BP804T · B.Pharm Semester VIII · Theory Notes

# Pharmaceutical Management

Unit IV — Financial Planning & Human Resource Management (6 hours)

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# CHAPTER 5: Financial Planning and Human Resource Management

*BP804T — Pharmaceutical Management, Unit IV*

## Learning Objectives

After studying this chapter, the student will be able to:

1 Explain what a **budget** is, list its types, and describe the steps in preparing a budget for a pharmaceutical company.

2 Define **financial forecasting** and apply simple forecasting methods — the **trend method** and the **moving average method** — to small data sets.

3 Explain **cost control**, distinguish **fixed cost** from **variable cost**, and compute the **break-even point** from simple data.

4 Describe how the **Drug Price Control Order (DPCO)** controls the prices of scheduled medicines and explain the role of the **NPPA**.

5 Explain the meaning and importance of **Human Resource Management (HRM)** in pharmaceutical organizations.

6 Describe the steps of **recruitment**, **selection**, and **training**, and name the types of training used in industry.

7 Explain **performance appraisal**, its common methods, and its uses.

8 Explain **employee motivation**, describe **Maslow's hierarchy of needs** and **Herzberg's two-factor theory** in plain words, and list practical motivators.

9 Compare **leadership styles** (autocratic, democratic, laissez-faire), describe their impact, and list the qualities of a good leader.

10 Explain the **stages of team development**, the **sources of conflict**, and the steps of **conflict resolution** with a worked example.

## Definitions

- **Finance** — the money a business uses and manages: getting money (from sales, loans, or owners) and using it wisely (to buy materials, pay staff, build factories).
- **Financial planning** — deciding in advance how much money the company will need, where it will come from, and how it will be spent. It is like planning a household budget before the month begins.
- **Budget** — a written plan that shows expected income and expected expenses for a future period (for example, the next year). A budget turns financial planning into numbers on paper.

- **Forecast** — a prediction of what will happen in the future, based on past information. A *financial forecast* predicts future sales, costs, or cash needs.
- **Cost control** — keeping the actual costs of a business at or below the planned costs: finding where money is being wasted and stopping the waste.
- **Fixed cost** — a cost that stays the same even if production goes up or down (for example, factory rent).
- **Variable cost** — a cost that changes directly with production (for example, the raw material used in each tablet).
- **Break-even point** — the level of sales at which the company makes neither profit nor loss. Below this point there is a loss; above it there is a profit.
- **Human Resource Management (HRM)** — the function of managing the people of an organization: finding the right people, training them, paying them fairly, motivating them, and keeping them safe and satisfied.
- **Recruitment** — the process of attracting and inviting suitable candidates to apply for a job.
- **Selection** — the process of choosing the best candidate from the applicants.
- **Training** — teaching employees the knowledge and skills they need to do their job well.
- **Performance appraisal** — a formal, systematic evaluation of how well an employee is doing their job.
- **Motivation** — the inner force that makes a person willing to work hard and do their best.
- **Leadership** — the ability to guide, influence, and inspire a group of people to achieve a common goal.
- **Conflict** — a disagreement or clash between two or more people or groups at the workplace.

## Key Terminology

| Term | Simple meaning |
|---|---|
| **Sales budget** | A budget that predicts how much the company will sell (in units and in rupees) in the coming period. |
| **Production budget** | A budget that plans how many units must be manufactured, based on the sales budget plus the stock the company wants to keep. |
| **Cash budget** | A budget that tracks when cash will come in (from customers) and go out (to suppliers, staff), month by month, so the company never runs out of cash. |
| **Master budget** | The summary budget that brings all the individual budgets together into one complete picture (profit plan + financial position). |
| **Budgetary control** | Comparing actual results with the budget and taking corrective action when there are differences. |
| **Variance** | The difference between the budgeted figure and the actual figure. A *favourable* variance is better than planned; an *adverse* variance is worse than planned. |

