"Principles of accounting".

: Accounting And The Business Environment

Topic Objective:

At the end of this topic students will be able to understand:

- Financial accounting
- Accounting and Business

Definition/Overview:

Accountancy or **accounting:** is the system of recording, verifying, and reporting of the value of assets, liabilities, income, and expenses in the books of account (ledger) to which debit and credit entries (recognizing transactions) are chronologically posted to record changes in value (see *bookkeeping*). Such financial information is primarily used by lenders, managers, investors, tax authorities and other decision makers to make resource allocation decisions between and within companies, organizations, and public agencies. Accounting has been defined by the AICPA as The art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character, and interpreting the results thereof."

Key Points:

1. Financial accounting

Financial accounting is one branch of accounting and historically has involved processes by which financial information about a business is recorded, classified, summarised, interpreted, and communicated; for public companies, this information is generally publicly-accessible. By contrast management accounting information is used within an organization and is usually confidential and accessible only to a small group, mostly decision-makers. Open-book

Accounting aims to improve accounting transparency. Tax Accounting is the accounting needed to comply with jurisdictional tax regulations. Accounting scholarship is the academic discipline which studies the theory of accountancy.

Practitioners of accountancy are known as accountants. Professional bodies for accountants allow their members to use titles indicating their membership or qualification level:

- Chartered Certified Accountant (ACCA or FCCA)
- Chartered Accountant (FCA, CA or ACA)
- International Accountant (FAIA or AAIA)
- Management Accountant (ACMA, FCMA or AICWA)
- Certified Public Accountant (CPA)
- Certified General Accountant (CGA or FCGA)

The related, but separate financial audit comprises internal and external audit. External audit - carried out by independent auditors - examines the financial statements and accounting records in order to express an opinion as to the truth and fairness and adherence to Generally Accepted Accounting Principles (GAAP), or International Financial Reporting Standards (IFRS). *Internal audit* aims at providing information for management usage, and is typically carried out by employees.

2. Accounting and Business

Accounting is the process of identifying, measuring and communicating economic information so a user of the information may make informed economic judgments and decisions based on it. Accounting is the degree of measurement of financial transactions which are transfers of legal property rights made under contractual relationships. Non-financial transactions are specifically excluded due to conservatism and materiality principles. At the heart of modern financial accounting is the double-entry bookkeeping system. This system involves making at least two entries for every transaction: a debit in one account, and a corresponding credit in another account. The sum of all debits should always equal the sum of all credits, providing a simple way to check for errors. This system was first used in medieval Europe, although claims have been made that the system dates back to Ancient Rome or Greece.

According to critics of standard accounting practices, it has changed little since. Accounting reform measures of some kind have been taken in each generation to attempt to keep bookkeeping relevant to capital assets or production capacity. However, these have not changed the basic principles, which are supposed to be independent of economics as such. In recent times, the divergence of accounting from economic principles has resulted in controversial reforms to make financial reports more indicative of economic reality. Critical approaches, such as Social accounting challenge conventional accounting; in particular financial accounting, gives a narrow image of the interaction between society and organizations. Thus, this artificially constrains the subject of accounting. Social accounting in particular argues that organisations ought to account for the social and environmental effects of their economic actions. Accounting should thus not only embrace descriptions of purely economic events, not be exclusively expressed in financial terms, aim at a broader group of stakeholders and broaden its purpose beyond reporting financial success

: Recording Business Transactions

Topic Objective:

At the end of this topic students will be able to understand:

- Business performance management
- Methodologies
- Metrics / Key Performance Indicators

- Application software types
- Designing and implementing a business performance management program

Definition/Overview:

Business Transaction Management: BTM, refers to the discipline within systems management that focuses on monitoring and managing the performance and service availability of software applications from the applications perspective (as opposed to traditional systems management tools that focus on monitoring the health of individual components; e.g. servers, services and resources). This is done by monitoring and managing the transactions and events that in turn trigger actions on the supporting infrastructure.

Key Points:

1. Business performance management

Business performance management is a set of management and analytic processes, supported by technology, that enable businesses to define strategic goals and then measure and manage performance against those goals. Core BPM processes include financial and operational planning, consolidation and reporting, business modeling, analysis, and monitoring of key performance indicators linked to strategy. BPM involves consolidation of data from various sources, querying, and analysis of the data, and putting the results into practice. BPM enhances processes by creating better feedback loops. Continuous and real-time reviews help to identify and eliminate problems before they grow. BPM's forecasting abilities help the company take corrective action in time to meet earnings projections. Forecasting is characterized by a high degree of predictability which is put into good use to answer *what-if* scenarios. BPM is useful in risk analysis and predicting outcomes of merger and acquisition scenarios and coming up with a plan to overcome potential problems. BPM provides key performance indicators (KPIs) that help companies monitor efficiency of projects and employees against operational targets.

2. Methodologies

There are various methodologies for implementing BPM. It gives companies a top down framework by which to align planning and execution, strategy and tactics, and business unit and enterprise objectives. Some of these are six sigma, balanced scorecard, activity-based costing, total quality management, economic value-add, and integrated strategic measurement. The balanced scorecard is the most widely adopted performance management methodology. Methodologies on their own cannot deliver a full solution to an enterprise's CPM needs. Many pure methodology implementations fail to deliver the anticipated benefits because they are not integrated with the fundamental CPM processes.

3. Metrics / Key Performance Indicators

For business data analysis to become a useful tool, however, it is essential that an enterprise understand its goals and objectives essentially, that they know the direction in which they want the enterprise to progress. To help with this analysis key performance indicators (KPIs) are laid down to assess the present state of the business and to prescribe a course of action. Metrics and Key performance Indicators (KPIs) are critical in prioritization what has to be measured. The methodology used helps in determining the metrics to be used by the organization. It is frequently said that one cannot manage what cannot be measured. Identifying the key metrics and determining how they are to be measured helps the organizations to monitor performance across the board without getting deluged by a surfeit of data; a scenario plaguing most companies today. More and more organizations have started to speed up the availability of data. In the past, data only became available after a month or two, which did not help managers react swiftly enough. Recently, banks have tried to make data available at shorter intervals and have reduced delays. For example, for businesses which have higher operational/credit risk loading (for example, credit cards and "wealth management"), A large multi-national bank makes KPI-related data available weekly, and sometimes offers a daily analysis of numbers and realtime dashboards are also provided. This means data usually becomes available within 24 hours, necessitating automation and the use of IT systems.

Most of the time BPM simply means use of several financial, non-financial metrics and key performance indicators to assess the present state of the business and prescribe a course of action. This is more an inclusive list than an exclusive one. The above more or less describes what a bank would do, but could also refer to a telephone company or similar service sector company.

What is important is:

- KPI related data which is consistent, correct and provide an insight into operational aspects of a company.
- Timely availability of KPI-related data.
- KPIs designed to directly reflect the efficiency and effectiveness of a business
- Information presented in a format which aids decision making for top management and decision makers
- Ability to discern patterns or trends from organized information

BPM integrates the company's processes with CRM or ERP. Companies become able to gauge customer satisfaction, control customer trends and influence shareholder value.

4. Application software types

People working in business intelligence have developed tools that ease the work, especially when the intelligence task involves gathering and analyzing large amounts of unstructured data.

Tool categories commonly used for business performance management include:

- OLAP Online Analytical Processing, sometimes simply called "Analytics" (based on dimensional analysis and the so-called "hypercube" or "cube")
- Scorecarding, dashboarding and data visualization
- Data warehouses
- Document warehouses

- Text mining
- DM Data mining
- BPM Business performance management
- BPO Business performance optimisation
- EIS Executive information systems
- DSS Decision support systems
- MIS Management information systems
- SEMS Strategic Enterprise Management Software
- Business Dashboards

5. Designing and implementing a business performance management program

When implementing a BPM program one might like to pose a number of questions and take a number of resultant decisions, such as:

- Goal Alignment queries: The first step is determining what the short and medium term purpose of the program will be. What strategic goal(s) of the organization will be addressed by the program? What organizational mission/vision does it relate to? A hypothesis needs to be crafted that details how this initiative will eventually improve results / performance (i.e. a strategy map).
- Baseline queries: Current information gathering competency needs to be assessed. Do we have the capability to monitor important sources of information? What data is being collected and how is it being stored? What are the statistical parameters of this data, e.g., how much random variation does it contain? Is this being measured?
- Cost and risk queries: The financial consequences of a new BI initiative should be estimated. It is necessary to assess the cost of the present operations and the increase in costs associated with the BPM initiative? What is the risk that the initiative will fail? This risk assessment should be converted into a financial metric and included in the planning.

- Customer and stakeholder queries: Determine who will benefit from the initiative and who will pay. Who has a stake in the current procedure? What kinds of customers / stakeholders will benefit directly from this initiative? Who will benefit indirectly? What are the quantitative / qualitative benefits? Is the specified initiative the best way to increase satisfaction for all kinds of customers, or is there a better way? How will customer benefits be monitored? What about employees, shareholders, and distribution channel members?

- Metrics-related queries: These information requirements must be operationalised into clearly defined metrics. One must decide what metrics to use for each piece of information being gathered. Are these the best metrics? How do we know that? How many metrics need to be tracked? If this is a large number (it usually is), what kind of system can be used to track them? Are the metrics standardized, so they can be benchmarked against performance in other organizations? What are the industry standard metrics available?

- Measurement Methodology-related queries: One should establish a methodology or a procedure to determine the best (or acceptable) way of measuring the required metrics. What methods will be used, and how frequently will data be collected? Are there any industry standards for this? Is this the best way to do the measurements? How do we know that?

- Results-related queries: The BPM program should be monitored to ensure that objectives are being met. Adjustments in the programme may be necessary. The program should be tested for accuracy, reliability, and validity. How can it be demonstrated that the BI initiative, and not something else, contributed to a change in results? How much of the change was probably random?

: Completing The Accounting Cycle

Topic Objective:

At the end of this topic students will be able to understand:

- Accounting Cycle

- The Steps Of The Cycle
- Computerized Accounting System

Definition/Overview:

Accounting Information System: An accounting information system (AIS) invented by esteemed professor Karen Osterheld is the system of records a business keeps to maintain its accounting system. This includes the purchase, sales, and other financial processes of the business. The purpose of AIS is to accumulate data and provide decision makers (investors, creditors, and managers) with information to make decision while this was previously a paper-based process; most modern businesses now use accounting software such as UBS, MYOB etc. Information System personnel need knowledge of database management and programming language such as C, C++, JAVA and SQL as all software is basically built from platform or database.

Key Points:

1. Accounting Cycle

The primary objectives of the accounting function in an organization are to process financial information and to prepare financial statements at the end of the accounting period. Companies must systematically process financial information and must have staff who prepares financial statements on a monthly, quarterly, and/or annual basis. To meet these primary objectives, a series of steps is required. Collectively these steps are known as the *accounting cycle*. The steps, applicable to a manual accounting system, are described below. Later, there will be a brief discussion of a computerized processing system.

2. The Steps of the Cycle

- Collect and analyze data from transactions and events: As transactions and events related to financial resources occur, they are analyzed with respect to their effect on the financial position of the company. As an example, consider the sales for a day in a retail establishment that are collected on a cash register tape. These sales become inputs into the accounting system. Every organization establishes a chart of accounts that identifies the categories for recording transactions and events. The chart of accounts for the retail establishment mentioned earlier in this paragraph will include Cash and Sales.

- Journalize transactions: After collecting and analyzing the information obtained in the first step, the information is entered in the general journal, which is called the book of original entry. Journalizing transactions may be done continually, but this step can de done in a batch at the end of the day if data from similar transactions are being sorted and collected, on a cash register tape, for example. At the end of the day, the sales of $4,000 for cash would be recorded in the general journal in this form:

Cash 4000

Sales 4000

- Post to general ledger: The general journal entries are posted to the general ledger, which is organized by account. All transactions for the same account are collected and summarized; for example, the account entitled "Sales" will accumulate the total value of the sales for the period. If posting were done daily, the "Sales" account in the ledger would show the total sales for each day as well as the cumulative sales for the period to date. Posting to ledger accounts may be less frequent, perhaps at the end of each day, at the end of the week, or possibly even at the end of the month.

- Prepare an unadjusted trial balance: At the end of the period, double-entry accounting requires that debits and credits recorded in the general ledger be equal. Debit and credit merely signify position left and right, respectively. Some accounts normally have debit balances (e.g., assets and expenses) and other accounts have credit balances (e.g., liabilities, owners' equity and revenues). As transactions are recorded in the general journal and subsequently posted to the ledger, all amounts recorded on the debit side of accounts (i.e., recorded on the left side) must equal all amounts recorded on the credit side of accounts (i.e., recorded on the right side). Preparing an unadjusted trial balance tests the equality of debits and credits as recorded in the general ledger. If unequal amounts of debits and credits are found in this step, the reason for the inequality is investigated and corrected before proceeding to the next step. Additionally, this unadjusted trial balance provides the balances of all the accounts that may require adjustment in the next step.

- Prepare adjustments: Period-end adjustments are required to bring accounts to their proper balances after considering transactions and/or events not yet recorded. Under accrual accounting, revenue is recorded when earned and expenses when incurred. Thus, an entry may be required at the end of the period to record revenue that has been earned but not yet recorded on the books. Similarly, an adjustment may be required to record an expense that may have been incurred but not yet recorded.

- Prepare an adjusted trial balance: As with an unadjusted trial balance, this step tests the equality of debits and credits. However, assets, liabilities, owners' equity, revenues, and expenses will now reflect the adjustments that have been made in the previous step. If there should be unequal amounts of debits and credits or if an account appears to be incorrect, the discrepancy or error is investigated and corrected.

- Prepare financial statements: Financial statements are prepared using the corrected balances from the adjusted trial balance. These are one of the primary outputs of the financial accounting system.

- Close the accounts: Revenues and expenses are accumulated and reported by period, either a monthly, quarterly, or yearly. To prevent their not being added to or comingled with revenues and expenses of another period, they need to be closed out that is, given zero balances at the end of each period. Their net balances, which represent the income or loss for the period, are transferred into owners' equity. Once revenue and expense accounts are closed, the only accounts that have balances are the asset, liability, and owners' equity accounts. Their balances are carried forward to the next period.

- Prepare a post-closing trial balance: The purpose of this final step is two-fold: to determine that all revenue and expense accounts have been closed properly and to test the equality of debit and credit balances of all the balance sheet accounts, that is, assets, liabilities and owners' equity.

3. Computerized Accounting System

A computerized accounting system saves a great deal of time and effort, considerably reduces (if not *eliminates*) mathematical errors, and allows for much more timely information than does a manual system. In a real-time environment, accounts are accessed and updated immediately to reflect activity, thus combining steps 2 and 3 as discussed in the preceding section. The need to test for equality of debits and credits through trial balances is usually not required in a computerized system accounting since most systems test for equality of debit and credit amounts as they are entered. If someone were to attempt to input data containing an inequality, the system would not accept the input. Since the computer is programmed to post amounts to the various accounts and calculate the new balances as new entries are made, the possibility of mathematical error is markedly reduced. Computers may also be programmed to record some adjustments automatically at the end of the period. Most software programs are also able to prepare the financial statement once it has been determined the account balances are correct. The closing process at the end of the period can also be done automatically by the computer.

