Accounting and finance for Managers

Chapter three

Recording Financial Transactions and the principles of Accounting

3.1. Business events, transactions and the accounting system

3.2. The double entry: recording transactions

3.3. Extracting financial information from the accounting system

3.4. Principles and limitations of accounting

3.5. Cost terms and concepts

3.1. Business events, transactions and the accounting system

- Businesses exist to make a profit. They do this by producing goods and services and selling those goods and services at a price that covers their cost.
- Conducting business involves a number of *business events* such as buying equipment, purchasing goods and services, paying expenses, making sales, distributing goods and services etc.
- In accounting terms, each of these business events is a transaction.

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- A **transaction** is the financial description of each business event.
- It is important to recognize that transactions are a financial representation of the business event, measured in monetary terms.
- A broader view is that business events can also be recorded in nonfinancial terms, such as measures of product/service quality, speed of delivery, customer satisfaction etc.
- These non-financial performance measures are important elements of business events that are not captured by financial transactions.
- This is a limitation of accounting as a tool of business decision-making.

Asset, liabilities and owners equity

- The properties owned by a business enterprise are referred to as assets and the rights or claims to the properties are referred to as Equities.
- Note that always assets of business enterprise are equal with Equities.
- Equities are divided into two principal types: the right of creditors and the right of owners.
- The right of creditor is liability where as the right of the owner is owner's equity.
- $\rightrightarrows$ Assets = Liabilities + Owners Equity
- This is called accounting equation

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- All business transactions, from the simplest to the most complex, can be stated in terms the resulting change in the three basic elements of the accounting equation...\Example one.docx
- Although all transactions can be analyzed and recognized in terms of their effect on accounting equation, such a format is not practical a design for actual accounting system.
- Accountants must provide information on business transactions for use in directing operations and for the preparation of timely periodic financial statements.
- These goals are met by keeping a separate record for each item that appears on financial statements. The individual records are then summarized at periodic intervals and the data thus obtained are presented in the financial statements or other reports.

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- The type of record traditionally used for the purpose of recording individual transactions is called an account.
- A group of related accounts that comprise a complete unit, such as all of the accounts of a specific business enterprise, is called a ledger.
- The simplest form of an account has three parts:
  1. A title - Which is the name of item recorded in the account.
  2. A space for recording increases in the amount of the item, in terms of money, and
  3. A space for recording decreases in the amount of the item, in terms of monitory units.

3.2. The double entry: recording transactions

- Every Business transaction affects a minimum of two accounts. For each transaction the debit amount (the sum of all debit amounts) must equal with the credit amount (or the sum of all the credit amounts).
- This is known as *double–entry* system which is based on accounting equation
- All Asset Accounts increase on the left hand side or debit side; and decrease on the right hand side or credit side.
- All Liabilities and Owner's Equity accounts increase on the right hand side or credit side and decrease on the left hand side or debit side. This is known as General rule of debit and credit.

Derived rule

- The rules for recording revenues and expenses are derived from the rules for owner's Equity.
- Revenue increases owner's equity; and we have said that owner's equity increase in the right (credit) side. It necessarily follows that revenues increase in credit side and decrease on debit side.
- Expenses are the opposite of revenues in that expenses decrease owners' equity. Therefore it follows that Expenses increase with debit side and decrease with credit side.
- Drawing or Dividends, similar with expense decrease owners' Equity; therefore increase with debit side and decrease with credit side.

3.3. Extracting financial information from the accounting system

- After the effect of individual transaction has been determined, the essential information is communicated to users.
- The accounting statements that communicate this information are called financial statements.
- There are four principal financial statements for proprietorships and partnerships:

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1. ***Income statement*** - Presents the results of operations of an entity for a particular period of time. It is a summary of the revenue and the expenses of a business entity for a specific period
2. ***Balance sheet*** - Presents information about the financial position of an entity at a particular date. It is a list of assets, liabilities and owner's equity of a business entity as of a specific date.
3. ***Statement of Cash flow -*** A summary of cash receipts and cash payments of a business entity for a specific period of time.
4. ***Statement of Owner's Equity-*** Presents information about how owner's equity has changed over a particular period of time. It is the summary of the changes in the owner's equity of a business entity that have occurred during a specific period time.

3.4. Principles and limitations of accounting

- There are some basic accounting principles that are generally accepted by the accounting profession as being essential for recording and reporting financial information.
- In fulfilling their responsibilities accountants follow certain standards. These standards can be GAAP or IFRS.
- The FASB has a responsibility to prepare standards for GAAP where as IFRS is developed by IASB.
- Our country Ethiopia has been following GAAP and currently has a tendency to follow IFRS. These are as follows.

I. Accounting entity

- States regardless of the form of the business organization, the business affairs of the business should be separate from that of owners.
- Financial reports are produced for the business, independent of the owners – the business and its owners are separate entities.
- This is particularly important for owner-managed businesses where the personal finance of the owner must be separated from the business finances.

II. Accounting period

- According to this concept, the life of a business entity should be broken into segment periods for accounting purposes.
- Many decisions regarding the business must be made by management and interested outsiders during its existence.
- Therefore, it is essential to stop the operation of the business artificially at frequent intervals so as to produce periodic reports on operations, financial position, and cash flows.
- These reports reduced will help the user how well or bad the business was operating during those periods.

III. Matching principle

- The Expenses incurred in producing revenue should be matched with recognized revenue.
- One of the criticisms made of many companies is that they attempt to ‘smooth’ their reported performance to satisfy the expectations of stock market analysts in order to maintain shareholder value. This practice has become known as ‘earnings management’.

IV. Monetary measurement

- Accounting transactions are measured, recorded and reported in terms of monetary unit
- Money is both:
  - The common factor of all business transactions and
  - The only feasible unit of measurement that can be used to achieve uniform financial data.
- **The generally accepted use of the monetary unit for accounting and for reporting the activities of an enterprise has got two major limitations:**

1. **First, it limits the scope of accounting reports. The scope of the report will be on information which can be quantifiable and measurable interims of monetary unit.**
2. **Secondly, any monetary unit in the world is not stable due to economic changes.**

V. Historic cost

- All goods and services purchased are recorded at cost, where costs are measured on a cash or equivalent basis
- Accounting reports record transactions at their original cost less depreciation , not at market (realizable) value or at current (replacement) cost.
- The Balance Sheet excludes assets that have not been purchased by businesses but have been built up over time, such as customer goodwill, brand names etc.