| Term | Simple meaning |
|---|---|
| **Trend method** | A forecasting method that looks at the direction (up or down) of past data and extends that pattern into the future. |
| **Moving average** | A forecasting method that takes the average of the most recent few periods (for example, the last 3 months) to predict the next period. |
| **Contribution** | Selling price minus variable cost per unit — the amount each unit contributes toward covering fixed costs and then profit. |
| **Margin of safety** | The gap between actual (or expected) sales and the break-even point. It tells how much sales can fall before the company starts making a loss. |
| **DPCO (Drug Price Control Order)** | A government order that fixes the maximum price (ceiling price) at which certain essential medicines — called *scheduled formulations* — can be sold in India. |
| **NPPA (National Pharmaceutical Pricing Authority)** | The government body that fixes and enforces ceiling prices of scheduled medicines under the DPCO. |
| **Scheduled formulation** | A medicine made from a drug listed in the government's official essential-medicines list, whose price is controlled by the DPCO. |
| **Ceiling price** | The maximum price at which a scheduled formulation may be legally sold to the consumer. |
| **Job analysis** | Studying a job to find out what tasks it involves and what skills the worker needs. Its two products are the *job description* (what the job is) and the *job specification* (what the worker must have). |
| **On-the-job training** | Training given to an employee while they are doing the actual work (for example, coaching by a senior at the machine). |
| **Off-the-job training** | Training given away from the actual work spot (for example, a classroom session or a workshop). |
| **Rating scale method** | A performance appraisal method in which the appraiser gives the employee a score (for example, 1 to 5) on several job factors. |
| **360-degree appraisal** | A performance appraisal method in which feedback is collected from all sides — boss, colleagues, juniors, and sometimes customers. |
| **Maslow's hierarchy of needs** | A motivation theory which says human needs are arranged like a pyramid — from basic needs (food, safety) at the bottom to growth needs (respect, self-development) at the top — and a higher need motivates only after lower needs are reasonably satisfied. |
| **Herzberg's two-factor theory** | A motivation theory which says job satisfaction and job dissatisfaction come from two different sets of factors: *hygiene factors* (like salary and working conditions) prevent dissatisfaction, while *motivators* (like recognition and growth) create real satisfaction. |
| **Autocratic leader** | A leader who takes all decisions alone and expects employees to simply obey. |
| **Democratic (participative) leader** | A leader who consults the team and shares decision-making. |
| **Laissez-faire leader** | A leader who gives the team full freedom and interferes very little ("let them do it"). |
| **Synergy** | The team effect: the combined result of a team is greater than the sum of individual efforts (1 + 1 > 2). |

# Detailed Explanation

## PART A — FINANCIAL PLANNING

### 1. Budgeting

**Technical concept:** Budgeting is the process of preparing a budget — a quantitative (number-based) plan of income and expenditure for a definite future period.

**Simple explanation:** Imagine you get ₹1,000 as pocket money for the month. You write down: food ₹400, travel ₹300, savings ₹200, extra ₹100. That written plan is your personal budget. A company does the same thing on a big scale — it writes down how much it expects to earn and spend next year. Budgeting forces managers to *think ahead*, *coordinate* different departments, and *control* spending.

**Why budgets matter (purposes of budgeting):**

1. **Planning** — it makes the future concrete in numbers.
2. **Coordination** — the sales, production, and purchase departments must talk to each other to make one consistent plan.
3. **Control** — later, actual results are compared with the budget; differences (variances) are investigated.
4. **Motivation** — a clear target (e.g., "sell 50,000 strips this quarter") motivates the sales team.
5. **Communication** — the budget tells every department what is expected of it.

**Types of budgets (with pharma examples):**

1. **Sales budget** — the starting point of all budgets. It predicts sales in units and rupees, product by product. Example: "Next year we plan to sell 12 lakh strips of our multivitamin and 8 lakh bottles of cough syrup."
2. **Production budget** — how many units must be manufactured, calculated as:

*Production needed = Planned sales + Desired closing stock − Opening stock.* Example: planned sales 12 lakh strips + desired closing stock 1 lakh strips − opening stock 50,000 strips = 12,50,000 strips to produce.

1. **Cash budget** — a month-by-month plan of cash inflows (money received from customers) and cash outflows (payments to suppliers, salaries, loan instalments). It answers one question: *will we have enough cash to pay our bills each month?* A company can be profitable on paper and still fail if it runs out of cash — the cash budget prevents that.
2. **Master budget** — the summary of all budgets: the *budgeted profit and loss account* (expected profit) plus the *budgeted balance sheet* (expected financial position). Think of it as the "budget of budgets."

**Steps in preparing a budget:**

1. **Set objectives** — top management decides overall goals (e.g., "grow sales by 10% next year").
2. **Prepare the sales budget** — the sales team forecasts demand product by product.
3. **Prepare the production budget** — the production team plans manufacturing from the sales budget.

