CHAPTER 1

INTRODUCTION TO MANAGEMENT ACCOUNTING

Topic 1	Conceptual Understanding

Major Users and Their Financial Information Needs

1. **Owners/Investors:**
   Objective: Ascertain profitability and financial strength of the company.
2. **Management:**
   Objective: Support internal decision-making.
3. **Creditors:**
   Types: Trade creditors, debenture holders, bankers, lending institutions.
   Interest: Short-term and long-term position of the company.
4. **Regulatory Agencies:**
   Usage: Basis for tax assessment and evaluation of business operations under regulatory framework.
5. **Government:**
   Purpose: Compilation of statistics for national accounts.
6. **Potential Investors:**
   Purpose: Evaluate relative merits of various investment opportunities.
7. **Employees:**
   Interest: Earnings of the enterprise affecting their remuneration.
8. **Researchers:**
   Usage: Utilize accounting data in research on accounting theory and business affairs.

What is Management Accounting?

- **Definition:**
  - ✓ Integration of "management" (strategic organizational operations) and "accounting" (performance assessment).
  - ✓ Encompasses stewardship, control, and audit functions.
  - ✓ Aims to produce information for effective organizational management.
- **Information Characteristics**:
  - ✓ Can be financial or non-financial.
  - ✓ May be accurate or broadly correct.
  - ✓ Involves actual (certain) or estimated (uncertain) data.
  - ✓ Relates to the past or the future.
  - ✓ Can be detailed or highly aggregated.
  - ✓ Presented in various forms like numbers, tables, graphs.
  - ✓ Covers aspects such as profits/losses, costs/incomes, volumes, quality indicators, trends, etc.
- **Scope of "Management" Includes:**
  - ✓ Senior managers.
  - ✓ Mid-level managers.
  - ✓ Lower-level managers.
  - ✓ Executive directors with management responsibilities.

Scope and Significance of Management Accounting by CIMA	1. Inform strategic decisions and formulate business strategy 2. Plan long, medium and short-run operations 3. Determine capital structure 4. Design reward strategies for executives and shareholders 5. Inform operational decisions 6. Control operations and ensure the efficient use of resources 7. Measure and report financial/non-financial performance. 8. Safeguard tangible and intangible assets 9. Implement corporate governance, risk management and internal controls.
Definition of Management Accounting by Authors	1. **Garrison and Noreen (2000)**: Concerned with providing information to internal managers. Essential data for planning, controlling operations, and decision-making. 2. **Wilson and Way (1993):** Encompasses techniques providing financial and non-financial information. Aims to enhance organizational control and effectiveness through informed decision-making. 3. **Johnson and Kaplan (1987):** Management accounting theory originates from manufacturing needs. Developed to measure work-in-progress and inventory for financial and tax purposes. Challenges arise in the service sector due to the absence of inventory. 4. **Horngren, Datter, and Rajan (2015):** Defines managerial accounting as the process of measuring, analyzing, and reporting financial and nonfinancial information. Managers use it to develop, communicate, and implement strategies. Also used to coordinate product design, production, marketing decisions, and evaluate overall company performance.
Scope of Management Accounting	- Budgeting, planning and forecasting - Measuring organisational, divisional and departmental performance - Comparing results and performance within and between organisations - Assisting in the process of increasing effectiveness and efficiency - Assessing the performance of past and future capital investments - Advising on decisions about product mix, markets to be served and selling prices - Advising on decisions on whether to outsource products, components, activities and services - Advising on decisions involving the investment of scarce funds between a range of possible alternatives - Assisting in the making of a wide range of strategic decisions.

Evolution of Management Accounting

The International Accounting Federation (IFAC, 1998) has described the evolution of managerial accounting through four phases.

1. **Prior to 1950 (Classical Era):**
   Focus: Cost determination and financial control.
   Objective: Determine costs and financially control business processes.
   Main Focus: Cost of the product in a simple production technology.

2. **1950-1965 (Age of Information for Management Planning and Control):**
   Focus Shift: Information provision for planning and control.
   Techniques Introduced: Standard Costs and Profitability Analysis.
   Management Role: Shifted towards staff functions with internal focus.

3. **1965-1985 (Reduction of Waste in Production Processes):**
   Objective: Reduce waste by eliminating non-value activities.
   Context: Global competition growth, Japan's economic progress, and technological advancements.
   Emphasis: Adaptation to new business environment, simultaneous cost reduction, and quality improvement.

4. **1985-2000 (Creation of Value through Effective Resource Use):**
   Emphasis: Value creation through effective resource use.
   Context: Intensified competition, technological innovations.
   Techniques Dominant: Activity-based Cost (ABC), Production just in time (JIT), Target cost, Balanced scorecard, Value chain analysis, and Strategic management accounting.

Overlapping

Focus	Cost determination and financial control	Information for planning and control	Reduction of waste of resource in Business operation	Creation of Value through effective resource use
Stages →	1760-1950	1950-1965	1965-1985	1985-till date
Methods ↓				
Cost determination and accounting	- Standard costing - Direct Costing - Records of Cost Accounting - Allocation of indirect cost - Uniform costing - Absorption costing	- Standard cost accounting developments - Marginal costing - Target costing	- Activity based costing - Activity based management	
Planning	Budgeting	- Application of discounted cash flow - Transfer costing		

Controlling	- Return on Investments (ROI) - ton -mile ratio	- Responsibility Accounting - Gentani system - Kaizen costing	- Application of Kaizen - Just in time system	
Strategic analysis			Life Cycle costing	- Value chain analysis - Five Forces Model - PEST, SWOT analysis - Customer profitability analysis - Competitors analysis - Balanced scorecard

CMA Inter

	Traditional Techniques	Contemporary Techniques → CMA final
Management Techniques	Financial statement analysis	Target Cost
	Cash Flow analysis	Just in Time ✓
	Marginal Costing	Total Quality Management ✓
	Absorption Costing	Theory of Constraints
	Standard Costing	Value chain analysis ✓
	Opportunity Cost	Benchmarking
	Budgeting	SWOT analysis ✓
	Cost-volume-profit (CVP) analysis	Balanced scorecard ✓
	Activity based costing (ABC)	Kaizen (continuous improvement) ✓

Role of Management Accounting in Strategic Formulation

a. Identifying crucial customers and developing strategies to deliver value. customers
b. Analyzing substitute products in the market, examining differences in features, price, cost, and quality. products
c. Identifying critical company capabilities (technology, production, marketing) and leveraging them for new strategic initiatives. capabilities
d. Assessing the availability of adequate cash for strategy implementation and considering the need for additional funds. cash

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Topic 2 Relationship between Management Accounting and Cost Accounting

Difference between Financial Accounting and Management Accounting

Basis for Comparison	Financial Accounting	Management Accounting
Purpose	Financial Accounting classifies, analyses, records, and summarizes the financial transactions of a particular period of the company.	Management accounting helps management make effective decisions about the business

Application	It is prepared to reflect true and fair picture of financial affairs	It helps management to take meaningful steps and strategize.
Scope	The scope is pervasive, but not as much as the management accounting.	The scope is much broader
Information Type	Quantitative.	Quantitative and qualitative.
Inter Dependence	It is not dependent on management accounting.	It is basically decision making accounting and depends on information created by Financial Accounting as well as Cost Accounting.
Statutory Requirement	It is legally mandatory to prepare financial accounts of all companies.	No statutory requirement.
Format	It has specific formats for presenting & recording information	There's no set format for presenting information
Users	Mainly for potential investors as well as all stakeholders	Only for management.
Verifiable	The information presented is verifiable	The information presented is predictive and not immediately verifiable.

Cost Accounting and Management Accounting – Comparative Analysis

Basis for Comparison	Cost Accounting	Management Accounting
Meaning	Cost accounting revolves around cost computation, cost control, and cost reduction.	Management accounting helps management make effective decisions about operations of the business
Application	Cost accounting prevents a business from incurring costs beyond budget	Management accounting offers a big picture of how management should strategize.
Scope	Narrower	Broader
Measuring grid	Quantitative.	Quantitative and qualitative.
Sub-set	Cost accounting is one of the many sub-sets of management accounting.	Management accounting is the universal set.
Basis of decision making	The task of decision making very less. Even if there is some, it is based on historic information	Historic and predictive information is the basis of decision-making.
Statutory Requirement	Statutory audit of cost accounting is a requirement in some specified industries.	The audit of management accounting has no statutory requirement.
Dependence	Cost accounting isn't dependent on management accounting to be successfully implemented.	Management accounting is dependent on both cost & financial accounting for successful implementation.
Used for	Management, shareholders, and vendors.	Only for management.

Topic 3	Role of a Management Accountant in Modern Business World

Functions of the Management Accountant

a. **Planning and Accounting:** Develop comprehensive accounting systems, including cost, sales forecasts, profit, and resource allocation.
b. **Controlling:** Implement control measures using standard costing, budget control, accounting ratios, and assessing capital expenditure.
c. **Reporting:** Identify root causes of unfavorable events and provide comprehensive reporting to top management.
d. **Coordinating:** Enhance efficiency and profits through coordination tools like budgeting, financial reporting, and analysis.
e. **Communication:** Create diverse reports to communicate results internally and externally through financial statements.
f. **Financial Evaluation and Interpretation:** Analyze and present data in a non-technical manner for informed decision-making.
g. **Tax Administration:** Manage tax policies and processes, ensuring timely payments to prevent penal interest.
h. **Evaluation of External Effects**: Assess the impact of external factors, including changes in government policy, and report to stakeholders.
i. **Economic Appraisal**: Study and determine the influence of current economic conditions on company operations, presenting observations to high management.
j. **Asset Protection:** Establish fixed asset registers, internal checks, and controls to safeguard company assets, including rule creation and insurance coverage.

Roles of Management Accountants

a. **Consulting on Policies and Procedures:**
   - Engage with management segments responsible for policies and procedures.
   - Evaluate effectiveness.
b. **Comparisons and Reporting:**
   - Compare to operational plans and standards.
   - Report and evaluate operational outcomes to all levels of management and business owners.
c. **Plan Establishment and Coordination:**
   - Establish, coordinate, and execute an operation and control plan.
   - Includes spending budgets, profit planning, sales forecasts, and capital investment.
d. **Financial Security:**
   - Ensure financial security of company assets.
   - Achieve through effective internal controls and adequate insurance coverage.

Impacts of New Business Environment on Management Accounting

1. **Global Competition:**
   - Increased global operations.
   - Demands information on quality and customer satisfaction.
   - Incorporation of customer profitability and value analysis.
2. **Changing Product Life Cycles:**
   - Drastically reduced product life cycles.
   - Emphasis on first-mover advantage.
   - Crucial role of management accountants in cost-effective design.
3. **Advances in Manufacturing Technology:**
   - Pressure for high-quality, innovative, cost-effective products.
   - Adoption of lean manufacturing systems.
   - Focus on just-in-time production, quality, and advanced manufacturing technologies.
4. **Impact of Information Technology:**
   - Dramatic increase in IT use.
   - Shift from gatherer and processor to interpreter of information.
   - Enhanced role in providing business support for managers.
5. **Environmental and Sustainability Issues:**
   - Focus on ESG and ethical considerations.
   - Management accounting addresses environmental costs and regulatory requirements.
   - Recognition that being socially and environmentally responsible enhances company image.
6. **Deregulation and Privatization:**
   - Shift from government-owned monopolies to competitive environments.
   - Compelled companies to develop accurate management accounting systems for product and service profitability.
7. **Focus on Value Creation:**
   - Management accounting evolves from interpreting costs to creating value.
   - Distinguishing between value-added and non-value-added activities.
8. **Customer Orientation:** → Better than others
   - Competitive advantage becomes a primary goal.
   - Emphasis on customer satisfaction as a critical success factor.
   - Relational to cost, quality, reliability, delivery, and innovation.