VI. Going concern

- The going concern concept assumes that the business enterprise continues its operations (at profit) for indefinite period of time.
- The financial statements are prepared on the basis that the business will continue in operation.
- If a business enterprise is to be sold or liquidated, financial statements should be prepared from the "quitting concern" or liquidating point of view rather than from a "going concern" point of view.

VII. Conservatism

- Accountants follow methods and procedures that yield the lesser amount of net income or net asset value.
- If an accountant faced two methods of handling a particular event, he /she tends to use the method which understate the net income or net asset.
- Accounting is a prudent practice, in which sometimes over-optimistic opinions of non-financial managers are discounted.
- A conservative approach tends to recognize the downside of events rather than the upside.

VIII. Disclosure

- All financial statements and accompanying statements should include the necessary data that helps to facilitate the user's understanding. Thus, all relevant information to the users must be disclosed.
- The interpretation of the disclosure rules is important in auditing and can led to criminal charges against accounting firm
- The following are some examples:
  - Summary of significant accounting policies
  - Change in accounting methods used by the business
  - Contingent liabilities and commitments
  - Events subsequent to the date of statements
  - Replacement cost of inventories and plant assets etc.

XI. Consistency

- The amount and direction of change in net income and financial position from period to period is very important to readers and may greatly influence their decisions. Therefore, interested person should be able to assume that successive financial statements of an enterprise are based on consistently on the same generally accepted accounting principles.
- The application of accounting standards and principles should be consistent from one year to the next. Where those principles vary, the effect on profits is separately reported under the disclosure principle.

3.5. Cost terms and concepts

- **Cost** can be defined as 'a resource sacrificed or foregone to achieve a specific objective'. then one of the questions we must ask is whether that definition implies a cash cost or an opportunity cost. A **cash cost** is the amount of cash expended (a valuable resource), whereas an **opportunity cost** is the lost opportunity of not doing something, which may be the loss of time or the loss of a customer, equally valuable resources.
- Accountants define costs in monetary terms, and while we will focus on monetary costs, readers should recognize that there are not only non-financial measures of performance but also human, social and environmental costs.
- For example, making employees' redundant cause's family problems (a human cost) and transfers to society the obligation to pay social security benefits (a social cost).

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- Pollution causes long-term environmental costs that are also transferred to society.
- These are as important as (and perhaps more important than) financial costs, but they are not recorded by accounting systems.
- The exclusion of human, social and environmental costs is a significant limitation of accounting.
- For planning, decision-making and control purposes, cost is typically defined in relation to a **cost object**, which is anything for which a measurement of costs is required

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- Businesses typically report in relation to line items (the resource inputs) and responsibility centres (departments or cost centres).
- This means that decisions requiring cost information on business processes and product/service outputs are difficult, because most accounting systems (except activity-based systems) do not provide adequate information about those cost objects.
- For example, in a project-based business, published financial reports do not provide cost and revenue information about each project, but instead report information about salaries, rental, office costs etc.
- Businesses may adopt a system of management accounting to provide this information for management purposes, but rarely will this second system reconcile with the external financial reports because the management information system may not follow the same accounting principles described earlier in this chapter

- The following items will be covered in this chapters
  - Financial accounting
  - Reporting profitability
  - Reporting financial position
  - Accruals accounting
  - Depreciation
  - Reporting cash flow

6.1. Financial accounting

- Accounting enables managers to satisfy the *stakeholders* in the organization that they have acted in the best interests of stakeholders rather than themselves.
- These explanations are provided to stakeholders through financial statements or reports, often referred to as the company's 'accounts'.
- The main financial reports are
  - The Profit and Loss account,
  - The Balance Sheet and
  - The Cash Flow statement.

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- The presentation of financial reports must comply with Schedule 4 to the Companies Act, 1985, which prescribes the form and content of accounts.
- Section 226 of the Act requires the financial reports to represent a '*true and fair view*' of the state of affairs of the company and its profits.
- The Companies Act requires directors to state whether the accounts have been prepared in accordance with accounting standards and to explain any significant departures from those standards.

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- *A true and fair view* takes precedence over accounting standards which are principles to which accounting reports should conform. Those principles are aimed at:
  - Achieving comparability between companies;
  - Providing full disclosure of material factors; and
  - Ensuring that the information provided is meaningful for the users of financial reports.
- However, a criticism of the standards is that they are set by the preparers rather than the users

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- The US equivalent of the true and fair view is for financial statements to be presented fairly and in accordance with GAAP.
- There is a move towards the harmonization of accounting standards between countries through the work of IASB.
- This has been a consequence of the globalization of capital markets, with the consequent need for accounting rules that can be understood by international investors.
- The dominance of multinational corporations and the desire of companies to be listed on several stock exchanges have led to the need to rationalize different reporting practices in different countries.

5.2. **Reporting profitability**

- Businesses exist to make a profit, However, business profitability is determined by the matching principle – *matching income earned with the expenses incurred in earning that income*
- The profit (or loss) of a business for a financial period is reported in a **Profit and Loss account**.
- The *turnover* is the business income or sales of goods and services. The cost of sales is either:
    - The cost of providing a service; or
    - The cost of buying goods sold by a retailer; or
    - The cost of raw materials and production costs for a product manufacturer.

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- The distinction between cost of sales and expenses leads to two types of profit being reported: gross profit and operating profit. **Gross profit = sales − cost of sales..\financial statements for MBA.docx**
- Expenses will include all the other (selling, administration, finance etc.) costs of the business, that is those not directly concerned with buying, making or providing goods or services, but supporting that activity.

Operating profit = gross profit − expenses

- ✓ The operating profit can also be called profit before interest and taxes (PBIT) or earnings before interest and taxes (EBIT).

5.3. Reporting financial position

- This shows the financial position of the business – its assets, liabilities and capital – at the *end* of a financial period.
- Asset of the business is of two types(fixed and current)

➢ **Fixed assets** are things that the business *owns* and uses as part of its infrastructure. Of two types : tangible and intangible.

