**FINANCIAL AND BUSINESS MANAGEMENT FOR ROAD CONTRACTORS**

**MODULE FOUR SESSION THREE PARTICIPANTS’ NOTES**

**INTERPRETATION OF THE INCOME STATEMENT**

## 1.0 The objectives of the session;

1. To enable the participants appreciate the importance of income statement in the business and its application in financial management.
2. To explain the income statement contents
3. To enable the participants understand and interpret income statement.
4. To enable participants use income statements to make decisions and also appreciate the limitations of income statements.

## 1.1 Definition of 'Income Statement'

# An income statement is a financial statement that reports a company's short term financial performance over a specific accounting period. Financial performance is assessed by giving a summary of the revenues and expenses of the business. It also shows the net profit or loss incurred over a specific accounting period, typically over a fiscal month, quarter or year. 1.2 Uses of the Income Statement in Financial Accounting

A major purpose of the income statement is to show a firm’s profitability, yet it also provides a number of additional performance measures. Revenue, for example, is a key measure of growth that reflects a firm’s success in expanding its market. Additionally, comparisons of expense numbers from year to year indicate a firm’s success in controlling costs. As previously mentioned, operating income measures managers’ performance in conducting a firm’s operations.

Income statement information provides the basis for a variety of decisions. Because earnings underlie a firm’s ability to generate profits for dividends and growth, equity investors are interested in the income statement. Lenders are also interested in the income statement because a firm’s ability to meet its loan servicing in a timely manner ultimately depends on its profitability.

A firm’s management can use income statement information to make a variety of decisions. For example, managers must constantly evaluate the prices they set for the firm’s works and services. Pricing affects both profitability and growth. The income statement tells managers and investors how well the firm’s pricing strategy has accomplished stated objectives.

Below is the Income statement of Munaku Contractors:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Munaku Contractors income statement for year ended 31st December** | | | | | |
|  |  | **2006** | |  | **2007** | |
|  |  | shs'000 | shs'000 |  | shs'000 | shs'000 |
| Revenue |  |  | 11,500,000 |  |  | 14,000,000 |
| Cost of works: |  |  |  |  |  |  |
| Materials |  | 5,400,000 |  |  | 6,800,000 |  |
| Labour |  | 2,200,000 |  |  | 2,800,000 |  |
| Overheads |  | 1,600,000 |  |  | 1,900,000 |  |
|  |  |  | 9,200,000 |  |  | 11,500,000 |
| Gross margin |  |  | 2,300,000 |  |  | 2,500,000 |
| Administrative costs: | |  |  |  |  |  |
| Rent |  | 60,000 |  |  | 90,000 |  |
| Utilities |  | 90,000 |  |  | 105,000 |  |
| Vehicle running |  | 120,000 |  |  | 122,000 |  |
| Office running |  | 30,000 |  |  | 55,000 |  |
| Security |  | 125,000 |  |  | 130,000 |  |
| Others |  | 117,000 |  |  | 86,000 |  |
|  |  |  | 542,000 |  |  | 588,000 |
| Profit before interest |  |  | 1,758,000 |  |  | 1,912,000 |
| Loan interest |  |  | 234,000 |  |  | 186,000 |
| Income before tax |  |  | **1,524,000** |  |  | **1,726,000** |
| Tax 30% |  |  | 457,200 |  |  | 517,800 |
| Income after tax |  |  | **1,066,800** |  |  | **1,208,200** |