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CHAPTER 2

ACTIVITY BASED COSTING

Topic 1 Traditional Cost System

Overheads → Departments → Products (per Lab/Mach Hour)

Evolution from Traditional to Activity-Based Costing (ABC)

- Under the traditional cost system, overhead costs are allocated and apportioned to departments before being absorbed by products based on volume-related measures like labor hours or machine hours. This method, developed when organizations produced a narrow range of products with minimal overhead costs, may not accurately reflect the current production landscape.
- With the advent of advanced manufacturing technology (AMT) and a shift towards more diverse product ranges, traditional costing systems face challenges. Non-volume-related support activities, such as setup, scheduling, and inspection, have become crucial, impacting overall costs. Traditional fails to properly allocate costs related to support activities
- Traditional systems tend to overallocate overheads to high-volume products and underallocate to low-volume products. Activity-Based Costing (ABC) addresses this issue by focusing on diverse support activities, offering a more accurate reflection of resource consumption and cost allocation in modern manufacturing environments.

Primary & secondary dist=

Drawback of Traditional Costing System

a. Fails to recognize varying resource consumption among different products.
b. Overheads, often exceeding 50%, applied as a percentage of the smallest cost, causing significant cost distortion.
c. Poor reflection of supporting costs like setup, materials handling, and research and development, unrelated to production volume.
d. Overcasts high-volume products and undercosts low-volume products, leading to incorrect pricing and product-mix decisions.
e. Biased towards reducing direct labor costs rather than overall productivity improvement.
f. Provides no information for identifying productivity improvement opportunities or evaluating the effectiveness of productivity improvement efforts. Often indicates higher costs in the presence of known productivity improvement or vice versa.

Topic 2 Definition and Meaning of Activity Based Costing (ABC)

Introduction

ABC redefines cost allocation by linking indirect costs to activities. Key components include:

Cost/unit ← ✓ **Cost Objects:** Targets for cost allocation, like product portfolios or customers.

Setup Costs ← ✓ **Cost Pools:** Aggregated costs with similar functions, such as production or marketing.

No. of setups ← ✓ **Cost Drivers:** Attributes causing spending, like purchase orders or service hours.

ABC improves accuracy in cost allocation by directly tying costs to driving activities. It aids in strategic planning and cost advantage development. ABC traces costs from activities to products, assuming products generate activity demand. Introduced by Kaplan and Burns, ABC is crucial for understanding individual product costs. It provides insights into cost causes, enabling better control by managing activity demand.

According to CIMA, ABC involves tracing resource consumption, costing final outputs, and using cost drivers. ABC assigns overheads to specific activities, establishing multiple cost centers. The two-stage allocation process uses diverse second-stage cost drivers, departing from traditional volume-based methods for more precise cost allocation.

Emergence of Activity-based Costing

Transitioning from traditional to ABC is driven by the aim to enhance overall profitability. This shift is most impactful when:

1. **High Overheads**: When production overheads significantly outweigh direct costs, especially direct labor.
2. **Product Diversity**: In cases with a broad product range, where items vary significantly.
3. **Overhead Resource Diversity**: When there's substantial diversity in how overhead resources contribute to products.
4. **Non-Volume Driven Consumption**: When the consumption of overhead resources is not primarily tied to production volume.

ABC's analysis can unveil opportunities for long-term profitability improvement. For instance, it may reveal that small-batch items are costlier to produce, prompting decisions like discontinuing them or optimizing production processes. ABC goes beyond mere cost calculation; it initiates a continuous process of cost control and management. As a response to the evolving business landscape, where companies produce a diverse range of products and overheads play a crucial role, ABC emerges to address the limitations of traditional costing systems and provide more accurate insights for decision-making.

Topic 3 — Steps in ABC System

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Steps in ABC System

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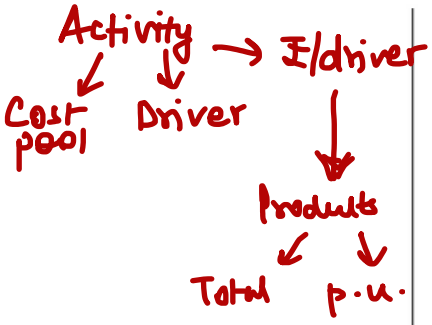
1. **Identify Activities**: ABC aims to pinpoint numerous activities within the organization, potentially more than traditional methods, enhancing accuracy.
2. **Define Cost Drivers**: Determine the factors influencing the cost of each activity (e.g., machine hours, dispatch orders).



→ Costs assigned to each activity

3. **Calculate Activity Costs:** Compute the total cost associated with each activity, forming cost pools (e.g., total machining costs, total dispatch department costs).
4. **Determine Cost Driver Rates**: Establish overhead absorption rates for each cost driver.
5. **Activity Cost Driver Rate** =Total Cost of an Activity/Cost Driver
6. **Calculate Product Overhead Costs:** Find the total overhead cost for each product manufactured.
7. **Determine Overhead Cost per Unit**: Calculate the overhead cost per unit for each product.

ABC's effectiveness lies in its ability to break down activities, identify precise cost drivers, and calculate costs at a more granular level, leading to improved accuracy compared to traditional methods.

Activities

Activities consist of units of work or tasks within a process, involving various steps or actions.

Value Added Activities (VA):

- Necessary for the process.
- Adds value, improving product quality or function.
- Customers are willing to pay for these activities.
- Results in cost without losses.

Example: Enhancing product versatility.

Non-Value Added Activities (NVA):

- Additional and not fully necessary for the process.
- Does not add value from the customer's perspective.
- Can adversely affect costs and prices.
- Creates waste and adds costs customers won't pay for.

Example: Material movement and machine setup for a production run.

Cost Hierarchy Dimension in Manufacturing Activities

Manufacturing activities can be classified along a cost hierarchy dimension consisting of:

→ Activities related to direct costs

1. **Unit-level activities**: These are performed for each unit produced and include direct labor, direct materials, and energy costs. The consumption of resources is directly proportional to the number of units produced.

→ Support activities

2. **Batch-related activities**: These are performed for each batch of goods produced, such as machine setup or processing purchase orders. The cost of batch-related activities varies with the number of batches but is fixed within a batch.
3. **Product-sustaining activities**: These support the production of individual products and include maintenance, engineering charges, and testing routines.
4. **Facility-sustaining activities**: These support the general manufacturing process and include general administrative staff, plant management, and property costs. They are considered common costs to all products and are not assigned to specific products.

Topic 4	Cost Pools and Cost Drivers

Cost Pools

Cost pools are locations where overhead costs are initially assigned before allocations are made. They can consist of entire departments or smaller segments like separate work centers within a department. This grouping facilitates the allocation of costs to specific departments or activities.
For example, the maintenance department's costs may be accumulated in a cost pool and then allocated to departments using its services.
In manufacturing companies, various cost pools could include Purchasing, Receiving, Material Handling, Machine Set-up, Inspection, Research and Development, Customer Service, and Production Control. These cost pools help in allocating costs to specific functions or activities.

Cost Driver

Cost drivers are factors influencing the change in the cost of an activity. They fall into various categories:

1. **Resource Cost Driver**: Quantifies the amount of resources consumed by an activity, like the number of purchase orders affecting material purchase costs.
2. **Activity Cost Driver**: Measures the frequency and demand intensity placed on activities by cost objects. It includes transaction drivers (e.g., number of purchase orders) and duration drivers (time required for activities like setup hours).
3. - **Volume-Based Cost Drivers**: Assume a product's overhead consumption is directly related to units produced, e.g., machine hours increasing with production volume.
   - **Non-Volume Based Cost Drivers:** Activities not performed for every unit produced, like the number of production runs or purchase orders.

Common cost drivers in Activity Based Costing include requisitions, machine setup, machine hours, production runs, processed orders, purchase orders, labor hours, orders completed, orders packed and delivered, inspections, customer visits, etc.

Cost object

It is an item for which cost ascertainment is required. For example, a product, a service, a job, a work order no, or a customer, etc.

Applications of ABC

1. ABC aids in assessing Return on Investment for strategic options.
2. It evaluates distribution channel costs for potential reconfiguration.
3. Plant efficiency is compared by itemizing costs for each plant.
4. Provides a comprehensive view of activity costs for products.
5. Benchmarking tool for evaluating acquisition targets.
6. Identifies significant activities for management focus.
7. Determines the minimum price a product should be charged.
8. Enables margin analysis for product profitability assessment.

Topic 5	Merits and Demerits of ABC System

Merits of ABC

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But most points are just made up...

a. ABC acknowledges the modern business complexity with transaction-based cost drivers.
b. Extends cost accounting beyond traditional factory floor boundaries.
c. Facilitates meaningful cost analysis for decisions on pricing, product mix, design, and production.
d. Assists in cost reduction by providing insight into causal activities and outsourcing possibilities.
e. Applicable to service and retail organizations, similar to modern manufacturing.
f. Links costs to causal factors (Cost Drivers) for accurate product cost determination.
g. Identifies costs of activities rather than cost centers.
h. Overcomes limitations of traditional absorption costing and blanket overhead rates.
i. Aids in budgeting, performance measurement, cost control, and cost reduction.
j. Provides valuable economic information for operational improvement and customer satisfaction.
k. Offers more accurate data, comprehensive cost information, and relevant data for decision-making.
l. Facilitates sensitivity analysis and provides a model perspective on value-adding organizational transactions and activities.

Demerits of ABC

Reverse of Traditional Methods

a. Introducing ABC may incur considerable costs in obtaining and interpreting new information.
b. Some arbitrary cost apportionment may still be required, particularly for items like rent and building depreciation.
c. Overheads not related to volume or complexity raise questions about a single cost driver's ability to explain all items' cost behavior.
d. There's a trade-off between accuracy, the number of cost drivers, and complexity in ABC implementation.
e. ABC may burden low-volume products with a high level of overhead costs, potentially hindering innovation.
f. Implementing ABC requires substantial resources, making it costly to maintain.
g. ABC is a complex system with extensive record-keeping requirements.
h. In small organizations, managers are accustomed to traditional costing systems, often used in performance evaluations.
i. ABC data can be easily misinterpreted and must be used carefully in decision-making, identifying relevant costs.
j. Reports generated by ABC systems may not conform to generally accepted accounting principles (GAAP), requiring dual cost systems for internal and external reporting.

Topic 6	Activity Based Information and Decision Making

Use of ABC in Decision Making

a. ABC aids decisions like relocation or opening new distribution centers by identifying specific cost elements, allowing clearer decision-making.

b. It complements Total Quality Management (TQM) by providing quantitative data to track the financial impact of TQM improvements.

c. In contrast to traditional absorption systems, ABC traces costs back to activities and resource consumption by each product, offering a more realistic analysis of costs and profits.

d. ABC supports decision-making in human resources by presenting options like outsourcing, automation for productivity improvements, and determining employee/revenue ratios.

e. Areas where Activity-Based Information is used for decision-making include product line profitability, capital investment decisions, transfer pricing, pricing of products, market segmentation, distribution channels, make-or-buy decisions, outsourcing, plant shut-down decisions, and evaluation of off-shore production.

ABC Support for Corporate Strategy

- **Informed Decision-Making**: ABC ensures precise product cost information, empowering strategic decisions on pricing, marketing, and product design.
- **Performance Feedback**: Provides performance-based feedback to cost center managers for enhanced operational efficiency.
- **Strategic Data Support**: Furnishes valuable data for informed decision-making at both operational and strategic levels.
- **Product Quality Enhancement**: Encourages product redesign for improved quality based on information generated by ABC.
- **Process Technologies Evaluation**: Alters the evaluation of new process technologies, emphasizing efficiency and cost reduction.
- **Activity-Focused Improvement**: Guides management in focusing on specific activities for continuous improvement.
- **Performance Measurement Metrics**: Establishes cost driver rates for measuring activity performance, aiding in efficient budgeting.
- **Accurate Feedback to Managers**: Cost center managers receive precise feedback on resource consumption and performance.
- **Holistic Decision Support**: Enables decisions aligned with corporate strategy, considering profitability, efficiency, and quality.
- **Strategic Resource Allocation**: Supports strategic resource allocation based on accurate cost insights.