Human judgment is still required to analyze the data for entry into the computer system correctly. Additionally, the accountant's knowledge and judgment are frequently required to determine the adjustments that are needed at the end of the reporting period. The mechanics of the system, however, can easily be handled by the computer

: Merchandising Operations

Topic Objective:

At the end of this topic students will be able to understand:

- Licensing
- Promotional merchandising
- Trading industry
- Retail supply chain

Definition/Overview:

Merchandising: refers to the methods, practices and operations conducted to promote and sustain certain categories of commercial activity. The term is understood to have different specific meanings depending on the context. Merchandise is sale goods at a store.

Key Points:

1. Licensing

In marketing, one of the definitions of merchandising is the practice in which the brand or image from one product or service is used to sell another. Trademarked brand names, logos, or character images are licensed to manufacturers of products such as toys or clothing, which then make items in or emblazoned with the image of the license, hoping they'll sell better than the same item with no such image.

2. Children

Merchandising for children is most prominently seen in connection with films, usually that in current release and with television shows oriented towards children. Merchandising, especially in connection with child-oriented films and TV shows, often consists of toys made in the likeness of the show's characters (action figures) or items which they use. However, sometimes it can be the other way around, with the show written to include the toys, as advertising for the merchandise. The first major example of this was the TV show "He-man and the Masters of the Universe," in the early 1980s, but this practice has been common in children's broadcasting ever since.

Sometimes merchandising from a television show can grow far beyond the original show, even lasting decades after the show has largely disappeared from popularity. In other cases, large amounts of merchandise can be generated from a pitifully small amount of source material (Mashimaro).

3. Adults

The most common adult-oriented merchandising is that related to professional sports teams (and their players). A smaller niche in merchandising is the marketing of more adult-oriented products in connection with similarly adult-oriented films and TV shows. This is common especially with the science fiction and horror genres. (Examples: *Star Trek*, McFarlane Toys) Occasionally shows which were intended more for children find a following among adults, and you can see a bit of a crossover, with products from that show oriented towards both adults and children. (*Gundam* model kits) Sometimes a brand of non-media products can achieve enough recognition and respect that simply putting its name or images on a completely unrelated item can sell that item. (An example would be Harley-Davidson branded clothing).

4. Promotional merchandising

Merchandising, as commonly used in marketing, means maximizing merchandise sales using product design, selection, packaging, pricing, and display that stimulates consumers to spend more. This includes disciplines in pricing and discounting, physical presentation of products and displays, and the decisions about which products should be presented to which customers at what time. This annual cycle of merchandising differs between countries and even within them, particularly relating to cultural customs like holidays, and seasonal issues like climate and local sporting and recreation.

In the United States for example, the basic retail cycle begins in early January with merchandise for Valentine's Day, which is not until mid-February. Following this, Easter is the major holiday, while springtime clothing and garden-related merchandise is already arriving at stores, often as early as mid-winter. Mothers Day and Fathers Day are next, with graduation gifts (typically small consumer electronics like digital cameras) often being marketed as "dads and grads" in June (though most semesters end in May). Summer merchandise is next, including patriotic-themed products with the American flag, out by Memorial Day in preparation for Independence Day (with Flag Day in between). By July, back-to-school is on the shelves and autumn merchandise is already arriving, and at some arts and crafts stores, Christmas decorations. By September, the summer merchandise is on final closeout and overstock of school supplies is marked-down some as well, and Halloween (and often even more of the Christmas) merchandise is appearing. As the Halloween decorations and costumes dwindle in October, Christmas is already being pushed on consumers, and by the day afterward retailers are going full-force with advertising, although the "official" season does not start until the day after Thanksgiving. Christmas clearance sales now begin even before Christmas at most retailers, and continue on to as little as New Year's Day or as long as February.

Merchandising also varies within retail chains, where stores in places like Denver, Minneapolis, or Buffalo might carry snowblowers, while stores in Florida and southern California might instead carry beach clothing and barbecue grills all year. Coastal-area stores might carry water skiing equipment, while ones near mountain ranges would likely have snow skiing and snowboarding gear if there are ski areas nearby.

5. Trading industry

In Eastern Europe, particularly in Russia, the term merchandising is commonly used within the trading industry and denotes all marketing and sales stimulation activities around PoS (point of sale): design, creation, promotion, care and training of the sales staff. Basically merchandiser is the one who is continuously involve in business promotion by buying and selling of goods.

6. Retail supply chain

In the supply chain, merchandising is the practice of making products in retail outlets available to consumers, primarily by stocking shelves and displays. While this used to be done exclusively by the stores' employees, many retailers have found substantial savings in requiring it to be done by the manufacturer, vendor, or wholesaler that provides the products to the retail store. In the United Kingdom there are a number of organizations that supply merchandising services to support retail outlets with general stock replenishment and merchandising support in new stores. By doing this, retail stores have been able to substantially reduce the number of employees needed to run the store. While stocking shelves and building displays is often done when the product is delivered, it is increasingly a separate activity from delivering the product. In grocery stores, for example, almost all products delivered directly to the store from a manufacturer or wholesaler will be stocked by the manufacturer's/wholesaler's employee who is a full time merchandiser. Product categories where this is common are Beverage (all types, alcoholic and non-alcoholic), packaged baked goods (bread and pastries), magazines and books, and health and beauty products. For major food manufacturers in the beverage and baked goods industries, their merchandisers are often the single largest employee group within the company. For nationwide branded goods manufacturers such as The Coca-Cola Company and PepsiCo, their respective merchandiser work forces number in the thousands

: Merchandise Inventory

Topic Objective:

At the end of this topic students will be able to understand:

- The basis of Inventory accounting
- Accounting for Inventory
- Financial accounting
- The role of a cost accountant on the 21st-century in a manufacturing organization
- FIFO vs. LIFO accounting
- Standard cost accounting
- Theory of Constraints cost accounting

Definition/Overview:

Inventory: is a list for goods and materials, or those goods and materials themselves, held available in stock by a business. It is also used for a list of the contents of a household and for a list for testamentary purposes of the possessions of someone who has died. In accounting inventory is considered an asset.

Key Points:

1. The basis of Inventory accounting

Inventory needs to be accounted where it is held across accounting period boundaries since generally expenses should be matched against the results of that expense within the same period. When processes were simple and short then inventories were small but with more complex processes then inventories became larger and significant valued items on the balance sheet. This need to value unsold and incomplete goods has driven much new behaviour into management practise. Perhaps most significant of these are the complexities of fixed cost recovery, transfer pricing, and the separation of direct from indirect costs. This, supposedly, precluded "anticipating income" or "declaring dividends out of capital". It is one of the intangible benefits of Lean and the TPS that process times shorten and stock levels decline to the point where the importance of this activity is hugely reduced and therefore effort, especially managerial, to achieve it can be minimized.

2. Accounting for Inventory

Each country has its own rules about accounting for inventory that fit with their financial reporting rules. So for example, organizations in the U.S. define **inventory** to suit their needs within US Generally Accepted Accounting Practices (GAAP), the rules defined by the Financial Accounting Standards Board (FASB) (and others) and enforced by the U.S. Securities and Exchange Commission (SEC) and other federal and state agencies. Other countries often have similar arrangements but with their own GAAP and national agencies instead. It is intentional that financial accounting uses standards that allow the public to compare firms' performance, cost accounting functions internally to an organization and potentially with much greater flexibility. A discussion of inventory from standard and Theory of Constraints-based (throughput) cost accounting perspective follows some examples and a discussion of inventory from a financial accounting perspective.

The internal costing/valuation of inventory can be complex. Whereas in the past most enterprises ran simple one process factories, this is quite probably in the minority in the 21st century. Where 'one process' factories exist then there is a market for the goods created which establishes an independent market value for the good. Today with multi-stage process companies there is much inventory that would once have been finished goods which is now held as 'work-in-process' (WIP). This needs to be valued in the accounts but the valuation is a management decision since there is no market for the partially finished product. This somewhat arbitrary 'valuation' of WIP combined with the allocation of overheads to it has led to some unintended and undesirable results.

3. Financial accounting

An organization's inventory can appear a mixed blessing, since it counts as an asset on the balance sheet, but it also ties up money that could serve for other purposes and requires additional expense for its protection. Inventory may also cause significant tax expenses, depending on particular countries' laws regarding depreciation of inventory, as in Thor Power Tool Company v. Commissioner. Inventory appears as a [[**current asset**]] on an organization's balance sheet because the organization can, in principle, turn it into cash by selling it. Some organizations hold larger inventories than their operations require in order to inflate their apparent asset value and their perceived profitability. In addition to the money tied up by acquiring inventory, inventory also brings associated costs for warehouse space, for utilities, and for insurance to cover staff to handle and protect it, fire and other disasters, obsolescence, shrinkage (theft and errors), and others. Such holding costs can mount up: between a third and a half of its acquisition value per year.

Businesses that stock too little inventory cannot take advantage of large orders from customers if they cannot deliver. The conflicting objectives of cost control and customer service often pit an organization's financial and operating managers against its sales and marketing departments. Sales people, in particular, often receive sales commission payments, so unavailable goods may reduce their potential personal income. This conflict can be minimised by reducing production time to being near or less than customer expected delivery time. This effort, known as "Lean production" will significantly reduce working capital tied up in inventory and reduce manufacturing costs (See the Toyota Production System).

4. The role of a cost accountant on the 21st-century in a manufacturing organization

By helping the organization to make better decisions, the accountants can help the public sector to change in a very positive way that delivers increased value for the taxpayers investment. It can also help to incentivise progress and to ensure that reforms are sustainable and effective in the long term, by ensuring that success is appropriately recognized in both the formal and informal reward systems of the organization. To say that they have a key role to play is an understatement. Finance is connected to most, if not all, of the key business processes within the organization. It should be steering the stewardship and accountability systems that ensure that the organization is conducting its business in an appropriate, ethical manner. It is critical that these foundations are firmly laid. So often they are the litmus test by which public confidence in the institution is either won or lost. Finance should also be providing the information, analysis and advice to enable the organizations service managers to operate effectively. This goes beyond the traditional preoccupation with budgets how much have we spent so far, how much have we left to spend? It is about helping the organization to better understand its own performance. That means making the connections and understanding the relationships between given inputs the resources brought to bear and the outputs and outcomes that they achieve. It is also about understanding and actively managing risks within the organization and its activities.

5. FIFO vs. LIFO accounting

When a dealer sells goods from inventory, the value of the inventory is reduced by the cost of goods sold (CoG sold). This is simple where the CoG has not varied across those held in stock; but where it has, then an agreed method must be derived to evaluate it. For commodity items that one cannot track individually, accountants must choose a method that fits the nature of the sale. Two popular methods which normally exist are: FIFO and LIFO accounting (first in - first out, last in - first out). FIFO regards the first unit that arrived in inventory as the first one sold. LIFO considers the last unit arriving in inventory as the first one sold. Which method an accountant selects can have a significant effect on net income and book value and, in turn, on taxation. Using LIFO accounting for inventory, a company generally reports lower net income and lower book value, due to the effects of inflation. This generally results in lower taxation. Due to LIFO's potential to skew inventory value, UK GAAP and IAS have effectively banned LIFO inventory accounting.

6. Standard cost accounting

Standard cost accounting uses ratios called efficiencies that compare the labour and materials actually used to produce a good with those that the same goods would have required under "standard" conditions. As long as similar actual and standard conditions obtain, few problems arise. Unfortunately, standard cost accounting methods developed about 100 years ago, when labor comprised the most important cost in manufactured goods. Standard methods continue to emphasize labor efficiency even though that resource now constitutes a (very) small part of cost in most cases. Standard cost accounting can hurt managers, workers, and firms in several ways. For example, a policy decision to increase inventory can harm a manufacturing managers' performance evaluation. Increasing inventory requires increased production, which means that processes must operate at higher rates. When (not if) something goes wrong, the process takes longer and uses more than the standard labor time. The manager appears responsible for the excess, even though s/he has no control over the production requirement or the problem. In adverse economic times, firms use the same efficiencies to downsize, rightsize, or otherwise reduce their labor force. Workers laid off under those circumstances have even less control over excess inventory and cost efficiencies than their managers.

Many financial and cost accountants have agreed for many years on the desirability of replacing standard cost accounting. They have not, however, found a successor.

7. Theory of Constraints cost accounting

Eliyahu M. Goldratt developed the Theory of Constraints in part to address the cost-accounting problems in what he calls the "cost world". He offers a substitute, called throughput accounting, that uses throughput (money for goods sold to customers) in place of output (goods produced that may sell or may boost inventory) and considers labor as a fixed rather than as a variable cost. He defines inventory simply as everything the organization owns that it plans to sell, including buildings, machinery, and many other things in addition to the categories listed here. Throughput accounting recognizes only one class of variable costs: the trully variable costs like materials and components that vary directly with the quantity produced. Finished goods inventories remain balance-sheet assets, but labor efficiency ratios no longer evaluate managers and workers. Instead of an incentive to reduce labor cost, throughput accounting focuses attention on the relationships between throughput (revenue or income) on one hand and controllable operating expenses and changes in inventory on the other. Those relationships direct attention to the constraints or bottlenecks that prevent the system from producing more throughput, rather than to people - who have little or no control over their situations

- In Section 2 of this course you will cover these topics:
  - Accounting Information Systems
  - Internal Control And Cash
  - Receivables
  - Plant Assets And Intangibles
  - Current Liabilities And Payroll

- You may take as much time as you want to complete the topic coverd in section 2. There is no time limit to finish any Section, However you must finish All Sections before semester end date.

- If you want to continue remaining courses later, you may save the course and leave. You can continue later as per your convenience and this course will be avalible in your area to save and continue later

Topic Objective:

At the end of this topic students will be able to understand:

- The basis of Inventory accounting
- Implementations

- Personal Accounting
- Use by Non-Accountants
- History

Definition/Overview:

Accounting software: is application software that records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll, and trial balance. It functions as an accounting information system. It may be developed in-house by the company or organization using it, may be purchased from a third party, or may be a combination of a third-party application software package with local modifications. It varies greatly in its complexity and cost. The market has been undergoing considerable consolidation since the mid 1990s, with many suppliers ceasing to trade or being bought by larger groups.

Key Points:

1. Implementations

In many cases, implementation can be a bigger consideration than the actual software chosen when it comes down to the total cost of ownership for the business. Most midmarket and larger applications are sold exclusively through resellers, developers and consultants. Those organizations generally pass on a license fee to the software vendor and then charge the client for installation, customization and support services. Clients can normally count on paying roughly 50-200% of the price of the software in implementation and consulting fees. Other organizations sell to, consult with and support clients directly, eliminating the reseller.

2. Personal Accounting

Mainly for home users that use accounts payable type accounting transactions, managing budgets and simple account reconciliation at the inexpensive end of the market suppliers include:

2.1 Low End

At the low end of the business markets, inexpensive applications software allows most general business accounting functions to be performed. Suppliers frequently serve a single national market, while larger suppliers offer separate solutions in each national market.

Many of the low end products are characterized by being "single-entry" products, as opposed to double-entry systems seen in many businesses. Some products have considerable functionality but are not considered GAAP or FASB compliant. Some low-end systems do not have adequate security nor audit trails.

