* Excellent current ratio
* Current ratio declines in 2020 however it is still a good figure.
* Liquid capital ratio is not good in both years.
* Shows the business has too much stock as a current asset meaning without inventory the business may struggle to meet short terms financial obligations.
* Liquid capital ratio declines even further in 2020 meaning that the business didn’t turn enough stock into cash or overbought new stock.

Analyse the efficiency of the business in 2019 to 2020.

Assess how efficiently the business is being run.

* Trade receivables is good in both years.
* Trade receivables declines in 2020 which will impact cash flow, but it is still an acceptable figure.
* Trade payables is good for cash flow but depending on their nature this may give the business a poor reputation as they take over a year in 2019 to pay what it owes. This improves in 2020 but is still nearly a year.
* Inventory turnover in 2019 is extremely poor, however it looks as though the business has recognised this and has drastically improved it in 2020 meaning they sell their stock on average much quicker. This may be down to new inventory management systems.
* Overall, the business needs to further improve its trade payable days but otherwise the business has improved greatly since from 2019 to 2020.

Examine the limitations of ratio analysis when assessing the profitability, liquidity and efficiency of a business.

* The data is historic, meaning that it is calculated using past data which may not reflect current performance.
* Ratio analysis does not take into account external factors such as a worldwide recession.
* Ratio analysis does not measure qualitative impacts such as workplace culture.
* Financial records are easy to manipulate which can lead the ratios to be misleading or false.
* Interfirm comparison can be difficult with large companies that report their accounts using different formats.

**Activity 19 – Test Your Knowledge Learning Outcome F Kahoot**

**ANSWERS WILL DEPEND ON INDIVIDUAL STUDENT**

Test your knowledge of Learning Outcome F of Unit 3: Personal and Business Finance by clicking this link: [Click here to play the Kahoot](https://create.kahoot.it/share/btec-level-3-unit-3-personal-business-finance-outcome-f/e13b979a-5e50-4076-b5f6-1a1dc0d0b43a)

Once you have completed the quiz, answer the questions below to assess your strengths and areas of development.

What did you score on the Kahoot quiz?

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What areas of Learning Outcome F can you identify as your strengths after playing the quiz?

What areas of Learning Outcome F can you identify as your development areas after playing the quiz?

How do you plan to develop the areas you have identified to increase your knowledge and understanding of these topics?

**Activity 20 – Word Scramble Learning Outcome F**

1. GSORS FIROTP \_\_Gross profit\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. TEN FTIORP \_\_Net profit\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. QUDIIL LTIPACA \_\_Liquid capital\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. TCRUENR OTARI \_\_Current ratio\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. AANFCILNI IPIOSTNO \_\_Financial position\_\_\_\_\_\_\_\_\_\_\_\_

6. EERMVHESOICNP OCNIME \_\_Comprehensive income\_\_\_\_\_\_\_\_

7. XSENEPES \_\_Expenses\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. NEIVTRNOY \_\_Inventory\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

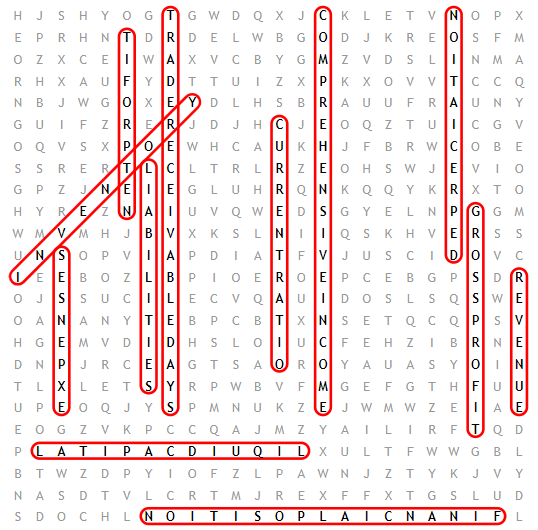
9. ADRNCETOIPIE \_\_Depreciation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. EADTR IEVCREAELB DAYS \_\_Trade receivable days\_\_\_\_\_\_

