PME UNIT-4 CONCISE

PME UNIT - 4 Notes (Controlling System)

Introduction to Controlling System:
● Controlling is one of the fundamental functions of management.
● Involves monitoring activities to ensure they are being accomplished as planned and correcting any significant deviations.

Key Points:
● **1. Definition:** Controlling is the process of measuring actual performance, comparing it with planned goals, and taking corrective action if necessary to ensure that organizational objectives are achieved efficiently and effectively.
● **2. Importance:**
- Ensures that organizational activities are aligned with established plans.
- Helps in achieving goals within set timelines and budgets.
- Minimizes errors and deviations from standards.
- Encourages better performance through feedback and accountability.

● **3. Steps in the Controlling Process:**
- Setting performance standards.
- Measuring actual performance.
- Comparing actual performance with standards.
- Analyzing deviations and identifying causes.
- Taking corrective actions.

● **4. Features:**
- A continuous and forward-looking process.
- Applied at all levels of management.
- Closely linked with planning—often called the “twin of planning".

Planning-Control Link:
● Emphasizes the interdependence between planning and controlling, often referred to as "twin functions of management."

1. **Control is Based on Plans:**
   - Planning sets the goals and standards that control uses as benchmarks.
   - Without a plan, there is nothing to control against.
2. **Control Measures Performance Against Plans:**
   - The control process involves comparing actual performance with planned objectives.
   - It identifies deviations and helps ensure that performance aligns with the original plan.
3. **Control Helps Improve Future Planning:**
   - Insights gained from controlling (deviations, errors, inefficiencies) are feedback for better

planning.
   - It helps managers revise goals, strategies, or resource allocations.

4. **Cyclical Relationship:**
   - Planning and controlling form a continuous loop: Plans guide actions → Control monitors outcomes → Feedback improves future plans.

5. **Mutual Reinforcement:**
   - Good planning makes control more effective.
   - Effective control ensures that plans are successfully implemented.

Summary Statement:

● "Planning is looking ahead, while controlling is looking back—but both are essential to move forward effectively."

● Control is about guiding and improving performance. The process of control is a systematic sequence of steps.

Process of Control:

1. **Setting Performance Standards:**
   - Standards are the criteria against which actual performance is measured.
   - May be quantitative (cost, output, time) or qualitative (customer satisfaction, employee morale).
   - Standards must be clear, realistic, and aligned with organizational goals.

2. **Measuring Actual Performance:**
   - Involves collecting data and assessing actual outcomes.
   - Methods include reports, audits, observations, and performance appraisals.
   - Measurement should be timely and accurate.

3. **Comparing Actual Performance with Standards:**
   - The measured performance is compared with predetermined standards.
   - This comparison helps identify deviations—whether positive or negative.

4. **Analyzing Deviations:**
   - Not all deviations require action; tolerance limits may be set.
   - Important deviations are analyzed to understand their causes.
   - Focus is often on critical deviations that impact goals significantly.

5. **Taking Corrective Action:**
   - If performance is not as per standards, management must take corrective measures.
   - Actions may include retraining employees, changing processes, or revising goals or standards.
   - The aim is to bring performance back in line with expectations.

● This cycle is continuous and emphasizes the feedback loop.

Requirements of Effective Control:

1. **Accuracy:**
   - Control must provide precise and reliable information about performance.
   - Inaccurate data can lead to wrong decisions and actions.

2. **Timeliness:**
   - Control information must be available at the right time.
   - Delayed reports can make corrective actions ineffective or irrelevant.
3. **Flexibility:**
   - The control system should be able to adapt to changes in the environment.
   - Rigid controls can obstruct innovation and responsiveness.
4. **Suitability:**
   - Controls must be appropriate to the activity and the level of management.
   - Strategic-level controls differ from operational-level controls.
5. **Economy:**
   - The cost of the control system should not exceed its benefits.
   - Efficient control means using minimum resources for maximum effectiveness.
6. **Simplicity:**
   - Control mechanisms should be easy to understand and operate.
   - Complicated systems can confuse employees and reduce compliance.
7. **Objectivity:**
   - Control standards and evaluations should be based on facts and data, not personal opinions.
   - Objective control ensures fairness and credibility.
8. **Forward-looking:**
   - Good control not only detects errors but also anticipates potential problems.
   - It helps in preventive action rather than just corrective action.

● These elements ensure control supports decision-making, improves efficiency, and promotes accountability.

