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BBA | Semester 6 | UK6DSCMGT302

Accounting for Managers

Course Code: UK6DSCMGT302 • Module 1 Notes

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Module 1: Cost and Management Accounting Foundations

Scope, Objectives, Cost Concepts, Elements of Cost, and Cost Sheet Preparation

Chapter 1: Conceptual Framework of Cost and Management Accounting

1.1 Definitional Parameters, Nature, and Evolution

In modern corporate enterprise, effective strategic direction, operational control, and financial sustainability depend upon the continuous availability of accurate, structured, and actionable cost and performance data. Traditionally, commercial entities relied strictly on financial accounting to record business transactions and report historical stewardship to external shareholders and tax authorities. However, as business organizations expanded in structural scale, manufacturing complexity, and competitive intensity during the industrial and post-industrial eras, financial accounting proved fundamentally incapable of providing the detailed operational intelligence needed by managers to control shop-floor waste, establish competitive product prices, evaluate departmental efficiencies, and make forward-looking strategic choices. Out of these operational necessities arose the disciplined sciences of **Cost Accounting** and **Management Accounting**.

Cost Accounting is formally defined by the Chartered Institute of Management Accountants (CIMA, London) as "the application of costing and cost accounting principles, methods, and techniques to the science, art, and practice of cost control and the ascertainment of profitability, as well as the presentation of information for the purpose of managerial decision-making." Cost accounting systematically records, classifies, allocates, and analyzes expenditures incurred in the production of goods or the delivery of services. Its primary focus is on internal operations: establishing unit product costs, determining inventory valuations, and identifying areas of operational inefficiency.

Management Accounting, representing an advanced evolutionary synthesis, is defined by CIMA as "the sourcing, analysis, communication, and use of decision-relevant financial and non-financial information to generate and preserve value for organizations." While cost accounting provides the essential empirical cost records, management accounting integrates financial data, cost metrics, operational performance indicators, and economic forecasts to assist internal executives in formulating corporate strategies, planning future activities, controlling operational performance, optimizing resource utilization, and safeguarding organizational assets.

1.2 Core Objectives and Functions of Management Accounting

The overarching objectives of management accounting within the modern corporate enterprise span five critical managerial functions:

- **Strategic and Operational Planning:** Providing forward-looking financial forecasts, operational budgets, capital expenditure evaluations, and scenario modeling that translate corporate strategic goals into quantifiable operational plans.

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- **Cost Ascertainment and Unit Pricing:** Accurately computing the total and unit cost of producing commodities or providing services using structured costing systems (such as job costing, process costing, or activity-based costing), establishing rational pricing floors that ensure target margins.
- **Operational Cost Control and Waste Reduction:** Establishing scientific performance benchmarks through standard costing and budgetary control, comparing actual operational results against standards, computing variances, and implementing corrective managerial interventions.
- **Informed Managerial Decision-Making:** Supplying relevant differential, marginal, and opportunity cost analyses to resolve complex short-term and long-term business dilemmas (e.g., make-or-buy decisions, special export pricing, unprofitable product line discontinuance, equipment replacement).
- **Performance Measurement and Stewardship:** Designing balanced performance measurement systems (such as Key Performance Indicators and Balanced Scorecards) that evaluate the operational and financial stewardship of divisional managers and strategic business units (SBUs).

Chapter 2: Comparative Analysis: Financial, Cost, and Management Accounting

2.1 Definitional Divergence and Systemic Differences

To avoid operational confusion in enterprise administration, managers must understand the precise boundaries, objectives, and regulatory requirements distinguishing financial accounting, cost accounting, and management accounting:

Dimension of Contrast	Financial Accounting	Cost Accounting	Management Accounting
Primary Target Users	External stakeholders: shareholders, banks, creditors, tax authorities, regulators.	Internal operating personnel: plant supervisors, production managers, cost controllers.	Internal executive hierarchy: corporate directors, CEOs, strategic planners, department heads.
Statutory Requirement	Mandatory by law (Companies Act 2013, Indian Accounting Standards / Ind AS).	Mandatory for specified manufacturing industries under Section 148 of Companies Act.	Entirely voluntary; implemented at the discretion of executive management.
Temporal Orientation	Historical orientation: records and reports past completed transactions retrospectively.	Present and historical orientation: tracks current costs and records historical baselines.	Future-oriented: emphasizes predictive projections, budgets, forecasts, and strategic choices.