  - *Tangible fixed assets* comprise those physical assets that can be seen and touched
  - *Intangible fixed assets* comprise non-physical assets such as the customer goodwill of a business

➢ **Current assets** include money in the bank, debtors and inventory

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- Sometimes assets are acquired or expenses incurred without paying for them immediately. In doing so, the business incurs liabilities.
- **Liabilities** (creditors) are debts that the business *owes*. **Two type**
  - ***Current liabilities*** such as bank overdrafts, trade creditors and amounts due for taxes etc.
  - ***Long-term liabilities*** due after more than one year cover loans to finance the business that are repayable after 12 months and certain kinds of provisions
- **Capital** is a particular kind of liability, as it is the money invested by the owners in the business.
- In the Balance Sheet, the assets must agree with the total of liabilities and capital, because what the business owns is represented by what it owes to outsiders (liabilities) and to the owners (capital)/accounting equation/

5.4. **Accruals accounting**

- Unlike a system of *cash accounting*, where receipts are treated as income and payments as expenses, the matching principle requires a system of *accrual accounting*, which says income is recognized when earned and expenses are recognized when incurred. Accruals accounting makes adjustments for:
  - prepayments;
  - accruals; and
  - Provisions.
- The matching principle requires that certain cash payments made in advance are treated as **prepayments**, and other expenses are **accrued**, which is treated as expenses for profit purposes even though no cash payment has yet been made.
- A further example of the matching principle is in the creation of provisions. **Provisions** are estimates of possible liabilities that may arise.

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- An example of a possible future liability is a provision for warranty claims that may be payable on sales of products.
- The estimate will be based on the likely costs to be incurred in the future.
- Other types of provisions cover reductions in asset values. The main examples are:
  - ***Doubtful debts*:** customers may experience difficulty in paying their accounts and a provision may be made based on experience that a proportion of debtors will never pay.
  - ***Inventory*:** some stock may be obsolete but still held in the store. A provision reduces the value of the obsolete stock to its sale or scrap value,
  - ***Depreciation*:** this is a charge against profits, intended to write off the value of each fixed asset over its useful life.

5.5. **Depreciation**

- Some cash expenditures may result in the acquisition of those assets that help to produce revenue over many periods by facilitating the production and sale of goods or services to customers. Those assets are called fixed assets
- Fixed assets are **capitalized** in the Balance Sheet and the cost related to those assets will be distributed over service life of those assets. This is called depreciation
- The asset can be depreciated to a nil value in the Balance Sheet even though it is still in use.
- A type of depreciation used for intangible assets is called **amortization**, which has the same meaning and is calculated in the same way as depreciation.

5.6. Reporting cash flow

- The third financial statement is the cash flow. The **cash flow statement** shows the movement in cash for the business during a financial period. It includes:
  - Cash flow from operating activities
  - Cash flow from financing activities and
  - Cash flow from investing activities

Chapter Six
Interpreting Financial Statements and Alternative Theoretical Perspectives

- **The following items will be covered under this chapter**
  - Ratio analysis
  - Profitability
  - Liquidity
  - Gearing
  - Activity/efficiency
  - Working capital
  - Managing debtors
  - Managing stock
  - Managing creditors
  - Shareholder return
  - Interpreting financial information using ratios

6.1. **Interpreting financial statements**

- Financial statements are an important part of a company's Annual Report, which is required for all companies.
- The process of interpreting financial statements begins with a consideration of the wider context:
  - Economic conditions;
  - Changes in the industry; and
  - The competitive advantage held by the business.

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- The Annual Report for a listed company typically contains:

1. A financial summary – the key financial information.
2. The chairman's or directors' report. This provides a useful summary of the key factors affecting the company's performance over the past year and its prospects for the future.
3. The statutory reports by the directors and auditors. help to identify any key issues that may be found in the accounts themselves.
4. The financial statements
5. Notes to the accounts:-Detailed figures and explanations to the accounts.
6. A five-year summary of key financial information

6.2. **Ratio analysis and interpretation**

- Financial statements can be studied using ratios.
- *Ratios* are typically two numbers, with one being expressed as a percentage of the other.
- Ratio analysis can be used to help interpret *trends* in performance year on year and by *benchmarking* to industry averages or to the performance of individual competitors.
- Ratio analysis can be used to interpret performance against five criteria:
  - The rate of profitability;
  - Liquidity, i.e. cash flow;
  - Gearing;
  - How efficiently assets are utilized; and
  - The returns to shareholders.

6.2.1. Profitability Ratios

- Profitability means the ability to make profits.
- Every firm should earn adequate profits in order to survive,
- In fact, the profit is what makes the business firm run.
- It is the magic eye that mirrors all aspects of the business,
- Profit is the primary and final objective of a business
- It is also an indicator of the firm's efficiency of operations
- Profitability ratios are calculated to measure the profitability of the firm and its operating efficiency.
- They relate profits earned by a firm to different parameters like sales, capital employed and net worth.

I. Gross Profit margin

- This ratio is calculated by dividing gross profit by sales value.
- Gross profit margin = $\frac{\text{gross profit}}{\text{sales}}$
- This ratio indicates the efficiency with which management produces each unit of product or service. A high gross profit margin indicates
  - lower cost of production
  - It is an index of good management
- A lower gross margin indicates
  - higher cost of goods sold
  - lower sales values

II. Gross Operating Margin

- This ratio is calculated by dividing gross operating margin by sales.
- Gross operating margin = Gross profit minus operating expenses except depreciation.
- This ratio indicates the extent to which the selling price per unit may decline without incurring any loss in the business operations.
- It is rather difficult to evolve a standard norm for this ratio.
- But it should not be lower than that of similar concerns.

III. Net Profit Margins or Net Profit to Sales

- This is one of the very important ratios and measures the profitableness of sales.
- It is calculated by dividing the net profit by sales.
- This ratio measures the ability of the firm to turn each Birr of sales into net profit. It also indicates the firm's capacity to withstand adverse economic conditions.
- A high net profit margin is a welcome feature to a firm and it enables the firm to accelerate its profit at a faster rate than a firm with a low net profit margin.
- If the gross margin has been on the increase without a corresponding increase in net margin, it indicates that the operating expenses relating to sales have been increasing.