Problems of Control System:

1. **Difficulty in Setting Standards:**
   - Hard to set clear, measurable, realistic standards, especially for qualitative areas.
   - Vague standards lead to ineffective comparisons and control.
2. **Resistance from Employees:**
   - Strict controls may lead to feelings of distrust or micromanagement.
   - Employees may resist or bypass controls if overly monitored.
3. **Cost of Control:**
   - Designing and operating a control system can be expensive and resource-intensive.
   - If cost exceeds benefits, control becomes uneconomical.
4. **Delay in Feedback:**
   - Some systems provide delayed feedback, making timely corrective actions hard.
   - Can lead to continuation of errors or inefficiencies.
5. **Overemphasis on Quantitative Aspects:**
   - Systems often focus on measurable data and ignore qualitative factors (leadership, innovation).

6. **Rigidity of Control:**
   - Some systems are too rigid, not allowing flexibility in dynamic environments.
   - Can prevent quick adjustments or innovation.
7. **Inaccurate or Incomplete Information:**
   - Control depends heavily on accurate data. Flawed data leads to flawed decisions.
8. **Control for the Sake of Control:**
   - Excessive control may create bureaucracy and reduce efficiency.
   - Controls should be purposeful, not just a formality.

● **Conclusion:** To overcome problems, control systems should be flexible, economical, participative, and focused on strategic priorities.

NEED FOR CONTROL SYSTEM

● A control system is needed for four purposes:

1. to measure progress;
2. to uncover deviations;
3. to indicate corrective action; and
4. to transmit corrective action to the operation.

● **To Measure Progress:**

‣ Control process continually measures progress towards goals, verifying conformity with plans, instructions, and principles (Fayol).

● **To Uncover Deviations:**

‣ Events can pull an organization "off target."
‣ **Change:** Markets shift, new products emerge, new regulations. Control detects these.
‣ **Complexity:** Vast, complex organizations with diversified products need close monitoring.
‣ **Mistake:** Managers and subordinates commit mistakes. Control helps catch them early.
‣ **Delegations:** Control system needed to determine if subordinates are accomplishing delegated tasks.

● **To Indicate Corrective Action:**

‣ Controls reveal if plans need redrawing, goals modified, or duties reassigned/clarified.

● **To Transmit Corrective Action to the Operation:**

‣ Controls needed to modify inputs or production plans to keep output "on course" (e.g., thermostat "feed forward").
‣ Control-related information flows (electronic impulses, reports) serve as input for comparison and decision-making.

BENEFITS OF CONTROL

● A well-developed control system:
‣ Increases Productivity
‣ reduces defects and mistakes,

- helps meet deadlines,
- facilitates communication,
- improves safety,
- lowers cost, and
- gives workers control over their environment.

Control techniques are broadly classified into past-oriented and future-oriented.

1. Past-Oriented Control Techniques (Feedback Control):

● Applied after the task is completed. Evaluate past performance to identify deviations and suggest future improvements.

● **Key Features:**

- Focuses on historical data and results.
- Useful for assessing success/failure.
- Helps in correcting future actions, but doesn't prevent current errors.

● **Examples:**

- Financial Statements: Balance sheet, income statement, cash flow statement.
- Audits: Internal and external audits.
- Statistical Quality Control: Analyzes product quality after production.
- Performance Appraisals: Review of employee performance based on past results.

2. Future-Oriented Control Techniques (Feedforward and Concurrent Control):

● Proactive techniques to identify and prevent problems before or as they occur.

● **Key Features:**

- Based on forecasting and planning.
- Helps in preventing deviations.
- More effective in dynamic and uncertain environments.

● **Examples:**

- Budgetary Control: Planning future income and expenditure.
- Break-even Analysis: Determines sales volume needed to avoid losses.
- Network Techniques (PERT/CPM): Plan and control project timelines.
- Standard Costing: Compares actual costs with pre-set standards.
- Forecasting Techniques: Predict future market trends, demand.

Summary Table (Control Type, Orientation, Timing, Focus, Examples):

● Past-Oriented Control: Feedback, After execution, Evaluate & correct, Financial reports/audits.

● Future-Oriented Control: Feedforward, Before/during, Predict & prevent deviations, Budgets/PERT/forecasting.

Market Control, Bureaucratic Control, and Clan Control are three major types of organizational control techniques.

1. Market Control:

● **Definition:** Uses external market mechanisms (price, competition, exchange relationships) to regulate

performance.