4 **Prepare cost budgets** — material budget, labour budget, and overhead budget from the production plan.

5 **Prepare the cash budget** — the finance team plans cash inflows and outflows.

6 **Prepare the master budget** — everything combined into the budgeted profit and financial position.

7 **Approval** — top management (or the board) approves the master budget.

8 **Communication and implementation** — each department receives its budget targets.

9 **Budgetary control** — during the year, actual results are compared with the budget; variances are analysed and corrective action is taken.

**Key takeaway:** A budget is a number-based future plan. Sales budget → production budget → cost budgets → cash budget → master budget → compare actual with budget → take corrective action.

### 2. Financial forecasting

**Technical concept:** Financial forecasting is the estimation of future financial outcomes (sales, costs, cash needs, profits) using past data and reasonable assumptions.

**Simple explanation:** Budgeting says "this is what we *plan* to achieve." Forecasting says "based on the past, this is what will *probably* happen." A forecast is like a weather prediction — it uses yesterday's and today's data to guess tomorrow. Managers forecast sales before they budget; the forecast is the raw material of the budget.

**Simple forecasting methods:**

1 **Trend method** — look at past figures, find the direction (trend), and extend it.

*Example:* A company's cough-syrup sales for four years were 80,000 → 90,000 → 1,00,000 → 1,10,000 bottles. The trend is rising by about 10,000 bottles per year. A simple trend forecast for next year = 1,10,000 + 10,000 = 1,20,000 bottles. Easy, but assumes the trend continues unchanged.

1 **Moving average method** — take the average of the most recent *n* periods and use it as the forecast for the next period. When a new actual figure arrives, drop the oldest one and re-average — the average "moves" forward.

*Worked example (full steps in Worked Examples):* Sales of vitamin strips — Jan: 1,200; Feb: 1,400; Mar: 1,600; Apr: 1,500. The 3-month moving-average forecast for May = (1,400 + 1,600 + 1,500) ÷ 3 = 4,500 ÷ 3 = **1,500 units**. This method smooths out short-term ups and downs.

**Key takeaway:** Forecasting uses the past to predict the future. Trend method extends the direction; moving average averages the latest few periods.

### 3. Cost control

**Technical concept:** Cost control is the process of keeping actual costs within planned limits by setting standards, measuring actual performance, finding variances, and correcting them.

**Simple explanation:** Cost control is like watching the fuel meter of a car. You planned to spend ₹5,000 on fuel this month (the standard). At month-end you check actual spending. If it is ₹6,500, you find out why (longer routes? fuel leak?) and fix it. In a pharma factory, the same idea applies to raw materials, power, labour, and packaging.

**Fixed cost vs variable cost — the most basic cost classification:**

- **Fixed cost** — does not change when production changes. Whether the factory makes 1 lakh or 5 lakh tablets, factory rent, the plant manager's salary, and insurance stay the same. *Memory hook: "fixed" = stuck, like rent.*
- **Variable cost** — changes in direct proportion to production. Each extra tablet needs extra raw material, extra packing foil, and extra power. Double the tablets → roughly double the variable cost. *Memory hook: "variable" = varies with volume.*
- **Total cost = Fixed cost + (Variable cost per unit × Number of units).**
- Some costs are **semi-variable** (part fixed, part variable) — e.g., a telephone bill with fixed rental plus per-call charges — but for basic break-even work we treat costs as fixed or variable.

**The break-even concept:**

Every unit sold brings in the **selling price**, but it also costs the **variable cost** to make. The difference — **contribution per unit = Selling price − Variable cost per unit** — first pays for the fixed costs; once fixed costs are fully covered, every further unit's contribution becomes profit. The **break-even point** is the sales level where total contribution exactly equals fixed costs — profit is zero.

Formulas (learn these):

- Break-even point (in units) = Fixed cost ÷ Contribution per unit
- Break-even point (in rupees) = Break-even units × Selling price per unit
- Profit = (Actual units − Break-even units) × Contribution per unit
- Margin of safety = Actual sales − Break-even sales

*A full worked numerical with every step is given in the Worked Examples section.*

**Cost-reduction ideas in a pharmaceutical unit:**

1. **Reduce material wastage** — control overfilling, recover solvents, cut rejection rates.
2. **Energy saving** — efficient motors, boiler maintenance, waste-heat recovery.
3. **Better purchasing** — economic order quantities, supplier negotiation, avoid emergency purchases at high prices.
4. **Preventive maintenance** — prevents costly breakdowns and batch failures.
5. **Right staffing** — match manpower to production load; avoid idle time and unnecessary overtime.
6. **Inventory control** — do not lock money in excess stock; avoid expiry losses.
7. **Process improvement** — shorter changeovers, fewer reprocessing batches, better yield per batch.