6.2.2. Liquidity Ratios

- Liquidity is the ability of a firm to meet its current or short-term obligations when they become due.
- Liquidity is also known as short-term solvency of the firm.
- The short-term creditors of the firm are interested in the short-term solvency or liquidity of the firm.
- A firm's liquidity should neither be too low nor too high but should be adequate.
  - Low liquidity implies the firm's inability to meet its obligations. This will result in bad credit rating, loss of the creditors' confidence
  - A very high liquidity position is also bad; it means the firm's current assets are too large in proportion to maturity obligations. It is obvious that idle assets earn nothing to the firm; and the firm's funds will be unnecessarily tied up in current assets, which, if released, can be used to generate profits to the firm.
- Those ratios include current ratio and quick ratio.

I. Current Ratio

- Current ratio is the ratio of total current assets to total current liabilities.

$$\text{Current ratio} = \frac{\text{current asset}}{\text{current liability}}$$

- The current ratio indicates how many birr of current assets are available for one birr of current liability,
- The higher the current ratio, the more is the firm's ability to meet its current obligations and the greater the safety of the funds of the short-term creditors.
- What should be the current ratio of a firm?"

II. Quick Ratio or Acid Test Ratio

- This ratio measures the relationship between Quick assets and current liabilities.

$$\text{Quick ratio} = \frac{\text{Quick asset}}{\text{Current liability}}$$

- Quick asset are cash, Accounts receivable and short term investments in securities.
- Inventory is excluded because it is not easily and readily convertible into cash.

6.3. **Leverage Ratios Or Capital Structure Ratios**

- These ratios are also known as 'long term solvency ratios' or 'capital gearing ratios' and concerned with the firm's long-term financial position than with others.
- These ratios indicate the funds provided by owners and creditors.
- Generally, there should be an appropriate mix of debt and owners' equity in financing the firm's assets.
- Debt is more risky from the firm's view point. Irrespective of the profits made or losses incurred, the firm has a legal obligation to pay interest on debt. If the firm fails to pay to debt holders in time, they can take legal action against the firm to get payment and even can force the firm into liquidation. But at the same time the use of debt is advantageous to the owners of the firm. They can retain the control of the firm
- The most commonly calculated leverage ratios include: (1) debt equity ratio and (2) **Gross Fixed Assets to Shareholders' Funds**

I. Debt-Equity Ratio

- This is one of the measures of the long-term solvency of a firm. This reveals the relationship between borrowed funds and the owners' capital of a firm. In other words, it measures the relative claims of creditors and owners against the assets of the firm.
- Debt-equity ratio $= \frac{\text{Total debt}}{\text{Share holders equity}}$

- It shows the extent to which debt financing has been used in the business.
- It also shows the relative contributions of the creditors and the owners of the business to it.
- A high debt-equity ratio indicates a large share of financing by the creditors in relation to the owners or a larger claim of the creditors than those of owners.

II. Gross Fixed Assets to Shareholders' Funds

- This ratio indicates the extent to which the shareholders' funds have been used to finance the fixed assets.
- Generally, the owners' capital should be enough to finance the entire fixed assets and also a part of working capital.
- The latest thinking or view in this area is that owners' capital plus long-term loans should finance the whole of the fixed assets and the core part of (or fixed) working capital.

$$\text{Gross Fixed Assets to shareholders funds ratio} = \frac{\text{fixed asset}}{\text{Net worth}}$$

6.2.4. Activity Ratios

- Activity ratios indicate the efficiency with which the firm manages and used its assets. That is why these activity ratios are also known as 'efficiency ratios'.
- Thus the activity ratio measures the relationship between sales on one side and various assets on the other.
- The underlying assumption here is that there exists an appropriate balance between sales and different assets.
- A proper balance between sales and different assets generally indicates the efficient management and use of the assets.

I. Total Assets Turnover Ratio

- It points out the extent of efficiency in the use of assets by the firm.
- This ratio is calculated by dividing the annual sales value by the value of total assets.
- Normally, the value of sales should be considered to be twice that of the assets.
- A lower ratio than this indicates that the assets are lying idle while a higher ratio may mean that there is overtrading.

II. Fixed Assets – Turnover Ratio

- This ratio measures the firm's efficiency in utilizing its fixed assets.
- Firms which have large investments in fixed assets usually consider this ratio important.
- It indicates the extent of capacity utilization in the firm.
- The ratio is calculated by dividing the total value of sales by the amount of fixed assets invested.
- A high ratio is an indicator of overtrading while a low ratio suggests idle capacity or excessive investment in fixed assets.
- Normally, a ratio of five times is taken as a standard.

6.2.5. **Working capital**

- Working capital is the difference between current assets and current liabilities.
- Current liabilities comprise creditors, overdraft and accruals. Current asset comprise bank, debtors and stock .
- Managing working capital is essential for success, as the ability to avoid a cash crisis and pay debts as they fall due depends on:
  - Managing debtors through effective credit approval, invoicing and collection activity;
  - Managing stock through effective ordering, storage and identification of stock;
  - Managing trade creditors by negotiation of trade terms and through taking advantage of settlement discounts; and
  - Managing cash by effective forecasting, short-term borrowing and/or investment of surplus cash where possible.

6.2.6. Managing debtors

- The main measure of how effectively debtors are managed is the number of days' sales outstanding. ***Days' sales outstanding is:*** $\dfrac{\textit{debtors}}{\textit{Average daily sales}}$
- The target number of days' sales outstanding will be a function of the credit terms offered by the firm and its efficiency in both credit approval and collection activity. The following measures will be taken
  - Management of debtors will aim to reduce days' sales outstanding over time and minimize bad debts.
  - Credit limits can be set for each customer.
  - Collection policy should ensure that invoices and statements are issued quickly and accurately, and that continual follow-up of late-paying customers should take place.
  - Discounts may be offered for settlement within credit terms.
  - firms establish a provision to cover the likelihood of customers not being able to pay their debts.

6.2.7. **Managing stock**

- The main measure of how effectively stock is managed is the stock turnover.

