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FINANCIAL ANALYSIS *WORKBOOK*



NOTES

KEY TERMS

| Terms | Explanation |
|---|---|
| Assests | Cash or any resource which you use in business to generate cash |
| Balance sheet | A financial statement at a particular point in time showing total assets, total liabilities, and capital |
| Capital | Your own investment in business |
| Cash flow statement | A financial statement showing cash inflows, cash outflows and cash balance for a particular period |
| Credit | Increase in liabilities or increase in capital or increase in income or decrease in expenses or decrease in assets |
| Debit | Increase in assets or increase in expenses or decrease in liabilities, decrease in income or decrease in capital |
| Expense | Costs which you incur on regular basis like rent, salaries or internet bills |
| Income | Earnings from sales |
| Income statement | A financial statement for a particular period showing sales, cost of sales, gross profit and net profit |
| Liabilities | Payable by business to vendors, suppliers, financial institutions or related stakeholder |
| Loss | When expenses are more than income during the period |
| Profit | When income is more than expenses during the period |
| Purchase | When you buy some item from your vendor |
| Return | When you return the goods purchased or service obtained |
| Retained earnings, accumulated profits or retained profits | Profits which are 'retained' in business and not 'withdrawn' during the period These are part of owner's equity which is equal to capital plus retained profits |
| Sale | When income is more than expenses during the period |
| Sales return | When a customer returns you the product or asks for refund against service |

KEY EQUATIONS

| Terms | Explanation |
|-----------------------------------|--|
| Balance sheet equation | $\text{Total Assets} = \text{Total Liabilities} + \text{Total Capital}$ $\text{Total Capital} = \text{Total Assets} - \text{Total Liabilities}$ |
| Income statement equations | $\text{Net sales} = \text{Gross income} - \text{sales returns} - \text{sales discounts}$ $\text{Gross profit} = \text{Net sales} - \text{cost of sales}$ $\text{Earnings before interest tax depreciation and amortisation (EBITDA)} = \text{Gross profit} - \text{operating expenses}$ $\text{Earnings before interest and tax (EBIT)} = \text{EBITDA} - \text{depreciation and amortisation}$ $\text{Earnings before tax (EBT)} = \text{EBIT} - \text{interest}$ $\text{Net profit} = \text{EBT} - \text{taxes}$ |
| Net cash balance | $\text{Net cash balance} = \text{Total cash inflows} - \text{total cash outflows}$ |

MODULE 01

FINANCIAL ANALYSIS BASIC CONCEPTS

Lesson 9: Depreciation

Instructions: Calculate the annual depreciation of at least three assets from your business.

| Assets | Costs | Residual value | Useful life | Annual depreciation |
|--------|-------|----------------|-------------|---------------------|
| | | | | |
| | | | | |
| | | | | |

Lesson 10: Amortisation

Instructions: Calculate the annual amortisation of at least one asset from your business.

| Assets | Costs | Residual value | Useful life | Annual amortization |
|--------|-------|----------------|-------------|---------------------|
| | | | | |

Lesson 11: Short term and long-term assets and liabilities

Instructions: Identify three current assets, current liabilities, non-current assets, and non-current liabilities from your business.

| | Current assets | Current liabilities | Non-current assets | Non-current liabilities |
|---|----------------|---------------------|--------------------|-------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

MODULE 03

PREPARING YOUR FINANCIAL STATEMENTS

Lesson 1: Income statements: Key considerations

Mr. Rehman, owner of Gilgit bakery, has approached you. He informs you that he has invested Rs. 900,000 from his own resources for furniture and fixture, machines, and other items. He has given Rs.100,000 cash to the cashier of the bakery in addition to the investment in furniture, fixture, and machinery. (Total investment made by Mr. Rehman is Rs. 1,000,000)

During first month of operations, the bakery sells cakes worth Rs. 25,000, biscuits worth 35,000, breads worth Rs. 65,000 and all other items worth Rs. 45,000. The owner has obtained loan of Rs. 1,000,000 at 10% interest per annum. Depreciation on all fixed assets is charged at 10% per year.

The cashier has paid Rs. 95,000 for purchase of wheat, flour, sugar, oil and all other material used in baking of the items sold to the customers. All the items have been fully consumed in the preparation of bread and biscuits during the month.