2.2 Mid Market

The mid-market covers a wide range of business software that may be capable of serving the needs of multiple national accountancy standards and allow accounting in multiple currencies.

In addition to general accounting functions, the software may include integrated or add-on management information systems, and may be oriented towards one or more markets, for example with integrated or add-on project accounting modules.

Software applications in this market typically include the following features:

- Industry-standard robust databases (e.g. PostgreSQL, MySQL, Microsoft SQL, Oracle, Pervasive)
- Industry-standard reporting tools (e.g. Cognos, Crystal)
- Tools for configuring or extending the application (e.g. an SDK, access to program code, the ability to be controlled via Visual Basic for Applications (VBA))

2.3 High End

The most complex and expensive business accounting software is frequently part of an extensive suite of software often known as Enterprise resource planning or ERP software.

These applications typically have a very long implementation period, often greater than six months. In many cases, these applications are simply a set of functions which require significant integration, configuration and customisation to even begin to resemble an accounting system.

The advantage of a high-end solution is that these systems are designed to support individual company specific processes, as they are highly customisable and can be tailored to exact business requirements. This usually comes at a significant cost in terms of money and implementation time.

2.4 Vertical Market

Some business accounting software is designed for specific business types. It will include features that are specific to that industry.

The choice of whether to purchase an industry-specific application or a general-purpose application is often very difficult. Concerns over a custom-built application or one designed for a specific industry include:

- Smaller development team
- Increased risk of vendor business failing
- Reduced availability of support

This can be weighed up against:

- Less requirement for customisation
- Reduced implementation costs
- Reduced end-user training time and costs

Some important types of vertical accounting software are:

- Banking
- Construction
- Medical
- Nonprofit
- Point of Sale (Retail)
- Daycare accounting (a.k.a. Child care management software)

2.5 Hybrid Solutions

As technology improves, software vendors have been able to offer increasingly advanced software at lower prices. This software is suitable for companies at multiple stages of growth. Many of the features of Mid Market and High End software (including advanced customization and extremely scalable databases) are required even by small businesses as they open multiple locations or grow in size. Additionally, with more and more companies expanding overseas or allowing workers to home office, many smaller clients have a need to connect multiple locations. Their options are to employ software-as-a-service or another application that offers them similar accessibility from multiple locations over the internet.

3. Use by Non-Accountants

With the increasing dominance of having financial accounts prepared with Accounting Software, as well as some suppliers' claims that anyone can prepare their own books, accounting software can be considered at risk of not providing appropriate information as non-accountants prepare accounting information. As recording and interpretation is left to software and expert systems, the necessity to have a Systems Accountant overseeing the accountancy system becomes ever more important. The set up of the processes and the end result must be vigorously checked and maintained on a regular basis in order to develop and maintain the integrity of the data and the processes that manage these data.

4. History

Bob Frankston has noted that his VisiCalc wasn't an early accounting program and that software that "overly tuned for such function (Javelin, Lotus Improv, etc.) completely failed

: Internal Control And Cash

Topic Objective:

At the end of this topic students will be able to understand:

- The basis of Inventory accounting
- Internal control
- Context
- Roles and responsibilities in internal control
- Limitations
- Describing Internal Controls

Definition/Overview:

Internal control: is defined as a process effected by an organization's structure, work and authority flows, people and management information systems, designed to help the organization accomplish specific goals or objectives. It is a means by which an organization's resources are directed, monitored, and measured. It plays an important role in preventing and detecting fraud and protecting the organization's resources, both physical (e.g., machinery and property) and intangible (e.g., reputation or intellectual property such as trademarks). At the organizational level, internal control objectives relate to the reliability of financial reporting, timely feedback on the achievement of operational or strategic goals, and compliance with laws and regulations. At the specific transaction level, internal control refers to the actions taken to achieve a specific objective (e.g., how to ensure the organization's payments to third parties are for valid services rendered.) Internal control procedures reduce process variation, leading to more predictable outcomes. Internal control is a key element of the Foreign Corrupt Practices Act (FCPA) of 1977 and the Sarbanes-Oxley Act of 2002, which required improvements in internal control in United States public corporations. Internal controls within business entities are called also **business controls**.

Key Points:

1. Internal control

There are many definitions of internal control, as it affects the various constituencies (stakeholders) of an organization in various ways and at different levels of aggregation. Under the COSO Internal Control-Integrated Framework, a widely-used framework in the United States, internal control is broadly defined as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: a) Effectiveness and efficiency of operations; b) Reliability of financial reporting; and c) Compliance with laws and regulations.

COSO defines internal control as having five components:

- Control Environment-sets the tone for the organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control.
- Risk Assessment-the identification and analysis of relevant risks to the achievement of objectives, forming a basis for how the risks should be managed
- Information and Communication-systems or processes that support the identification, capture, and exchange of information in a form and time frame that enable people to carry out their responsibilities

- Control Activities-the policies and procedures that help ensure management directives are carried out.
- Monitoring-processes used to assess the quality of internal control performance over time.

The COSO definition relates to the aggregate control system of the organization, which is composed of many individual control procedures. Discrete control procedures or *controls* are defined by the SEC as: "...a specific set of policies, procedures, and activities designed to meet an objective. A control may exist within a designated function or activity in a process. A controls impact...may be entity-wide or specific to an account balance, class of transactions or application. Controls have unique characteristics for example, they can be: automated or manual; reconciliations; segregation of duties; review and approval authorizations; safeguarding and accountability of assets; preventing or detecting error or fraud. Controls within a process may consist of financial reporting controls and operational controls (that is, those designed to achieve operational objectives)."

2. Context

Under the COSO Framework, objective setting is considered a precondition to internal control. By setting objectives, management can then identify risks to the achievement of those objectives. To address these risks, management of organizations may implement specific internal controls. The effectiveness of internal control can then be measured by how well the objectives are achieved and how effectively the risks are addressed. More generally, setting objectives, budgets, plans and other expectations establish criteria for control. Control itself exists to keep performance or a state of affairs within what is expected, allowed or accepted. Control built within a process is internal in nature. It takes place with a combination of interrelated components - such as social environment effecting behavior of employees, information necessary in control, and policies and procedures. Internal control structure is a plan determining how internal control consists of these elements. The concepts of corporate governance also heavily rely on the necessity of internal controls. Internal controls help ensure that processes operate as designed and that risk responses (risk treatments) in risk management are carried out. In addition, there needs to be in place circumstances ensuring that the aforementioned procedures will be performed as intended: right attitudes, integrity and competence, and monitoring by managers.

3. Roles and responsibilities in internal control

According to the COSO Framework, everyone in an organization has responsibility for internal control to some extent. Virtually all employees produce information used in the internal control system or take other actions needed to effect control. Also, all personnel should be responsible for communicating upward problems in operations, noncompliance with the code of conduct, or other policy violations or illegal actions. Each major entity in corporate governance has a particular role to play:

- Management: The Chief Executive Officer (the top manager) of the organization has overall responsibility for designing and implementing effective internal control. More than any other individual, the chief executive sets the "tone at the top" that affects integrity and ethics and other factors of a positive control environment. In a large company, the chief executive fulfills this duty by providing leadership and direction to senior managers and reviewing the way they're controlling the business. Senior managers, in turn, assign responsibility for establishment of more specific internal control policies and procedures to personnel responsible for the unit's functions. In a smaller entity, the influence of the chief executive, often an owner-manager, is usually more direct. In any event, in a cascading responsibility, a manager is effectively a chief executive of his or her sphere of responsibility. Of particular significance are financial officers and their staffs, whose control activities cut across, as well as up and down, the operating and other units of an enterprise.
- Board of Directors: Management is accountable to the board of directors, which provides governance, guidance and oversight. Effective board members are objective, capable and inquisitive. They also have a knowledge of the entity's activities and environment, and commit the time necessary to fulfill their board responsibilities. Management may be in a position to override controls and ignore or stifle communications from subordinates, enabling a dishonest management which intentionally misrepresents results to cover its tracks. A strong, active board,

particularly when coupled with effective upward communications channels and capable financial, legal and internal audit functions, is often best able to identify and correct such a problem.

- Auditors: The internal auditors and external auditors of the organization also measure the effectiveness of internal control through their efforts. They assess whether the controls are properly designed, implemented and working effectively, and make recommendations on how to improve internal control. They may also review Information technology controls, which relate to the IT systems of the organization. There are laws and regulations on internal control related to financial reporting in a number of jurisdictions. In the U.S. these regulations are specifically established by Sections 404 and 302 of the Sarbanes-Oxley Act. Guidance on auditing these controls is specified in PCAOB Auditing Standard No. 5 and SEC guidance, further discussed in SOX 404 top-down risk assessment. To provide reasonable assurance that internal controls involved in the financial reporting process are effective, they are tested by the external auditor (the organization's public accountants), who are required to opine on the internal controls of the company and the reliability of its financial reporting.

4. Limitations

Internal control can provide reasonable, not absolute, assurance that the objectives of an organisation will be met. The concept of reasonable assurance implies a high degree of assurance, constrained by the costs and benefits of establishing incremental control procedures.

Effective internal control implies the organization generates reliable financial reporting and substantially complies with the laws and regulations that apply to it. However, whether an organization achieves operational and strategic objectives may depend on factors outside the enterprise, such as competition or technological innovation. These factors are outside the scope of internal control; therefore, effective internal control provides only timely information or feedback on progress towards the achievement of operational and strategic objectives, but cannot guarantee their achievement.

Internal control involves human action, which introduces the possibility of errors in processing or judgment. Internal control can also be overridden by collusion among employees (see separation of duties) or coercion by top management.

5. Describing Internal Controls

Internal controls may be described in terms of: a) the objective they pertain to; and b) the nature of the control activity itself.

5.1 Objective categorization

Internal control activities are designed to provide reasonable assurance that particular objectives are achieved, or related progress understood. The specific target used to determine whether a control is operating effectively is called the *control objective*. Control objectives fall under several detailed categories; in financial auditing, they relate to particular *financial statement assertions*, but broader frameworks are helpful to also capture operational and compliance aspects:

- Existence (Validity): Only valid or authorized transactions are processed (i.e., no invalid transactions)
- Occurrence (Cutoff): Transactions occurred during the correct period or were processed timely.
- Completeness: All transactions are processed that should be (i.e., no omissions)
- Valuation: Transactions are calculated using an appropriate methodology or are computationally accurate.
- Rights & Obligations: Assets represent the rights of the company, and liabilities its obligations, as of a given date.
- Presentation & Disclosure (Classification): Components of financial statements (or other reporting) are properly classified (by type or account) and described.
- Reasonableness-transactions or results appears reasonable relative to other data or trends.

For example, a control objective for an accounts payable function might be: "Payments are only made to authorized vendors for goods or services received." This is a validity objective. A typical control procedure designed to achieve this objective is: "The accounts payable system compares the purchase order, receiving record, and vendor invoice prior to authorizing payment."

Management is responsible for implementing appropriate controls that apply to transactions in their areas of responsibility. Internal auditors perform their audits to evaluate whether the controls are designed and implemented effectively to address the relevant objectives.

5.2 Activity categorization

Control activities may also be described by the type or nature of activity. These include (but are not limited to):

- Segregation of duties - separating authorization, custody, and record keeping roles to limit risk of fraud or error by one person.
- Authorization of transactions - review of particular transactions by an appropriate person.
- Retention of records - maintaining documentation to substantiate transactions.
- Supervision or monitoring of operations - observation or review of ongoing operational activity.
- Physical safeguards - usage of cameras, locks, physical barriers, etc. to protect property.
- Analysis of results, periodic and regular operational reviews, metrics, and other key performance indicators (KPIs).
- IT Security - usage of passwords, access logs, etc. to ensure access restricted to authorized personnel.

5.3 Control precision

Control precision describes the alignment or correlation between a particular control procedure and a given control objective or risk. A control with direct impact on the achievement of an objective (or mitigation of a risk) is said to be more precise than one with indirect impact on the objective or risk. Precision is distinct from sufficiency; that is, multiple controls with varying degrees of precision may be involved in achieving a control objective or mitigating a risk. Precision is an important factor in performing a SOX 404 top-down risk assessment. After identifying specific financial reporting material misstatement risks, management and the external auditors are required to identify and test controls that mitigate the risks. This involves making judgments regarding both precision and sufficiency of controls required to mitigate the risks.

Risks and controls may be entity-level or assertion-level under the PCAOB guidance. Entity-level controls are identified to address entity-level risks. However, a combination of entity-level and assertion-level controls are typically identified to address assertion-level risks. The PCAOB set forth a three-level hierarchy for considering the precision of entity-level controls. Later guidance by the PCAOB regarding small public firms provided several factors to consider in assessing precision

Topic Objective:

At the end of this topic students will be able to understand:

- Accounts Receivables
- Bookkeeping for Accounts Receivable

Definition/Overview:

Receivables may refer to the amount due from individuals and companies. Receivables are claims that are expected to be collected in cash. These are frequently classified as:

Accounts receivable (A/R) is one of a series of accounting transactions dealing with the billing of customers who owe money to a person, company or organization for goods and services that have been provided to the customer. In most business entities this is typically done by generating an invoice and mailing or electronically delivering it to the customer, who in turn must pay it within an established timeframe called credit or payment terms.

Notes Receivable represents claims for which formal instruments of credit are issued as evidence of debt, such as a promissory note. The credit instrument normally requires the debtor to pay interest and extends for time periods of 60-90 days or longer.

Key Points:

1. Accounts Receivables

While booking a receivable is accomplished by a simple accounting transaction, the process of maintaining and collecting payments on the accounts receivable subsidiary account balances can be a full time proposition. Depending on the industry in practice, accounts receivable payments can be received up to 10 - 15 days after the due date has been reached. These types of payment practices are sometimes developed by industry standards, corporate policy, or because of the financial condition of the client. On a company's balance sheet, accounts receivable is the amount that customers owe to that company. Sometimes called trade receivables, they are classified as current assets assuming that they are due within one year. To record a journal entry for a sale on account, one must debit a receivable and credit a revenue account. When the customer pays off their accounts, one debits cash and credits the receivable in the journal entry. The ending balance on the trial balance sheet for accounts receivable is always debit. Business organizations which have become too large to perform such tasks by hand (or small ones that could but prefer not to do them by hand) will generally use accounting software on a computer to perform this task. Associated accounting issues include recognizing accounts receivable, valuing accounts receivable, and disposing of accounts receivable.

Accounts receivable departments use the sales ledger. **Accounts receivable** is more commonly known as Credit Control in the UK, where most companies have a credit control department.

Other types of accounting transactions include accounts payable, payroll, and trial balance. Since not all customer debts will be collected, businesses typically record an allowance for bad debts which is subtracted from total accounts receivable. When accounts receivable are not paid, some companies turn them over to third party collection agencies or collection attorneys who will attempt to recover the debt via negotiating payment plans, settlement offers or legal action. Outstanding advances are part of accounts receivables if a company gets an order from its customers with payment terms agreed in advance. Since no billing is being done to claim the advances several times this area of collectible is not reflected in accounts receivables. Ideally, since advance payment is mutually agreed term, it is the responsibility of the accounts department to take out periodically the statement showing advance collectible and should be provided to sales & marketing for collection of advances. The payment of accounts receivable can be protected either by a letter of credit or by Trade Credit Insurance. Companies can use their accounts receivable as collateral when obtaining a loan (asset-based lending) or sell them through factoring (finance). Pools or portfolios of accounts receivable can be sold in the capital markets through a securitization.