  Stock turn over: $\dfrac{\textit{cost of sales}}{\textit{Stock}}$

- Sound management of stock requires an accurate and up-to-date stock control system.
- In stock control, ABC analysis takes the approach that, rather than attempt to manage all stock items equally, efforts should be made to prioritize the 'A' items that account for most value, then 'B' items and only if time permits the many smaller-value 'C' items.
- Some businesses adopt *just-in-time (JIT)* methods.
- Stock may be written off because of stock losses, obsolescence or damage.

6.2.8. Managing creditors

- Just as it is important to collect debts from customers, it is also essential to ensure that suppliers are paid within their credit terms.
- As for debtors, the main measure of how effectively creditors are managed is the number of days' purchases outstanding.

Days' purchases outstanding is: $$\frac{\textit{creditors}}{\textit{Average daily purchases}}$$

- For example, the firm has cost of sales (usually its main credit purchases, as many expenses – e.g. salaries, rent etc. – are not on credit) of birr 1.5 million and creditors of birr 300,000. Average daily purchases are birr 4,110 (birr 1.5 million/365). There are therefore 73 average days' purchases outstanding (birr 300,000/birr 4,110). This figure has to be reported in a company's annual report to shareholders. The number of days' purchases outstanding will reflect credit terms offered by the supplier, any discounts that may be obtained for prompt payment and the collection action taken by the supplier. Failure to pay creditors may result in the loss or stoppage of supply, which can then affect the ability of a business to satisfy its customers' orders.

6.3. **Interpreting financial information using ratios**

- The interpretation of any ratio depends on the industry.
- In particular, the ratio needs to be interpreted as a trend over time, or by comparison to industry averages of competitor ratios. These comparisons help determine whether performance is improving and where improvement maybe necessary. Based on the understanding of the business context and competitive conditions, and the information provided by ratio analysis, users of financial statements can make judgements about the pattern of past performance and prospects for a company and its financial strength.
- When considering the movement in a ratio over two or more years, it is important to look at possible causes for the movement. These can be gained by understanding that either the numerator (top number in the ratio) or denominator (bottom number in the ratio) or both can influence the change.

Chapter Seven
Marketing Decisions

- Marketing strategy
- Cost behaviour
- Cost–volume–profit analysis
- Alternative approaches to pricing
- Cost-plus pricing
- Target rate of return pricing
- Optimum selling price
- Special pricing decisions
- Transfer pricing
- Segmental profitability

7.1. **Marketing strategy**

- Porter (1980) identified five forces that affect an industry:
    1. The threat of new entrants,
    2. The bargaining power of customers,
    3. The bargaining power of suppliers, and
    4. The threat of substitute product/services.
    5. Against these four forces, the industry is composed of competitors, each of which develops strategies for success.
- In a later book, Porter (1985) identified three generic strategies that businesses can adopt in order to achieve a sustainable competitive advantage. The alternative strategies were :
    1. To be a low-cost producer,
    2. higher-cost producer that can differentiate its product/services, or
    3. To focus on a market niche.

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- Marketing is the business function that aims to understand customer needs and satisfy those needs more effectively than competitors.
- Marketing can be achieved:
  - through a focus on selling products and services or
  - through building lasting relationships with customers
- Marketing texts emphasize the importance of adding value through marketing activity.
- Adding value differentiates product/services from competitors, and enables a price to be charged that equates to the benefits obtained by the customer.
- However, for any business to achieve profitability, customers must be prepared to pay more for the product/service benefit than the benefit costs to provide.

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- The price customers are willing to pay depends on the 'factors which drive up the utility of an offer'.

1. Product drivers include performance, features, reliability, operating costs and serviceability.
2. Services drivers include ease of credit availability, ordering, delivery, installation, training, after-sales service and guarantees.
3. Personnel drivers include the professionalism, courtesy, reliability and responsiveness of staff.
4. Image drivers reflect the confidence of customers in the company or brand name, which is built through the other three drivers and by advertising and promotional activity

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- The **sales mix** is the mix of product/services offered by the business,
- Businesses develop marketing strategies to meet the needs of their customers in different *market segments*, each of which can be defined by its unique characteristics.
- These segments may yield different prices and incur different costs as customers demand more or less of different product/services.
- Pricing strategies may be aimed at *penetration* – achieving long-term market share – or *skimming* – maximizing short-term profits from a limited market.

Cont'd

- A focus on customer relationship management entails taking a longer-term view than product/service profitability and emphasizes the profits that can be derived from a satisfied customer base. loyal customers are assets and the cost of winning new customers is high, loyal customers tend to buy more regularly, spend more and are often willing to pay premium prices
- A further element of marketing is the distribution channel to be used. This may range from the company's own sales force to retail outlets, direct marketing and the number of intermediaries between the product/service provider and the ultimate customer

7.2. **Cost behaviour**

- For many business decisions, it is helpful to distinguish between how costs behave, fixed or variable.
- **Fixed costs** are those that do not change with increases in business activity. This is not to say that fixed costs never change but there is no connection between cost and the volume of activity.
- **Variable costs** do change in proportion to change in business activity, so that as a business produces more units of a good or service, the business incurs proportionately more costs.
- For example, advertising is a fixed cost because there is no relationship between spending on advertising and generating revenue. However, sales commission is a variable cost because the more a business sells the more commission it pays out.

Cont'd

- Not all costs are quite so easy to separate between fixed and variable. Some costs are semi-fixed, while others are semi-variable.
- **Semi-fixed costs** are constant within a particular level of activity, but can increase when activity reaches a critical level.
- **Semi-variable costs** have both fixed and variable components. A simple example is a telephone bill, which will have a fixed component (rental) and a variable component (calls).

7.3. **Cost–volume–profit analysis**

- A method for understanding the relationship between revenue, cost and sales volume is CVP analysis.
- It is concerned with understanding the relationship between changes in activity and changes in selling prices and costs. Typical questions that CVP may help with are:
  - What is the likely effect on profits of changes in selling price or the volume of activity?
  - If we incur additional costs, what changes should we make to our selling price or to the volume that we need to sell?
- **Relevant range** is the volume of activity level within which the cost function remain constant.
- CVP permits sensitivity analysis. **Sensitivity analysis** is an approach to understanding how changes in one variable (e.g. price) affect other variables (e.g. volume).

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- The **breakeven point** is the point at which total costs equal total revenue that is where there is neither a profit nor a loss.