- **Features:**
  - Based on economic forces.
  - Works well when output can be clearly measured and compared with market standards.
  - Common in decentralized organizations, divisions, or subsidiaries.
- **Examples:**
  - Comparing division profits based on market rates.
  - Using competitive bidding or outsourcing based on cost-efficiency.
- **Advantages:**
  - Encourages cost-effectiveness and efficiency.
  - Motivates performance by linking results to market outcomes.
- **Limitations:**
  - May not work where performance is not easily quantifiable or market data is unavailable.

2. Bureaucratic Control:

- **Definition:** Relies on formal rules, policies, procedures, and authority hierarchies.
- **Features:**
  - Emphasizes compliance, standardization, and clear reporting structures.
  - Based on formal authority and supervision.
- **Examples:**
  - Standard operating procedures (SOPs).
  - Performance appraisals based on rule compliance.
  - Internal audits and formal reports.
- **Advantages:**
  - Ensures discipline and consistency.
  - Works well in stable, routine environments.
- **Limitations:**
  - Can be rigid, slow, and reduce employee initiative or innovation.

3. Clan Control:

- **Definition:** Uses shared values, culture, traditions, and beliefs to influence behavior and performance.
- **Features:**
  - Works through social norms, trust, and teamwork rather than formal rules.
  - Employees are self-regulated through a sense of belonging.
- **Examples:**
  - Organizational culture emphasizing collaboration or excellence.
  - Mentorship and informal peer feedback.
  - Strong corporate identity and shared mission.
- **Advantages:**
  - Encourages commitment, adaptability, and creativity.
  - Effective in complex, dynamic environments.
- **Limitations:**

- Takes time to develop a strong culture.
- Difficult to measure or control directly.

Comparison Table (Type of Control, Basis, Mechanism, Best Suited For):
● Market Control: External market forces, Prices/competition, Measurable outputs/decentralized units.
● Bureaucratic Control: Formal rules/hierarchy, Policies/supervision, Stable/rule-based organizations.
● Clan Control: Organizational culture, Norms/values/traditions, Creative/team-oriented environments.
● A modern business may use a mix of all three.

OLD CONTROL TECHNIQUES
● **Budgeting:** Important old control technique; quantifies resources for objectives and compares actual performance.

a) Budgeting as a Control Technique:
● **Definition:** Involves setting financial/operational targets and using them as benchmarks to monitor/regulate performance. A planning and control mechanism.
● **Key Features of Budgeting:**

1. **Setting Financial and Operational Targets:** Establishes financial limits and operational goals.
2. **Comparison of Actual vs. Planned Performance:** Track actual vs. budgeted values; identify deviations.
3. **Resource Allocation:** Helps in efficient allocation of resources.
4. **Control over Expenditures:** Sets limits on spending for cost control.
5. **Facilitates Planning and Forecasting:** Integral part of planning; acts as a forecasting tool.
   ● **Types of Budgets:**
6. **Fixed Budgets:** Static budgets for a specific activity level.
7. **Flexible Budgets:** Adjustable budgets changing with activity levels; useful in dynamic environments.
8. **Master Budget:** Comprehensive budget including various individual budgets; gives an overall view.
9. **Cash Flow Budget:** Focuses on cash inflows/outflows for liquidity management.
   ● **Advantages of Budgeting as a Control Technique:**
10. **Cost Control:** Helps control costs by setting spending limits.
11. **Performance Evaluation:** Tool for evaluating performance by comparing actual vs. budgeted.
12. **Resource Optimization:** Avoids wastage, best use of funds.
13. **Motivation:** Realistic budgets can serve as motivational tools.
14. **Planning for the Future:** Framework for long-term strategic planning.
    ● **Limitations of Budgeting:**
15. **Rigidity:** Fixed budgets can be too rigid for changing conditions.
16. **Time-consuming:** Preparing/revising budgets can be labor-intensive.
17. **Potential for Misuse:** Managers may inflate budgets; budgetary slack leads to inefficiencies.

18. **Short-term Focus:** May overlook long-term growth or strategic goals.
    ● **Conclusion:** Budgeting is powerful but needs careful design and review.

b) Financial statements and ratio analysis: Fundamental tools for assessing financial performance and health.

1. Financial Statements:
● **Definition:** Formal records of financial activities and position, providing key info for analyzing profitability, stability, liquidity.
● **Key Financial Statements:**

1. **Income Statement (Profit & Loss Statement):**
   - Purpose: Shows company's performance over a period.
   - Components: Revenue/Sales, Expenses, Net Profit or Loss.
2. **Balance Sheet:**
   - Purpose: Snapshot of financial position at a specific point in time.
   - Components: Assets, Liabilities, Equity.
   - Formula: Assets = Liabilities + Equity.
3. **Cash Flow Statement:**
   - Purpose: Tracks movement of cash in/out, showing liquidity.
   - Components: Operating Activities, Investing Activities, Financing Activities.
4. **Statement of Changes in Equity:**
   - Purpose: Shows changes in owner's equity over a period.