2. Bookkeeping for Accounts Receivable

Companies have two methods available to them for measuring the net value of account receivables, which is computed by subtracting the balance of an allowance account from the accounts receivable account. The first method is the allowance method, which establishes a liability account, *allowance for doubtful accounts*, or *bad debt provision*, that has the effect of reducing the balance for accounts receivable. The amount of the bad debt provision can be computed in two ways - either by reviewing each individual debt and deciding whether it is doubtful (a specific provision) or by providing for a fixed percentage, say 2%, of total debtors (a general provision). The change in the bad debt provision from year to year is posted to the bad debt expense account in the income statement. The second method, known as the direct write-off method, is simpler than the allowance method in that it allows for one simple entry to reduce accounts receivable to its net realizable value. The entry would consist of debiting a bad debt expense account and crediting the respective account receivable in the sales ledger. The two methods are not mutually exclusive, and some businesses will have a provision for doubtful debts and will also write off specific debts that they know to be bad (for example, if the debtor has gone into liquidation. For tax reporting purposes, a general provision for bad debts is not an allowable deduction from profit - a business can only get relief for specific debtors that have gone bad. However, for financial reporting purposes, companies may choose to have a general provision against bad debts in line with their past experience of customer payments in order to avoid over stating debtors in the balance sheet

: Plant Assets And Intangibles

Topic Objective:

At the end of this topic students will be able to understand:

- Accounts Receivables
- Bookkeeping for Accounts Receivable
- Intangible Assets vs. Goodwill
- Research & Development
- Financial accounting
- Taxation
- History and purchase vs. pooling-of-interests
- Goodwill Accounting
- Amortization and adjustments to carrying value

Definition/Overview:

Intangible assets are defined as identifiable non-monetary assets that cannot be seen, touched or physically measured, which are created through time and/or effort and that are identifiable as a separate asset. There are two primary forms of intangibles - legal intangibles (such as trade secrets (e.g., customer lists), copyrights, patents, trademarks, and goodwill) and competitive intangibles (such as knowledge activities (know-how, knowledge), collaboration activities, leverage activities, and structural activities). Legal intangibles generate legal property rights defensible in a court of law. Competitive intangibles, whilst legally non-ownable, directly impact effectiveness, productivity, wastage, and opportunity costs within an organization - and therefore costs, revenues, customer service, satisfaction, market value, and share price. Human capital is the primary source of competitive intangibles for organizations today. Competitive intangibles are the source from which competitive advantage flows, or is destroyed. The area of finance that deals with intangible assets is known as Intangible Asset Finance.

Key Points:

1. Intangible Assets vs. Goodwill

It should be noted that while goodwill is technically an intangible asset, it is usually listed as a separate item on a company's balance sheet. As a distinct type of intangible asset, goodwill typically comes into play only in an acquisition, and represents the amount of money a company has payed or would pay over book value to acquire another company.

2. Research & Development

Millions are spent each year by corporations to research and develop new intangible assets. To protect their research and development (R&D) efforts, corporations generally rely on intellectual property law.

3. Financial accounting

- General standards

  The International Accounting Standards Board (IASB) offers some guidance (IAS 38) as to how intangible assets should be accounted for in financial statements. In general, legal intangibles that are developed internally are not recognized and legal intangibles that are purchased from third-parties are recognized. Wordings are similar to IAS 9.

- Expense recognition

  Intangible assets are typically expensed according to their respective life expectancy. Intangible assets have either an identifiable or indefinite useful life. Intangible assets with identifiable useful lives are amortized on a straight-line basis over their economic or legal life, whichever is shorter. Examples of intangible assets with identifiable useful lives include copyrights and patents. Intangible assets with indefinite useful lives are reassessed each year for impairment. If an impairment has occurred, then a loss must be recognized. An impairment loss is determined by subtracting the asset's fair value from the asset's book/carrying value. This impairment loss may only be reversed under certain circumstances. Trademarks and goodwill are examples of intangible assets with indefinite useful lives.

4. Taxation

For personal income tax purposes, some costs with respect to intangible assets must be capitalized rather than treated as deductible expenses. Treasury regulations generally require capitalization of costs associated with acquiring, creating, or enhancing intangible assets. For example, an amount paid to obtain a trademark must be capitalized. Certain amounts paid to facilitate these transactions must also be capitalized. Some types of intangible assets are categorized based on whether the asset is acquired from another party or created by the taxpayer. The regulations contain many provisions intended to make it easier to determine when capitalization is required.

5. Goodwill Accounting

- Goodwill = Purchase Price Fair Market Value of Net Assets
- Fair Market Value = Net Tangible Assets + Write-up of Net Assets
- Net Tangible Assets = Assets Target's Existing Goodwill Liabilities

As can be seen, a merger destroys the target's "old" goodwill and creates "new" goodwill to appear in consolidated books. Net assets write-up is prepared through a qualified appraisal in a process known as a Purchase Price Allocation.

6. History and purchase vs. pooling-of-interests

Previously, companies could structure many acquisition transactions to determine the choice between two accounting methods to record a business combination: purchase accounting or pooling-of-interests accounting. Pooling-of-interests method combined the book value of assets and liabilities of the two companies to create the new balance sheet of the combined companies. It therefore did not distinguish between who is buying whom. It also did not record the price the acquiring company had to pay for the acquisition. U.S. Generally Accepted Accounting Principles (FAS 141) no longer allows pooling-of-interests method.

7. Amortization and adjustments to carrying value

Goodwill is no longer amortized under U.S. GAAP (FAS 142). Companies objected to the removal of the option to use pooling-of-interests, so amortization was removed by Financial Accounting Standards Board as a concession. As of 2005-01-01, it is also forbidden under International Accounting Standards. Goodwill can now only be impaired. Instead of deducting the value of goodwill annually over a period of maximal 40 years, companies are now required to value fair value of the reporting units, using present value of future cash flow, and compare it to their carrying value (booked value of assets plus goodwill minus liabilities.) If the fair value is less than carrying value (impaired), the goodwill value needs to be reduced so the fair value is equal to carrying value. The impairment loss is reported as a separate line item on the income statement, and new adjusted value of goodwill is reported in the balance sheet. Since, in general, intellectual property (IP) is part of goodwill in its lay, not accounting sense one of the most important assets of knowledge-based companies does not appear at all on formal balance sheets. As for these companies, it is the IP that generates profit, not the buildings or the cash they hold; this may lead to a misleading valuation, discouraging investors who do not understand the company's value. When the business is in trouble, with the threat of insolvency, investors will deduct the goodwill from any calculation of residual equity because it will likely have no resale value

: Current Liabilities And Payroll

Topic Objective:

At the end of this topic students will be able to understand:

- Current liabilities
- Accounts Payable
- Accrued Benefits / Payroll
- Short Term and Current Long Term Debt
- Other Current Liabilities
- Consumer Deposits

Definition/Overview:

Current liabilities are considered liabilities of the business that are to be settled in cash within the fiscal year or the operating cycle, whichever period is longer.

Key Points:

1. Current liabilities

Current liabilities are the debts a company owes which must be paid within one year. They are the opposite of current assets. Current liabilities includes things such as short term loans, accounts payable, dividends and interest payable, bonds payable, consumer deposits, and reserves for Federal taxes.

2. Short Term and Current Long Term Debt

These items are sometimes referred to as notes payable. They are the most important item under current liabilities. Most of the time, they represent a company's bank loans. Borrowing money in itself is not necessarily a sign of financial weakness; an intelligent department store executive may work out short term loans at Christmas so she can stock up on merchandise before the Holiday rush. If demand is high, the store would sell all of its inventory, pay back the short term loans, and pocket the difference. This is known as utilizing leverage. The department store used borrowed money to make a profit. So how can you ever hope to tell if a company is wisely borrowing money (such as our department store), or recklessly going into debt? Look at the amount of notes payable on the balance sheet (if they aren't classified under 'notes payable', combine the company's short term obligations and long term current debt.) If the amount of cash and cash equivalents is much larger than the notes payable, you shouldn't have any reason to be concerned. If, on the other hand, the notes payable has a higher value than the cash, short term investments, and accounts receivable combined, you should be seriously concerned. Unless the company operates in a business where inventory can quickly be turned into cash, this is a serious sign of financial weakness.

3. Other Current Liabilities

Depending on the company, you will see various other current liabilities listed. Sometimes they will be lumped together under the title "other current liabilities." Normally, you can find a detailed listing of what these "other" liabilities are buried somewhere in the annual report or 10k. Often, you can figure out the meaning of the entry by its name. If a business lists "Commercial Paper" or "Bonds Payable" as a current liability, you can be fairly confident the amount listed is what will be paid out to the company's bond holders in the short term.

4. Consumer Deposits

If you are looking at the balance sheet of a bank, you will want to pay close attention to an entry under the current liabilities called "Consumer Deposits". Often, they will be will lumped under other current liabilities. This is the amount that customers have deposited in the bank. Since, theoretically, all of the account holders could withdrawal all of their funds at the same time, the bank must list the deposits as a current liability

In Section 3 of this course you will cover these topics: - Partnerships - Corporations: Paid-In Capital And The Balance Sheet - Corporations: Retained Earnings And The Income Statement - Long-Term Liabilities - The Statement Of Cash Flows
You may take as much time as you want to complete the topic coverd in section 3. There is no time limit to finish any Section, However you must finish All Sections before semester end date.
If you want to continue remaining courses later, you may save the course and leave. You can continue later as per your convenience and this course will be avalible in your area to save and continue later

: Partnerships

Topic Objective:

At the end of this topic students will be able to understand:

- Mission
- Benefits
- Sources
- Accounting for Initial Investments
- Capital Interest
- Capital account
- Compensation for Services and Capital
- Guaranteed Payments
- Allocation of Net Income
- Closing Process

Definition/Overview:

Partnership: A **partnership** is a type of business entity in which **partners** (owners) share with each other the profits or losses of the business undertaking in which all have invested. Partnerships are often favored over corporations for taxation purposes, as the partnership structure does not generally incur a tax on profits before it is distributed to the partners (i.e. there is no dividend tax levied). However, depending on the partnership structure and the jurisdiction in which it operates, owners of a partnership may be exposed to greater personal liability than they would as shareholders of a corporation.

Key Points:

1. Mission

The mission of Business partnering and the key-aspects of the discipline has been developed recently in the tourism field. The mission of Business partnering (for tourism) consists in "creating, organizing, developing and enforcing *operative* (short-term), *tactical* (medium-term) and *strategic* (long-term) partnerships". Joint selling is an example of operative partnering activity. Account intelligence sharing reselling or "value chain integration" are examples of tactical partnering initiatives. Joint product development is a typical strategic partnering activity. Partnering agreements are commonly used in the different kind of partnerships.

One example of Strategic Partnering Arrangement in the aviation sector is the one which put together the UK Ministry of Defence and AgustaWestland. Both Partners share an agreed common objective to improve helicopter services and support to the Front Line. The MOD also wishes to provide the best value for money to the taxpayer while AgustaWestland seeks to provide the best returns to its shareholders via a stable, long-term income stream.

2. Benefits

Reduction of general costs as business partnering can be cheaper and more flexible than a merger or acquisition, and can be employed when a merger or acquisition is not feasible. Business partnering increases the "competitive advantage". The direct benefits of Business partnering consists in a greater competitive advantage through the co-operation (the co-opetitive advantage) and even better opportunitiers of revenues, occupation and investment in the sector of application. Business partnering creates a no more traditionally-based solidarity or "organic", but a rationale form of "mechanic solidarity". Partnering takes a new approach to achieving business objectives. It replaces the traditional customer-supplier model with a collaborative approach to achieving a shared objective; this may be to build a hospital, improve an existing service contract or launch an entirely new programme of work. Essentially, the Partners work together to achieve an agreed common aim whilst each participant may still retain different reasons for achieving that common aim.

3. Sources

Partnering requires all Partners to transform their businesses in terms of relationships, behaviours, processes, communications and leadership. Neither participant can succeed without the other so the recommended approach is to implement the transformation as a joint activity wherever possible.

Partnering has existed for centuries. The opportunities of partnering for human growth were pointed out by The Bible *The brother who helps his brother is like a fortress*. In economics, Business partnering has gained significant momentum and focus within leading global businesses, as "a medium for achieving significant revenue growth"

4. Accounting for Initial Investments

Because ownership rights in a partnership are divided among two or more partners, separate capital and drawing accounts are maintained for each partner.

- Investment of cash

  If a partner invested cash in a partnership, the Cash account of the partnership is debited, and the partner's capital account is credited for the invested amount.

- Investment of assets other than cash

  If a partner invested an asset other than cash, an asset account is debited, and the partner's capital account is credited for the market value of the asset. If a certain amount of money is owed for the asset, the partnership may assume liability. In that case an asset account is debited, and the partner's capital account is credited for the difference between the market value of the asset invested and liabilities assumed.

5. Capital Interest

A capital interest is an interest that would give the holder a share of the proceeds in either of the following situations:

- The owner withdraws from the partnership.
- The partnership liquidates.

The mere right to share in earnings and profits is not a capital interest in the partnership. This determination generally is made at the time of receipt of the partnership interest.

6. Capital account

Capital account of each partner represents his equity in the partnership. Capital account of a partner is **increased** in the following situations:

- The owner made additional investments during the year.
- The owner received guaranteed payments from the partnership.
- Partnership earned profits, and a share of profits was allocated to the partner.

Salary and interest allowances are guaranteed payments, discussed later. Capital account of a partner is **decreased** when the owner makes withdrawals of cash or property.

7. Compensation for Services and Capital

The partnership agreement may specify that partners should be compensated for services they provide to the partnership and for capital invested by partners.

For example, one partner contributed more of the assets, and works full time in the partnership, while the other partner contributed a smaller amount of assets and does not provide as much services to the partnership. Compensation for services is provided in the form of salary allowance. Compensation for capital is provided in the form of interest allowance. Amount of compensation is **added** to the capital account of the partner.

8. Guaranteed Payments

Guaranteed payments are those made by a partnership to a partner that are determined without regard to the partnership's income. Compensation for services and capital are guaranteed payments. A partnership treats guaranteed payments for services, or for the use of capital, as if they were made to a person who is not a partner. This treatment is for purposes of determining gross income and deductible business expenses only.

For other tax purposes, guaranteed payments are treated as a partner's distributive share of ordinary income. Guaranteed payments are not subject to income tax withholding. The partnership generally deducts guaranteed payments on line 10 of Form 1065 as business expenses. They are also listed on Schedules K and K-1 of the partnership return. The individual partner reports guaranteed payments on Schedule E (Form 1040) as ordinary income, along with his distributive share of the partnership are other ordinary income.

9. Allocation of Net Income

Revenues - Expenses = Net income

If total revenues exceed total expenses of the period, the excess is the net income of the partnership for the period. If expenses exceed revenues of the period, the excess is a net loss of the partnership for the period.