Limitation of CVP analysis

1. Volume is the only factor that causes prices and variable costs to alter
2. There is a single product/service or a product/service mix that remains constant
3. Costs can be accurately divided into fixed and variable elements
4. Fixed costs do not change
5. Total costs and revenues are linear
6. The CVP analysis applies only to the relevant range
7. The analysis applies only to the short term and cannot reliably be used in the longer term.

7.4. **Alternative approaches to pricing**

- Accounting information can be used for pricing in various marketing strategies:
  - Cost-plus pricing.
  - Target rate of return pricing.
  - Optimum selling price.
  - Special pricing decisions.
  - Transfer pricing.

I. Cost-plus pricing

- Where the firm is a market leader or *price-maker*, firms may adopt **cost-plus pricing**, in which a margin is added to the total product/service cost in order to determine the selling price.
- In the long term, the prices that a business charges must cover all of its costs. If it is unable to do so, it will make losses and may not survive.
- Example let say the average cost is birr20 assuming a level of activity of 20,000 units with a *mark-up* of 25% will result in a selling price of birr 25.

II. Target rate of return pricing

- Target rate of return pricing estimates the capital investment required for the business and the need to generate an adequate return on that investment to satisfy shareholders.
- For example, if the investment required is birr1,000,000 and the company wants a 12% return on investment, the desired profit is birr120,000 (birr1,000,000 @ 12%).
- Assuming a volume of 20,000 units, each unit would need to generate a profit of birr 6 (birr120,000/20,000 units).
- If the total cost was birr20, the selling price would be birr26.

III. Optimum selling price

- While cost-plus pricing is useful, it ignores the relationship between price and demand in a competitive business environment.
- The **optimum selling price** is the point at which profit is maximized. To ascertain the optimum selling price, a business must understand cost behaviour in terms of variable or fixed and have some ability, via market research, to predict likely changes in volume as prices increase or decrease.
- Using the example earlier in this chapter, XYZ Limited is able to estimate the likely increase in demand as the selling price falls. For each level of activity we can calculate the revenue, variable costs and total contribution.

IV. **Special pricing decisions**

- Special pricing decisions are those outside the main market.
- These are usually one-time orders at a price below that usually sold in the market.
- In the long term, all the costs of the business must be covered by the selling price if the business is to be profitable.
- However, in the short term, spare capacity may lead to decisions to accept orders from customers at less than the full cost.
- As fixed costs remain the same irrespective of volume, provided that the selling price covers the variable costs it makes a positive contribution to recovering some of the fixed costs of the business and therefore to a greater profit (or lower loss).

V. **Transfer pricing**

- One special pricing decision is that concerned with the price at which goods or services are sold between business units in the same company, rather than the arm's-length price at which sales may be made to external customers.
- An important issue in establishing a transfer price is the motivational effect that this may have on managers of both the buying and selling business units, who may prefer to buy and sell on the open market.
- However, in the increasingly globalized business world, manufacturing, assembly and selling operations may take place in different countries.
- In these cases, transfer prices are often set to ensure that reported profits are earned in countries where lower corporation tax is payable to maximize the after-tax earnings of the multinational corporation.

VI. **Segmental profitability**

- *Market segments* may be defined geographically, by customer or by customer groups, by product/service or by product/service groups, or by different distribution channels.
- In any of these cases, decisions may be made about expanding or contracting in different segments based on the relative profitability of those segments.
- By being price-makers or price-takers, businesses also adopt *market skimming* or *market-penetration* strategies at different phases of the product/service lifecycle.
- A common marketing strategy is *differential pricing*, where prices vary between each market segment.

Chapter Eight
Accounting Decisions

- Cost classification
- Calculating product/service costs
- Shifts in management accounting thinking
- Alternative methods of overhead allocation
- Contingency theory
- International comparisons
- Behavioural implications of management accounting

Cost classification

I. *Product and period costs*

- **Period costs** relate to the accounting period (year, month).
- **Expenses** are the period costs, as they relate more to a period of time than to the production of product/services. These will include all the other (selling, administration, finance etc.) costs of the business, i.e. those not directly concerned with buying, making or providing goods or services, but supporting that activity.
- **Product costs** relate to the cost of goods (or services) produced.
- The **cost of sales** is the product (or service) cost. It is either:
  - The cost of providing a service; or
  - The cost of buying goods sold by a retailer; or
  - The cost of raw materials and production costs for a product manufacturer.

II. ***Direct and indirect costs***

- Production costs may be classed as direct or indirect.
- **Direct costs** are readily traceable to particular product/services. Those are direct material cost and direct labor cost. Prime cost is an umbrella term to refer to the total of all direct costs.
- **Indirect costs** are necessary to produce a product/service, but are not able to be readily traced to particular products/services. Indirect costs are often referred to as overheads. It is the total of all indirect material and labour costs and other indirect costs.

8.2. **Calculating product/service costs**

- To assist with pricing and other decisions, accountants calculate the full or absorbed cost of product/services.
- As direct costs by definition are traceable, this element of product/service cost is usually quite accurate.
- However indirect costs, which by their nature cannot be traced to products/services, must in some way be *allocated*.
- **Overhead allocation** is the process of spreading production overhead equitably over the volume of production.
- The most common form of overhead allocation employed by accountants has been to allocate overhead costs to products/services in proportion to direct labour.
- different methods of overhead allocation can also influence inventory valuation and hence reported profitability.

8.3. Alternative methods of overhead allocation
I. *Variable costing and Absorption costing*

- Under **variable costing**, the product cost only includes variable production costs. Fixed production costs are treated as period costs and charged to the Profit and Loss account.
- This method avoids much of the overhead allocation problem, as most production overheads tend to be fixed rather than variable in nature.
- **Absorption costing** is a system in which all (fixed and variable) production overhead costs are charged to product/services using an *allocation base* (a measure of activity or volume such as labour hours, machine hours, or the number of units produced etc.).
- The allocation base used in absorption costing is often regarded as arbitrary.
- *The overhead rate* is calculated by dividing the production overheads for the total business by some measure of activity

8.4. **Contingency theory**

- The central argument of contingency theory is that there is no control system that is appropriate to all organizations.
- Fisher (1995) contrasts contingency with situation-specific and universalist models.
  - The situation-specific approach argues that each control system is developed as a result of the unique characteristics of each organization.
  - The universalist approach is that there is an optimal control system design that applies at least to some extent across different circumstances and organizations.
- The contingency approach is situated between these two extremes, in which the appropriateness of the control system depends on the particular circumstances faced by the business.