2. Ratio Analysis:
● **Definition:** Tool to evaluate financial performance by comparing relationships between figures in financial statements.
● **Commonly used ratios:**

1. **Liquidity Ratios:** Measure ability to pay short-term debts (e.g., Current Ratio = Current Assets / Current Liabilities).
2. **Debt Ratios:** Assess ability to meet long-term commitments (e.g., Total Debt / Total Assets).
3. **Profitability Ratios:** Express profits as % of sales or total assets (efficiency of operation).
4. **Operating Ratios:** Measure efficiency of manufacturing/sales (e.g., Inventory Turnover = Sales / Inventory; Total Assets Turnover = Sales / Total Assets).
   ● **Return on Investment (ROI):** (Du Pont system) ROI = (Sales Profit / Investment Sales) * Sales. (Actually, ROI = (Net Profit / Cost of Investment) * 100 or Net Profit / Total Assets). Note: The provided formula seems a bit off, typically it's (Profit from Investment / Cost of Investment) or linked to capital turnover and profit margin. The text describes it as (sales/investment) * (profit/sales).
   ● **Break-even Analysis:** (Fig 18.2) Depicts sales volume necessary to cover costs (point where profit = 0).
   ● **Importance of Ratio Analysis:**
5. **Performance Evaluation:** Assess financial performance, spot trends.

6. **Decision Making:** Provides quantitative insights for pricing, cost-cutting.
7. **Investor Confidence:** Helps stakeholders understand financial health.
8. **Trend Analysis:** Reveals trends over multiple periods.
    - **Conclusion:** Financial statements and ratio analysis together provide valuable insights.

NEW CONTROL TECHNIQUES

● **PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method):** Two new project management tools.

1. PERT (Program Evaluation and Review Technique):

● **Purpose:** For projects with uncertainty in activity times (e.g., R&D).

● **Key Features:**

‣ **Probabilistic Nature:** Uses three-time estimates (Optimistic-O, Pessimistic-P, Most Likely-M) to calculate expected time.

2. CPM (Critical Path Method):

● **Purpose:** For projects with predictable activity times (e.g., construction); optimizes duration/resources.

● **Key Features:**

‣ **Deterministic Nature:** Assumes fixed duration for each activity.

‣ **Critical Path:** Longest path of dependent activities determining shortest project duration.

‣ **Time and Cost:** Helps minimize project completion cost.

‣ **Network Diagram:** Represents tasks and dependencies, focuses on time/cost optimization.

Comparison of PERT and CPM:

● **Focus:** PERT (Uncertainty/time estimation), CPM (Time/cost optimization).

● **Activity Duration:** PERT (Probabilistic/estimated), CPM (Deterministic/fixed).

● **Usage:** PERT (R&D projects), CPM (Construction/manufacturing).

● **Analysis:** PERT (Task dependencies/uncertain time), CPM (Task dependencies/optimizing critical path).

● **Key Differences:**

‣ **Time Estimation:** PERT (range of estimates), CPM (single, fixed duration).

‣ **Nature of Project:** PERT (uncertain time frames), CPM (predictable time frames).

‣ **Critical Path:** PERT (no explicit critical path, focus on dependencies), CPM (critical path is central).

DETERMINATION OF CRITICAL PATH (Applicable to both, more explicit in CPM)

● Divide project into operations, draw Project Graph/Arrow Diagram (Fig 18.4).

● **Critical Path:** Path of activities determining the shortest total project time. Delays on this path delay the project.

● **Sub-critical Paths:** Other paths. Difference in time = slack/float (extra time available).

● Resources can be transferred from sub-critical to critical path activities to reduce completion time.

Organizational performance:

● Defined as the measure of how well an organization achieves its goals through efficient and effective

use of resources.

1. Definition:
● How efficiently and effectively managers use organizational resources to satisfy customers and achieve goals.
- **Efficiency** = Doing things right (minimizing resource use).
- **Effectiveness** = Doing the right things (achieving desired outcomes).

2. Components of Performance: (Robbins and Coulter)
- **Productivity** – amount of goods/services produced relative to inputs used.
- **Goal attainment** – how well the organization reaches its stated objectives.

3. Managerial Role:
● Managers drive performance by: Setting goals, Allocating resources, Leading/motivating, Monitoring/adapting processes.