At the end of the month, these bills are paid: rent Rs. 15,000, electricity Rs. 3,000, telephone Rs. 2,500 and salaries of 4 officers Rs. 32,000. There is no stock of any item remaining and cashier has asked Mr. Rehman to provide him funds for purchases. Monthly earnings are taxed at 5%.

Please prepare an income statement of Gilgit Bakery for one month.

| Description | Rupees |
|--|--------|
| Income | |
| Less: Cost of sales | |
| Gross profit | |
| Operating expenses | |
| Earnings before interest tax depreciation and amortisation | |
| Depreciation and amortisation | |
| Earnings before interest and tax | |
| Interest | |
| Earnings before tax | |
| Tax | |
| Net profit / (loss) | |

Prepare an income statement for your business for one month.

| Description | Amount |
|--|--------|
| Income | |
| Less: Cost of sales | |
| Gross profit | |
| Operating expenses | |
| Earnings before interest tax depreciation and amortisation | |
| Depreciation and amortisation | |
| Earnings before interest and tax | |
| Interest | |
| Earnings before tax | |
| Tax | |
| Net profit / (loss) | |

Lesson 2: Cash flow statement: Key considerations

From the below items, please

- Classify each as operational, financing or investing activity
- Calculate net cash flow from operational, financing and investing activities
- Calculate cash balance at the end of the period – the opening cash balance is Rs. 300,000

| | Receipt | Payment | Nature of activity |
|-------------------------------|-----------|---------|--------------------|
| Cash received from customers | 850,000 | | |
| Cash paid to suppliers | | 400,000 | |
| Cash paid to employees | | 300,000 | |
| Cash paid for expenses | | 425,000 | |
| Loan received from bank | 1,000,000 | | |
| Cash paid for loan instalment | | 520,000 | |
| Cash paid as interest to bank | | 45,000 | |
| Fixed asset purchased | | 25,000 | |
| Fixed asset sold | 15,000 | | |

| | Cash inflow | Cash outflow | Cash balance from each activity |
|----------------------|-------------|--------------|---------------------------------|
| Operating activities | | | |
| Financing activities | | | |
| Investing activities | | | |
| Net cash flow | | | |

Closing balance

| Rupees | |
|--|--|
| Net cash flow | |
| Add: Opening balance at the start of the period | |
| Equals closing balance at the end of the period | |

Lesson 3: Balance sheet: Key considerations

Prepare the balance sheet as per the format provided.

| Items | Rupees | Items | Rupees |
|---------------------|-----------|-----------------------------------|---------------|
| Cash | 900,000 | Loan payable in 12 months | 500,000 |
| Accounts receivable | 2,450,000 | Loan payable after 2 years | 1,000,000 |
| Furniture | 100,000 | Payable to a friend after 5 years | 4,000,000 |
| Vehicles | 1,650,000 | Payable to suppliers | 350,000 |
| Office equipment | 250,000 | Payable for interest in 3 months | 150,000 |
| Inventory | 1,400,000 | Share capital | 500,000 |
| | | Profit for the period | 25,000 |
| | | Retained profits | 45,000 |

| Total liabilities and equity | Receipt | Payment | Nature of activity |
|------------------------------|---------|-----------------------------|--------------------|
| Non-current liabilities | | Non-current assets | |
| Long term loan payable | | Furniture | |
| Other long term payables | | Vehicles | |
| Total | | Office equipment | |
| | | Total current assets | |

| Current liabilities | | Current assets | |
|----------------------------------|--|-----------------------------|--|
| Creditors | | Cash | |
| Other payables | | Account receivable | |
| Total current liabilities | | Inventory | |
| Total liabilities | | Total current assets | |

| Capital | | | |
|-------------------------------------|--|---------------------|--|
| Share capital | | | |
| Profit for the period | | | |
| Retained profits | | | |
| Total equity | | | |
| Total liabilities and equity | | Total assets | |

Lesson 4: Forecasting depreciation and amortisation

You are being provided with the income statement and the balance sheet of Blue Star Water Hunza for the period 2017 to 2019. Prepare the forecast for 2020 based on the assumptions provided:

Amounts in Rupees in '000

| Description | 2017 | 2018 | 2019 | 2020 |
|-------------------|---------------|---------------|---------------|------|
| Revenue | 102,007 | 118,086 | 131,345 | |
| COGS | 39,023 | 48,004 | 49,123 | |
| GP | 62,984 | 70,082 | 82,222 | |
| Salaries | 26,427 | 22,658 | 23,872 | |
| Rent | 10,963 | 10,125 | 10,087 | |
| EBIDTA | 25,594 | 37,299 | 48,263 | |
| Depreciation | 19,500 | 18,150 | 17,205 | |
| EBIT | 6,094 | 19,149 | 31,058 | |
| Interest | 2,500 | 2,500 | 1,500 | |
| Net profit | 3,594 | 16,649 | 29,558 | |

Assumptions:

- Sales will increase by 8.37% in 2020 over 2019.
- Gross profit margin is calculated as Gross Profit divided by Sales multiply by 100. It is expected that the gross profit margin in 2020 will be 62.5% of sales of 2020.
- It is expected that during 2020, certain staff will be laid off due to which salaries will decrease by 3.9% in 2020 over 2019.
- Rent is expected to increase by 9.25% in 2020 over 2019.
- Depreciation expense is expected to decrease by Rs. 661,000 in 2020.
- Interest expense will be Rs. 900,000 in 2020.

MODULE 05

FINANCIAL STATEMENTS ANALYSIS

Lesson 2: Expenses and other financial statement items

Instructions: Prepare a horizontal analysis for the company:

| | 2019 | 2020 | Year on Year growth | |
|-------------------------------|---------------|---------------|---------------------|---|
| | | | Rs. In '000 | % |
| Revenue | 102,007 | 118,086 | | |
| Cost of goods sold | 39,023 | 48,004 | | |
| Gross profit | 62,984 | 70,082 | | |
| Expenses | | | | |
| Salaries and benefits | 26,427 | 22,658 | | |
| Rent and overheads | 10,963 | 10,125 | | |
| Depreciation and amortisation | 19,500 | 18,150 | | |
| Interest | 2,500 | 2,500 | | |
| Total expenses | 59,390 | 53,433 | | |
| Earnings before taxes | 3,594 | 16,649 | | |
| Taxes expense and paid | 1,120 | 4,858 | | |
| Net earnings | 2,474 | 11,791 | | |

Lesson 4: Applying vertical analysis to financial statements

Instructions: Analyse the below income statement vertically

| | 2019 | % |
|-------------------------------|---------------|---|
| Revenue | 102,007 | |
| Cost of goods sold | 39,023 | |
| Gross profit | 62,984 | |
| Expenses | | |
| Salaries and benefits | 26,427 | |
| Rent and overheads | 10,963 | |
| Depreciation and amortisation | 19,500 | |
| Interest | 2,500 | |
| Total expenses | 59,390 | |
| Earnings before taxes | 3,594 | |
| Taxes expense and paid | 1,120 | |
| Net earnings | 2,474 | |

ANSWER KEY

MODULE 03

Lesson 1

| Description | Amount |
|--|---------|
| Income | 170,000 |
| Less: Cost of sales | 95,000 |
| Gross profit | 75,000 |
| Operating expenses | 52,500 |
| Earnings before interest tax depreciation and amortisation | 22,500 |
| Depreciation and amortisation | 7,500 |
| Earnings before interest and tax | 15,000 |
| Interest | 8,333 |
| Earnings before tax | 6,667 |
| Tax | 333 |
| Net profit / (loss) | 6,334 |

Lesson 2

| | Receipt | Payment | Nature of activity |
|-------------------------------|-----------|---------|--------------------|
| Cash received from customers | 850,000 | | Operational |
| Cash paid to suppliers | | 400,000 | Operational |
| Cash paid to employees | | 300,000 | Operational |
| Cash paid for expenses | | 425,000 | Operational |
| Loan received from bank | 1,000,000 | | Financing |
| Cash paid for loan instalment | | 520,000 | Financing |
| Cash paid as interest to bank | | 45,000 | Financing |
| Fixed asset purchased | | 25,000 | Investing |
| Fixed asset sold | 15,000 | | Investing |

| | Cash inflow | Cash outflow | Cash balance from each activity |
|----------------------|-------------|--------------|---------------------------------|
| Operating activities | 850,000 | 1,125,000 | 275,000 |
| Financing activities | 1,000,000 | 565,000 | 435,000 |
| Investing activities | 15,000 | 25,000 | 10,000 |
| Net cash flow | | | 150,000 |

| Rupees | |
|--|----------------|
| Net cash flow | 150,000 |
| Add: Opening balance at the start of the period | 300,000 |
| Equals closing balance at the end of the period | 450,000 |