8.5. International comparisons

- There are various approaches to categorize international differences in accounting, including:
  - legal systems;
  - commercially driven, government-driven or professional regulation;
  - Strength of equity markets.
- There have been efforts to harmonize financial reporting within the European Union, through the International Accounting Standards Committee (IASC), to a large extent following US practices.
- This is likely to be a continuing trend given the globalization of capital markets.
- There are historical, cultural, political, legal and economic influences underlying the development of different management accounting techniques in that country,

8.6. **Behavioural implications of management accounting**

- Burchell *et al*. (1980) argued: What is accounted for can shape organizational participants' views of what is important, with the categories of dominant economic discourse and organizational functioning that are implicit within the accounting framework helping to create a particular conception of organizational reality.
- Accounting is not a neutral device that merely reports 'facts' but
  - a set of practices that affects the type of world in which we live,
  - the way in which we understand the choices able to be made, and
  - the way in which we manage activities.
- Miller argued that 'to calculate and record the costs of an activity is to alter the way in which it can be thought about and acted upon'.

Chapter Nine
Strategic Investment Decisions

- Strategy
- Investment appraisal
- Accounting rate of return
- Payback

9.1. Strategy

- Ansoff (1988) provided a typical description of strategy formulation: Objectives and goals were established; then
  - An internal appraisal of strengths and weaknesses and
  - An external appraisal of opportunities and threats led to strategic decisions such as diversification or the formulation of competitive strategy.

9.2. Investment appraisal

- Capital investment or capital expenditure means spending money now in the hope of getting it back later through future cash flows.

- The process of evaluating or appraising potential investments is to:
  - generate ideas based on opportunities or identifying solutions to problems;
  - research all relevant information;
  - consider possible alternatives;
  - evaluate the financial consequences of each alternative;
  - assess non-financial aspects of each alternative;
  - decide to proceed;
  - determine an implementation plan and implement the proposal;
  - Control implementation by monitoring actual results compared to plan.

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- There are three main types of investment:
  1. New facilities for new product/services;
  2. Expanding capacity to meet demand;
  3. Replacing assets in order to reduce production costs or improve quality or service.
- These are inextricably linked to the implementation of business strategy. Most investment appraisals consider decisions such as:
  - whether or not to invest;
  - whether to invest in one project or one piece of equipment rather than another;
  - Whether to invest now or at a later time.

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- There are three main methods of evaluating investments:
  1. Accounting rate of return.
  2. Payback.
  3. Discounted cash flow
- ✓ For any project, investment appraisal requires an estimation of future incremental cash flows, that will result from the investment, as well as the cash outflow for the initial investment.
- ✓ Depreciation is, of course, an expense in arriving at profit that does not involve any cash flow.
- ✓ Cash flow is usually considered to be more important than accounting profit in investment appraisal because it is cash flow that drives shareholder value.

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- It is important to note the following:

1. The financing decision is treated separately to the investment decision. Hence, even though there may be no initial cash outflow for the investment (because it may be wholly financed), all investment appraisal techniques assume an initial cash outflow. If a decision is made to proceed, then the organization is faced with a separate decision about how best to finance the investment.
2. The outflows are not just additional operating costs, as any new investment that generates sales growth is also likely to have an impact on working capital, since inventory, debtors and creditors are also likely to increase.
3. Income tax is treated as a cash outflow as it is a consequence of the cash inflows from the new investment.

Accounting rate of return

Chapter Ten
Budgeting and budgetary control

- The following points will be covered in this chapters

❖ Budgeting and budgetary control
   - ❖ What is budgeting?
   - ❖ The budgeting process
   - ❖ What is budgetary control?
   - ❖ Flexible budgeting
   - ❖ Variance analysis
   - ❖ Cost control

10.1. What is budgeting?

- A **budget** is a plan expressed in monetary terms covering a future time period.
- Budgets are based on a defined level of activity, either expected sales revenue or capacity.
- While budgets are typically produced annually, **rolling budgets** add additional months to the end of the period so that there is always a 12-month budget for the business.
- Alternatively, budgets may be re-forecast part way through a year, e.g. quarterly or six-monthly, to take into account changes since the last budget cycle
- So a **forecast** usually refers to a revised estimate, or a budgetary update, part-way through the budget period.)

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- Budgeting provides the ability to:
- Implement strategy by allocating resources in line with strategic goals;
- Co-ordinate activities and assist in communication between different parts of the organization;
- motivate managers to achieve targets;
- provide a means to control activities; and
- Evaluate managerial performance.

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- In establishing the budget allocation to specific profit centres, cost centres or departments, there are four main methods of budgeting

1. **Incremental budgets:** take the previous year's budget as a base and add (or subtract) a percentage to give this year's budget.
2. **Priority-based budgets:** allocate funds in line with strategy. If priorities change in line with the organization's strategic focus, then budget allocations would follow those priorities, irrespective of the historical allocation
3. **Zero-based budgeting** identifies the costs that are necessary to implement agreed strategies and achieve goals, as if the budget-holder were beginning with a new organizational unit, without any prior history.
4. **Activity-based budgeting** is associated with ABC. ABC identifies *activities* that consume resources and uses the concept of *cost drivers* to allocate costs to products or services according to how much of the resources of the firm they consume.

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- Whichever method of budgeting is used, there are two approaches that can be applied.

A. *Top-down budgets* begin with the sales forecast and, using the volume of sales, predict inventory levels, staffing and production times within capacity limitations.

B. *Bottom up budgets* are developed by the managers of each department based on current spending and agreed plans, which are then aggregated to the corporate total.

10.2. The budgeting process

- Identify business objectives.

1. Forecast economic and industry conditions,
2. Develop detailed sales budgets by market, geographic territories, major customers and product groups.
3. Prepare production budgets by responsibility centre managers,
4. Prepare non-production budgets by cost centre,
5. Prepare capital expenditure budgets,
6. Prepare cash forecasts and identify financing requirements.
7. Prepare master budget (profit and loss, B/sheet and cash flow).
8. Obtain board approval of profitability and financing targets.