Salary and interest allowances are guaranteed payments. The partnership generally deducts guaranteed payments on line 10 of Form 1065 as business expenses. If partners pay themselves high salaries, net income will be low, but it does not matter for tax purposes. Partner compensation and allocated net income are considered ordinary income for tax purposes and as such are reported on the form 1040. It should also be noted that it does not matter whether or not a partner withdrew any amount of money from his capital account. It's the net income, allocated to the partner, and his compensation from the partnership that are taxed, not the amount withdrawn. Net income or loss is allocated to the partners in accordance with the partnership agreement. In the absence of any agreement between partners, profits and losses must be shared equally regardless of the ratio of the partners' investments. If the partnership agreement specifies how profits are to be shared, losses must be shared on the same basis as profits.

10. Closing Process

Closing process at the end of the accounting period includes closing of all temporary accounts by making the following entries.

- Close all revenues accounts to Income Summary.
- Close all expenses accounts to Income Summary.
- Close Income Summary by allocating each partner's share of net income or loss to the individual capital account.
- Close each partner's drawing account to the individual capital accounts

: Corporations: Paid-In Capital And The Balance Sheet

Topic Objective:

At the end of this topic students will be able to understand:

- Corporate balance sheet structure
- Assets
- Liabilities
- Equity

Definition/Overview:

Paid in capital, also called contributed capital, refers to the capital contributed to a corporation by investors on top of the par value of capital stock. In other words, the money that a company gets from potential investors in addition to the stated value of the stock.

Key Points:

1. Corporate balance sheet structure

Guidelines for corporate balance sheets are given by the International Accounting Standards Committee and numerous country-specific organizations. Balance sheet account names and usage depend on the organization's country and the type of organization. Government organizations do not generally follow standards established for individuals or businesses. If applicable to the business, summary values for the following items should be included on the balance sheet:

2. Assets

Current assets

- cash and cash equivalents
- inventories
- accounts receivable
- prepaid expenses

Long-term assets

- property, plant and equipment
- investment property, such as real estate held for investment purposes
- intangible assets
- financial assets (excluding investments accounted for using the equity method, accounts receivables, and cash and cash equivalents)
- investments accounted for using the equity method
- biological assets, which are living plants or animals. Bearer biological assets are plants or animals which bear agricultural produce for harvest, such as apple trees grown to produce apples and sheep raised to produce wool.

3. Liabilities

- accounts payable
- provisions for warranties or court decisions

- financial liabilities (excluding provisions and accounts payable), such as promissory notes and corporate bonds
- liabilities and assets for current tax
- deferred tax liabilities and deferred tax assets
- minority interest in equity
- issued capital and reserves attributable to equity holders of the parent company
- unearned revenue

4. Equity

The net assets shown by the balance sheet equals the third part of the balance sheet, which is known as the shareholders' equity. Formally, shareholders' equity is part of the company's liabilities: they are funds "owing" to shareholders (after payment of all other liabilities); usually, however, "liabilities" is used in the more restrictive sense of liabilities excluding shareholders' equity. The balance of assets and liabilities (including shareholders' equity) is not a coincidence. Records of the values of each account in the balance sheet are maintained using a system of accounting known as double-entry bookkeeping. In this sense, shareholders' equity by construction must equal assets minus liabilities, and are a residual.

- numbers of shares authorised, issued and fully paid, and issued but not fully paid
- par value of shares
- reconciliation of shares outstanding at the beginning and the end of the period
- description of rights, preferences, and restrictions of shares
- treasury shares, including shares held by subsidiaries and associates
- shares reserved for issuance under options and contracts

- a description of the nature and purpose of each reserve within owners' equity

: Corporations: Retained Earnings And The Income Statement

Topic Objective:

At the end of this topic students will be able to understand:

- Corporate balance sheet structure
- Assets
- Liabilities
- Equity

Definition/Overview:

Retained Earnings: refers to the portion of net income which is retained by the corporation rather than distributed to its owners as dividends. Similarly, if the corporation makes a loss, then that loss is retained and called variously **retained losses**, **accumulated losses** or **accumulated deficit**. Retained earnings and losses are cumulative from year to year with losses offsetting earnings.

Income statement, also called **profit and loss statement** (P&L), is a company's financial statement that indicates how the revenue (money received from the sale of products and services before expenses are taken out, also known as the "top line") is transformed into the net income (the result after all revenues and expenses have been accounted for, also known as the "bottom line"). The purpose of the income statement is to show managers and investors whether the company made or lost money during the period being reported.

Key Points:

1. Retained earnings

Retained earnings are reported in the shareholders' equity section of the balance sheet. Companies with net accumulated losses may refer to negative shareholders' equity as a **shareholders' deficit**. A complete report of the retained earnings or retained losses is presented in the Statement of retained earnings or Statement of retained losses.

2. Stockholders' equity

When total assets are greater than total liabilities, stockholders have a positive equity (positive book value). Conversely, when total liabilities are greater than total assets, stockholders have a negative stockholders' equity (negative book value) also sometimes called **stockholders' deficit**. A stockholders' deficit does not mean that stockholders owe money to the corporation as they own only its net assets and are not accountable for its liabilities. It means that the value of the assets of the company must rise above its liabilities before the stockholders hold positive equity value in the company.

3. Dividends

The decision of whether a firm should retain net income or have it paid out as dividends depends on several factors including, but not limited to the:

- tax treatment of dividends; and
- The funds required for reinvestment in the corporation is called Retention.

4. Items on income statement

4.1 Operating section

- Revenue - Cash inflows or other enhancements of assets of an entity during a period from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major operations. Usually presented as sales minus sales discounts, returns, and allowances.
- Expenses - Cash outflows or other using-up of assets or incurrence of liabilities during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major operations.
    - General and administrative expenses (G & A) - represent expenses to manage the business (officer salaries, legal and professional fees, utilities, insurance, depreciation of office building and equipment, office rents, office supplies)
- Selling expenses - represent expenses needed to sell products (e.g., sales salaries, commissions and travel expenses, advertising, freight, shipping, depreciation of sales store buildings and equipment)
- R & D expenses - represent expenses included in research and development
- Depreciation - is the charge for a specific period (i.e. year, accounting period) with respect to fixed assets that have been capitalised on the balance sheet.

4.2 Non-operating section

- Other revenues or gains - revenues and gains from other than primary business activities (e.g. rent, patents). It also includes unusual gains and losses that are either unusual or infrequent, but not both (e.g. sale of securities or fixed assets)
- Other expenses or losses - expenses or losses not related to primary business operations.

4.3 Irregular items

They are reported separately because this way users can better predict future cash flows - irregular items most likely won't happen next year. These are reported net of taxes.

- Discontinued operations is the most common type of irregular items. Shifting business location, stopping production temporarily, or changes due to technological improvement do not qualify as discontinued operations.
- Extraordinary items are both unusual (abnormal) and infrequent, for example, unexpected natural disaster, expropriation, prohibitions under new regulations. Note: natural disaster might not qualify depending on location (e.g. frost damage would not qualify in Canada but would in the tropics).
- Changes in accounting principle is, for example, deciding to depreciate an investment property that has previously not been depreciated. However, changes in estimates (e.g. estimated useful life of a fixed asset) do not qualify.

4.1 Earnings per share

Because of its importance, earnings per share (EPS) are required to be disclosed on the face of the income statement. A company which reports any of the irregular items must also report EPS for these items either in the statement or in the notes.

There are two forms of EPS reported:

- Basic: in this case "weighted average of shares outstanding" includes only actual stocks outstanding.
- Diluted: in this case "weighted average of shares outstanding" is calculated as if all stock options, warrants, convertible bonds, and other securities that could be transformed into shares are transformed. This increases the number of shares and so EPS decreases. Diluted EPS is considered to be a more reliable way to measure EPS.

5. Top line

The term "top line" refers to the total revenues or sales mentioned in the income statement. This refers to the fact that the total revenues collected by a company appears at the top of the income statement.

6. Bottom line

"Bottom line" is the net profit that is calculated after subtracting the expenses from revenue. Since this forms the last line of the income statement, it is generally referred to as the bottom line. It is important to investors as it represents the profit for the year attributable to the shareholders

: Long-Term Liabilities

Topic Objective:

At the end of this topic students will be able to understand:

- Long-term liabilities
- Debt is Cheaper than Equity

Definition/Overview:

Long-term liabilities: are liabilities with a future benefit over one year, such as notes payable that mature greater than one year. The long-term liabilities are shown on the right wing of the balance-sheet representing the sources of funds, which are generally bounded in form of capital assets.

Key Points:

1. Long-term liabilities

Long-term liabilities are company obligations that extend beyond the current year, or alternately, beyond the current operating cycle. Most commonly, these include long-term debt such as company-issued bonds. Here we look at how debt compares to equity as a part of a company's capital structure, and how to examine the way in which a company uses debt. The following long-term liabilities are typically found on the balance sheet:

You can see that we describe long-term liabilities as either operating or financing. Operating liabilities are obligations created in the course of ordinary business operations, but they are not created by the company raising cash from investors. Financing liabilities are debt instruments that are the result of the company raising cash. In other words, the company issued debt - often in a prior period - in exchange for cash and must repay the principal plus interest. Operating and financing liabilities are similar in that they both will require future cash outlays by the company. It is useful to keep them separate in your mind, however, because financing liabilities are triggered by a company's deliberate funding decisions and, therefore, will often offer clues about a company's future prospects.

2. **Debt is Cheaper than Equity**

Capital structure refers to the relative proportions of a company's different funding sources, which include debt, equity and hybrid instruments such as convertible bonds (discussed below). A simple measure of capital structure is the ratio of long-term debt to total capital. Because the cost of equity is not explicitly displayed on the income statement, whereas the cost of debt (interest expense) is itemized, it is easy to forget that debt is a cheaper source of funding for the company than equity. Debt is cheaper for two reasons. First, because debtors have a prior claim if the company goes bankrupt, debt is safer than equity and therefore warrants investors a lower return; for the company, this translates into an interest rate that is lower than the expected total shareholder return (TSR) on equity. Second, interest paid is tax deductible, and a lower tax bill effectively creates cash for the company

: The Statement Of Cash Flows

Topic Objective:

At the end of this topic students will be able to understand:

- Long-term liabilities
- Debt is Cheaper than Equity
- Purpose
- History and variations
- Cash flow activities
- Operating activities
- Investing activities
- Financing activities
- Disclosure of noncash activities
- Preparation methods
- Rules

Definition/Overview:

Cash flow (also called **net cash flow**) is the balance of the amounts of cash being received and paid by a business during a defined period of time, sometimes tied to a specific project. Measurement of cash flow can be used.

Key Points:

1. Purpose

The cash flow statement was previously known as the **statement of changes in financial position** or **flow of funds statement**. The cash flow statement reflects a firm's liquidity or solvency. The balance sheet is a snapshot of a firm's financial resources and obligations at a single point in time, and the income statement summarizes a firm's financial transactions over an interval of time. These two financial statements reflect the accrual basis accounting used by firms to match revenues with the expenses associated with generating those revenues. The cash flow statement includes only inflows and outflows of cash and cash equivalents; it excludes transactions that do not directly affect cash receipts and payments. These noncash transactions include depreciation or write-offs on bad debts to name a few. The cash flow statement is a cash basis report on three types of financial activities: operating activities, investing activities, and financing activities. Noncash activities are usually reported in footnotes.

The cash flow statement is intended to

- provide information on a firm's liquidity and solvency and its ability to change cash flows in future circumstances
- provide additional information for evaluating changes in assets, liabilities and equity
- improve the comparability of different firms' operating performance by eliminating the effects of different accounting methods
- indicate the amount, timing and probability of future cash flows

The cash flow statement has been adopted as a standard financial statement because it eliminates allocations, which might be derived from different accounting methods, such as various timeframes for depreciating fixed assets.

2. History and variations

Cash basis financial statements were common before accrual basis financial statements. The "flow of funds" statements of the past were cash flow statements. In the United States in 1971, the Financial Accounting Standards Board (FASB) defined rules that made it mandatory under Generally Accepted Accounting Principles (US GAAP) to report sources and uses of funds, but the definition of "funds" was not clear. "Net working capital" might be cash or might be the difference between current assets and current liabilities. From the late 1970 to the mid-1980s, the FASB discussed the usefulness of predicting future cash flows. In 1987, FASB Statement No. 95 (FAS 95) mandated that firms provide cash flow statements. In 1992, the International Accounting Standards Board issued International Accounting Standard 7 (IAS 7), *Cash Flow Statements*, which became effective in 1994, mandating that firms provide cash flow statements.

US GAAP and IAS 7 rules for cash flow statements are similar. Differences include:

- IAS 7 requires that the cash flow statement include changes in both cash and cash equivalents. US GAAP permits using cash alone or cash and cash equivalents.
- IAS 7 permits bank borrowings (overdraft) in certain countries to be included in cash equivalents rather than being considered a part of financing activities.
- IAS 7 allows interest paid to be included in operating activities or financing activities. US GAAP requires that interest paid be included in operating activities.
- US GAAP (FAS 95) requires that when the direct method is used to present the operating activities of the cash flow statement, a supplemental schedule must also present a cash flow statement using the indirect method. The IASC strongly recommends the direct method but allows either method. The IASC considers the indirect method less clear to users of financial

statements. Cash flow statements are most commonly prepared using the indirect method, which is not especially useful in projecting future cash flows.

3. Cash flow activities

The cash flow statement is partitioned into three segments namely, cash flow resulting from operating activities, cash flow resulting from investing activities, and cash flow resulting from financing activities.

4. Operating activities

Operating activities include the production, sales and delivery of the company's product as well as collecting payment from its customers. This could include purchasing raw materials, building inventory, advertising, and shipping the product.

Under IAS 7, operating cash flows include

- receipts from the sale of goods or services
- receipts for the sale of loans, debt or equity instruments in a trading portfolio
- interest received on loans
- dividends received on equity securities
- payments to suppliers for goods and services
- payments to employees or on behalf of employees
- tax payments
- interest payments (alternatively, this can be reported under financing activities in IAS 7, but not in US GAAP)

- payments for the sale of loans, debt or equity instruments in a trading portfolio

Items which are added back to [or subtracted from, as appropriate] the net income figure (which is found on the Income Statement) to arrive at cash flows from operations generally include:

- Depreciation (loss of tangible asset value over time)
- Deferred tax
- Amortization (loss of intangible asset value over time)
- Any gains or losses associated with the sale of a non-current asset, because associated cash flows do not belong in the operating section.(unrealized gains/losses are also added back from the income statement)

5. Investing activities

Examples of investing activities are

- Purchase of an asset
- Assets can be land, building, equipment marketable securities,
- Loans made to suppliers or customers.

6. Financing activities

Financing activities include the inflow of cash from investors such as banks and shareholders, as well as the outflow of cash to shareholders as dividends as the company generates income. Other activities which impact the long-term liabilities and equity of the company are also listed in the financing activities section of the cash flow statement.