**Key takeaway:** Control costs by comparing actual with standard and fixing variances. Fixed costs stay constant; variable costs move with output. Break-even is where contribution exactly covers fixed costs.

### 4. Pharmaceutical pricing as per DPCO

**Technical concept:** The **Drug Price Control Order (DPCO)** is a government order issued under the Essential Commodities Act that regulates the prices of certain essential medicines in India. Medicines whose prices are controlled are called **scheduled formulations** (formulations made from drugs listed in the government's essential-medicines list). For these, a maximum price — the **ceiling price** — is fixed, and no one may sell above it.

**Simple explanation:** Most products (soap, phones, clothes) can be priced freely by the seller. But medicines are special — a sick person cannot bargain or wait. So the government controls the prices of *essential* medicines so that every patient can afford them. The DPCO is the rulebook for this control.

**Which drugs does the DPCO cover?**

- It covers **scheduled formulations** — medicines containing drugs that appear in the National List of Essential Medicines (NLEM), the government's official list of medicines considered essential for the country's health needs.
- Non-scheduled (non-essential) medicines are not under direct price control, but their price increases are still monitored and limited.

**Ceiling price — in plain terms:**

- The **ceiling price** is the *maximum* price at which a scheduled formulation can be sold to the patient — like a speed limit: you may drive slower, but never faster.
- It is calculated from the market prices of the brands of that medicine using a standard formula, plus a fixed retailer's margin — the company and the retailer cannot charge more than this ceiling.

**Role of the NPPA (National Pharmaceutical Pricing Authority):**

1. Fixes and notifies the ceiling prices of scheduled formulations.
2. Monitors the prices of non-scheduled medicines and ensures their increases stay within permitted limits.
3. Takes action (including recovery of overcharged amounts) against companies that sell above the ceiling price.
4. Works to keep essential medicines available and affordable.

*Note: this chapter deliberately gives no price figures, notification numbers, or dates — always check the current NPPA/DPCO notifications for the latest position.*

**Key takeaway:** DPCO = government price control on essential (scheduled) medicines. Ceiling price = the legal maximum price. NPPA = the authority that fixes and enforces it.

## PART B — HUMAN RESOURCE MANAGEMENT

### 5. Human Resource Management: meaning and importance

**Technical concept:** Human Resource Management (HRM) is the management function concerned with obtaining, developing, and maintaining a competent workforce — the people of the organization — so that organizational goals are achieved efficiently.

**Simple explanation:** A pharma company has machines, money, and materials — but none of these can think, decide, or care. Only *people* can. HRM is the department that looks after the "people side" of the business: hiring the right people, training them, paying them fairly, keeping them motivated, and solving their problems. The old term was "personnel management"; HRM is the modern, wider version that treats people as valuable *resources* to be developed, not just workers to be used.

**Why people matter especially in pharma:**

1 **Quality is a human job** — machines make tablets, but humans design the process, check the quality, and sign the batch records. One careless operator can spoil an entire batch worth lakhs.

2 **Regulations demand competent people** — drug laws (like Good Manufacturing Practices) require that every critical task be done by trained, qualified persons. An untrained worker is a regulatory risk.

3 **Knowledge work** — R&D scientists, pharmacists, and quality analysts carry knowledge in their heads; losing them means losing capability.

4 **Ethics and patient safety** — pharma employees make decisions that directly affect patients' lives. Motivated, ethical people protect patients; demotivated ones cut corners.

5 **Competitive advantage** — competitors can copy your machines and formulations, but they cannot easily copy a skilled, committed team.

> **Key takeaway:** In pharma, people *are* the quality system. HRM finds, develops, and keeps the competent people on whom drug quality and patient safety depend.

### 6. Recruitment, selection, and training

#### 6a. Recruitment — attracting candidates

**Technical concept:** Recruitment is the process of searching for prospective employees and encouraging them to apply for jobs in the organization. It creates a *pool* of candidates from which selection is made.