In essence, ABC's strategic contributions encompass decision support, performance enhancement, and resource allocation for organizational effectiveness.

Need for ABC

a. **Complex production costs**: ABC clarifies the profitability of challenging products.

	b. **Profit margin discrepancies**: Important for understanding irregular profit margins. c. **Unique product profitability**: Investigates why unique, high-margin products lack competitors. d. **Competitor pricing analysis**: Evaluates if low competitor prices are realistic. e. **Supplier cost discrepancies**: Assesses internal vs. supplier costs for parts. f. **Large cost pools**: Flags complexity in cost allocation, urging ABC precision. g. **Distribution channel variances:** Reveals ignored variations in marketing and delivery costs. ABC ensures precise cost insights amid complexities, guiding pricing and strategic decisions.
Uses of ABC Information in Service Industries (General points)	- Leads to more accurate product costs for pricing decisions. - Results in precise product and customer profitability analysis. - Identifies cost drivers causing costs, improving understanding, and managing activities more effectively. - Highlights potential areas for cost reduction without compromising product service potential.

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CHAPTER 3

MARGINAL COSTING

Topic 1	Concept
Marginal Costing (just a tool, not a method)	Marginal Costing is an accounting practice that allocates all marginal costs (variable costs) to products or processes and deducts fixed costs from profits within a specific period. It involves differentiating between fixed and variable costs to ascertain marginal costs and assess the impact of output changes on profit. This technique, focused on managerial decision-making, separates variable and fixed costs in cost data analysis. Marginal costing is not a specific costing method but rather a tool for cost information analysis to guide management.
Marginal Cost	Marginal cost is the incremental change in aggregate costs resulting from a one-unit increase or decrease in output volume. It represents the variable cost of producing one additional unit of a product or service, specifically the cost that would be avoided if that unit were not produced. This concept emphasizes the added cost associated with an extra unit of output and focuses on changes in variable costs, treating fixed costs as period costs transferred to the Profit and Loss Account. $MC = \frac{\Delta TC}{\Delta Q}$ Marginal Cost = Variable Cost = Direct Labour + Direct Material + Direct Expenses + Variable Overheads
Features of Marginal Costing	a. Marginal costing assesses the impact of variable costs on production volume. b. Break-even analysis is a crucial aspect of marginal costing. c. Contribution from each product or department is fundamental for profitability assessment. d. Selling price equals the sum of variable cost and profit in marginal costing. e. Valuation of stock relies on marginal costing for finished products and work in progress. f. Fixed costs are recovered from contribution, while variable costs are charged to production. g. Costs are categorized into fixed and variable, with semi-fixed costs further divided.
Assumptions of Marginal Costing (g & p.)	a. All costs (production, administration, selling, and distribution) can be separated into fixed and variable components. b. Variable cost per unit remains constant regardless of output level, fluctuating in proportion to output changes. (VC p.u. = constant) c. Selling price per unit remains constant across all activity levels. (SP p.u. is also constant) d. Fixed costs remain constant for the entire production volume.

e. Production volume is the sole factor influencing costs in marginal costing.

Advantages of Marginal Costing

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1. Simple and easy to understand.
2. Avoids complications by excluding fixed costs from unit cost calculations.
3. Eliminates the need for allocating and absorbing fixed overheads, reducing complexities.
4. Constant nature of marginal cost per unit aids production planning.
5. Valuable for cost analysis, presentation, and control, supporting different management levels.
6. Prevents carry forward of fixed overheads to avoid overvaluing closing stocks and fictitious profits.
7. Supports decision-making for pricing, product mix, make or buy choices, and other managerial decisions.
8. Complements standard costing and budgetary control for better results.
9. Helps in cost control by distinguishing between controllable and non-controllable costs.
10. Enables determination of optimum product mix and sales mix.
11. Supports profit planning through the study of cost, volume, and profit relationships.
12. Facilitates management reporting and attention focus through 'Management by exception.'
13. Aids short-term profit planning through break-even and profitability analysis.
14. Assists in various managerial decisions such as make or buy, exploring foreign markets, accepting orders, setting selling prices, substitution choices, labor or machine hour utilization, business expansion, and diversification.

Limitations of Marginal Costing

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1. Relies on assumptions that may not hold in all circumstances.
2. Difficulty in accurately separating costs into fixed and variable components.
3. Normal costing systems may show no advantage over marginal costing.
4. Challenges in classifying certain costs as semi-variable.
5. Variable costs may not always remain constant or vary proportionally due to diminishing and increasing returns.
6. Selling prices are subject to change due to competition, discounts, and market fluctuations.
7. Fixed costs are not always constant after a certain activity level, and marginal costing ignores their controllability.
8. Application of fixed overhead relies on estimates, leading to potential under or over absorption.
9. Understates stocks and work in progress, affecting profit transparency and the true financial picture.
10. Illogical exclusion of fixed costs from stocks, undervaluing them in financial statements.

	11. Under or over absorption issues persist with variable overheads. 12. Ignores the time factor, overlooking the duration required for job completion. 13. Inapplicable in industries with high work-in-progress values, like shipbuilding. 14. Cost control may be better achieved through standard costing and budgetary control. 15. Fixation of long-term selling prices requires consideration of fixed costs. 16. In modern automation settings, high fixed costs make decisions based solely on marginal costs questionable. 17. Unrealistic in highly fluctuating production levels, such as in seasonal factories. 18. Control through budgetary control is considered more effective. 19. Neglects a major portion of fixed costs, making it less comprehensive. 20. Sales prices, fixed costs, and variable costs may vary in practice, challenging underlying assumptions.
Tools and Techniques of Marginal Costing	- Contribution - Profit Volume Ratio (P/V Ratio) or Contribution Ratio - Break Even Point - Margin of Safety

Topic 2	Cost-Volume-Profit Analysis
Cost-Volume-Profit (CVP) Analysis	CVP analysis, or break-even analysis, examines the link between costs, volume, and profit. Key aspects include: - **Break-even Point**: Level with no profit or loss. - **Margin of Safety**: How much actual sales can fall below anticipated sales without a loss. - **Net Income**: Measures management success. - **Planning Considerations**: Anticipating reactions to changes in activity. - **Technique**: Uses cost variability to predict volume impact. - **Assumption**: Fixed costs stay constant within the relevant range. - **Applications**: Used for breakeven, contribution/sales ratio, and determining required sales for profit or margin of safety.
Break-even Analysis	Break-even analysis aids management in decision-making among various alternatives. It relies on the assumption that variable costs vary proportionally with sales volume, and fixed costs remain constant within a relevant range. This analysis helps test new proposals that alter the percentage of variable costs, total fixed costs, or a combination of both. The break-even point signifies the minimum sales level needed to cover total costs, resulting in zero profit where total sales equal total expenditure.

Assumptions of Break-Even Analysis (same as above)	a. All costs can be separated into fixed and variable components. b. Variable cost per unit remains constant and fluctuates proportionally with output changes. c. Fixed cost remains constant across all output volumes. d. Selling price per unit remains constant at all output levels. e. Production volume is the sole factor influencing costs. f. No change in the general price level. g. Only one product or a constant sales mix in multi-products. h. Synchronization between production and sales.
Assumptions of CVP Analysis	→ one at a time! a. All variables, except the one under consideration, remain constant. b. Single product or constant sales mix assumption. c. Total costs and revenue are linear functions within the relevant production range. d. Profits calculated on a variable costing basis. e. Accurate division of costs into fixed and variable elements. f. Applicability limited to the relevant production range. g. Short-term time horizon for analysis, inappropriate for long-term decisions.
Limitations of CVP Analysis	a. Assumes fixed costs remain constant and variable costs per unit stay the same at all output levels, which may not hold true for step costs or economies/diseconomies of scale. b. Assumes constant sales prices at all activity levels, ignoring potential price changes, especially at higher output volumes. c. Ignores the consequences of differences between production and sales, such as changes in inventory levels. d. Often overlooks uncertainties in estimates of fixed costs and unit variable costs.

Topic 3 — Break-Even Charts and Profit Charts

Break-Even Chart	Break-Even Point is the production or sales volume where total costs equal revenue, resulting in no profit or loss. It analyzes the cost, volume, and profit relationship, helping management understand business dynamics. The Break-Even Chart graphically represents this analysis, indicating the production level with no profit or loss and estimating profits or losses at different volumes. However, it has limitations, as it typically applies to a single product or a constant sales mix, and multiple product scenarios may require assumptions. **Advantages** - Graphical representation aids non-financial managers' comprehension

	- Breakeven model allows determination of profit or loss at various activity levels - C/S ratio helps assess relative profitability of different products
Conventional/Basic Breakeven Chart	**Advantages** a. Highlights the constant nature of fixed costs b. The profit 'wedge' angle visually represents product profitability c. Wider angle indicates rapid profit growth beyond break-even, while narrower angle signifies quicker losses below break-even **Disadvantages** a. Requires readings at two separate points to determine profit b. Difficulty in adapting the chart for changes in variables like selling price or unit variable cost c. Contribution cannot be directly read from the chart
Contribution Breakeven Chart	**Advantages** a. Contribution can be directly read from the chart b. The profit 'wedge' angle visually represents product profitability, similar to the conventional chart **Disadvantages** a. Profit reading requires two separate points b. Difficulty adapting to changes in variables like selling price or unit variable cost, akin to conventional charts
Profit–Volume Chart	**Meaning** The Profit-Volume Chart illustrates the correlation between profit and sales volume, addressing a limitation of conventional break-even charts where profit cannot be directly read. This chart directly plots profit against activity, making it easy to understand. Preparation involves drawing both sales and profit curves, with the break-even point identified where the profit line intersects the sales line. **Categories** i. Simple Profit-Volume Chart ii. Sequential Profit Graph. **Advantages** a. Direct reading of profit or loss for any activity level from the chart b. Visual representation of product profitability through the angle of the profit line c. Clear highlighting of losses below the breakeven point d. Ability to draw multiple charts on a common set of axes to show the impact of variable changes **Disadvantages** a. Does not depict cost behavior patterns, such as the constant nature of fixed costs

Profit–volume graph	The Profit–Volume Graph directly displays the impact of volume changes on profit, eliminating the need to calculate differences between total cost and revenue lines as required in break-even graphs.