**1.3 Income Statement Contents**

* ***Revenue*** (Net sales or revenue): These all refer to the value of a company's sales of goods and services to its customers. Even though a company's "[bottom line](http://www.investopedia.com/terms/b/bottomline.asp)" (its net income) gets most of the attention from investors, the "[top line](http://www.investopedia.com/terms/t/topline.asp)" is where the revenue or income process begins. Munaku contractors’ revenues were shs. 11.5billion and shs 14billion for the period 2006 and 2007 respectively.
* ***Cost of works***(Cost of certified work billed): For a road contractor, cost of works is the expense incurred for [raw materials](http://www.investopedia.com/terms/r/rawmaterials.asp), machine time, labour and construction overhead. While it may be stated separately, [depreciation](http://www.investopedia.com/terms/d/depreciation.asp) plant and equipment belongs in the cost of works. For service-related businesses, cost of sales represents the cost of services rendered. Cost of works is shs 9.2 billion and shs 11.5 billion for 2006 and 2007 respectively.
* ***Gross Profit***(gross income or [gross margin](http://www.investopedia.com/terms/g/grossmargin.asp)): A company's gross profit does more than simply represent the difference between net sales and the cost of sales. Gross profit provides the resource to cover all of the company’s other expenses. Obviously, the greater and more stable a company's gross margin, the greater potential there is for positive bottom line (net income). The gross margins are shs 2.3 billion and shs 2.5 billion for 2006 and 2007 respectively.
* ***General and Administrative Expenses***: These comprise a company's operational expenses not directly involved in construction but occasioned by the establishment such as management costs, rent, advertising etc. Management should exercise a great deal of control over this expense category. Its trend as a percentage of revenue is watched closely to detect signs, both positive and negative, of managerial efficiency. Administrative expenses for 2006 and 2007 excluding interest are shs 542m and shs 588m respectively.
* ***Operating Income***: is the gross margin less the general and administrative costs. This figure represents a company's earnings from its normal operations before any non-operating income and/or costs such as interest expense, rental income and other special items. Net income at the operating level, is viewed as more reliable and is often used rather than net income as an indicator of profitability. Interest is added back to profits to arrive at operating income. Operating income is equal to shs 1,758m for 2006 and shs 1,912m for 2007.
* ***Earnings (Income) before interest and tax (EBIT)***: The earnings (income) before interest and tax is used to arrive at return on total assets of the business irrespective of how the business is financed. Total assets are equal to the sum of equity and debt. In this example EBIT is the same as operating income and therefore shs 1,758m and shs 1,912m for 2006 and 2007 respectively.
* ***Interest expense***: This item reflects the costs of a company's borrowings. Sometimes companies record a net figure of [interest expense](http://www.investopedia.com/terms/i/interestexpense.asp) and interest income from invested funds. In the example interest is shs 234m and 186m for 2006 and 2007 respectively.
* ***Income before tax***: Another carefully watched indicator of profitability is earnings garnered before the income tax. Some techniques are available to companies to avoid or minimize taxes that affect their reported income. Because these actions are not part of a company's business operations, analysts may choose to use pretax income as a more accurate measure of corporate profitability. Income before tax in the example for 2006 and 2007 is shs. 1,524m and shs 1,726m respectively.
* ***Income Taxes***: This is the income tax estimate that is payable in respect of the income earned for the period. The amount may not be payable for several months or years to come. The estimated tax at 30% for 2006 and 2007 respectively is shs 457.2m and shs 517.8m.
* ***Special Items or extraordinary expenses***: A variety of events can occasion charges against income. They are commonly identified as restructuring charges, unusual or nonrecurring items and discontinued operations. These [write-offs](http://www.investopedia.com/terms/w/write-off.asp) are one-time events. Investors need to take these special items into account when making inter-annual profit comparisons because they can distort evaluations.
* ***Net Income******after tax* (net profit or net earnings):** This is the bottom line, which is the most commonly used indicator of a company's profitability in respect to its owners. If expenses exceed income read as a net loss. It is from net income that dividends are declared. Any residue net income becomes part of a company's equity known as [retained earnings](http://www.investopedia.com/terms/r/retainedearnings.asp). The net income for 2006 and 2007 is shs 1,066.8m and shs 1,208.2m respectively.

# 1.4 Use Profitability Ratios in Financial Ratio Analysis

Every firm is most concerned with its profitability. One of the most frequently used tools of financial ratio analysis is profitability ratios which are used to evaluate the company's bottom line. Profitability measures are important to company managers and owners alike. If a small business has outside investors who have put their own money into the company, the primary owner certainly has to show profitability to those equity investors.

[Profitability](http://bizfinance.about.com/od/Accounts-Payable-and-Accruals/qt/accounts-payable-management-and-its-impact-on-profitability.htm) ratios show a company's overall efficiency and performance. We can divide profitability ratios into two types: margins and returns. Ratios that show margins represent the firm's ability to translate sales dollars into profits at various stages of measurement. Ratios that show returns represent the firm's ability to measure the overall efficiency of the firm in generating returns for its shareholders.

**Margin Ratios**

[**Gross Profit Margin**](http://bizfinance.about.com/od/financialratios/f/Gross_Profit_Margin.htm)

The gross profit margin looks at cost of goods sold as a percentage of sales. This ratio looks at how well a company controls the cost of its [works](http://bizfinance.about.com/od/Inventory-Management/a/use-the-economic-order-quantity-to-lower-inventory-costs.htm) and its ability to pass it on the costs to its customers with a margin. It also reflects the pricing policy of the business. The larger the gross profit margin, the better for the company. The calculation is:

**Gross Profit/Revenue = \_\_\_\_%**. Both terms of the equation come from the company's income statement. Munaku’s Gross profit margins declined from 20% in 2006 to 17.8% in 2007.