**Simple explanation:** Recruitment is like inviting guests to a function — the more suitable guests you invite, the better the chance of a good gathering. It is a *positive* process (it tries to attract as many suitable applicants as possible), whereas selection (next) is *negative* (it rejects the unsuitable).

**Sources of recruitment:**

- **Internal sources** — promotions, transfers, and employee referrals (asking current staff to recommend candidates). Advantages: employees already know the company culture; it motivates staff. Limitation: the pool of fresh ideas is small.
- **External sources** — campus recruitment (visiting pharmacy colleges), employment exchanges, job portals and newspapers, walk-in interviews, placement consultants, and company websites. Advantages: fresh talent and new ideas. Limitation: takes more time and cost.

**Steps in the recruitment process:**

1 **Identify the vacancy** — a post falls vacant or a new post is created.

2 **Job analysis** — study the job and write the *job description* (what the job involves) and *job specification* (what qualifications and experience the candidate must have).

3 **Choose the source** — decide whether to look inside or outside the company.

4 **Invite applications** — advertise the post with clear details of the job, qualifications, and how to apply.

5 **Receive and screen applications** — collect applications and shortlist candidates who meet the basic requirements. (Shortlisted candidates move to *selection*.)

### 6b. Selection — choosing the best candidate

**Technical concept:** Selection is the process of choosing the most suitable candidate from the applicants and rejecting the rest. It is a series of screening steps (hurdles); a candidate must clear each step to move to the next.

**Simple explanation:** If recruitment is inviting guests, selection is choosing the right person for the right seat. In pharma, a wrong selection is expensive — a careless analyst in quality control can pass a defective batch.

**Steps in the selection process:**

1 **Preliminary screening** — a quick check: does the candidate meet the minimum qualifications?

2 **Selection tests** — written or practical tests of knowledge, aptitude, or skill (e.g., a practical test for a lab analyst).

3 **Employment interview** — a face-to-face conversation to judge communication, attitude, and fit.

4 **Reference and background check** — verifying the candidate's claims with previous employers or referees.

5 **Medical examination** — checking physical fitness for the job (important in manufacturing areas).

6 **Final selection decision and job offer** — the appointment letter is issued with salary and terms.

7 **Placement and induction** — the new employee is placed in the job and introduced to the company (induction/orientation).

### 6c. Training — building capability

**Technical concept:** Training is the systematic process of increasing an employee's knowledge, skills, and attitudes so that they can perform their current job better.

**Simple explanation:** Even a well-selected employee does not know *this company's* machines, procedures, and quality systems. Training fills that gap. In pharma it is not optional — regulators expect documented proof that every person doing critical work has been trained.

**Types of training methods:**

- **On-the-job training** — learning while doing the actual work: *coaching* (a senior guides the newcomer one-to-one), *job rotation* (working in different departments for short periods), *apprenticeship* (learning a skilled trade under an expert over a longer period).

- **Off-the-job training** — learning away from the work spot: *classroom lectures and seminars* (e.g., a GMP refresher), *workshops and role-plays* (e.g., practising complaint handling), *e-learning modules* (computer-based lessons taken anytime), *simulations* (practising on dummy equipment before touching the real machine).

**Steps in a training programme:**

1 **Identify training needs** — find the gap between required and actual skills (e.g., a new machine is installed).

2 **Set training objectives** — state clearly what the trainee should be able to do after training.

3 **Design the programme** — choose the method, trainer, duration, and material.

4 **Conduct the training** — deliver it as planned.

5 **Evaluate** — check whether learning happened (a test, or observing work afterwards) and whether performance improved.

**Key takeaway:** Recruitment attracts, selection chooses, training develops. In pharma, training is both a quality requirement and a safety requirement.

### 7. Performance appraisal

**Technical concept:** Performance appraisal is the formal, systematic process of evaluating an employee's job performance against pre-set standards, usually once or twice a year, and communicating the results to the employee.

**Simple explanation:** Just as students get report cards, employees get appraisals. The manager observes the employee's work over the year, compares it with what was expected, and gives feedback — what was good, what must improve. It is *systematic* (follows a fixed method) and *formal* (recorded in writing), not just casual praise or scolding.

**Common methods:**

1 **Rating scale (graphic rating scale)** — the appraiser rates the employee on several factors (quality of work, punctuality, teamwork, discipline), usually on a 1-to-5 scale. Simple and quick, but can be biased if the rater is not careful.