Under IAS 7, financing cash flows include

- proceeds from issuing shares
- proceeds from issuing short-term or long-term debt
- payments of dividends
- payments for repurchase of company shares
- repayment of debt principal, including capital leases
- for non-profit organizations, receipts of donor-restricted cash that is limited to long-term purposes

Items under the financing activities section include:

- Dividends paid
- Sale or repurchase of the company's stock
- Net borrowings

7. Disclosure of noncash activities

Under IAS 7, noncash investing and financing activities are disclosed in footnotes to the financial statements. Under US GAAP, noncash activities may be disclosed in a footnote or within the cash flow statement itself. Noncash financing activities may include

- leasing to purchase an asset
- converting debt to equity
- exchanging noncash assets or liabilities for other noncash assets or liabilities
- issuing shares in exchange for assets

8. Preparation methods

The direct method of preparing a cash flow statement results in a more easily understood report. The indirect method is almost universally used, because FAS 95 requires a supplementary report similar to the indirect method if a company chooses to use the direct method.

- Direct method

  The direct method for creating a cash flow statement reports major classes of gross cash receipts and payments. Under IAS 7, dividends received may be reported under operating activities or under investing activities. If taxes paid are directly linked to operating activities, they are reported under operating activities; if the taxes are directly linked to investing activities or financing activities, they are reported under investing or financing activities.

- Indirect method

  The indirect method uses net-income as a starting point, makes adjustments for all transactions for non-cash items, then adjusts for all cash-based transactions. An increase in an asset account is subtracted from net income, and an increase in a liability account is added back to net income. This method converts accrual-basis net income (loss) into cash flow by using a series of additions and deductions.

9. Rules

The following rules are used to make adjustments for changes in current assets and liabilities, operating items not providing or using cash and nonoperating items.

- Decrease in noncash current assets are added to net income
- Increase in noncash current asset are subtracted from net income
- Increase in current liabilities are added to net income

- Decrease in current liabilities are subtracted from net income
- Expenses with no cash outflows are added back to net income
- Revenues with no cash inflows are subtracted from net income (depreciation expense is the only operating item that has no effect on cash flows in the period)
- Nonoperating losses are added back to net income
- Nonoperating gains are subtracted from net income

In Section 4 of this course you will cover these topics: Financial Statement Analysis Introduction To Management Accounting Job Order Costing Process Costing Cost-Volume-Profit Analysis
You may take as much time as you want to complete the topic coverd in section 4. There is no time limit to finish any Section, However you must finish All Sections before semester end date.
If you want to continue remaining courses later, you may save the course and leave. You can continue later as per your convenience and this course will be avalible in your area to save and continue later

: Financial Statement Analysis

Topic Objective:

At the end of this topic students will be able to understand:

- Financial statements

- Purpose of financial statements
- Government financial statements
- Audit and legal implications
- Standards and regulations
- Inclusion in annual reports

Definition/Overview:

Financial statements: (or financial reports) are formal records of a business' financial activities.

Key Points:

1. Financial statements

Financial statements provide an overview of a business' financial condition in both short and long term. There are four basic financial statements:

- Balance sheet: also referred to as statement of financial position or condition, reports on a company's assets, liabilities, and net equity as of a given point in time.
- Income statement: also referred to as Profit and Loss statement (or a "P&L"), reports on a company's income, expenses, and profits over a period of time.
- Statement of retained earnings: explains the changes in a company's retained earnings over the reporting period.
- Statement of cash flows: reports on a company's cash flow activities, particularly its operating, investing and financing activities.

For large corporations, these statements are often complex and may include an extensive set of notes to the financial statements and management discussion and analysis. The notes typically describe each item on the balance sheet, income statement and cash flow statement in further detail. Notes to financial statements are considered an integral part of the financial statements.

2. Purpose of financial statements

"The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions." Financial statements should be understandable, relevant, reliable and comparable. Reported assets, liabilities and equity are directly related to an organization's financial position. Reported income and expenses are directly related to an organization's financial performance. Financial statements are intended to be understandable by readers who have "a reasonable knowledge of business and economic activities and accounting and who are willing to study the information diligently."

3. Government financial statements

The rules for the recording, measurement and presentation of government financial statements may be different from those required for business and even for non-profit organizations. They may use either of two accounting methods: accrual accounting, or cash accounting, or a combination of the two. A complete set of chart of accounts is also used that is substantially different from the chart of a profit-oriented business

4. Audit and legal implications

Although the legal statutes may differ from country to country, an audit of financial statements are usually, but not exclusively required for investment, financing, and tax purposes. These are usually performed by independent accountants or auditing firms. Results of the audit are summarized in an audit report that either provide an unqualified opinion on the financial statements or qualifications as to its fairness and accuracy. The audit opinion on the financial statements is usually included in the annual report. There has been much legal debate over who an auditor is liable to. Since audit reports tend to be addressed to the current shareholders, it is commonly thought that they owe a legal duty of care to them. But this may not be the case as determined by common law precedent. In Canada, auditors are liable only to investors using a prospectus to buy shares in the primary market. In the United Kingdom, they have been held liable to potential investors when the auditor was aware of the potential investor and how they would use the information in the financial statements. Nowadays auditors tend to include in their report liability restricting language, discouraging anyone other than the addressees of their report from relying on it. Liability is an important issue: in the UK, for example, auditors have unlimited liability.

In the United States, especially in the post-Enron era there has been substantial concern about the accuracy of financial statements. Corporate officers (the chief executive officer (CEO) and chief financial officer (CFO)) are personally liable for attesting that financial statements "do not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by th[e] report." Making or certifying misleading financial statements exposes the people involved to substantial civil and criminal liability. For example Bernie Ebbers (former CEO of WorldCom) was sentenced to 25 years in federal prison for allowing WorldCom's revenues to be overstated by $11 billion over five years.

5. Standards and regulations

Different countries have developed their own accounting principles over time, making international comparisons of companies difficult. To ensure uniformity and comparability between financial statements prepared by different companies, a set of guidelines and rules are used. Commonly referred to as Generally Accepted Accounting Principles (GAAP), these set of guidelines provide the basis in the preparation of financial statements. Recently there has been a push towards standardizing accounting rules made by the International Accounting Standards

Board ("IASB"). IASB develops International Financial Reporting Standards that have been adopted by Australia, Canada and the European Union (for publicly quoted companies only), are under consideration in South Africa and other countries. The United States Financial Accounting Standards Board has made a commitment to converge the U.S. GAAP and IFRS over time.

6. Inclusion in annual reports

To entice new investors, most public companies assemble their financial statements on fine paper with pleasing graphics and photos in an annual report to shareholders, attempting to capture the excitement and culture of the organization in a "marketing brochure" of sorts. Usually the company's chief executive will write a letter to shareholders, describing management's performance and the company's financial highlights.

In the United States, prior to the advent of the internet, the annual report was considered the most effective way for corporations to communicate with individual shareholders. Blue chip companies went to great expense to produce and mail out attractive annual reports to every shareholder. The annual report was often prepared in the style of a coffee table book

: Introduction To Management Accounting

Topic Objective:

At the end of this topic students will be able to understand:

- Financial statements
- Purpose of financial statements
- Government financial statements
- Audit and legal implications
- Standards and regulations

- Inclusion in annual reports

Definition/Overview:

Management accounting is concerned with the provisions and use of accounting information to managers within organizations, to provide them with the basis to make informed business decisions that will allow them to be better equipped in their management and control functions.

Key Points:

1. Management accounting

In contrast to financial accountancy information, management accounting information is:

- usually confidential and used by management, instead of publicly reported;
- forward-looking, instead of historical;
- pragmatically computed using extensive management information systems and internal controls, instead of complying with accounting standards.

This is because of the different emphasis: management accounting information is used within an organization, typically for decision-making.

According to the Chartered Institute of Management Accountants (CIMA), Management Accounting is "the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its Resource (economics) resources. Management accounting also comprises the preparation of financial reports for non management groups such as shareholder's, creditor's, regulatory agencies and tax authorities" (CIMA Official Terminology) The American Institute of Certified Public

Accountants(AICPA) states that management accounting as practice extends to the following three areas:

- Strategic ManagementAdvancing the role of the management accountant as a strategic partner in the organization.
- Performance ManagementDeveloping the practice of business decision-making and managing the performance of the organization.
- Risk ManagementContributing to frameworks and practices for identifying, measuring, managing and reporting risks to the achievement of the objectives of the organization.

The Institute of Certified Management Accountants (ICMA), states "A management accountant applies his or her professional knowledge and skill in the preparation and presentation of financial and other decision oriented information in such a way as to assist management in the formulation of policies and in the planning and control of the operation of the undertaking. Management Accountants therefore are seen as the "value-creators" amongst the accountants. They are much more interested in forward looking and taking decisions that will affect the future of the organization, than in the historical recording and compliance (scorekeeping) aspects of the profession. Management accounting knowledge and experience can therefore be obtained from varied fields and functions within an organization, such as information management, treasury, efficiency auditing, marketing, valuation, pricing, logistics, etc."

2. Aims

- Formulating strategy|strategies
- Planning and constructing business activities
- Helps in making decision
- Optimal use of Resource (economics)
- Supporting financial reports preparation

- Safeguarding asset

3. Traditional vs. innovative management accounting practices

In the late 1980s, accounting practitioners and educators were heavily criticized on the grounds that management accounting practices (and, even more so, the curriculum taught to accounting students) had changed little over the preceding 60 years, despite radical changes in the business environment. Professional accounting institutes, perhaps fearing that management accountants would increasingly be seen as superfluous in business organizations, subsequently devoted considerable resources to the development of a more innovative skills set for management accountants. The distinction between traditional and innovative management accounting practices can be illustrated by reference to cost control techniques. Cost accounting is a central method in management accounting, and traditionally, management accountants principal technique was *variance analysis*, which is a systematic approach to the comparison of the actual and budgeted costs of the raw materials and labor used during a production period.

While some form of variance analysis is still used by most manufacturing firms, it nowadays tends to be used in conjunction with innovative techniques such as *life cycle cost analysis* and *activity-based costing*, which are designed with specific aspects of the modern business environment in mind. *Lifecycle costing* recognizes that managers ability to influence the cost of manufacturing a product is at its greatest when the product is still at the design stage of its product lifecycle (i.e., before the design has been finalised and production commenced), since small changes to the product design may lead to significant savings in the cost of manufacturing the product. *Activity-based costing* (ABC) recognizes that, in modern factories, most manufacturing costs are determined by the amount of activities (e.g., the number of production runs per month, and the amount of production equipment idle time) and that the key to effective cost control is therefore optimizing the efficiency of these activities. Activity-based accounting is also known as *Cause and Effect accounting*.

Both lifecycle costing and activity-based costing recognize that, in the typical modern factory, the avoidance of disruptive events (such as machine breakdowns and quality control failures) is of far greater importance than (for example) reducing the costs of raw materials. Activity-based costing also deemphasizes direct labor as a cost driver and concentrates instead on activities that drive costs, such as the provision of a service or the production of a product component.

4. Role of Management Accountants within the Corporation

Consistent with other roles in today's corporation, management accountants have a dual reporting relationship. As a strategic partner and provider of decision based financial and operational information, management accountants are responsible for managing the business team and at the same time having to report relationships and responsibilities to the corporation's finance organization. The activities management accountants provide inclusive of forecasting and planning, performing variance analysis, reviewing and monitoring costs inherent in the business are ones that have dual accountability to both finance and the business team. Examples of tasks where accountability may be more meaningful to the business management team vs. the corporate finance department are the development of new product costing, operations research, business driver metrics, sales management scorecarding, and client profitability analysis. Conversely, the preparation of certain financial reports, reconciliations of the financial data to source systems, risk and regulatory reporting will be more useful to the corporate finance team as they are charged with aggregating certain financial information from all segments of the corporation. One widely held view of the progression of the accounting and finance career path is that financial accounting is a stepping stone to management accounting. Consistent with the notion of value creation, management accountants help drive the success of the business while strict financial accounting is more of a compliance and historical endeavor.

5. Specific Concepts

- Grenzplankostenrechnung (GPK)

Grenzplankostenrechnung (GPK) is a German costing methodology, developed in the late 1940's and 1950's, designed to provide a consistent and accurate application of how managerial costs are calculated and assigned to a product or service. The term Grenzplankostenrechnung, often referred to as GPK, has best been translated as either *Marginal Planned Cost Accounting* or *Flexible Analytic Cost Planning and Accounting*. The origins of GPK are credited to Hans George Plaut, an automotive engineer and Wolfgang Kilger, an academic, working towards the mutual goal of identifying and delivering a sustained methodology designed to correct and enhance cost accounting information. GPK is published in cost accounting textbooks, notably *Flexible Plankostenrechnung und Deckungsbeitragsrechnung* and taught at German-speaking universities today.

- Lean Accounting (accounting for lean enterprise)

In the mid to late 1990s several books were written about accounting in the lean enterprise (companies implementing elements of the Toyota Production System). The term lean accounting was coined during that period. These books contest that traditional accounting methods are better suited for mass production and do not support or measure good business practices in just in time manufacturing and services. The movement reached a tipping point during the 2005 Lean Accounting Summit in Dearborn, MI. 320 individuals attended and discussed the merits of a new approach to accounting in the lean enterprise. 520 individuals attended the 2nd annual conference in 2006.

- Resource Consumption Accounting (RCA)

Resource Consumption Accounting is formally defined as a dynamic, fully integrated, principle-based, and comprehensive management accounting approach that provides managers with decision support information for enterprise optimization. RCA emerged as a management accounting approach around 2000 and was subsequently developed at CAM-I the Consortium for Advanced ManufacturingInternational, in a Cost Management Section *RCA interest group*in December 2001. After spending the next seven years carefully refining and validating the approach through practical case studies and other research, a group of interested academics and practitioners established the RCA Institute to introduce RCA to the marketplace and raise the standard of management accounting knowledge by encouraging disciplined practices.

- Throughput Accounting

The most significant, recent direction in managerial accounting is throughput accounting; which recognizes the interdependencies of modern production processes. For any given product, customer or supplier, it is a tool to measure the contribution per unit of constrained resource.

- Transfer Pricing

Management accounting is an applied discipline used in various industries. The specific functions and principles followed can vary based on the industry. Management accounting principles in banking are specialized but do have some common fundamental concepts used whether the industry is manufacturing based or service oriented. For example, transfer pricing is a concept used in manufacturing but is also applied in banking. It is a fundamental principle used in assigning value and revenue attribution to the various business units. Essentially, transfer pricing in banking is the method of assigning the interest rate risk of the bank to the various funding sources and uses of the enterprise. Thus, the bank's corporate treasury department will assign funding charges to the business units for their use of the bank's resources when they make loans to clients. The treasury department will also assign funding credit to business units who bring in deposits (resources) to the bank. Although the funds transfer pricing process is primarily applicable to the loans and deposits of the various banking units, this proactive is applied to all assets and liabilities of the business segment. Once transfer pricing is applied and any other management accounting entries or adjustments are posted to the ledger (which are usually memo accounts and are not included in the legal entity results), the business units are able to produce segment financial results which are used by both internal and external users to evaluate performance.

6. Management Accounting Tasks/ Services Provided

Listed below are the primary tasks/ services performed by management accountants. The degree of complexity relative to these activities are dependent on the experience level and abilities of any one individual.