Dimension of Contrast	Financial Accounting	Cost Accounting	Management Accounting
Data Unit and Scope	Aggregates monetary transactions for the enterprise as a unified whole.	Focuses on microscopic operational units: unit product costs, processes, cost centers.	Integrates micro and macro data: products, divisions, qualitative metrics, competitor data.
Underlying Rules	Strictly governed by GAAP, Ind AS, and statutory reporting frameworks.	Guided by Cost Accounting Standards (CAS) issued by ICMAI.	Zero external rules; tailored strictly to internal managerial information requirements.
Reporting Frequency	Periodic: quarterly and annual financial statements.	Continuous: daily, weekly, or monthly cost sheets and variance logs.	Dynamic: real-time executive dashboards, on-demand strategic project evaluations.
Audit Requirements	Statutory audit by independent Chartered Accountants is legally mandatory.	Cost audit by practicing Cost Accountants mandatory for designated industries.	Zero statutory external audit; reviewed internally through internal management audit.

2.2 The Role and Professional Code of the Modern Management Accountant

The contemporary management accountant has evolved far beyond the historical archetype of a mere bookkeeper or shop-floor cost clerk. In modern corporations, the management accountant operates as a **Strategic Business Partner**, serving on the executive leadership team. The management accountant bridges the gap between operational reality and financial strategy, translating technical engineering metrics into executive financial terms, identifying strategic risks, auditing capital expenditure proposals, evaluating digital transformation investments, and ensuring corporate governance integrity.

Professional bodies (such as the Institute of Cost Accountants of India [ICMAI] and the Institute of Management Accountants [IMA]) enforce strict ethical codes: **Competence** (maintaining cutting-edge professional knowledge), **Confidentiality** (safeguarding non-public corporate data), **Integrity** (refusing to participate in earnings manipulation or cost distortion), and **Credibility** (communicating information fairly, objectively, and completely with transparent disclosure of relevant operational limitations).

Chapter 3: Classification of Costs and Structural Cost Concepts

3.1 The Concept of Cost, Cost Objects, and Cost Centers

In managerial economics and accounting, **Cost** represents the monetary measurement of the resources sacrificed, consumed, or forgone to achieve a specific operational objective (such as

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manufacturing a commodity or providing a service). To track expenditures accurately, cost accounting establishes two foundational organizational concepts:

- **Cost Object:** Any operational item, activity, product, service, customer contract, project, or organizational subunit for which a separate measurement of cost is desired (e.g., a specific model of an electric scooter, a customer support call center, an airline flight route from Delhi to Kochi).
- **Cost Center:** A convenient organizational subunit, location, person, or item of equipment for which costs may be ascertained and used for the purpose of operational cost control. Cost centers are divided into:
  - *Production Cost Centers:* Departments directly engaged in the physical fabrication of the product (e.g., Foundry, Machining, Assembly, Painting).
  - *Service Cost Centers:* Departments that provide supportive operational assistance to production units (e.g., Maintenance, Stores, Boiler House, Quality Control, Canteen).
- **Profit Center:** An organizational segment whose manager is held accountable for both revenues and costs, thereby exercising control over divisional profitability.
- **Investment Center:** An organizational segment whose manager is held responsible for revenues, costs, and the efficient utilization of capital assets (measured via Return on Investment [ROI] or Economic Value Added [EVA]).

3.2 Multidimensional Classification of Costs

Costs are classified into diverse categories depending on managerial purpose:

1. Classification by Nature or Traceability (Direct vs. Indirect):

- **Direct Costs:** Expenditures that can be easily, economically, and directly traced to a specific cost object in an unambiguous manner (e.g., leather used in shoe manufacturing, wages paid to assembly-line workers).
- **Indirect Costs (Overheads):** Expenditures that are incurred for common organizational objectives and cannot be economically traced to a specific cost object without arbitrary allocation (e.g., factory lighting, factory supervisor salary, grease and lubricants, depreciation of machinery).

2. Classification by Behavioral Variability (Fixed, Variable, and Semi-Variable):

- **Variable Costs:** Costs that vary in direct, linear proportion to changes in the operational volume of production or activity (e.g., direct raw materials, sales commissions). While total variable cost changes proportionally with volume, *variable cost per unit remains constant* within the relevant range.
- **Fixed Costs:** Costs that remain constant in total monetary amount over a specific timeframe regardless of fluctuations in production volume, within the relevant range of capacity (e.g., factory building rent, executive salaries, property taxes). While total fixed cost remains constant, *fixed cost per unit declines progressively as production volume increases.*
- **Semi-Variable (Mixed) Costs:** Costs containing both a fixed base element and a variable usage element (e.g., telephone bills with a fixed monthly rental plus per-call charges, electricity bills with

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connected load charges plus consumption units). Managers segregate mixed costs using the High-Low Method, Scatter Graph Method, or OLS Regression Analysis.