*Example row:* "Quality of work: 1 (poor) – 2 – 3 (average) – 4 – 5 (excellent)" → analyst rated 4.

1 **360-degree appraisal** — feedback is collected from *all around* the employee: the boss, peers (colleagues at the same level), subordinates, and sometimes customers or patients. It gives a fuller picture than the boss's view alone, but it takes more time and needs honest respondents.

2 *(Other methods to know by name:* ranking method, paired comparison, critical incident method — recording specific good/bad events — and self-appraisal.)

**Uses of performance appraisal:**

1 Deciding **promotions, transfers, and pay rises**.

2 Identifying **training needs** (low scores show where training is required).

3 Giving **feedback** so employees know their strengths and weaknesses.

4 Helping with **career planning** and succession planning (who can take bigger roles).

5 Providing a fair, documented basis for **rewards or disciplinary action**.

**Key takeaway:** Appraisal = systematic report card for employees. Rating scale is quick; 360-degree is fuller. Its results feed promotions, pay, training, and feedback.

### 8. Employee motivation

**Technical concept:** Motivation is the psychological process that arouses, directs, and sustains a person's behaviour toward a goal. A motivated employee works willingly and energetically; an unmotivated one does the minimum or looks for another job.

**Simple explanation:** Why does one analyst carefully double-check every reading while another rushes through? The difference is motivation — the inner "engine." Managers cannot *see* motivation, but they can *feed* it through fair pay, recognition, good supervision, and growth opportunities.

**Two simple theories (in plain words):**

1 **Maslow's hierarchy of needs (the pyramid theory):** Human needs are arranged like a five-step pyramid. A person is motivated by the *lowest unsatisfied* level:

- **Level 1 — Physiological needs:** food, water, shelter. (At work: a salary that covers basic living.)
- **Level 2 — Safety needs:** security, freedom from fear. (At work: job security, safe working conditions, health insurance.)
- **Level 3 — Social needs:** belonging, friendship. (At work: friendly colleagues, teamwork.)
- **Level 4 — Esteem needs:** respect, recognition. (At work: appreciation, titles, "Employee of the Month.")
- **Level 5 — Self-actualization:** becoming the best one can be. (At work: challenging assignments, learning new skills.)

*Rule of the pyramid:* once a lower need is reasonably satisfied, it stops motivating, and the next level takes over. You cannot motivate a hungry person with a certificate — pay them fairly first.

1 **Herzberg's two-factor theory (hygiene vs motivators):** Job factors fall into two separate groups:

- **Hygiene factors** (salary, company policies, working conditions, job security, supervision): if *poor*, employees are dissatisfied; but making them *excellent* does not create enthusiasm — it only removes dissatisfaction. Like hygiene in health: brushing teeth prevents toothache but does not make you an athlete.
- **Motivators** (achievement, recognition, the work itself, responsibility, growth): these create *real* satisfaction and drive people to excel.

*Manager's lesson:* first fix the hygiene factors (fair pay, decent conditions), then add motivators (recognition, growth) to truly energize people.

**Practical motivators a pharma manager can use:**

1 Fair, on-time salary and performance-linked incentives.

2 Public recognition — praise in meetings, appreciation certificates.

3 Growth — promotions, sponsored higher studies, skill training.

4 Involvement — asking operators for suggestions on process improvement.

5 Good working conditions — clean, safe plant; proper rest areas.

6 Job security and welfare — insurance, medical benefits for family.

7 Challenging work — giving a bright analyst a real problem to solve.

**Key takeaway:** Motivation is the inner engine. Maslow: satisfy needs level by level, bottom to top. Herzberg: hygiene factors prevent unhappiness; motivators create happiness.

### 9. Leadership styles and their impact

**Technical concept:** A leadership style is the consistent pattern of behaviour a leader uses when guiding a team — mainly, how much the leader shares decision-making with the team.

**The three classic styles:**

1 **Autocratic (authoritarian) leadership** — the leader takes all decisions alone, gives orders, and expects obedience without questions.

- *Impact:* decisions are fast; discipline is high. But employees feel like machines, creativity dies, and morale falls. *Best used* in emergencies (e.g., a fire in the plant, a product recall) where there is no time to discuss.

1 **Democratic (participative) leadership** — the leader consults the team, invites ideas, and then decides (often by consensus).

- *Impact:* decisions are slower but better accepted; employees feel valued, so motivation and creativity rise. *Best used* for quality-improvement projects, solving recurring problems, and planning — the normal style for a modern pharma plant.