10.2.1. Sales Budget

- The preparation of master budget begins with the sales budget because the sales budget is the basis for all other budgets.
- It is from sales budget that budgets for purchases, manufacturing costs, selling and administrative expenses, cash, and other budgets are prepared, and enable us to prepare pro-forma financial statements - budgeted income statement and budgeted balance sheet.
- Sales budget is a formal plan that set forth a firm's anticipated sales in units and in monetary figures for the budget period.

10.2.2. **Production**

- The sales budget is the foundation for the production budget in manufacturing enterprises.
- It is from the sales budget that the plans for manufacturing products that will be needed.
- In making its plans, the manufacturing unit will schedule production so as to deliver products to be sold to customers promptly.
- Therefore, the production plans will have to be synchronized with the sales budget.
- Otherwise, there may be excessive production or loss of sales due to under production which, in both directions, affects adversely the firm.

10.2.3. **The Manufacturing Cost Budget**

- It is indicated in the earlier topics that the sales budget is the keystone for the master budget.
- The production budget is the keystone for the manufacturing cost budget, which consists of:
    - Direct materials budget,
    - Direct labour budget, and
    - Manufacturing overhead budgets.
- After decision is reached as to how many units should be produced, the manufacturing cost can be estimated.

10.3. Budgetary Control

- **Budgetary control** is concerned with ensuring that actual financial results are in line with targets.
- An important part of this *feedback process* is investigating variations between actual results and budgeted results and taking appropriate corrective action.
- Budgetary control provides a yardstick for comparison and isolates problems by focusing on variances, which provide an early warning to managers.
- There are two types of variance:
  1. A favourable variance occurs where income exceeds budget and/or expenses are lower than budget.
  2. An adverse variance occurs where income is less than budget and/or expenses are greater than budget.

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- The weakness of traditional management reports for budgetary control is that the business may not be comparing like with like.
  - For example, if the business volume is lower than budgeted, then it follows that any variable costs should (in total) be lower than budgeted.
  - Conversely, if business volume is higher than budget, variable costs should (in total) be higher than budget.
- In many management reports, the distinction between variable and fixed costs is not made and it becomes very difficult to compare costs incurred at one level of activity with budgeted costs at a different level of activity and to make judgements about managerial performance.

10.4. **Flexible budgeting**

- Flexible budgets provide a better basis for investigating variances than the original budget, because the volume of production may differ from that planned.
- If the actual activity level is different to that budgeted, comparing revenue and/or costs at different (actual and budget) levels of activity will produce meaningless figures.
- A **flexible budget** is a budget that is *flexed*, that is standard costs per unit are applied to the actual level of business activity.
  - makes little sense to compare the budgeted costs of producing (say) 40,000 units with the costs incurred in producing 35,000 units.
- Variance analysis is then carried out between the flexed budget costs and actual costs. Flexible budgets take into account variations in the volume of activity.

A. **Material variance**

- Basically, there are two types of variances for materials:
  - price variance; and quantity variance (efficiency variance).
- The material price variance measures the amount of variance from the standard that occurs because of the price paid for raw materials is different from the standard cost.
  - It measures the difference between the prices at which materials were purchased and the prices at which they should have been obtained according to the established standards.
    - Vp =(Ap - Sp) x AQ; where,
- The variation between the actual materials usage and the standard materials is called materials quantity or materials usage or efficiency variance.
  - The materials usage variance measures the amount of variance caused by using more or less materials than the standard, which is the allowed usage for actual units of outputs.
    - Materials quantity variance =(AQ - SQ) x Sp, where

B. **Labour variance**

- There are two types of direct labour variances:
  - price variance and quantity variance
- The labour rate variance measures the difference between the budgeted labour rate and actual labour rate paid to employees.
  - It isolates the portion of the total labour variance that is caused by the actual labour rate being different from the expected (standard) labour rate.
    - DLRv =AH x (AR - SR),
- The labour efficiency variance measures the amount of the total labour variance caused by using more or less labour than the standard quantity. It is directly related to the productivity of employees involved in the production process.
  - DLEv =SR x (SH - AH),

10.5. **Cost control**

- **Cost control** is a process of either reducing costs while maintaining the same levels of productivity, or
- Maintaining costs while increasing levels of productivity through economies of scale or efficiencies in producing goods or services.

- For this reason cost control is more accurately considered as *cost improvement*.
- Cost improvement needs to be exercised by all budget holders in order to ensure that limited resources are effectively utilized and budgets are not over-spent.
- This is best achieved by understanding the causes of costs – the **cost drivers**.

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- For example, the cost of purchasing as an activity can be traced to the number of suppliers and the number of purchase orders that are required for different activities.
- The more suppliers and purchase orders (the drivers), the higher will be the cost of purchasing.
- Cost control over the administration of purchasing can be exercised by reducing the number of suppliers and/or reducing the number of purchase orders.
- This is an example of the application of activity-based costing.

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- Cost control can also be exercised by undertaking a review of horizontal business processes, i.e. crossing organizational boundaries, rather than within the conventional hierarchical structure displayed on an organization chart.
- Such a review aims to find out what activities people are carrying out, why they are carrying out those activities, whether they need to be carried out at all, and whether there is a more efficient method of achieving the desired output.
- This is called business process re-engineering (BPR).

➢ Understanding cost drivers and reviewing business processes can be used as tools to help in controlling costs

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- **Activity-based management (ABM)**: the entire set of actions that can be taken, on a better informed basis, with activity-based cost information.
- ABM extends the domain of analysis beyond production costs to marketing, selling and administrative expenses, reflecting the belief that the demand for resources arises not only from products/services but from customers, distribution and delivery channels. Cost information can be used to modify a firm's relationships with its customers, transforming unprofitable customers into profitable ones through negotiations on price, product mix, delivery and payment arrangements.
- Similarly, ABM can be pushed further back along the value chain to suppliers, designers and developers. Managing supplier relationships can lower the costs of purchased materials. ABM can also inform product/service design and development decisions, which can result in a lowering of production costs for new products/services *before* they reach the production stage.