Topic 4	Differential Cost Analysis

Differential Cost	ΔTC due to alternative course of action. Differential Cost refers to the change in costs resulting from adopting an alternative course of action. This change can be triggered by variations in sales volume, price, product mix, production methods, or decision-making scenarios like 'make or buy.' Incremental cost, the increase in cost for higher output, and decremental cost, the decrease for lower output, fall under the umbrella of differential costs. Despite similarities, accountants often use the terms interchangeably. Calculating differential costs aids management in analyzing and anticipating the outcomes of potential changes in activity levels or nature. The computation involves subtracting the relevant costs of one alternative from another, offering valuable insights for informed decision-making.
Characteristics of Differential Costing	a. Differential costing focuses on total costs, not cost per unit. b. Compares existing levels as a base with future or forecasted levels. c. Aligns with the economist's concept of marginal cost. d. Termed incremental for increased production and decremental for decreased production. Incremental / Decremental e. Not part of accounting records but may be included in budgets. f. Flexible in methods; doesn't require adopting marginal cost technique. g. Principles for differential cost also apply to differential revenue. h. Variable costs act as differential costs when additional output doesn't involve added fixed costs. i. Used for planning and decision-making, not incorporated in accounting records. Captures economic costs. j. Intended for comparing expected changes in costs and revenues. k. Applied to existing businesses, not suitable for new business setups. l. Focuses on future costs and employs only relevant costs in the analysis.
Applications of Differential Costing in Policy Decisions	- The introduction of a new plant. - Make or buy decisions. - Lease or buy decisions. - Discontinuing a product, suspending or closing down a segment of the business. - The profitability of a change in product mix. - Acceptance of an offer at a lower selling price

Differential Cost = VC + FC (if added FC involved)

Incremental and Decremental Cost	- Differential costs are commonly referred to as **incremental costs**, signifying an increase in cost from one alternative to another. - Conversely, a decrease in cost is termed **decremental cost**. However, the broader term "differential cost" encompasses both incremental (cost increases) and decremental (cost decreases) aspects between alternatives. - This concept is crucial in planning and decision-making, aiding in the evaluation of alternative choices' profitability and helping management select the optimal alternative. - Differential cost analysis plays a vital role in determining additional profits through the utilization of idle capacity or extra investments within a firm.
Marginal Cost and Differential Cost	**Similarity** 1. Both techniques involve cost analysis and presentation. 2. Management utilizes both for decision-making and policy formulation. 3. The concepts of differential costs and marginal costs stem from fixed and variable cost behavior differences. 4. Differential costs align with the economist's definition of marginal cost, reflecting changes in cost with a one-unit increase or decrease in output volume. **Difference** 1. Differential cost analysis applies to both absorption and marginal costing. 2. Marginal costing excludes all fixed costs, while some fixed costs may be considered relevant in differential cost analysis. 3. Marginal costs may be integrated into the accounting system, whereas differential costs are separately worked out in analysis statements. 4. In marginal costing, performance is evaluated using margin of contribution and contribution ratio, while differential cost analysis compares differential costs with incremental or decremental revenues.

Differences between Marginal cost and Differential cost-
- FC
- Economic costs

DMP

FC is Captured in differential costs

DMP

DMP

Topic 5	Marginal Costing Vs. Absorption Costing (Advanced Applications)

DMP

Differences between Absorption Costing and Marginal Costing

Differences	Absorption Costing	Marginal Costing
Cost Consideration	Both fixed and variable costs considered for product costing and inventory valuation.	Only variable costs considered for product costing and inventory valuation.

R-C.

Treatment of Fixed Costs	Fixed costs charged to the cost of production; each product bears a share, influencing its profitability.	Fixed costs considered period costs; profitability judged by P/V ratio of different products.
Cost Presentation	Cost data presented in conventional pattern; net profit calculated after subtracting fixed and variable costs.	Cost data presented to highlight total contribution of each product.
Impact of Stock Changes	Difference in opening and closing stock affects unit cost due to impact of related fixed cost.	Difference in opening and closing stock doesn't affect unit cost of production.
Cost per Unit with Production	Cost per unit decreases with increased production due to decreasing fixed cost in absorption costing.	Cost per unit remains constant irrespective of production in marginal costing, valued at variable cost.

CHAPTER 4

APPLICATIONS OF MARGINAL COSTING IN SHORT TERM DECISION MAKING

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Further Applications of Marginal Costing in decision making

1. **Capacity Decisions**
   While considering a new plant design or the redesign or expansion of an existing system, a high level decision regarding the production capacity is called for.
2. **Alternative Methods of production**
   The alternative which involves the minimum cost is to be selected as the most economical alternative
3. **Decision to Drop a Product Line**
   The firm can consider the economies of dropping the unprofitable products, and adding a more remunerative product(s).
4. **Decision Regarding Equipment Replacement**
   One of the more important decisions involving alternative choices is whether or not to buy new capital equipment.
5. **Product Diversification**
   To find out whether it is economical and profitable to introduce a new product or not.
6. **Sell or Further Process Decision**
   Management has to decide whether to sell joint products at the split off point or to sell them after further processing.
7. **Evaluation of Capital Expenditure Proposals**
   Relevant cost and revenue is very much considered while making an evaluation of capital expenditure proposal.
8. **Optimal Level of Activity**
   This deals with the economies of large-scale production and sales
9. **Decision Regarding Temporary Shut Downs**
   Such a situation is forced on the business because it is expensive in many cases to shut down the business for a short time only.
10. **Decision Regarding Additional Shifts**
    The operation of one or more shifts by a business having only one shift
11. **Product Mix Decision**
    Produce the maximum of the item with the highest contribution margin per unit under a particular constraint.

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CHAPTER 5

TRANSFER PRICING

Topic 1	Concept
Meaning	Transfer pricing involves setting prices between profit centers within a company, impacting performance evaluation. It is crucial for large organizations' management and control, often dividing them into smaller, independent divisions. Divisional managers, responsible for all operations related to their product, may have their performance linked to division profits. Transfer pricing is significant in international taxation to manage tax burdens. Large organizations can be functionally or divisionally structured. Understanding theoretical and numerical aspects is essential for setting acceptable transfer prices. Equitability in transfer pricing is vital for fair performance evaluation. Market price is appropriate when available, but it's often challenging for intermediate products without market value. The price for transferred goods affects buying division costs and selling division revenues, impacting both division profits and managers' evaluation and compensation. Transfer pricing discussions can be emotionally charged due to their influence on profit-based performance measures like ROI and Residual Income.
Advantages	a. **Enhanced Top Management Focus**: Top managers can dedicate more time to general planning without routine daily decisions. b. **Distributed Decision-Making**: Decision-making tasks are distributed among personnel, allowing for thorough attention to each matter. c. **Improved Control**: Quick corrections can be made, leading to better overall control. d. **Enhanced Motivation**: Managers are more motivated with increased control over performance-measured matters. e. **Initiative and Cost Reduction**: Managers are inclined to exercise initiative, such as "comparison shopping," reducing costs and keeping internal costs in line. f. **Skill Development for Higher Positions**: Proficiency in decision-making qualifies managers for higher management positions over time.
Disadvantages	a. **Difficulty in Determining Authority and Responsibility**: Determining the extent of authority and responsibility for decentralization is challenging. b. **Complex Manager Selection and Training:** Selecting and training managers for decentralized units is time-consuming and costly.

c. **Challenges in Coordinating Varied Activities**: Coordinating the diverse activities of decentralized units poses difficulties.
d. **Problematic Performance Evaluation**: Evaluating the performance of units and individual managers becomes challenging.

Criteria for Choosing Transfer Pricing Method

1. **Promotion of Goal Congruence**: Ensures actions of sub-unit managers align with organizational goals, promoting synergy.
2. **Promotion of a Sustained High Level of Management Effort**: Encourages continuous, dedicated effort toward goals, fostering a proactive environment.
3. **Promotion of a High Level of Subunit Autonomy in Decision-making**: Emphasizes the degree of freedom division managers have in decision-making, aligning with decentralization preferences.

Related points

Objectives of Transfer Pricing

Transfer prices must:

- Enable accurate measurement of divisional performance.
- Motivate divisional managers to maximize profitability in the organization's best interests.
- Preserve divisional autonomy without undermining authority granted to divisional managers.
- Foster goal congruence, aligning divisional objectives with overall company goals.
- Act as a check against manipulation by multinational companies in international settings, preventing tax burden minimization.

Problem areas are the same that lead to origination of TP.

Problems with transfer pricing

a. **Maintaining Divisional Autonomy**: The use of transfer prices in profit centers can lead to self-interested segments within the organization, potentially conflicting with the overall interests of the organization.
b. **Ensuring Fair Measurement of Divisional Performance**: Profit center managers prioritize their own profit performance, leading to disputes over transfer prices and disagreements on work allocation between profit centers.
c. **Maximizing Corporate Profits**: Disagreements on work transfers and sales between divisions can hinder achieving the profit-maximizing level for the organization as a whole, especially if each profit center prioritizes its own profit over the collective goal.

Topic 2 — Methods and Techniques

Transfer Pricing Methods

a. Cost Based Transfer Pricing
   a. Marginal Cost
   b. Absorption Cost
   c. Standard Cost
   d. Two Part Tariff

TP Methods
Cost Based | Market Based | Negotiated
MC AC SC
Two part-tariff (lumpsum + per unit)

	B. Market Based Transfer Pricing C. Negotiated Transfer Pricing
Cost Based Transfer Pricing	Cost-based prices use versions like marginal cost, absorption cost, standard cost, or marginal cost plus a fixed charge. Actual costs, prone to variations, may transfer inefficiencies. To avoid this, standard costs are recommended. They accurately reflect supplying division efficiencies/inefficiencies, ensuring fair pricing without passing on inefficiencies to the receiving department. **Advantages** - **Cost Availability**: Costs are readily available as they are computed for various purposes within the organization. - **Consistency with Performance Measures**: For organizational units without control over investments or revenues, cost-based transfer prices align with the relevant performance measures for those units. **Disadvantages** - **Inefficiency Transfer**: Actual costs may transfer inefficiencies between divisions. - **Sub-Optimal Decisions**: Cost-based methods, especially absorption or full cost, may lead to sub-optimal decisions. Divisional managers may prioritize their unit's benefits, potentially reducing overall company profit, such as refusing a special order not meeting transfer prices even with idle capacity, leading to external purchasing and lower profits.
Market-based Prices	Market-based transfer pricing uses the market price of a comparable product or service as the objective basis for inter-divisional transfers. In a perfectly competitive market for an intermediate product, the current market price is considered the most suitable for setting the transfer price. This approach enhances divisional performance representation, reflecting the real economic contribution of each division to total company profits. It allows direct comparison of divisional profitability with similar external companies and simulates conditions as if the divisions were separate entities. Market-based prices promote divisional autonomy by emulating the pricing dynamics of fully independent entities. Efficiently operated divisions are expected to show a profit at market-based prices, fostering competitiveness and encouraging efficient management in buying divisions. **Advantages** - **Efficiency Incentive**: Managers are motivated to enhance efficiency as the transfer price is determined by competitive market conditions. Increased profits are achievable through cost reduction. - **Ease of Use**: Market-based pricing is straightforward when market prices are readily available, simplifying the pricing process.

Disadvantages

- **Lack of Exact Product Market Price**: Market prices may not exist for the exact product, making it challenging to determine an accurate transfer price.
- **Fluctuating Market Prices**: In certain industries, market prices can fluctuate widely, introducing uncertainties in planning for both supplying and receiving profit center managers.

Negotiated Transfer Prices

Considers opp. costs ↑

Transfer prices can be established through mathematical formulas, considering opportunity costs and encouraging divisions to operate at profit-maximizing output levels. Alternatively, negotiation between buying and selling divisions may be used, reflecting a truly autonomous system. The resulting transfer price, acceptable to both divisions, arises from direct managerial negotiations without central interference.

Advantages

- **Managerial Control**: Among various transfer pricing methods, negotiated transfer pricing grants managers the highest level of control over divisional pr

Disadvantages

- **Time and Cost**: Negotiations require extensive data, consuming time and incurring costs.
- **Dispute Resolution Challenges**: Difficulty in resolving disputes may necessitate mediation or arbitration mechanisms.
- **Conflict Potential**: Disputes can lead to divisional conflict and hostility.
- **Limited Company Focus**: Emphasis on divisional results may overlook broader company interests. No goal congruence.

Conflicts between Divisions and Company as a whole

To address conflicts related to transfer pricing, the following methods can be employed:

1. **Dual-Rate Transfer Pricing System:**
   - Objective: Overcoming issues like poor morale and lack of motivation.
   - Approach:
     Supplying Division: Credited with a price based on total cost plus a mark-up. @ MC + Markup
     Receiving Division: Debited with marginal cost. @ MC
2. **Two-Part Transfer Pricing System:**
   - Objective: Balancing marginal cost transfers with an additional fixed annual fee.
   - Approach: → @ MC + Opp. cost
     Selling Division: Transfers at marginal cost (including opportunity cost).
     Buying Division: Pays an extra fixed annual fee for the privilege of receiving transfers at marginal cost.
     → @ MC + Annual fee*

Two parts is just an extension of dual rate transfer pricing system.

These methods aim to strike a balance, ensuring fair compensation for the supplying division and motivation for the receiving division to maximize overall group profit.