- Variance Analysis

- Rate & Volume Analysis
- Business Metrics Development
- Price Modeling
- Product Profitability
- Geographic vs. Industry or Client Segment Reporting
- Sales Management Scorecards
- Cost Analysis
- Cost Benefit Analysis
- Cost-Volume-Profit Analysis
- Life cycle cost analysis
- Client Profitability Analysis
- Capital Budgeting
- Buy vs. Lease Analysis
- Strategic Planning
- Strategic Management Advise
- Internal Financial Presentation and Communication
- Sales and Financial Forecasting
- Annual Budgeting
- Cost Allocation
- Resource Allocation and Utilization

: Job Order Costing

Topic Objective:

At the end of this topic students will be able to understand:

- The Job-Order Costing Process
- Application
- Job Order Costing versus Process Costing

Definition/Overview:

Job Order Costing: In a job costing system, costs are accumulated by job. For a typical job, direct material and direct labor are tracked at their actual values. These are recorded and tracked until the job is completed. Overhead is applied either by using a rate based on direct labor hours or by using an Activity Based Costing (ABC) cost driver. In either case, once overhead is added, the total cost for the job can be determined. Upon completion, the costs are transferred out of Work in Process to Finished Goods (Cost of Goods Sold for service industries).

Key Points:

1. The Job-Order Costing Process

Job-order costing is a cost system that is used to accumulate costs by jobs. These jobs could also be called batches, as each job is generally a batch of similar products. Each batch should be individualized in some way to make it differentiated from other batches for it to be a separate job. If batches were all identical, another type of costing would be more appropriate.

When a company operates using job-order costing, a specific set of events will usually occur with each job. Generally, the process is as follows:

- An order (or sales order) is received for the batch of products
- A production order is issued from the sales order
- Materials and labor are ordered and tracked for the set of products
- Manufacturing overhead is allocated to the job using a predetermined rate (usually per labor hour or per machine hour)
- Actual manufacturing overhead will not affect the work-in-process account, instead it is charged to a control account
- Direct labor and materials are charged by the accountant to the work-in-process accounts using the actual amounts incurred
- These amounts are all tracked using a job-costing sheet, which will most likely be in a computerized format and a subsidiary ledger is kept for each job
- Abnormal spoilage (spoilage that is above and beyond what would be expected from the job) is considered a period cost and is reclassified from the work-in-process account into a separate account so it can be addressed by management.

2. Application

Job-order costing is a type of costing that can be used in many different industries, although not all. Industries that sell items in batches will be able to use job-order costing most effectively. For example, a T-shirt company that makes batches of T-shirts with company logos on them may use job-order costing, each company they work for could be classified as an individual job. Job-order costing would probably not be used in other industries such as general manufacturing, as products may not be specialized and therefore would not be classified in batches.

3. Job Order Costing versus Process Costing

Job order costing is fundamental to managerial accounting. It differs from Process costing in that the flow of costs is traced by job instead of by process. For instance, think of an assembly line making cookies. Job order costing would track how much material is placed in each cookie. Process costing tracks the amount of dough used, the baking time, and other aspects of the process of making cookies. Job costing is typically used for special orders or when the product made is unique. Process costing is used when the products are more homogeneous in nature

: Process Costing

Topic Objective:

At the end of this topic students will be able to understand:

- Process costing
- Reasons for use

Definition/Overview:

Process costing is an accounting methodology that traces and accumulates direct costs, and allocates indirect costs of a manufacturing process. Costs are assigned to products, usually in a large batch, which might include an entire month's production. Eventually, costs have to be allocated to individual units of product. It assigns average costs to each unit, and is the opposite extreme of Job costing which attempts to measure individual costs of production of each unit. Process costing is usually a significant chapter.

Key Points:

1. Process costing

Process costing is a type of operation costing which is used to ascertain the cost of a product at each process or stage of manufacture. CIMA defines process costing as "The costing method applicable where goods or services result from a sequence of continuous or repetitive operations or processes. Costs are averaged over the units produced during the period". Process costing is suitable for industries producing homogeneous products and where production is a continuous flow. A process can be referred to as the sub-unit of an organization specifically defined for cost collection purpose.

2. Reasons for use

Companies need to allocate total product costs to units of product for the following reasons:

- A company may manufacture thousands or millions of units of product in a given period of time.
- Products are manufactured in large quantities, but products may be sold in small quantities, sometimes one at a time (automobiles, loaves of bread), a dozen or two at a time (eggs, cookies), etc.
- Product costs must be transferred from Finished Goods to Cost of Goods Sold as sales are made. This requires a correct and accurate accounting of product costs per unit, to have a proper matching of product costs against related sales revenue. *Managers need to maintain cost control over the manufacturing process. Process costing provides managers with feedback that can be used to compare similar product costs from one month to the next, keeping costs in line with projected manufacturing budgets.
- A fraction-of-a-cent cost change can represent a large dollar change in overall profitability, when selling millions of units of product a month. Managers must carefully watch per unit costs on a daily basis through the production process, while at the same time dealing with materials and output in huge quantities.

- Materials part way through a process (e.g. chemicals) might need to be given a value, process costing allows for this. By determining what cost the part processed material has incurred such as labor or overhead an "equivalent unit" relative to the value of a finished process can be calculated

: Cost-Volume-Profit Analysis

Topic Objective:

At the end of this topic students will be able to understand:

- Cost-Volume-Profit Analysis
- Assumptions
- Model
- Applications
- Limitations

Definition/Overview:

Cost-Volume-Profit Analysis (**CVP**) is a form of cost accounting. It is a simplified model, useful for elementary instruction and for short-run decisions.

Key Points:

1. Cost-Volume-Profit Analysis

COST-VOLUME-PROFIT ANALYSIS Cost-volume-profit (CVP) analysis expands the use of information provided by breakeven analysis. A critical part of CVP analysis is the point where total revenues equal total costs (both fixed and variable costs). At this breakeven point (BEP), a company will experience no income or loss. This BEP can be an initial examination that precedes more detailed CVP analyses. Cost-volume-profit analysis employs the same basic assumptions as in breakeven analysis. The assumptions underlying CVP analysis are:

The behavior of both costs and revenues is linear throughout the relevant range of activity. (This assumption precludes the concept of volume discounts on either purchased materials or sales.) Costs can be classified accurately as either fixed or variable. Changes in activity are the only factors that affect costs. All units produced are sold (there is no ending finished goods inventory). When a company sells more than one type of product, the sales mix (the ratio of each product to total sales) will remain constant.

2. Assumptions

CVP assumes the following:

- Constant sales price;
- Constant variable cost per unit;
- Constant total fixed cost;
- Constant sales mix;
- Units sold equal units produced.

These are simplifying, largely linearizing assumptions, which are often implicitly assumed in elementary discussions of beanie wienies. In more advanced treatments and practice, costs and revenue are nonlinear and the analysis is more complicated, but the intuition afforded by linear CVP remains basic and useful.

One of the main Methods of calculating CVP is Profit volume ratio: which is (contribution /sales)*100 = this gives us profit volume ratio.

- contribution stands for Sales minus variable costs.

Therefore it gives us the profit added per unit of variable costs.

3. Model

Basic graph of CVP, demonstrating relation of Total Costs, Sales, and Profit and Loss.

The assumptions of the CVP model yield the following linear equations for total costs and total revenue (sales):

These are linear because of the assumptions of constant costs and prices, and there is no distinction between Units Produced and Units Sold, as these are assumed to be equal. Note that when such a chart is drawn, the linear CVP model is assumed, often implicitly.

In symbols:

Where:

- TC = Total Costs
- TFC = Total Fixed Costs
- V = Unit Variable Cost (Variable Cost per Unit)
- X = Number of Units
- TR = S = Total Revenue = Sales
- P = (Unit) Sales Price

Profit is computed as TR-TC; it is a profit if positive, a loss if negative.

Costs and Sales can be broken down, which provide further insight into operations.

Decomposing Total Costs as Fixed Costs plus Variable Costs.

One can decompose Total Costs as Fixed Costs plus Variable Costs:

Decomposing Sales as Contribution plus Variable Costs.

Following a matching principle of matching a portion of sales against variable costs, one can decompose Sales as Contribution plus Variable Costs, where **contribution** is "what's left after deducting variable costs". One can think of contribution as "the marginal contribution of a unit to the profit", or "contribution towards offsetting fixed costs".

In symbols:

Where:

C = Unit Contribution (Margin)

Profit and Loss as Contribution minus Fixed Costs.

Subtracting Variable Costs from both Costs and Sales yields the simplified diagram and equation for Profit and Loss.

In symbols:

Diagram relating all quantities in CVP.

These diagrams can be related by a rather busy diagram, which demonstrates how if one subtracts Variable Costs, the Sales and Total Costs lines shift down to become the Contribution and Fixed Costs lines. Note that the Profit and Loss for any given number of unit sales is the same, and in particular the break-even point is the same, whether one computes by Sales = Total Costs or as Contribution = Fixed Costs.

4. Applications

CVP simplifies the computation of breakeven in break even analysis, and more generally allows simple computation of Target Income Sales. It simplifies analysis of short run trade-offs in operational decisions.

5. Limitations

CVP is a **short run**, **marginal** analysis: it assumes that unit variable costs and unit revenues are constant, which is appropriate for small deviations from current production and sales, and assumes a neat division between fixed costs and variable costs, though in the long run all costs are variable. For longer-term analysis that considers the entire life-cycle of a product, one therefore often prefers activity-based costing or throughput accounting

In Section 5 of this course you will cover these topics: The Master Budget And Responsibility Accounting Flexible Budgets And Standard Costs Activity-Based Costing And Other Cost Management Tools Special Decisions And Capital Budgeting
You may take as much time as you want to complete the topic coverd in section 5. There is no time limit to finish any Section, However you must finish All Sections before semester end date.
If you want to continue remaining courses later, you may save the course and leave. You can continue later as per your convenience and this course will be avalible in your area to save and continue later

: The Master Budget And Responsibility Accounting

Topic Objective:

At the end of this topic students will be able to understand:

- Business start-up budget
- Corporate budget
- Event management budget
- Government budget

Definition/Overview:

Budget (from French *bougette*, purse) generally refers to a list of all planned expenses and revenues. A budget is an important concept in microeconomics, which uses a budget line to illustrate the trade-offs between two or more goods. In other terms, a budget is an organizational plan stated in monetary terms.

Key Points:

1. Business start-up budget

The process of calculating the costs of starting a small business begins with a list of all necessary purchases including tangible assets (for example, equipment, inventory) and services (for example, remodeling, insurance), working capital, sources and collateral. The budget should contain a narrative explaining how you decided on the amount of this reserve and a description of the expected financial results of business activities. The assets should be valued with each and every cost.

2. Corporate budget

The budget of a company is compiled annually. A finished budget usually requires considerable effort and can be seen as a financial plan for the new financial year. While traditionally the Finance department compiles the company's budget, modern software allows hundreds or even thousands of people in various departments (operations, human resources, IT etc) to contribute their expected revenues and expenses to the final budget. If the actual numbers delivered through the financial year turn come close to the budget, this suggests that the managers understand their business and have been successfully driving it in the intended direction. On the other hand, if the actual diverge wildly from the budget, this sends an 'out of control' signal, and the share price could suffer as a result.

3. Event management budget

A budget and planning tool to assist in calculating and meeting the costs associated with a business or social event. It is a fundamental tool that enables the event director to predict with reasonable accuracy whether the event will result in a profit, a loss or will break-even. In addition to the above a budget can be used as a pricing tools.

4. Government budget

The budget of a government is a summary or plan of the intended revenues and expenditures of that government. The United States federal budget is prepared by the Office of Management and Budget, and submitted to Congress for consideration. Invariably, Congress makes many and substantial changes. Nearly all American states are required to have balanced budgets, but the federal government is allowed to run deficits. The United Kingdom budget is prepared by the Chancellor of the Exchequer, the second most important member of the government, and must be passed by Parliament. Parliament seldom makes changes to the budget.

5. Personal or family budget

In a personal or family budget all sources of income (inflows) are identified and expenses (outflows) are planned with the intent of matching outflows to inflows (making ends meet.) In consumer theory, the equation restricting an individual or household to spend no more than its total resources is often called the budget constraint.

6. Budget types

- Sales budget: The sales budget is an estimate of future sales, often broken down into both units and dollars. It is used to create company sales goals.

- Production budget: Product oriented companies create a production budget which estimates the number of units that must be manufactured to meet the sales goals. The production budget also estimates the various costs involved with manufacturing those units, including labor and material.

- Cash Flow/Cash budget: The cash flow budget is a prediction of future cash receipts and expenditures for a particular time period. It usually covers a period in the short term future. The cash flow budget helps the business determine when income will be sufficient to cover expenses and when the company will need to seek outside financing.

- Marketing budget: The marketing budget is an estimate of the funds needed for promotion, advertising, and public relations in order to market the product or service.

- Project budget: The project budget is a prediction of the costs associated with a particular company project. These costs include labor, materials, and other related expenses. The project budget is often broken down into specific tasks, with task budgets assigned to each.

- Revenue budget: The Revenue Budget consists of revenue receipts of government and the expenditure met from these revenues. Tax revenues are made up of taxes and other duties that the Union government levies.

- Expenditure budget: A budget type which includes spending data items

: Flexible Budgets And Standard Costs

Topic Objective:

At the end of this topic students will be able to understand:

- Business start-up budget

- Corporate budget

- Event management budget

- Government budget

Definition/Overview:

A **budget report** is prepared to show how actual results compare to the budgeted numbers. It has columns for the actual and budgeted amounts and the differences, or variances, between these amounts. A variance may be favorable or unfavorable. On an income statement budget report, think of how the variance affects net income, and you will know if it is a favorable or unfavorable variance. If the actual results cause net income to be higher than budgeted net income (such as more revenues than budgeted or lower than budgeted costs), the variance is favorable. If actual net income is lower than planned (lower revenues than planned and/or higher costs than planned), the variance is unfavorable. So higher revenues cause a favorable variance, while higher costs and expenses cause an unfavorable variance.

Key Points:

1. Flexible Budget

Although the budget report shows variances, it does not explain the reasons for the variance. The budget report is used by management to identify the sales or expenses whose amounts are not what were expected so management can find out why the variances occurred. By understanding the variances, management can decide whether any action is needed. Favorable variances are usually positive amounts, and unfavorable variances are usually negative amounts. Some textbooks show budget reports with F for favorable and U for unfavorable after the variances to further highlight the type of variance being reported.

Pick Up Trucks Company Budget Report For the Second Quarter 20X1

	Actual	**Budget**	**VarianceFavorable/(Unfavorable)**
Sales Units	17,500	17,000	
Sales	$259,000	$255,000	$ 4,000
Cost of Goods Sold	196,875	191,250	(5,625)
Gross Profit	62,125	63,750	(1,625)
Selling Expenses	24,610	24,400	(210)
General and Administrative Expenses	20,250	20,250	0
Operating Income	17,265	19,100	(1,835)
Interest Expense	0	0	0
Income before	17,265	19,100	(1,835)Income Taxes
Income Taxes	6,906	7,640	734
Net Income	$ 10,359	$ 11,460	($1,101)

Actual net income is unfavorable compared to the budget. What is not known from looking at it is why the variances occurred. For example, were more units sold? Was the selling price different than expected? Were costs higher? Or was it all of the above? These are the kinds of questions management needs answers to. In fact, an analysis of this budget report shows sales were actually 17,500 pickup trucks instead of the 17,000 pickup trucks planned; the average selling price was $14.80 per truck instead of the expected $15.00 per truck; and the cost per truck was $11.25 as budgeted.