[**Operating Profit Margin**](http://bizfinance.about.com/od/financialratios/f/Operating_Profit_Margin.htm)

Operating profit is also known as [**EBIT**](http://bizfinance.about.com/od/obtainingfinancing/f/internal-sources-of-business-capital.htm) (Earnings before interest and tax). The operating profit margin looks at EBIT as a percentage of sales and also apercentage return to total assets. The operating profit margin ratio is a measure of overall operating efficiency, incorporating all of the expenses of ordinary, daily business activity. The calculation is: **EBIT/Revenue = \_\_\_\_\_%**. Both terms of the equation come from the company's income statement. The operating profit margin was 15% in 2006 and declined to 13.6% in 2007.

[**Net Profit after tax margin**](http://bizfinance.about.com/od/financialratios/f/Net_Profit_Margin.htm)

This is the income available for owners of the business. When doing a simple profitability ratio analysis, net profit margin is the most often margin ratio used. The net profit margin shows how much of each sales dollar shows up as net income after all expenses are paid. For example, if the net profit margin is 5% that means that 5 cents of every dollar is profit. When applied to equity it indicates the return on investment of shareholders.

The net profit margin measures profitability after consideration of all expenses including taxes, interest, and depreciation. The calculation is: **Net Income/Net Sales = \_\_\_\_\_%**. Both terms of the equation come from the income statement. The net profitability of Munaku was 9.3% in 2006 but declined to 8.6% in 2007.

**Returns Ratios**

[**Return on Assets**](http://bizfinance.about.com/od/financialratios/f/Return_on_Assets.htm) **(also called Return on Capital Employed)**

The Return on Assets ratio is an important profitability ratio because it measures the efficiency with which the company is managing its investment in assets and using them to generate profit irrespective of its finance structure. It measures the amount of profit earned (EBIT) relative to the firm's level of investment in total assets. The return on assets ratio is related to the [asset management](http://bizfinance.about.com/od/financialratios/f/Asset_Mngt_Ratios.htm) category of financial ratios.

The calculation for the return on assets ratio is: **Net Income before interest and tax/Total Assets** = \_\_\_\_\_%. Net Income is taken from the income statement and total assets are taken from the balance sheet (refer to the balance sheet of Munaku in appendix iii). The higher the percentage the better. The return on assets of Munaku Contractors was quite good at 27% in 2006 but declined to 24.4% in 2007.

[**Return on Equity**](http://bizfinance.about.com/od/financialratios/f/Return_on_Equity.htm)

The Return on Equity ratio is the most important investment ratio of all the financial ratios to investors. It measures the return on the money the owners have put into the company. This is the ratio potential investors look at when deciding whether or not to invest in the company. The calculation is: **Net Income after tax/ Equity** = \_\_\_\_\_%. Net income comes from the income statement and equity comes from the balance sheet. Equity is the total sum of shareholders capital, reserves and retained earnings. In the Munaku example equity was shs 5,545m in 2006 and shs 7,071m in 2007 with a return of 18.2% and 17.1% respectively.

**Comparative Data**

Financial ratio analysis is only a good method of financial analysis if there is [comparative data](http://bizfinance.about.com/od/financialratios/qt/comparative_rat.htm) available. The ratios should be compared to business plan targets, budgets, previous performance and industry data. Comparison to business plans and budgets tell how well the expectations are being realized. Comparison with previous data indicates the trend while comparison with the industry benchmarks the performance of management to others in the same industry. In the case of Munaku, comparison of 2007 performance with the previous year indicates that there was a decline in profitability caused by the reduction in the gross profit margin. Cost of works increased more than the growth in revenue. While revenue grew by 20%, cost of works increased by 25% hence the decline in profitability.