Topic 3	Divisional Performance and Problem of Goal Congruence

A transfer pricing system should achieve the following objectives:

a. **Motivate Sound Decisions**: Encourage divisional managers to make decisions that enhance both divisional and overall company profits.
b. **Accurate Measure of Managerial Performance**: Result in divisional profit reports that reasonably reflect managerial performance.
c. **Preserve Divisional Autonomy**: Ensure that autonomy granted to divisional managers is not compromised by transfer prices, preventing conflicts and promoting fair decision-making.

However, challenges arise in determining fair transfer prices, especially when divisions interact, and the absence of a competitive market complicates the establishment of theoretically correct transfer prices. The tension between short-term economic decisions and overall company perspectives can lead to conflicts, emphasizing the need for a balanced approach in setting transfer prices.

Topic 4	International Transfer Pricing

Factors influencing international transfer pricing decisions

- tax rates
- income repatriation restriction
- dividend repatriation restrictions
- duties and tariffs
- exposure to foreign exchange rate fluctuations
- political climate
- the need to maintain cash flows in the foreign division
- competitive position of the foreign division
- trade treaties that restrict transfer pricing

Objectives in Setting Transfer Prices

a. **Minimization of Import Duties:**
Aiming to reduce import duties by setting low transfer prices for goods entering high-import-duty economies.
b. **Management of Direct Taxation**:
Planning to minimize global tax charges by aligning with domestic tax neutrality regulations and considering withholding taxes.
c. **Management of Indirect Taxation**:
Adapting to indirect tax regimes, such as value-added tax, by setting transfer prices strategically to recover input tax effectively.
d. **Repatriation of Profits in Kind:**
Overcoming currency controls by exporting products at low prices to repatriate profits in the home currency.
e. **Winning Host-Country Approval**:
Establishing transfer prices that are perceived as fair by local authorities to avoid accusations of overcharging or unfair value exports.

f. **Disguising Subsidiary Profitability**:
Deliberately declaring low profits in an operating country to deter local competition and avoid scrutiny.

g. **Enabling Penetration Pricing**:
Allowing subsidiaries to receive inputs at low prices to implement penetration pricing strategies in the local market.

These objectives help the multinational enterprise navigate financial, tax, and regulatory considerations in different operating environments.

CHAPTER 6

STANDARD COSTING AND VARIANCE ANALYSIS

Topic 1	Introduction

Standard costing

Standard costing is an accounting system employed by manufacturers to identify variances between actual production costs and predetermined standard costs integrated with budgets and profit plans.

CIMA defines it as a control technique reporting variances through the comparison of actual costs to preset standards, facilitating management action by exception.

The process involves establishing predetermined cost estimates, collecting actual costs, and analyzing the differences, known as variances.

Standard costing serves dual purposes: valuation of inventories and cost production for accounting, and as a control device highlighting activities misaligned with plans for corrective action.

Standard Cost

Standard cost is a pre-determined cost expressed in money, serving as a yardstick for performance measurement, control, valuation of stock, and establishing selling prices. It represents the planned cost of a product under specific conditions, based on technical specifications and efficient operating conditions.

According to CAS 1, CAS 6, and CAS 7, standard costs are used as a reference for comparing actual costs, determining variances, analyzing causes, and implementing measures for control.

CIMA Official Terminology defines standard cost as the planned unit cost of a product, component, or service.

Standard costs play a crucial role in an integrated system of responsibility accounting.

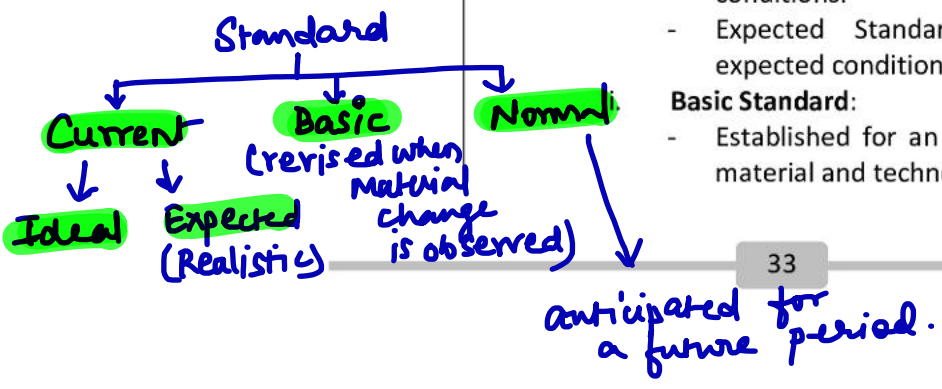
Consideration for establishing Standard Costing System

1. **Determination of Cost Centre**:
   Identifying departments, equipment, personnel, or groups for cost accumulation and control.
2. **Classification of Accounts:**
   Categorizing accounts based on function, asset, or revenue, using codes for efficient data collection.

Types of Standards:

i. **Current Standard**:
   - Ideal Standard: Reflects high efficiency under optimal conditions.
   - Expected Standard: Realistic target considering expected conditions.

ii. **Basic Standard**:
   - Established for an indefinite period, revised only for material and technology changes.



	iii. **Normal Standard**: - Anticipated over a future period, covering a typical trade cycle. 4. **Organisation for Standard Costing**: Forming a committee including key managers and the cost accountant to set and revise standards. 5. **Setting of Standards**: Establishing systematic standards for direct material, direct labour, and overhead expenses for effective cost control.
Standard Costing and Management by Exception (MBE)	a. **Standard Costs as Benchmarks:** Average expected unit costs serving as benchmarks for comparison with actual results. b. **Variances and Significance**: Variances (differences between standard and actual costs) investigated only if deemed significant. c. **Determining Significance:** Tolerance limits set; variances beyond limits warrant investigation. d. **Management by Exception:** CIMA defines as "concentrating on activities requiring attention, ignoring conforming ones."
Setting of Standard Costs	a. **Preliminary Considerations**: Understanding technical and operational aspects, organization structure, cost center divisions, waste anticipation, efficiency, and capacity. b. **System Review**: Examination of existing costing system, cost records, and forms. c. **Type of Standard**: Determining the type (current, basic, or normal) based on effectiveness for cost control. d. **Account Classification**: Proper classification for desired variance determination. e. **Responsibility Assignment**: Assigning responsibility for standard setting to individuals or departments. f. **Specific Aspects**: - Standards composed of monetary and resource components. - Primarily used in marginal costing systems.
Problems in setting standards	1. **Incorporating Inflation**: Need to address inflation in planned unit costs; methods to mitigate inflationary impacts. 2. **Agreeing on Performance Standards**: Ensuring consensus on realistic and attainable performance standards. 3. **Material Quality Decision**: Deciding on material quality impacting costs and potential waste reduction.

	4. **Handling Price Variations**: Estimating materials prices considering seasonal variations or bulk purchase discounts. 5. **Time Constraints**: Limited time for accurate standard construction; time-consuming process. 6. **Cost Incurrence**: Incurring costs for setting up and maintaining a standard establishment system. 7. **Behavioral Challenges**: Addressing potential resistance from managers fearing blame for adverse variances.
Advantages of Standard Costing	1. It guides the management to evaluate the production performance. 2. It helps the management in fixing standards. 3. Standard costing is useful in formulating production planning and price policies. 4. It guides as a measuring rod for determination of variances. 5. It facilitates eliminating inefficiencies by taking corrective measures. 6. It acts as an effective tool of cost control. 7. It helps the management in taking important decisions. 8. It facilitates the principle of "Management by Exception." 9. Effective cost reporting system is possible.
Limitations of Standard Costing	1. Standard costing can be expensive, especially for small businesses. 2. Difficulty in establishing standards due to a lack of technical aspects. 3. Inapplicable for concerns producing non-standardized products. 4. Challenges in fixing responsibility, particularly for uncontrollable variances. 5. Frequent revisions are necessary, and insufficient staff may struggle to operate the system. 6. Not suitable for adverse psychological effects and frequent technological changes.
Types of Standard	Companies set two basic types of standards: **1. Ideal Standard** - Set at the maximum degree of efficiency. - Considers estimated materials, labor, and overhead costs, as well as ideal operating conditions. - Often practically unattainable, leading to unfavorable variances. - Provides a high objective for efficiency improvement but may discourage employees. 2. **Attainable Standard**: - Accounts for factors like lost time, waste, and spoilage.

	- Realizes that some inefficiencies cannot be completely eliminated. - Designed to be met or exceeded in efficient production situations. - Balances motivation and efficiency without demoralizing workers.
Criticisms of Standard Costing	1. Standard costing relies on repetitive operations and homogeneous output, which may not align with today's dynamic and customer-driven business landscape. 2. Standard costing systems were developed in a more stable business environment, and today's dynamic conditions challenge their assumptions. 3. The assumption that performance to standard is acceptable contrasts with the current business emphasis on continuous improvement. 4. Originally designed for mass production and repetitive assembly work, standard costing may be less applicable in today's growing service sector.
Use of Standard Costing	1. Identification of standard components and activities allows effective cost control, even in non-standardized output scenarios. 2. Computer power facilitates rapid and frequent updates of standards, ensuring their ongoing usefulness for control through comparison. 3. Combining ideal standards and demanding performance levels enables the benefits of continuous improvement alongside standard costing control. 4. Standard costing can be applied in service industries where measurable cost units can be established.
Similarity between standard costing and budgetary control	1. The establishment of predetermined targets of performance. 2. The measurement of actual performance. 3. The comparison of actual performance with the predetermined targets to find out variations, if any. 4. Analysis of variations between actual and predetermined performance. 5. To take remedial action, where necessary.

Conceptual difference between standard costing and budgetary control

Aspect	Standard Costing	Budgetary Control
Scope	Primarily manufacturing or service-oriented.	Business operations as a whole.
Adoption	Can be adopted without a specific policy.	Requires a clear objective or policy.

Comparison Approach	Compares actuals through recorded accounts.	Compares budgets and actuals side by side.
Partial Application	Not suitable for partial application.	Can be applied partially to specific departments.
Analysis of Variances	Variances analyzed in detail.	Variances revealed in total; detailed analysis may not be feasible.
Nature of Projection	Projection of cost accounts.	Projection of financial accounts

Variances and their Analysis	Variances in accounting refer to the differences between actual and standard or expected results. When actual results exceed standards, it's a favorable (F) variance, and when they fall short, it's an adverse (A) variance. Variances help identify responsibility for performance outcomes. Variance analysis involves comparing set standards with actual results over a reporting period, focusing on various aspects like material and labor costs, sales volume, and overall contribution. Management uses this analysis to investigate discrepancies, control performance, and take corrective actions. CIMA Official Terminology defines variance as the difference between planned or standard costs and actual costs, and variance analysis as evaluating performance through timely reporting of variances to inform managerial action.

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CHAPTER 7

FORECASTING, BUDGETING AND BUDGETARY CONTROL

Topic 1	Introduction
Budgeting	Budgeting is widely acknowledged as an effective method for short-term planning and control, employed not only in large enterprises but also informally in smaller businesses. This practice involves outlining a business's plans for an accounting period. Budgeting is a crucial application of Management Accounting, serving as a versatile tool for addressing various managerial challenges, including managing inflation. It is considered one of the most valuable aids to effective management.
Budget	A budget is a pre-approved financial plan for a defined period, specifying expected income, expenditure, and capital utilization to achieve specific objectives. It serves as a standard for comparison with actual results, aiding in managerial decision-making. Features of Budget ✓ Financial and/or Quantitative statement ✓ Futuristic – prepared and approved prior to a defined period of time ✓ Goal Oriented – for the purpose of attaining a given objective ✓ Components – income, expenditure and employment of capital
Budgetary Control	Budgetary control is the process of creating budgets that align executive responsibilities with organizational policies. It involves continuously comparing actual results with budgeted figures to either achieve policy objectives through individual actions or to provide a basis for policy revision.
Uses of budgets	**A. Primary uses** - Quantifying planned resource usage (materials, labour, etc.) - Quantifying income generation - Quantifying resource procurement (materials, outsourced components, subcontractors) **B. Secondary uses** - Quantifying payment for resources (cash budgeting) - Quantifying collections of cash (from debtors, etc.) **C. Tertiary uses** - Telling people what they are meant to achieve - Basis of negotiation - Means of communication - Component of reward/payment systems

Objectives of Budgeting

1. Encourage self-study across all company operations.
2. Foster coordinated teamwork among management members towards well-defined objectives.
3. Clearly define and crystallize company policies and aims.
4. Enhance the efficiency of people and capital utilization.
5. Identify areas for potential improvement in company operations.
6. Promote the study of the company's relationship with its external economic environment to improve overall direction effectiveness.