3. Classification for Managerial Decision-Making:

- **Opportunity Cost:** The potential financial benefit, revenue, or return forgone or sacrificed when choosing one course of action over the next best alternative (e.g., the rental income forgone by utilizing a company-owned building for manufacturing rather than leasing it to a third party). Opportunity costs do not involve cash outflows and are not recorded in financial accounting ledgers, but are vital for capital budgeting and strategic decisions.
- **Sunk Cost:** Historical expenditures that have already been incurred by past decisions and cannot be altered, recovered, or avoided by any current or future managerial decision (e.g., unamortized R&D expenditures spent three years ago on a failed prototype). Sunk costs are strictly irrelevant to rational future decisions and must be ignored.
- **Differential (Incremental) Cost:** The difference in total expenditure that arises from selecting one alternative operational course of action over another, or from increasing/decreasing production output by a specific volume.
- **Marginal Cost:** The variable cost of producing one additional unit of output.
- **Imputed (Notional) Costs:** Fictitious or hypothetical costs that do not involve cash outlay but are calculated to reflect the true economic cost of operations (e.g., interest on owned capital, salary for owner-proprietor).

Chapter 4: The Elements of Cost and Overhead Allocation

4.1 The Three Foundational Elements of Cost

Every commercial expenditure incurred in the transformation process is decomposed into three foundational elements: Material, Labor, and Expenses. Each element is further subdivided into Direct and Indirect components:

1. Material Cost:

- **Direct Material:** All raw materials, components, and primary ingredients that physically enter into and become an integral, identifiable part of the finished manufactured commodity (e.g., timber in furniture, cloth in garment fabrication, steel in automotive assembly).
- **Indirect Material:** Minor auxiliary materials consumed in the production process that cannot be economically traced to specific units or that facilitate general factory operations (e.g., lubricating oils, cotton waste, cleaning chemicals, nails, glue).

2. Labor Cost:

- **Direct Labor:** Remuneration and wages paid to workers directly engaged in the physical fabrication, machining, assembly, or conversion of raw materials into finished goods (e.g., lathe operators, machine assembly workers, weavers).

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- **Indirect Labor:** Wages and salaries paid to operational personnel who support the manufacturing environment but do not physically touch the product (e.g., factory security guards, maintenance mechanics, storekeepers, shop-floor supervisors).

3. Expenses:

- **Direct Expenses (Chargeable Expenses):** Expenditures other than direct material and direct labor that are incurred specifically, uniquely, and directly for a particular job, batch, or product (e.g., cost of hiring specialized equipment for a contract, architect fees for a building project, royalty paid on patent units produced).
- **Indirect Expenses:** General operational expenditures incurred across the enterprise that cannot be directly traced (e.g., factory rent, machinery depreciation, insurance, audit fees).

4.2 Overhead Categorization and Structural Allocation

The aggregate of all indirect costs—Indirect Material, Indirect Labor, and Indirect Expenses—is designated comprehensively as **Overheads**. Overheads are categorized functionally into three operational tiers:

1. **Works (Factory or Manufacturing) Overheads:** All indirect expenses incurred within the physical factory perimeter from the receipt of raw materials to the completion of finished goods (e.g., factory lighting, power, plant maintenance, factory rent, supervisor wages).
2. **Office and Administration Overheads:** Indirect expenditures incurred in the general direction, corporate management, legal compliance, and secretarial administration of the enterprise (e.g., corporate head office rent, director fees, executive salaries, office stationery, legal expenses).
3. **Selling and Distribution Overheads:** Indirect costs incurred in stimulating product demand, securing customer sales orders, and physically dispatching finished goods to client destinations (e.g., advertising campaigns, sales representative commissions, showroom rent, delivery van depreciation, packing for transit).

Chapter 5: The Cost Sheet Architecture and Step-by-Step Preparation

5.1 Structural Concept and Components of a Cost Sheet

A **Cost Sheet** is a standardized, columnar financial statement prepared at regular chronological intervals to assemble, classify, and present the detailed elements of expenditure incurred in manufacturing a product or providing an operational service. The cost sheet reveals total expenditures alongside cost per unit at progressive manufacturing stages, facilitating cost comparison over time and establishing competitive tender prices.