**1.5 How to Use an Income Statement to Make a Decision**

An income statement records the revenues, expenses and profits of a business. Management and investors review current and historical income statements to assess a company's ability to drive revenue growth, control expenses and produce profits. To make decisions, compare current period results to internal historical results or to industry peers. Compare income statement accounts, such as revenue and profit, or financial ratios, such as profit margin. The following may be considered in making decisions:

1. Evaluate top-line sales performance. Make sure the sequential (period-to-period) and comparable (prior-year period to current-year period) growth is consistent with historical results. If not, determine why and take corrective action. Do the same analysis for your industry peers. For example, if your competitors are growing sales while you're staying flat or declining, there could be a marketing mix or management execution issue that you have to address.
2. Evaluate profit margins indicators. Profit margin is the gross, operating or net profit expressed as a percentage of net sales. Gross profit is net sales minus cost of goods. Operating profit is gross profit minus administrative expenses, such as marketing and administration. Net profit is operating profit minus interest and taxes. Look for consistency. If any of the profit margins are declining relative to prior periods, find out why. The reasons could include dropping sales, rising expenses or both. Take corrective action. Evaluate the margins against your peers. If your margins are falling while theirs are not, your cost structure may be too high. As indicated above, despite of higher profits earned, Munaku’s profitability declined as a result of increased costs of works.
3. Study cost element ratios: The core cost elements for materials, machine, labour, production overheads and administrative overheads as percentages of revenue and watch the trend as well as the industry comparison. In the Munaku example, the cost of materials as a percentage of revenue increased from 47 to 48.6% while that of labour increased from19 to 20%. This is what caused the decline in gross profit margin.
4. Calculate times-interest-earned. This interest cover ratio indicates your ability to make interest payments and the potential for increased borrowing. It is equal to the income before interest and tax divided by the interest expenses. The higher the times-interest-earned, the better. Look for internal consistency. In the Munaku Contractors case interest cover was not only high at 7.5 times in 2006 but improved to 10.3 times in 2007. A high interest cover indicates that Munaku Contractors still has good potential to borrow. The company could easily improve its returns to equity if it increased its gearing.

# 1.6 Income Statement uses & limitations

Businesses put out financial statements on an annual basis. These statements inform consumers and investors of the business' financial health and the likelihood that the business will file for bankruptcy or close its doors. Business owners can also use income statements to help them make changes in how they run their businesses to improve the business' finances. Both investors and business owners must realize that income statements have limitations and merely provide an overview of the business' trading performance rather than details about every transaction or the business health.

**Provide Overview:** An income statement provides potential investor with an overview of how well a business is doing and whether the business is likely to yield good returns. Investors can get an idea of the business revenue, and cost structure by examining income statements. However, investors may not get an in-depth idea of the business' cash flow and its wealth from the income sheet; the information on this statement simply provides an estimate of how much the business is likely to make and what types of financial decisions it makes. Other information can only be derived from balance sheet and cash flow statements.

Also the ratios by themselves may not mean much unless there are comparatives. For example the return on equity of Munaku Contractors of 18.2% will not mean much until we know that say in Uganda the construction industry average return is 25%. Then we can conclude that Munaku is not doing well enough.

## Assist with budgeting; Business owners can use the income statement to help them plan their budget for their business. By looking at the income sheet, business owners can determine areas in which their expenses outweigh their revenue and cut expenses accordingly. However, income statements provide only cold, hard facts, not the human factor. Thus, a business owner may find some cuts more difficult to implement than others because of employee reactions.

## Estimate dividends: Most income statements include a statement of the business' earnings per share. Thus, if an investor in the business reads the income statement, she can determine approximately how much of a return she can expect on her investment for the period the statement covers. Dividends can only be declared out of profits, therefore the higher the profits after tax the higher the expectations of dividends. Investors can also estimate earnings over the next several quarters by examining the earnings from this statement period. The actual dividends they receive may be greater or less, however as the business' performance can fluctuate based on a wide variety of factors. Retention of profits may also be preferred where they are worthwhile investments to be undertaken by the business.

## Point out weaknesses; Business owners can find weaknesses in their business' structure or financial dealings by examining the income statement. For example, if a business finds that it takes in adequate revenue but never makes profits it will study its cost structure and improve its gross margin. Since the income statement only provides an overview of the business' activity, business owners should check the statement against other records before making financial decisions to ensure that they have a complete picture of the business' dealings.

**Conclusion:**  
When an investor understands the income and expense components of the income statement, he or she can appreciate what makes a company profitable. In the case of Munaku, the company experienced a major increase in sales over the year but its costs increased more than its revenue increased thereby reducing its profitability ratios.

**1.7 Group discussions;**

1. Identify and discuss major components that make up income statements.
2. Identify core profitability ratios and explain their uses to the business owner.
3. List the weaknesses of ratios in interpreting income statements.
4. Explain the benefits of preparing accurate and timely income statements to stakeholders (Shareholders, management, banks and credit institution).
5. Discuss the factors by themselves, or taken together that could indicate that the going concern may be brought into question.