11. NVEEURE \_\_Revenue\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. LLSEIAITBII \_\_Liabilities\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Activity 21 – Word Search Learning Outcome F**

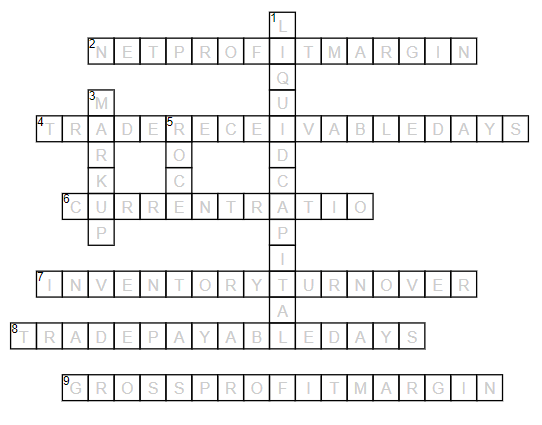


   Liabilities       Revenue       Trade receivable days       Depreciation       Inventory

     Expenses       Comprehensive income       Financial position       Current ratio

Liquid capital       Net profit       Gross profit

**Activity 22 – Ratios Crossword Learning Outcome F**



|  |  |
| --- | --- |
| **Across**  **2.** Net profit ÷ revenue x 100 =  **4.** Trade receivables ÷ credit sales x 365 =  **6.** Current assets ÷ current liabilities =  **7.** Average inventory ÷ cost of goods sold x 365 =  **8.** Trade payable ÷ credit purchases x 365 =  **9.** Gross profit ÷ revenue x 100 = | **Down**  **1.** Current assets - inventory ÷ current liabilities =  **3.** Gross profit ÷ cost of goods sold x 100 =  **5.** Net profit ÷ capital employed x 100 = |

**Activity 23 – Personal and Business Finance Learning Outcome F**

|  |  |  |
| --- | --- | --- |
| **Unit 3: Personal and Business Finance Checklist** | | |
| **Learning Outcome F: Complete statements of comprehensive income and financial position and evaluate a business's performance** | | |
| **Topic** | **Your explanation of the terminology** | **Exam ready?** |
| **F1 – Statement of comprehensive income** | |  |
| Purpose & Use |  |  |
| Completion of a statement of comprehensive income |  |  |
| Calculating a statement of comprehensive income |  |  |
| Amending a statement of comprehensive income |  |  |
| Adjusting for depreciation |  |  |
| Adjusting for prepayments & accruals |  |  |
| Interpretation, analysis and evaluation of statements |  |  |
| **F2 – Statement of financial position** | |  |
| Purpose & Use |  |  |
| Completion of a statement of financial position |  |  |
| Calculating a statement of financial position |  |  |
| Amending a statement of financial position |  |  |
| Adjusting for depreciation |  |  |
| Adjusting for prepayments & accruals |  |  |
| Interpretation, analysis and evaluation of statements |  |  |
| **F3 – Measuring profitability** | |  |
| Calculating gross profit margin |  |  |
| Calculating net profit margin |  |  |
| Calculating mark-up |  |  |
| Calculating return on capital employed (ROCE) |  |  |
| Analysis & evaluation of profitability ratios |  |  |
| **F4 – Measuring liquidity** | |  |
| Calculating current ratio |  |  |
| Calculating liquid capital ratio |  |  |
| Analysis & evaluation of liquidity ratios |  |  |
| **F5 – Measuring efficiency** | |  |
| Calculating trade receivable days |  |  |
| Calculating trade payable days |  |  |
| Calculating inventory turnover |  |  |
| Analysis & evaluation of liquidity ratios |  |  |
| **F6 – Limitations of ratios** | |  |
| Limitations of ratios when assessing business performance |  |  |