Forecast Vs Budget

Aspect	Budget	Forecast
Nature	Financial plan expressed in quantitative terms	Estimation of future trends and outcomes based on past and present data
Preparation Time	Prepared by management in advance for forthcoming period	Done on regular intervals, often predicting several years ahead
Targets	Sets specific financial targets	Predicts upcoming events or trends without setting specific targets
Purpose	Financial expression of a business plan or target	Prediction of upcoming events or trends in business based on present conditions
Timeframe	Annual concept	Done regularly, not necessarily annually
Variance Analysis	Involves variance analysis between budgets and actuals	No provision for variance analysis
Focus	Mechanism for profit planning and technique of operating cost control	Provides a detailed look at growth and development, operations, customer reach, revenue, and profitability
Key Activities	Outlines future financial operations to meet revenue goals and reduce costs	Creates projections based on present conditions, supporting growth and development

Topic 2 Rationale for Budgets

Budgeting serves several key purposes in business:

a. **Goals Definition**: Precisely outlines overall business aims and establishes performance targets for each section or department.
b. **Responsibility Definition**: Clearly defines responsibilities for executives and personnel, ensuring clarity in expectations and evaluations.
c. **Performance Evaluation Basis**: Establishes a basis for comparing actual performance with predetermined targets, facilitating timely corrective measures.
d. **Optimal Resource Utilization**: Ensures the optimal use of resources to maximize profit or production within limiting factors.
e. **Coordination**: Coordinates business activities, centralizing control while allowing for decentralized responsibility and delegated authority.
f. **Planned Action**: Encourages careful forethought and planned action, fostering dynamism without recklessness and aiding in long-range planning.

Topic 3	General principles in the Budgetary process

Essentials of Effective Budgeting	1. **Organization Chart**: Clear chart defining authority and responsibilities. 2. **Top Management Support**: Full support and direction from top management. 3. **Team Work**: Grassroots involvement, education, and participation. 4. **Realistic Objectives**: Attainable and agreed-upon budget goals. 5. **Excellent Reporting System**: Prompt reports, focus on significant exceptions, and effective feedback. 6. **Structure of Budget Team**: Dedicated team for forecasts, targets, and Master Budget approval. 7. **Well-Defined Business Policies**: Alignment with clear and precise business policies. 8. **Integration with Standard Costing System**: Full integration for both budget preparation and variance analysis. 9. **Goal Congruence**: Motivating all employees positively toward budgeting.
Requirements of a Good Budgeting System	a. Quantified and clear organizational goals within strategic plans. b. Chief executive support for the budgeting process. c. Division of organizational goals into functional goals. d. Comprehensive coverage of all organizational phases in the budget. e. Universal acceptance of the budget preparation exercise by all personnel. f. Involvement of budget executors in the preparation process. g. Realistic representation of reasonably attainable goals in the budget. h. Budgeting system based on information, communication, and participation. i. Continuous and ongoing budgeting exercise. j. Prompt preparation of periodic reports for effective follow-up.
Fixed or Static Budget	A Fixed Budget serves as a tool for cost control, but its effectiveness diminishes when the actual activity level differs significantly from the budgeted level. It is designed for short-term periods where actual results are not expected to deviate significantly from the budget estimates. While not rigid, the fixed budget can be modified, yet the activity level typically remains constant. **Merit/Advantages** - Very Simple to prepare - Less time consuming

	Demerit/Disadvantages - Misleading, allowing poor performance to go undetected and good performance to go unrealized. - Unsuitable for long periods. - Ineffectual during constantly changing business conditions. - Reduces initiative among administrative staff, leading to disinterest in their roles. - Inadequate for effective control purposes. - Violates logic by comparing dissimilar bases. - Accuracy in estimates is challenging.

Topic 4	Formulation of various types of Budgets

Flexible Budget	A flexible budget, also known as a variable or sliding scale budget, adjusts according to the actual level of activity attained. It considers fixed, variable, and semi-fixed manufacturing costs. Unlike a static budget that shows expected costs at a single activity level, the flexible budget adapts to changes in activity levels. According to CIMA, it is designed to change with the achieved activity level. The preparation involves creating a series of fixed budgets for different activity levels, detailing budgeted expenses for each cost item.
Methods of Preparing Flexible Budget	a. **Multi-Activity Method**: Creates a budget for different activity levels, categorizing expenses as fixed, variable, and semi-variable. b. **Ratio Method**: Prepares a budget with expected activity and estimated variable cost per unit, calculating expenses using a specific formula. c. **Charting Method**: Estimates total expenses for an activity level, classifying them into variable, semi-variable, and fixed categories. Plots these figures on a graph for determining budgeted expenses corresponding to the achieved activity level.
Characteristics of Flexible Budget	- Adjustable according to Business Conditions. - Prepared in advance for various levels of activity. - It is a dynamic budget. - Control possible over unfavourable impact of change in future. - Classification of cost in the form of Fixed, Semi-variable and Variable cost.
Advantages of Flexible Budget	1. **Easy Calculation:** Simplifies calculation of sales, costs, and profit at various production capacities. 2. **Adaptability to Change:** Allows easy adjustments in response to changing business conditions.

	3. **Understanding Cost Impact:** Classifies costs into fixed, semi-variable, and variable categories, providing clarity on their impact on profits. 4. **Comparability:** Facilitates quick comparison of actual production costs with budgeted costs for timely decision-making. 5. **Cost Control:** Aids cost control by comparing actual costs with budgeted costs, enabling corrective measures. 6. **Production Level Determination:** Helps select a production level aligned with predetermined profits and indicates the quantity needed for desired profits.
Limitations of Flexible Budget	1. Requires a proper accounting system for formulation. 2. Depends on the presence of a standard costing system in the business. 3. Relies on the availability of cost experts. 4. Requires perfect knowledge about production factors and variable business circumstances. 5. Incurs high costs and is labor-intensive.

Distinction between fixed and flexible budget

Basic of Difference	Fixed Budget	Flexible Budget
Assumption	It is based on the assumption that business conditions will remain constant.	It is based on the assumption that business conditions are changing
Nature	It has a fixed nature. Change is not possible once prepared	It has a dynamic/variable nature. Adjustment is possible
Classification of Cost	Cost is not classified according to their nature in Fixed Budget	Cost is classified into fixed, variable and semivariable costs according to their nature.
Comparison	It is very difficult to compare between two activity levels on the basis of Fixed Budget	It is very easy to compare between two activity levels on the basis of Flexible Budget due to classification of costs.
Forecast	Pure forecast is not possible on the basis of Fixed Budget	Pure forecast about various costs of production is possible on the basis of Flexible Budget
Business Decisions	Fixed Budget is not more appropriate and suitable for business decisions	Flexible Budget is more appropriate and suitable for business decisions
Effectiveness	Fixed Budget is not more effective because it is not dynamic	Flexible Budget is more effective because it is dynamic
Economy	Fixed Budget is less expensive and less time consuming.	Flexible Budget is more expensive and time consuming.

Functional Budgets	Functional budgets are department-specific financial or quantitative statements within an organization, summarizing policies and expected performance for a budget period.

	These budgets are aggregated to create the overall master budget for the entire organization. Functional budgets are tailored to specific functions within an organization, and their number depends on the size and nature of the business. They can be temporary or permanent based on their intended use.
Master Budget	The Master Budget is a comprehensive budget that consolidates all functional budgets, including budgeted profit and loss accounts, balance sheets, production, sales, and costs. It represents the activities of a business during a profit plan and aids in coordinating various departmental activities. The Master Budget is presented in two parts: a forecast income statement and a forecast balance sheet, detailing key revenue, expense, and capital items. Once approved, it serves as a guide for departments to plan their activities in alignment with their respective budgets.
Cash Budget	The Cash Budget (also called as Functional Budget) anticipates cash receipts and payments during a budget period, crucial for meeting current financial obligations and preventing insolvency.
Zero Base Budgets (ZBB)	Traditional budgeting, often incremental, adjusts the existing budget for expected changes without fundamental reviews, potentially overlooking inefficiencies. ZBB challenges each expense item, treating each program as entirely new. ZBB questions the necessity, method, and cost of each activity. Option budgets, a variation of ZBB, ask managers to consider responses to expenditure cuts, promoting efficiency by encouraging a rethink of policies and procedures. **Advantages of ZBB** → Better resource allocation. a. Allocates resources based on managers' prioritization of essential activities. b. Improves resource allocation alignment with business objectives. c. Forces managers to plan ahead and justify activities during the budgeting process. d. Fosters a greater sense of ownership among managers. e. Promotes a questioning and critical attitude toward processes and procedures. f. Allocates resources based on need and benefits received in line with organizational objectives. **Disadvantages of ZBB** a. Impractical for constant reappraisal, especially in larger organizations. b. Risk of losing sight of strategic goals with excessive internal scrutiny. c. Bureaucratic burdens from frequent meetings and reports. d. Legal constraints in government organizations. e. Challenges in separating highly interlinked activities.

Performance Budget	Performance Budgeting is a budget system based on functions, activities, and projects, where input costs are linked to end results. It involves establishing clear responsibility centers, setting target performance programs in physical units, forecasting expenditure to meet the plan, comparing actual performance with budgets, and periodically reviewing and modifying programs as needed.
Programme Budget	A Planning, Programming, Budgeting System (PPBS) is an approach that separates policy planning from short-term financial planning. It starts by identifying programs to achieve organizational objectives, evaluating costs and benefits for relative priorities. Subjective judgment guides the selection of programs, and resources are allocated accordingly.
Rolling Budget	A rolling budget is continuously updated by adding a new accounting period (month or quarter) as the earlier one expires. It allows for continuous planning and review, ensuring a 12-month budget is always available. This contrasts with an annual budget, providing more realistic and current targets, though it may create uncertainty for managers due to frequent changes. Rolling budgets encourage ongoing planning and timely adjustments as new information becomes available. **Advantages** 1. Reduces uncertainty by focusing detailed planning on short-term prospects. 2. Forces regular reassessment of the budget, ensuring it stays up-to-date with current events. 3. Planning and control are based on a recent and realistic plan. 4. Realistic budgets have a better motivational influence on managers. **Disadvantages** 1. Require more time, effort, and resources in budget preparation. 2. Frequent budgeting may discourage managers who question the value of preparing budgets at regular intervals. 3. Revisions to the budget may necessitate changes to standard costs, leading to additional administrative efforts for the accounts department with each rolling budget preparation.
Outcome Budget	Outcome Budgeting is considered a major budgetary reform, shifting focus from inputs and outputs to outcomes, encompassing a macro analysis of results, accomplishments, and impact. It serves as a pre-expenditure instrument to inform and involve external stakeholders in government goals, achievements, and associated costs. Introduced in 2005, it analyzes the progress of each ministry and department, emphasizing development outcomes and linking budget outlays to deliverables and medium-term results. Outcome Budgeting makes government programs more result-oriented, emphasizing the correlation between outlay, output, and outcome.