4. Relevance in Management:
● High organizational performance means the organization is:
- **Efficient** in resource use.
- **Effective** in satisfying stakeholders.

Key Tools for Measuring Organizational Performance:

1. **Organizational Productivity:**
   - Tool: Productivity ratios (output/input).
2. **Organizational Effectiveness:**
   - Tool: Goal-based evaluation.
3. **Financial Tools:**
   - Profit and Loss Statements, Return on Investment (ROI), Profit Margins, Revenue Growth.
4. **Balanced Scorecard:** (Kaplan and Norton)
   - Evaluates performance from four perspectives: Financial, Customer, Internal Business Processes, Learning and Growth.
5. **Benchmarking:**
   - Comparing performance with industry leaders or best practices.
6. **Total Quality Management (TQM) Tools:**
   - Focuses on continuous improvement and customer satisfaction (e.g., Quality control charts, Six Sigma, ISO standards).
   ● **Summary:** No single tool is sufficient; use a combination of quantitative and qualitative measures.

Contemporary Issues in Control:

1. **Cross-Cultural Differences:**
   - Challenge: Control practices vary across cultures.

- Implication: Adapt control systems to local customs, laws.

2. **Workplace Privacy:**
   - Challenge: Technology use for employee monitoring.
   - Tension: Balancing control need with employee privacy rights.
   - Implication: Ensure monitoring is ethical, legal, communicated.
3. **Employee Theft:**
   - Issue: Significant concern, especially in retail/service.
   - Control Response: Strong internal controls, ethics training.
   - Emphasis: Building a culture of trust.
4. **Workplace Violence:**
   - Challenge: Increasing concern for employee/customer safety.
   - Control Mechanism: Safe environments, clear reporting, assistance programs.
   - Manager's Role: Monitor signs, open communication, enforce zero-tolerance.
5. **Controlling Customer Interactions:**
   - Focus: Monitor service quality as a key differentiator.
   - Examples: Call center monitoring, feedback systems, benchmarks.
   - Goal: Ensure customer satisfaction and brand consistency.

   ● **Summary:** Need to go beyond traditional financial controls; consider ethical, cultural, human-centered aspects. Flexibility, sensitivity, balance are key.

Control of overall performance:

● Process of monitoring and evaluating the organization's total functioning to ensure strategic goals are achieved effectively and efficiently.

● **Example:** (Manufacturing company scenario)

1. Establishing Performance Standards (Profit, quality, waste targets).
2. Measuring Actual Performance (Financial reports, QC metrics, waste tracking).
3. Comparing Actual Performance with Standards (Identify deviations).
4. Taking Corrective Action (Sales efforts, training, maintain effective practices).

   ● **Summary:** Links strategy to actual results and adjusts management actions.

Information technology (IT) plays a critical role in the control function.

Information Technology's Role in Control:

1. **Enhancing Data Collection and Monitoring:**
   - Real-time data collection; track performance indicators, spot deviations.
2. **Improving Decision-Making:**
   - Management Information Systems (MIS) provide reports/dashboards for quick, informed decisions.
3. **Supporting Corrective Action:**
   - Identify problem areas quickly; ERP systems trace issues.

4. **Enabling Decentralized Control:**
   - Cloud-based systems/mobile access empower decision-making at all levels.
5. **Facilitating Communication and Coordination:**
   - Email, collaboration platforms ensure timely communication of control data.
   - Effective control in modern organizations is virtually impossible without IT.

Therole of information and technology in control (Balanced View):

Opportunities Created by Information and Technology in Control:

1. **Real-Time Monitoring and Feedback:** Instant tracking, quick response.
2. **Improved Decision-Making:** DSS, data analytics enhance fact-based management.
3. **Greater Transparency and Accountability:** Automated records, audit trails increase visibility.
4. **Enhanced Communication and Coordination:** Fast, clear communication; synchronize efforts.
5. **Cost Efficiency:** Automation reduces manual tasks; ERP integrates functions.

Challenges Created by Information and Technology in Control:

1. **Information Overload:** Too much data can overwhelm ("paralysis by analysis" - Koontz).
2. **Security and Privacy Risks:** Data breaches, cyber threats; need robust IT security.
3. **Dependence on Technology:** Can reduce critical thinking; risk of system failures.
4. **Resistance to Change:** Due to lack of understanding or fear of monitoring; requires training.
5. **Ethical Concerns:** Employee surveillance and trust; maintain morale.
   - IT enhances control but must be used wisely, ethically, and strategically.