Lesson 3

| Total liabilities and equity | Receipt | Payment | Nature of activity |
|------------------------------|------------------|-----------------------------|--------------------|
| Non-current liabilities | | Non-current assets | |
| Long term loan payable | 1,000,000 | Furniture | 100,000 |
| Other long term payables | 4,000,000 | Vehicles | 1,650,000 |
| Total | 5,000,000 | Office equipment | 250,000 |
| | | Total current assets | 2,000,000 |

| Current liabilities | Current assets | | |
|----------------------------------|------------------|-----------------------------|------------------|
| Creditors | 350,000 | Cash | 900,000 |
| Other payables | 650,000 | Account receivable | 2,450,000 |
| Total current liabilities | 1,000,000 | Inventory | 1,400,000 |
| Total liabilities | 6,000,000 | Total current assets | 4,750,000 |

| Capital | | | |
|-------------------------------------|------------------|---------------------|------------------|
| Share capital | 500,000 | | |
| Profit for the period | 25,000 | | |
| Retained profits | 45,000 | | |
| Total equity | 570,000 | | |
| Total liabilities and equity | 6,570,000 | Total assets | 6,750,000 |

Lesson 4

Amounts in Rupees in '000

| Description | 2017 | 2018 | 2019 | 2020 |
|-------------------|---------------|---------------|---------------|---------------|
| Revenue | 102,007 | 118,086 | 131,345 | 142,338 |
| COGS | 39,023 | 48,004 | 49,123 | 53,377 |
| GP | 62,984 | 70,082 | 82,222 | 88,961 |
| Salaries | 26,427 | 22,658 | 23,872 | 22,940 |
| Rent | 10,963 | 10,125 | 10,087 | 11,020 |
| EBIDTA | 25,594 | 37,299 | 48,263 | 55,000 |
| Depreciation | 19,500 | 18,150 | 17,205 | 16,544 |
| EBIT | 6,094 | 19,149 | 31,058 | 38,456 |
| Interest | 2,500 | 2,500 | 1,500 | 900 |
| Net profit | 3,594 | 16,649 | 29,558 | 37,556 |

MODULE 05

Lesson 2

| | Year on Year growth | | | |
|-------------------------------|---------------------|---------------|--------------|------------|
| | 2019 | 2020 | Rs. In '000 | % |
| Revenue | 102,007 | 118,086 | 16,079 | 16 |
| Cost of goods sold | 39,023 | 48,004 | 8,981 | 23 |
| Gross profit | 62,984 | 70,082 | 7,098 | 11 |
| Expenses | | | | |
| Salaries and benefits | 26,427 | 22,658 | 3,769 | 14 |
| Rent and overheads | 10,963 | 10,125 | 838 | 8 |
| Depreciation and amortisation | 19,500 | 18,150 | 1,350 | 7 |
| Interest | 2,500 | 2,500 | - | - |
| Total expenses | 59,390 | 53,433 | 5,957 | 10 |
| Earnings before taxes | 3,594 | 16,649 | 13,055 | 363 |
| Taxes expense and paid | 1,120 | 4,858 | 3,738 | 334 |
| Net earnings | 2,474 | 11,791 | 9,317 | 377 |

Lesson 4

| | 2019 | % |
|-------------------------------|---------------|------------|
| Revenue | 102,007 | 100% |
| Cost of goods sold | 39,023 | 38% |
| Gross profit | 62,984 | 62% |
| Expenses | | |
| Salaries and benefits | 26,427 | 26% |
| Rent and overheads | 10,963 | 11% |
| Depreciation and amortisation | 19,500 | 19% |
| Interest | 2,500 | 2% |
| Total expenses | 59,390 | 58% |
| Earnings before taxes | 3,594 | 4% |
| Taxes expense and paid | 1,120 | 1% |
| Net earnings | 2,474 | 3% |



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