Topic 5	Budgetary Control
Meaning	Budgetary Control involves establishing budgets, aligning executive responsibilities, and continually comparing actual results with budgeted outcomes. It aims to secure policy objectives through individual actions or serve as a basis for policy revision. The process includes closely monitoring actual sales and expenses, setting goals at organizational and personal levels, and implementing corrective measures if results deviate significantly. This control system manages performance and costs across business segments by establishing, comparing, and adjusting budgets as needed. Essentially, it transforms projected plans into concrete actions, ensuring adherence through continuous comparisons and prompt remedial actions based on calculated variances.
Objectives of Budgetary Control	1. **Planning:** Budgeting involves detailed planning for various aspects of the business, such as production, sales, raw materials, labor, and capital additions. It requires continuous revision to anticipate and address potential challenges. 2. **Co-ordination**: Budgeting plays a crucial role in establishing and maintaining coordination within an organization. It ensures that the efforts of different departments align with the overall objectives, preventing conflicts and enhancing efficiency. 3. **Measurement of Success**: Budgets serve as a tool to measure the success of managers in meeting predefined targets. Performance is evaluated by comparing actual results with the targets set in the budget. 4. **Motivation**: Participation in the budgeting process acts as a motivating force for individuals to achieve business goals. Managers are incentivized to meet the budget targets, and success in this regard may lead to rewards or promotions. 5. **Communication**: Budgets serve as a means of communication within a firm. They provide information about programs, guidelines, and restrictions, ensuring that everyone in the organization is aware of the planned activities. 6. **Control:** Budgeting facilitates control by systematically informing management about the extent to which planned performance is being achieved. It helps in monitoring and adjusting activities to ensure alignment with objectives.
Advantages of Budgetary control	a. **Profit Maximization**: Aims at maximizing profits through effective planning and control. b. **Economic Utilization:** Ensures a planned approach to expenditure for optimal fund utilization. c. **Clear Definition**: Provides a clear definition of organizational objectives and policies. d. **Managerial Co-ordination**: Facilitates coordination among different management levels.

	e. **Effective Utilization**: Promotes optimal use of resources by making each level of management aware of tasks. f. **Control by Exception**: Focuses on deviations from budgets to identify weaknesses. g. **Forward Thinking**: Cultivates a habit of thinking ahead and studying problems in advance. h. **Delegation of Authority**: Assists in the delegation of authority and responsibility accounting.
Limitations of Budgetary control	a. **Rigidity:** Introduces inflexibility as budget estimates may be seen as final. b. **Cost for Small Firms**: The detailed process is costly, especially for small businesses. c. **Not a Panacea**: It complements but doesn't replace management. d. **Conflict Risk:** May cause conflicts among managers vying for credit. e. **Installation Costs**: Establishing the system is expensive, especially for small companies.
Importance and Significance of Budgetary Control	a. **Strategic Thinking:** Forces forward-looking strategic planning, providing purpose and direction. b. **Co-ordination and Communication:** Promotes harmony and clear communication. c. **Responsibility Definition**: Clearly defines managerial responsibilities for achieving budget targets. d. **Performance Appraisal**: Serves as a yardstick for assessing actual performance against plans. e. **Timely Remedial Action**: Allows prompt corrective measures as variances emerge. f. **Employee Motivation**: Involves employees in the budget-setting process, enhancing motivation. g. **Optimized Resource Allocation**: Improves the allocation of scarce resources. h. **Time Efficiency**: Follows the management by exception principle, economizing managerial time.

Topic 6	Benchmarking and Key Success Factor
Introduction	Benchmarking is a practice for continuous performance improvement by comparing a firm's products or activities with high-performing organizations globally. It aims to identify and implement best practices for enhanced efficiency. **Benchmarking Code of Conduct:** - Principle of Legality: Ensuring all benchmarking activities adhere to legal standards. - Principles of Exchange: Promoting fair and reciprocal sharing of benchmarking information.

- **Principle of Confidentiality:** Maintaining confidentiality of shared benchmarking data.
- **Principle of Use:** Responsible and ethical use of benchmarking information.
- **Principle of First-Party Contact:** Direct communication with the benchmarking partner.
- **Principle of Third-Party Contact:** Engaging third parties ethically in benchmarking.
- **Principle of Preparation:** Adequate preparation for effective benchmarking.

Stages in the Process of Benchmarking

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Stage 1:
- Planning
- Determination of benchmarking goal statement.
- Identification of best performance.
- Establishment of the benchmarking of process improvement team.
- Defining the relevant benchmarking measurement.

Stage 2: Collection of Data and information
Stage 3: Analysis of the findings based on the data collected in Stage 2
Stage 4: Formulation and implementation of recommendations
Stage 5: Constant monitoring and reviewing

Types of Benchmarking

1. **Competitive Benchmarking**:
   - Compares products, processes, and results with competitors.
   - Partners from the same sector; often done through trade associations or third parties.
2. **Strategic Benchmarking**:
   - Similar to process benchmarking but focuses on long-term strategies.
   - Involves comparing high-level aspects like new products, services, and core competencies.
3. **Global Benchmarking**:
   - Bridges international distinctions in culture, business processes, and trade practices.
   - Utilizes advancements in globalization and information technology.
4. **Process Benchmarking**:
   - Compares critical business processes against best practices in similar organizations.
   - Example: Analyzing how best-practice organizations process customer orders.
5. **Functional Benchmarking**: → Different sectors
   - Involves benchmarking with partners from different sectors for improving similar functions or processes.
   - Can lead to innovation and significant improvements.
6. **Internal Benchmarking**: → Subunits of the same orgn.
   - Seeks partners within the same organization, such as different business units.

	- Easier data access, standardized data, and requires less time and resources. - May lack real innovation, and best-in-class performance is often found through external benchmarking. 7. **External Benchmarking**: - Involves seeking help from outside organizations known to be best in class. - Offers opportunities to learn from leaders but requires careful transfer of best practices. - May take more time and resources to ensure data comparability, findings credibility, and sound recommendations
Performance management	Performance management is a systematic process aimed at improving organizational performance by developing individuals and teams. It involves aligning individual objectives with organizational goals, focusing on achieving goal clarity, and fostering a high-performance culture. Key elements include agreement, measurement, feedback, positive reinforcement, and ongoing dialogue. Performance management focuses on future planning and improvement, emphasizing development rather than retrospective appraisal. The process includes role definition, performance agreements, performance improvement plans, and personal development plans, promoting continuous growth and cooperation between managers and individuals or teams.

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CHAPTER 8

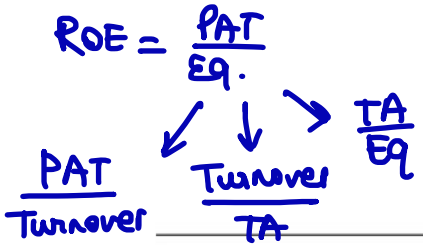
DIVISIONAL PERFORMANCE MEASUREMENT

Topic 1	Organisations with Multiple divisions, Benefits of Decentralization

Decentralization Dynamics	Decentralization in business occurs along a continuum, determined by factors such as managers' characteristics, organizational growth needs, and the nature of activities. It doesn't imply complete autonomy for unit managers, as top management selectively delegates authority. Even in decentralized companies, certain functions may remain centralized. For instance, treasury functions are often centralized for better cash control, operational risk management, oversight, cost reduction, and eliminating redundancies. Despite delegation, top management retains ultimate responsibility, necessitating sophisticated accounting and reporting systems for comprehensive sub-unit accountability and measurement.
Disadvantages of Decentralization	a. Can result in a lack of goal congruence or sub optimization by sub-unit managers. b. Requires more effective communication abilities because decision making is removed from the home office. c. Can create personnel difficulties upon introduction, especially if managers are unwilling or unable to delegate effectively. d. Can be extremely expensive, including costs of training and of making poor decisions.
Benefits of Decentralization	a. Helps top management recognizes and develop managerial talent. b. Greater awareness of local problems c. Allows managerial performance to be comparatively evaluated. d. Decisions are delegated and resulting less stress for senior management e. Develops skill level of junior managers f. Can often lead to greater job satisfaction and provides job enrichment. g. Makes the accomplishment of organizational goals and objectives easier. h. Reduces decision-making time. i. Allows the use of management by exception.

Topic 2	DuPont Analysis

Introduction	DuPont analysis, developed by the DuPont Corporation, dissects Return on Equity (ROE) into key components, providing investors and managers with insights into a company's financial performance.



	By breaking down ROE into net profit margin, asset turnover, and equity multiplier, this analytical model helps identify areas for improvement and strengths within a business. It serves as a valuable tool for making informed decisions and assessing the impact of various financial activities on overall performance.
DuPont Methodology: Key Drivers of ROE	1. **Operating Performance**: Calculated as net profit divided by total revenues, it reflects the efficiency of generating profit after expenses. Improving net profit margin positively impacts ROE. 2. **Asset Usage Performance**: Measured by Total Asset Turnover (Turnover ÷ Total Assets), it gauges how efficiently the company utilizes its assets. Increased asset turnover contributes to higher ROE. 3. **Financial Leverage**: Involves using debt to acquire assets or fund projects, known as leveraging. It plays a role in amplifying ROE but requires careful management to mitigate risks.
Significance of Du Pont Analyses	The company can increase its Return on Equity if it- a. Generates a high Net Profit Margin. b. Effectively uses its assets so as to generate more sales c. Has a high Financial Leverage
Disadvantage of DuPont Analysis	a. **Data Manipulation Risk**: DuPont analysis relies on accounting data, susceptible to manipulation, impacting the reliability of results. b. **Limited Context:** Despite its comprehensiveness, DuPont study may lack meaningful insights into why individual ratios are high or low. c. **Subjective Evaluation**: Determining whether ratios should be considered high or low remains subjective, requiring additional context or benchmarks for clarity.

Topic 3	Divisional Performance Measurement tools – ROI, Residual Income

Use of ROI	a. **Financial reporting**: It ties in directly with the accounting process, and is identifiable from the income statement and statement of financial position (balance sheet), the firm's most important communications media with investors. b. **Aggregation**: ROI is a very convenient method of measuring the performance for a division or company as an entire unit.

RI = Net Income − (Equity × ke)

Residual Income (RI)

RI is the net income of a division minus the 'imputed' capital charge. This charge, based on the required rate of return, reflects the minimum acceptable return on the division's investments. RI addresses ROI limitations by quantifying the actual monetary return contributed by a division. It calculates the operating income exceeding a targeted return on investments, providing a more precise assessment of divisional performance. RI focuses on the tangible monetary contribution, offering a clearer measure of a division's impact on the company's financial success.

Imp

Advantages

a. Prevents suboptimal decisions by not rejecting investments solely based on lowering divisional ROI.
b. Maximizes company growth and enhances shareholders' wealth by accepting opportunities exceeding the cost of capital.
c. The cost of capital charge on divisional investments ensures awareness of the opportunity cost of funds.
d. Charging each division with the company's cost of capital aligns decisions with the overall interests of the organization.

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Disadvantages

a. Difficulty in comparing divisions of different sizes due to the absolute nature of residual income.
b. Larger divisions tend to show higher residual incomes, creating a potential bias.
c. Addressing this requires setting targeted residual income levels based on divisional asset size and market conditions.
d. Residual income, like ROI, may encourage a short-term focus over long-term strategic goals.

Biased towards large divisions

Both ROI & RI encourages short-term focus over long-term strategic goals.

Topic 4	Economic Value Added – Definition, EVA Centre, EVA Drivers

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EVA

EVA, or Economic Value Added, is a value-based financial performance measure and investment decision tool. Developed by Stern Stewart & Co, it reflects the absolute amount of shareholder value created by calculating the product of "excess return" on investments and the capital invested. By addressing accounting anomalies, EVA enables direct comparisons of companies with similar risk profiles. It measures a firm's ability to earn more than the true cost of capital, representing economic profit that exceeds investor expectations. Economic value, defined as the present value of future cash flows, applies not only to entire business valuations but also to specific decisions, often referred to as EVA or 'economic value added.