The progressive sequential cost aggregations within a formal cost sheet are defined mathematically:

1. **Prime Cost:** The aggregate of all direct operational costs:

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$$\text{Prime Cost} = \text{Direct Materials Consumed} + \text{Direct Labor} + \text{Direct Expenses}$$

Where: Direct Materials Consumed = Opening Stock of Raw Materials + Purchases of Raw Materials + Carriage Inward - Closing Stock of Raw Materials.

2. **Works (Factory) Cost:** Adding manufacturing overheads and adjusting for factory work-in-progress:

$$\text{Works Cost} = \text{Prime Cost} + \text{Factory Overheads} + \text{Opening WIP} - \text{Closing WIP}$$

3. **Cost of Production:** Adding general administration overheads:

$$\text{Cost of Production} = \text{Works Cost} + \text{Office \& Administration Overheads}$$

4. **Cost of Goods Sold (COGS):** Adjusting for finished goods inventory:

$$\text{Cost of Goods Sold} = \text{Cost of Production} + \text{Opening Finished Goods} - \text{Closing Finished Goods}$$

5. **Total Cost (Cost of Sales):** Incorporating selling and distribution expenses:

$$\text{Total Cost} = \text{Cost of Goods Sold} + \text{Selling \& Distribution Overheads}$$

6. **Profit or Loss and Selling Price:**

$$\text{Sales Revenue} = \text{Total Cost} + \text{Profit (or } - \text{Loss)}$$

5.2 Items Strictly Excluded from the Cost Sheet

In accordance with Cost Accounting Standard 1 (CAS-1), financial appropriations, capital items, and purely speculative or financial transactions that do not relate to the operational production process are strictly excluded from the cost sheet. Excluded items include:

- Income Tax, Advance Tax, and Tax Penalties.
- Dividends paid or received, and provisions for proposed dividends.
- Interest on debentures, loans, and financial bank overdrafts (unless specifically capitalized for qualifying assets).

- Loss on sale of fixed assets, capital investments, or land.
- Goodwill written off, Preliminary expenses written off, and Discount on issue of shares/debentures written off.
- Donations, charitable contributions, and Corporate Social Responsibility (CSR) payments.

5.3 Comprehensive Worked Numerical Problem: Cost Sheet Preparation

Apex Engineering Ltd. manufactured 10,000 precision electric motors during the financial year. The operational records provide the following cost figures:

Operational Cost Item	Monetary Amount (Rs.)
Opening Stock of Raw Materials	80,000
Purchases of Raw Materials	6,00,000
Carriage Inward on Materials	20,000
Closing Stock of Raw Materials	1,00,000
Direct Manufacturing Wages	3,50,000
Special Machine Hire Charges (Direct Expense)	50,000
Factory Power and Fuel	90,000
Factory Supervisor Salaries	80,000
Factory Rent and Rates	50,000
Depreciation on Factory Machinery	40,000
Opening Work-in-Progress (WIP)	60,000
Closing Work-in-Progress (WIP)	70,000
General Office Salaries	1,20,000
Office Stationery and Telephone	30,000
Opening Stock of Finished Goods (1,000 units)	1,30,000
Closing Stock of Finished Goods (2,000 units)	To be valued at Current Cost of Production
Salesmen Salaries and Commissions	70,000
Showroom Rent and Advertising	50,000
Delivery Van Operational Expenses	30,000
Profit Margin Required	20% on Selling Price

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Step-by-Step Resolution and Formal Cost Sheet:

Calculation 1: Raw Materials Consumed:

$$\text{Raw Materials Consumed} = 80,000 + 6,00,000 + 20,000 - 1,00,000 = \text{Rs. } 6,00,000$$

Calculation 2: Prime Cost:

$$\text{Prime Cost} = 6,00,000 + 3,50,000 + 50,000 = \text{Rs. } 10,00,000$$

Unit Prime Cost (10,000 units) = Rs. 100.00 per unit.

Calculation 3: Factory (Works) Cost:

$$\text{Factory Overheads} = 90,000 + 80,000 + 50,000 + 40,000 = \text{Rs. } 2,60,000$$

$$\text{Works Cost} = 10,00,000 + 2,60,000 + 60,000 - 70,000 = \text{Rs. } 12,50,000$$

Unit Works Cost = Rs. 125.00 per unit.

Calculation 4: Cost of Production:

$$\text{Administration Overheads} = 1,20,000 + 30,000 = \text{Rs. } 1,50,000$$

$$\text{Cost of Production} = 12,50,000 + 1,50,000 = \text{Rs. } 14,00,000$$

Unit Cost of Production = Rs. 14,00,000 / 10,000 units = Rs. 140.00 per unit.