2. Static budgets

They are geared to one level of activity. They work well for evaluating performance when the planned level of activity is the same as the actual level of activity, or when the budget report is prepared for fixed costs. However, if actual performance in a given month or quarter is different from the planned amount, it is difficult to determine whether costs were controlled. Flexible budgets are one way companies deal with different levels of activity. A **flexible budget** provides budgeted data for different levels of activity. Another way of thinking of a flexible budget is a number of static budgets. For example, a restaurant may serve 100, 150, or 300 customers an evening. If a budget is prepared assuming 100 customers will be served, how will the managers be evaluated if 300 customers are served? Similar scenarios exist with merchandising and manufacturing companies. To effectively evaluate the restaurant's performance in controlling costs, management must use a budget prepared for the actual level of activity. This does not mean management ignores differences in sales level, or customers eating in a restaurant, because those differences and the management actions that caused them need to be evaluated, too.

The budget report for the Pickup Trucks Company is a static budget because the budgeted level of units is the same number of units as the original budget. It was not changed for the higher sales level. If it had, the budget report would be as follows:

Pick Up Trucks Company Flexible Budget Report For the Second Quarter 20X1

	Actual	**Budget**	**VarianceFavorable/(Unfavorable)**
Sales: Expected 17,000			
Actual 17,500			
Sales Units	17,500	17,500	0
Sales	$259,000	$262,500	$(3,500)
Cost of Goods Sold	196,875	196,875	0
Gross Profit	62,125	65,625	(3,500)
Selling Expenses	24,610	24,750	140
General and Administrative Expenses	20,250	20,250	0
Operating Income	17,265	20,625	(3,360)
Interest Expense	0	0	0
Income before Income Taxes	17,265	20,625	(3,360)

Income Taxes	6,906	8,250	1,344
Net Income	$ 10,359	$ 12,375	$(2,016)

The flexible budget shows an even higher unfavorable variance than the static budget. This does not always happen but is why flexible budgets are important for giving management an indication of what questions need to be asked.

3. Preparation of a Flexible Budget

The flexible budget uses the same selling price and cost assumptions as the original budget. Variable and fixed costs do not change categories. The *variable* amounts are recalculated using the actual level of activity, which in the case of the income statement is sales units. Each flexible budget line will be discussed separately.

- Sales. The original budget assumed 17,000 Pickup Trucks would be sold at $15 each. To prepare the flexible budget, the units will change to 17,500 trucks, and the actual sales level and the selling price will remain the same. The $262,500 is 17,500 trucks times $15 per truck. The variance that exists now is simply due to price. Given that the variance is unfavorable, management knows the trucks were sold at a price below the $15 budgeted selling price.
- Cost of Goods Sold. Using the cost data from the budgeted income statement, the expected total cost to produce one truck was $11.25. The flexible budget cost of goods sold of $196,875 is $11.25 per pick up truck times the 17,500 trucks sold. The lack of a variance indicates that costs in total (materials, labor, and overhead) were the same as planned.
- Selling Expenses. The original budget for selling expenses included variable and fixed expenses. To determine the flexible budget amount, the two variable costs need to be updated. The new budget for sales commissions is $10,500 ($262,500 sales times 4%), and the new budget for

delivery expense is $1,750 (17,500 units times 10%). These are added to the fixed costs of $12,500 to get the flexible budget amount of $24,750.

- General and Administrative Expenses. This flexible budget is unchanged from the original (static budget) because it consists only of fixed costs which, by definition, do not change if the activity level changes.
- Income Taxes. Income taxes are budgeted as 40% of income before income taxes. The flexible budget for income before income taxes is $20,625, and 40% of that balance is $8,250. Actual expenses are lower because the income before income taxes was lower. The actual tax rate is also 40%.
- Net Income. Total net income changes as the amount for each line on the income statement changes. The net variance in this example is mainly due to lower revenues.

The important thing to remember in preparing a flexible budget is that if an amount, cost or revenue, was variable when the original budget was prepared, that amount is still variable and will need to be recalculated when preparing a flexible budget. If, however, the cost was identified as a fixed cost, no changes are made in the budgeted amount when the flexible budget is prepared. Differences may occur in fixed expenses, but they are not related to changes in activity within the relevant range. Budget reports can be a useful tool for evaluating a manager's effectiveness only if they contain the appropriate information. When preparing budget reports, it is important to include in the report the items the manager can control. If a manager is only responsible for a department's costs, to include all the manufacturing costs or net income for the company would not result in a fair evaluation of the manager's performance. If, however, the manager is the Chief Executive Officer, the entire income statement should be used in evaluating performance

: Activity-Based Costing And Other Cost Management Tools

Topic Objective:

At the end of this topic students will be able to understand:

- Activity-Based Costing (ABC
- Historical development
- Methodology
- Uses
- Limitations
- Cost
- Prevalence
- Public sector use

Definition/Overview:

Activity-Based Costing (**ABC**) is a costing model that identifies activities in an organization and assigns the cost of each activity resource to all products and services according to the actual consumption by each: it assigns more indirect costs (overhead) into direct costs. In this way an organization can establish the true cost of its individual products and services for the purposes of identifying and eliminating those which are unprofitable and lowering the prices of those which are overpriced.

Key Points:

1. Activity-Based Costing (ABC)

In this way an organization can establish the true cost of its individual products and services for the purposes of identifying and eliminating those which are unprofitable and lowering the prices of those which are overpriced.

In a business organization, the ABC methodology assigns an organization's resource costs through activities to the products and services provided to its customers. It is generally used as a tool for understanding product and customer cost and profitability. As such, ABC has predominantly been used to support strategic decisions such as pricing, outsourcing and identification and measurement of process improvement initiatives.

2. Historical development

Traditionally cost accountants had arbitrarily added a broad percentage of expenses onto the direct costs to allow for the indirect costs. However, as the percentages of indirect or overhead costs had risen, this technique became increasingly inaccurate because the indirect costs were not caused equally by all the products. For example, one product might take more time in one expensive machine than another product, but since the amount of direct labor and materials might be the same, the additional cost for the use of the machine would not be recognised when the same broad 'on-cost' percentage is added to all products. Consequently, when multiple products share common costs, there is a danger of one product subsidizing another.

The concepts of ABC were developed in the manufacturing sector of the United States during the 1970s and 1980s. During this time, the Consortium for Advanced Management-International, now known simply as CAM-I, provided a formative role for studying and formalizing the principles that have become more formally known as Activity-Based Costing. Robin Cooper and Robert S. Kaplan, proponent of the Balanced Scorecard, brought notice to these concepts in a number of articles published in *Harvard Business Review* beginning in 1988. Cooper and Kaplan described ABC as an approach to solve the problems of traditional cost management systems.

These traditional costing systems are often unable to determine accurately the actual costs of production and of the costs of related services. Consequently managers were making decisions based on inaccurate data especially where there are multiple products. Instead of using broad arbitrary percentages to allocate costs, ABC seeks to identify cause and effect relationships to objectively assign costs. Once costs of the activities have been identified, the cost of each activity is attributed to each product to the extent that the product uses the activity. In this way ABC often identifies areas of high overhead costs per unit and so directs attention to finding ways to reduce the costs or to charge more for costly products.

Activity-based costing was first clearly defined in 1987 by Robert S. Kaplan and W. Bruns as a chapter in their book *Accounting and Management: A Field Study Perspective*. They initially focused on manufacturing industry where increasing technology and productivity improvements have reduced the relative proportion of the direct costs of labor and materials, but have increased relative proportion of indirect costs. For example, increased automation has reduced labor, which is a direct cost, but has increased depreciation, which is an indirect cost. Like manufacturing industries, financial institutions also have diverse products and customers which can cause cross-product cross-customer subsidies. Since personnel expenses represent the largest single component of non-interest expense in financial institutions, these costs must also be attributed more accurately to products and customers. Activity based costing, even though originally developed for manufacturing, may even be a more useful tool for doing this.

3. Methodology

- Cost center
- Cost allocation
- Fixed cost
- Variable cost
- Cost driver

- Cost driver rate

Direct labour and materials are relatively easy to trace directly to products, but it is more difficult to directly allocate indirect costs to products. Where products use common resources differently, some sort of weighting is needed in the cost allocation process. The measure of the use of a shared activity by each of the products is known as the **cost driver**. For example, the cost of the activity of bank tellers can be ascribed to each product by measuring how long each product's transactions takes at the counter and then by measuring the number of each type of transaction.

4. Uses

- It helps to identify inefficient product, department and activity
- It helps to allocate more resources on profitable product, department and activity
- It helps to control the cost at individual level and on departmental level
- It helps to find unneccesary costs

5. Limitations

Even in activity-based costing, some overhead costs are difficult to assign to products and customers, for example the chief executive's salary. These costs are termed 'business sustaining' and are not assigned to products and customers because there is no meaningful method. This lump of unallocated overhead costs must nevertheless be met by contributions from each of the products, but it is not as large as the overhead costs before ABC is employed.

Although some may argue that costs untraceable to activities should be "arbitrarily allocated" to products, it is important to realize that the only purpose of ABC is to provide information to management. Therefore, there is no reason to assign any cost in an arbitrary manner.

6. Cost

ABC is considered a relatively costly accounting methodology, and whether it is good value is questioned. ABC has been found to be a very high-cost accounting technology. Installing an ABC system is technically complex, requiring talented personnel and a considerable amount of time and money.

7. Prevalence

Following initial enthusiasm, ABC lost ground in the 1990s, to alternative metrics, such as Kaplan's balanced scorecard and economic value added. ABC has stagnated over the last five to seven years.

8. Public sector use

ABC is widely used in the public sector, including by the United States Marine Corps. Its use by the UK Police has been mandated since the 2003-04 UK tax year as part of England and Wales National Policing Plan, specifically the Policing Performance Assessment Framework. An independent 2008 report concluded that ABC was an inefficient use of resources: it was expensive and difficult to implement for small gains, and a poor value, and that alternative methods should be used

: Special Decisions And Capital Budgeting

Topic Objective:

At the end of this topic students will be able to understand:

- Capital budgeting

- Net present value
- Internal rate of return
- Equivalent annuity method
- Real options
- Ranked Projects

Definition/Overview:

Capital budgeting: (or investment appraisal) is the planning process used to determine whether a firm's long term investments such as new machinery, replacement machinery, new plants, new products, and research development projects are worth pursuing.

Key Points:

1. Capital budgeting

Many formal methods are used in capital budgeting, including the techniques such as

- Net present value
- Profitability index
- Internal rate of return
- Modified Internal Rate of Return, and
- Equivalent annuity.

These methods use the incremental cash flows from each potential investment, or *project*. Techniques based on accounting earnings and accounting rules are sometimes used - though economists consider this to be improper - such as the *accounting rate of return,* and "return on investment." Simplified and hybrid methods are used as well, such as *payback period* and *discounted payback period*.

2. Net present value

Each potential project's value should be estimated using a discounted cash flow (DCF) valuation, to find its net present value (NPV). (First applied to Corporate Finance by Joel Dean in 1951; see also Fisher separation theorem, John Burr Williams: Theory.) This valuation requires estimating the size and timing of all of the incremental cash flows from the project. These future cash flows are then discounted to determine their *present value*. These present values are then summed, to get the NPV. See also Time value of money. The NPV decision rule is to accept all positive NPV projects in an unconstrained environment, or if projects are mutually exclusive, accept the one with the highest NPV (GE). The NPV is greatly affected by the discount rate, so selecting the proper rate - sometimes called the *hurdle rate* - is critical to making the right decision. The hurdle rate is the minimum acceptable return on an investment. It should reflect the riskiness of the investment, typically measured by the volatility of cash flows, and must take into account the financing mix. Managers may use models such as the CAPM or the APT to estimate a discount rate appropriate for each particular project, and use the weighted average cost of capital (*WACC*) to reflect the financing mix selected. A common practice in choosing a discount rate for a project is to apply a WACC that applies to the entire firm, but a higher discount rate may be more appropriate when a project's risk is higher than the risk of the firm as a whole.

3. Internal rate of return

The **internal rate of return** (IRR) is defined as the discount rate that gives a net present value (NPV) of zero. It is a commonly used measure of investment efficiency. The IRR method will result in the same decision as the NPV method for (non-mutually exclusive) projects in an unconstrained environment, in the usual cases where a negative cash flow occurs at the start of the project, followed by all positive cash flows. In most realistic cases, all independent projects that have an IRR higher than the hurdle rate should be accepted. Nevertheless, for mutually exclusive projects, the decision rule of taking the project with the highest IRR - which is often used - may select a project with a lower NPV. In some cases, several zero NPV discount rates may exist, so there is no unique IRR. The IRR exists and is unique if one or more years of net investment (negative cash flow) are followed by years of net revenues. But if the signs of the cash flows change more than once, there may be several IRRs. The IRR equation generally cannot be solved analytically but only via iterations. One shortcoming of the IRR method is that it is commonly misunderstood to convey the actual annual profitability of an investment. However, this is not the case because intermediate cash flows are almost never reinvested at the project's IRR; and, therefore, the actual rate of return is almost certainly going to be lower. Accordingly, a measure called Modified Internal Rate of Return (MIRR) is often used. Despite a strong academic preference for NPV, surveys indicate that executives prefer IRR over NPV, although they should be used in concert. In a budget-constrained environment, efficiency measures should be used to maximize the overall NPV of the firm. Some managers find it intuitively more appealing to evaluate investments in terms of percentage rates of return than dollars of NPV.

4. Equivalent annuity method

The *equivalent annuity* method expresses the NPV as an annualized cash flow by dividing it by the present value of the annuity factor. It is often used when assessing only the costs of specific projects that have the same cash inflows. In this form it is known as the *equivalent annual cost* (EAC) method and is the cost per year of owning and operating an asset over its entire lifespan. It is often used when comparing investment projects of unequal lifespans. For example if project A has an expected lifetime of 7 years, and project B has an expected lifetime of 11 years it would be improper to simply compare the net present values (NPVs) of the two projects, unless the projects could not be repeated.

The use of the EAC method implies that the project will be replaced by an identical project. Alternatively the *chain method* can be used with the NPV method under the assumption that the projects will be replaced with the same cash flows each time. To compare projects of unequal length, say 3 years and 4 years, the projects are *chained together*, i.e. four repetitions of the 3 year project are compare to three repetitions of the 4 year project. The chain method and the EAC method give mathematically equivalent answers. The assumption of the same cash flows for each link in the chain is essentially an assumption of zero inflation, so a real interest rate rather than a nominal interest rate is commonly used in the calculations.

5. Real options

Real options analysis has become important since the 1970s as option pricing models have gotten more sophisticated. The discounted cash flow methods essentially value projects as if they were risky bonds, with the promised cash flows known. But managers will have many choices of how to increase future cash inflows, or to decrease future cash outflows. In other words, managers get to manage the projects - not simply accept or reject them. Real options analysis tries to value the choices - the option value - that the managers will have in the future and adds these values to the NPV.

6. Ranked Projects

The real value of capital budgeting is to rank projects. Most organizations have many projects that could potentially be financially rewarding. Once it has been determined that a particular project has exceeded its hurdle, then it should be ranked against peer projects (e.g. - highest Profitability index to lowest Profitability index). The highest ranking projects should be implemented until the budgeted capital has been expended