EVA Centre

- Divisionalization enables performance measurement through responsibility accounting.
- Responsibility Accounting
  - ✓ Segregates costs and revenues into responsibility centres.
  - ✓ Specific managers are assigned to each area.

	- Types of Responsibility Centres ✓ **Cost Centre:** Manager responsible for controlling costs. ✓ **Profit Centre:** Manager oversees both costs and revenues. ✓ **Investment Centre:** Manager accountable for costs, revenues, and investment decisions. Responsible for both profits and return on investment.
EVA Drivers	a. Decisions with impact on EVA b. Overview c. Operative decisions d. Investment decisions e. Financing decisions

Topic 5	Introduction to Learning Curve

Learning Curve	The learning curve signifies that efficiency improves with experience, resulting in reduced time for task completion. It is applied in planning, budgeting, and estimating labor costs. Initially higher costs stabilize as productivity improves, with efficiency gains observed in both individual and group settings. However, improvements plateau after a certain point in the production process. The limits for learning curve percentages are as follows - Learning Curve Limits: ✓ Learning curve is always below 100%, as 100% implies no learning and no reduction in time. ✓ Applies to both cumulative average-time and incremental unit-time learning models. - Cumulative Average-Time Learning Model Limit: ✓ Must be greater than 50%. ✓ If less than or equal to 50%, it implies impossible scenarios, such as the total time for additional units being less than the initial units' time. ✓ No similar restriction for the incremental unit-time learning model, as it estimates time for the last unit and could theoretically be less than 50%
Application of Learning Curve	1. **Productivity Improvement:** - Worker performance enhances with experience. - Time per unit decreases, boosting overall productivity. 2. **Cost Predictions:** - Learning curve aids in precise cost predictions. - Enables competitive price quotations for potential orders.

	3. **Work Scheduling**: - Facilitates accurate prediction of required inputs. - Assists in preparing precise delivery schedules. 4. **Standards Setting**: - Essential for meaningful budget and standard setting. - Prevents variances in performance evaluation by considering learning curve.
Limitations and Problems of Learning Curve Analysis	a. Appropriate for repetitive, labor-intensive tasks, not suitable for highly automated processes. b. Assumes a constant learning rate, which may not reflect real-life scenarios with varying rates. c. Reliability is jeopardized if observed productivity changes are influenced by factors other than learning, such as shifts in labor mix or product mix.

Topic 6	Balanced Score Card for Variable Pay Management

Characteristics of Balanced scorecards	a. **Strategic Focus**: - Emphasizes cause-and-effect relationships in highlighting the company's strategy. - Targets specific objectives in 'learning and growth' for improved internal processes. b. **Communication and Alignment**: - Translates strategy into understandable operational targets. - Encourages actions throughout the organization aligned with the strategy. c. **Financial and Non-Financial Balance**: - Stresses financial objectives in profit-seeking companies. - Links non-financial measures to strategy for future financial improvement. d. **Focused Measures**: - Limits the number of critical measures for strategy implementation. - Directs management attention to key indicators. e. **Highlighting Trade-Offs**: - Identifies sub-optimal trade-offs when operational and financial measures are not considered together. - Ensures decisions align with long-term goals, preventing actions for short-term gains at the expense of future performance.
Perspectives of the Balanced Scorecard	1. **Financial Perspective**: ✓ Evaluates profitability through cost reduction and sales growth.

	✓ Focuses on operating income and return on capital resulting from strategic initiatives. 2. **Customers Perspective**: ✓ Identifies target market segments and measures success through new customers and satisfaction. ✓ Monitors growth objectives and customer-related metrics. 3. **Internal Business Process Perspective**: ✓ Focuses on internal operations creating customer value and increasing shareholder value. ✓ Includes sub-processes like innovation, operations, and post-sales service. 4. **Learning & Growth Perspectives**: ✓ Identifies organizational capabilities crucial for superior internal processes. ✓ Emphasizes employee skills, information system capabilities, and motivation as key aspects.
Challenges with Balanced Scorecard for Performance Measurement	- The balanced scorecard has potential drawbacks, including the need for close monitoring of its efficacy in achieving strategic goals. - A lack of strong causal relationships between non-financial and financial indicators may require re-evaluation. - Implementation requires extensive enterprise resource planning. Misuse as a "command and control" tool may lead to employees prioritizing numbers over organizational goals. - Non-financial data's reliability is questionable due to lack of control and audit. - Comparing business units using scorecards is challenging as each unit has an individualized scorecard; effectiveness is better for intra-unit evaluations than inter-unit comparisons.

CHAPTER 9

RESPONSIBILITY ACCOUNTING

Topic 1	Concept of Cost, Revenue, Profit and Responsibility Centres

Responsibility Accounting	Responsibility accounting is a crucial management control tool in decentralized organizations. It involves reporting on the performance of organizational subunits and their managers, emphasizing accountability for plans and actions. This system, also known as activity or profitability accounting, personalizes control reports by accumulating and reporting cost and revenue information based on defined responsibility centers. The goal is to hold managers accountable for their performance and the activities within their responsibility center. Responsibility accounting produces reports tailored to fit planning, control, and decision-making needs, providing both monetary and non-monetary information for evaluating subordinate managers and organizational units.
Integration of Responsibility Accounting and Five Basic Control Functions	A responsibility accounting system helps organizational unit managers to conduct the five basic control functions: 1. Prepare plan with budgets, standards, delegate authority 2. Gather actual data using responsibility accounting 3. Monitor planned versus actual data at intervals 4. Provide responsibility reports for comparisons 5. Exert managerial influence to address differences promptly; repeat process
Assumptions of Responsibility Accounting RC	- Define clear areas of responsibility for managers - Assign managers control only over items they can influence significantly - Actively involve managers in setting performance goals or budgets - Set attainable goals for efficient and effective performance - Provide control reports with significant information for each responsibility area - Expect responsibility center managers to achieve established budgets and objectives.
Advantages of Responsibility Accounting RC	1. Facilitates decision-making delegation 2. Supports management by objectives, aligning goals with performance evaluation 3. Guides performance evaluation and establishes standards for comparison 4. Enables effective management by exception, focusing on significant deviations from standards and budgets.

A responsibility center is an area controlled by an individual, such as a department or product line. These areas vary based on the organization's nature and activities, encompassing departments, product lines, territories, or combinations. Managers, like plant or sales managers, are responsible for specific activities within their areas. Effective planning and control systems hinge on clearly defined areas of responsibility, ensuring accountability for performance. Identification of responsibilities is crucial for building structured management systems.

Four types of responsibility centers are commonly identified

Responsibility Centre

1. **Cost Center**:
   - Controls expenses without consideration of capital or revenue.
   - Evaluated against fixed or semi-variable budgets.
   - May lead to counterproductive behavior due to a narrow focus on cost control.
2. **Profit Center**:
   - Manages both revenues and expenses independently.
   - Aims to maximize profit or minimize loss.
   - Encourages attention to profitability but challenging for certain departments.
3. **Revenue Center**:
   - Focuses solely on generating revenues.
   - Limited control over selling prices and budgeting costs.
   - Requires stringent controls to ensure profitability and avoid counterproductive activities.
4. **Investment Center**:
   - Manages revenues, expenses, and invested funds.
   - Measures performance using return on investment.
   - Suitable for rapidly changing markets and allows for decentralized decision-making.

Overall, responsibility centers align with organizational goals but require careful consideration of control and performance evaluation mechanisms

Topic 2 Preparation of Responsibility Report

Responsibility Report

Responsibility reporting should be tailored to suit the specific needs of the responsibility center, considering content, frequency, and level of detail. Reports should focus on items controlled by the manager, with detailed and frequent reporting for those directly responsible. Senior management receives summarized reports less frequently, reflecting their overarching responsibility for long-term and strategic decisions. Tailoring reporting to the relevant level of management ensures effective communication and decision-making.

Characteristics

1. Reports must align with the organization chart, addressing individuals responsible for controlled items, and managers should be trained to interpret results.

2. Reports should be prompt and timely, requiring well-organized cost records for timely information availability.
3. Regularity and promptness in reporting rely on efficient mechanical systems for assembling and issuing reports.
4. Reports should be easily understood, avoiding excessive accounting terminology, and top management should possess some accounting knowledge.
5. Reports should provide sufficient but not excessive details, tailored to the management level receiving them.
6. Comparative figures, comparing actual with budgeted or predetermined standards, and isolating variances, should be included in reports.
7. Reports should be analytical, delving into underlying documents to identify reasons for performance variations.
8. Whenever possible, reports for operating management should be stated in physical units as well as in monetary terms.
9. Reports may highlight departmental efficiencies, inefficiencies, and progress towards future goals or targets.

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CHAPTER 10

DECISION THEORY

Topic 1	Introduction
Decision Theory	Decision theory is a field that explores the economic and statistical aspects of individual decision-making. It revolves around understanding and optimizing choices based on ideas, attitudes, and wishes. The theory aids entities in making rational decisions in uncertain conditions. Businesses globally utilize decision theory to comprehend customer and market behavior, aiming for better decision-making. Mathematicians, economists, marketers, scientists, psychologists, philosophers, and politicians use normative and descriptive theories. The focus here is on business problems where optimal actions are sought considering uncertain outcomes, typically measured in terms of profit, revenue, cost, or loss in Rupees. The goal is to identify alternatives that, on average and in the long run, result in the highest profit or revenue or the lowest cost or loss.
Decision making under conditions of certainty	- Decision-making involves choosing the best alternative for profit maximization or cost minimization. - Alternatives in decision theory are termed "acts," and potential outcomes are referred to as "states of nature." - Certainty conditions assume a known future with a probability of 1, making outcomes definite and eliminating conflicts. - Short-term decision-making models operate under conditions of certainty. - Certainty conditions are rare in the dynamic business environment, challenging the concept of perfect information. - The deterministic model encompasses short-term decision-making under certainty, despite facing criticism. - This model is valued for its simplicity and significant contribution to academic
Decision making under condition of uncertainty	- Uncertainty represents the opposite end of the continuum from certainty in decision-making. - Unlike certainty, where the future is known and assured, uncertainty involves unknown future states of nature. - Decision-makers facing uncertainty lack information on the probability distribution associated with future states. - Special decision criteria have been developed to address decision-making under uncertainty, and these will be discussed in a later section of the module.

Decision making under condition of risk	- Risk, extensively discussed in finance literature, involves situations where the decision-maker lacks certainty or uncertainty about future states of nature. - In risk, imperfect information exists, and probabilities, whether priori or statistical, are assigned to future events. - Priori probabilities stem from inherent symmetries, while statistical probabilities are derived from data analysis. - These probabilities aid decision-making under risk by quantifying the likelihood of events occurring or not.

Risk Vs Uncertainty

Basis For Comparison	Risk	Uncertainty
Meaning	The probability of winning or losing something worthy is known as risk	Uncertainty implies a situation where the future events are not known.
Ascertainment	Measurable	Not Measurable
Outcome	Chances of outcomes are known	The outcome is unknown
Control	Controllable	Uncontrollable
Minimization	Yes	No
Probabilities	Assigned	Not Assigned

Topic 2 Decision Tree

Decision Tree	a. Decision trees are visual tools for managers to map out alternative decision paths, useful in analyzing choices like hiring, marketing, and investments. b. Primarily applied under conditions of risk, decision trees graphically represent all potential outcomes of a decision. c. The term comes from their graphic appearance, starting with the initial decision and branching out to show alternatives and associated payoffs. d. These trees force managers to explicitly analyze future decision conditions and assess outcomes for different alternatives. e. Flexible and applicable in various situations, decision trees incorporate probabilities and values in decision-making. f. They are diagrams illustrating choices and outcomes, aiding in interpreting complex probability problems and ensuring a logical approach.
Merits of Decision Trees	a. All the possible choices that can be made are shown as branches on the tree. b. All the possible outcomes of each choice are shown as subsidiary branches on the tree.