



B.Com Honours

Semester V

Calicut University

BUSINESS INFORMATION SYSTEM

Course Code: COM5EJ308 • Module 1 Notes

Module I: Management Information System (MIS) Foundations

Covers the DIKW hierarchy, strategic role of Information & Communication Technology (ICT) in enterprise management, concepts of MIS, and structural levels of information architecture.

Unit 1: Data, Information, & Knowledge Hierarchy (DIKW Pyramid)

Data: Raw, unorganized facts, symbols, or observations without context.

Information: Processed, structured, and meaningful data useful for decision-making.

Knowledge: Application of information combined with experience, context, and critical reflection.

Role of ICT in Business: Automation of routine transactions, business process re-engineering, and strategic decision enrichment.

Unit 2: Management Information System (MIS) Concepts & Objectives

MIS: Integrated user-machine system that provides information to support operational, managerial, and strategic decision-making in an organization. Key Objectives: Data aggregation, report generation, strategic control, and decision support. Features: Management-oriented, integrated database, future-oriented planning, & flexibility.

Unit 3: Basic Structural Concepts of Information Systems Architecture

Pyramidal Structural Architecture of MIS:

1. **Operational Level (Clerical/Supervisory):** Transaction processing & routine operational reports.
2. **Tactical Level (Middle Management):** Performance evaluation, variance analysis, & tactical planning.
3. **Strategic Level (Top Management):** Long-term strategic planning, trend analysis, & executive dashboards.

Practical Case Framework 1 (DIKW Hierarchy Transformation Matrix): Detail stage transitions from raw sales records to strategic market insight.

DIKW Information Continuum Reference Table:

Hierarchy Stage	Level Characteristics	Business Data Processing Example
Raw Data	Unprocessed transactions & numbers	List of invoice values: ₹5,000, ₹12,000, ₹8,500
Information	Contextualized & summarized data	Monthly Sales Revenue Report = ₹25,500 for South Region
Knowledge	Actionable pattern insight & trends	South Region sales increased 15% due to digital campaigns
Wisdom	Strategic executive foresight	Reallocating 30% ad budget to South Region for FY27

Practical Case Framework 2 (MIS Structural Levels Architecture Matrix): Map organizational management tiers, information requirements, and report types.

MIS Structural Management Tiers Table:		
Management Hierarchy Level	Primary Decision Focus	Information & Report Type Requirement
Operational Level (Line Managers)	Day-to-day operational execution	Detailed daily transaction logs & stock status reports
Tactical Level (Middle Managers)	Departmental budgeting & control	Monthly summary reports & budget variance analysis
Strategic Level (C-Suite Executives)	Long-term corporate positioning	Executive dashboards & macro-economic trend forecasts

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