Calculation 5: Valuation of Closing Stock of Finished Goods:

$$\text{Closing Finished Goods (2,000 units)} = 2,000 \times 140 = \text{Rs. } 2,80,000$$

Total units sold = Opening Stock (1,000) + Produced (10,000) - Closing Stock (2,000) = 9,000 units.

Calculation 6: Cost of Goods Sold (COGS):

$$\text{COGS} = 14,00,000 + 1,30,000 - 2,80,000 = \text{Rs. } 12,50,000$$

Calculation 7: Total Cost of Sales:

$$\text{Selling Overheads} = 70,000 + 50,000 + 30,000 = \text{Rs. } 1,50,000$$

$$\text{Total Cost of Sales (9,000 units sold)} = 12,50,000 + 1,50,000 = \text{Rs. } 14,00,000$$

Unit Cost of Sales = Rs. 14,00,000 / 9,000 units = Rs. 155.56 per unit.

Calculation 8: Profit and Sales Revenue:

$$\text{Profit} = 20\% \text{ on Sales} = \frac{20}{100-20} \text{ on Cost} = \frac{20}{80} \times 14,00,000 = \text{Rs. } 3,50,000$$

$$\text{Total Sales Revenue} = 14,00,000 + 3,50,000 = \text{Rs. } 17,50,000$$

Selling Price per Unit = Rs. 17,50,000 / 9,000 units = Rs. 194.44 per unit.

Chapter 6: Strategic Cost Management Innovations: Activity-Based Costing and Target Costing

6.1 Limitations of Traditional Volume-Based Cost Allocation

Traditional cost accounting systems emerged during the early twentieth century when direct labor and raw materials accounted for up to 85% of total product cost, and factory overheads represented a minor, auxiliary fraction. Overheads were traditionally apportioned using simplistic volume-based absorption bases—such as direct labor hours or machine hours. However, in modern highly automated, digitized, and capital-intensive manufacturing environments, direct labor accounts for less than 10% of total costs, while indirect overheads (software programming, quality engineering, CNC setup times, logistics handling) exceed 50% of total manufacturing expenditure.

Relying on volume-based overhead allocation in complex multi-product factories causes severe **Cost Distortion** (often termed *peanut-butter costing*): high-volume, standard products subsidize low-volume, highly complex custom products. High-volume products appear artificially expensive, leading to lost competitive bids, while complex low-volume products appear artificially cheap, eroding enterprise margins.

6.2 Activity-Based Costing (ABC) Mechanics

Pioneered by Professors Robin Cooper and Robert Kaplan of Harvard Business School, **Activity-Based Costing (ABC)** resolves cost distortion by operating on the fundamental axiom: *"Products consume activities, and activities consume resources."* ABC follows a two-stage allocation architecture:

1. **Stage 1: Identification of Activities and Cost Pools:** Overhead expenditures are assigned to distinct homogeneous **Activity Cost Pools** representing discrete operational tasks (e.g., machine setup pool, material procurement pool, quality inspection pool, customer order processing pool).
2. **Stage 2: Assignment to Cost Objects via Cost Drivers:** Costs from each activity pool are allocated to individual products or customer contracts using quantifiable **Cost Drivers**:
   - *Transaction Drivers:* Count how often an activity is performed (e.g., number of machine setups, number of purchase orders processed).

- *Duration Drivers:* Measure the amount of time required to perform an activity (e.g., setup hours, inspection hours).
- *Intensity Drivers:* Directly charge the specialized resources used each time an activity is performed.

6.3 Target Costing and Kaizen Costing Frameworks

In globally competitive markets, selling prices are determined by market forces rather than cost-plus markups. **Target Costing** (originating in Japanese automotive manufacturing, notably Toyota) reverses traditional cost logic. It begins with the competitive *Target Selling Price* determined by market research, subtracts the desired *Target Profit Margin*, and derives the allowable **Target Cost**:

$$\text{Target Cost} = \text{Target Selling Price} - \text{Target Profit Margin}$$

If projected design costs exceed the target cost, multi-functional teams execute **Value Engineering (VE)** and **Value Analysis (VA)** during the pre-production design phase to eliminate non-value-added components without degrading functionality. Once mass production commences, the organization transitions to **Kaizen Costing**—instituting continuous, incremental, shop-floor waste elimination and process improvements throughout the product's active manufacturing life cycle.

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