1 **Laissez-faire (free-rein) leadership** — "laissez-faire" is French for "let them do (as they wish)." The leader gives full freedom and interferes very little.

- *Impact:* works well with highly skilled, self-driven experts (e.g., senior R&D scientists) who resent being controlled. Fails with untrained or careless teams — without guidance, discipline and quality collapse. *Best used* only with mature, expert teams.

**Qualities of a good leader (especially in pharma):**

1 **Integrity** — honest even when no one is watching (critical where data integrity decides batch release).

2 **Knowledge** — understands the work (GMP, processes) well enough to guide others.

3 **Communication** — explains clearly, listens patiently.

4 **Decisiveness** — takes timely decisions, especially in quality emergencies.

5 **Empathy** — understands employees' problems and feelings.

6 **Accountability** — accepts responsibility for the team's mistakes instead of blaming.

7 **Vision** — shows the team where it is heading and why their work matters to patients.

**Key takeaway:** Autocratic = "do as I say" (fast, use in emergencies). Democratic = "let's decide together" (best for normal pharma work). Laissez-faire = "do as you like" (only for expert teams). A good leader blends styles to suit the situation.

### 10. Team building and conflict resolution

**Technical concept:** A *team* is a group of people with complementary skills working toward a common goal, holding themselves mutually accountable. *Team building* is the deliberate effort to convert a collection of individuals into such a team. *Conflict* is disagreement that, if unmanaged, harms work — but if managed well, can improve decisions.

**Stages of team development (in plain words):**

1 **Forming** — the team is new; members are polite, cautious, and dependent on the leader. ("Who are these people? What is my role?")

2 **Storming** — differences surface; members argue about ideas, roles, and leadership. Uncomfortable but *normal and necessary*.

3 **Norming** — the team settles rules, roles become clear, trust builds, cooperation starts.

4 **Performing** — the team works smoothly and delivers results; the leader can step back.

5 **Adjourning** — the task ends and the team disbands (e.g., a validation team after qualification is complete).

**Sources of conflict at the workplace:**

1 **Scarce resources** — two departments fighting over the same machine time or budget.

2 **Unclear roles** — "whose job is this?" confusion between production and quality.

3 **Communication gaps** — misunderstood instructions, rumours.

4 **Personality clashes** — different temperaments and working styles.

5 **Unfair treatment (real or perceived)** — favouritism in appraisals or promotions.

6 **Goal differences** — production wants speed; quality wants caution.

**Steps of conflict resolution:**

1 **Identify the real issue** — listen to both sides separately; find facts, not rumours.

2 **Bring the parties together** — a calm, private setting for discussion.

3 **Encourage open communication** — each side speaks without interruption; focus on the problem, not the person.

4 **Generate options** — brainstorm win-win solutions together.

5 **Agree on a solution** — choose the option both sides accept; write down who will do what by when.

6 **Follow up** — check after a few days whether the solution is working.

*A worked conflict-resolution scenario is given in the Worked Examples section.*

**Key takeaway:** Teams grow through forming → storming → norming → performing (→ adjourning). Conflict usually comes from scarce resources, unclear roles, or poor communication — resolve it by listening, focusing on the problem, finding win-win options, and following up.

## Classifications

### Classification 1: Types of budgets in a pharmaceutical company

1 **Sales budget** — forecasts sales (units × price), product-wise.

2 **Production budget** — plans manufacturing quantity (sales + closing stock − opening stock).

3 **Material budget** — plans raw-material and packing-material purchases.

4 **Labour budget** — plans manpower needs and labour cost.

5 **Overhead budget** — plans indirect costs (power, maintenance, administration).

6 **Cash budget** — plans month-wise cash inflows and outflows.

7 **Capital expenditure budget** — plans big long-term spending (new plant, new machines).

8 **Master budget** — the summary of all the above (budgeted profit + budgeted financial position).

### Classification 2: Types of costs

1 **Fixed cost** — unchanged with output (rent, insurance, manager salaries).

2 **Variable cost** — changes directly with output (raw material, packing material per unit).

3 **Semi-variable cost** — part fixed, part variable (electricity: fixed meter charge + per-unit charge).

### Classification 3: Sources of recruitment

1 **Internal** — promotions, transfers, employee referrals, re-employment of former staff.

2 **External** — campus recruitment, job portals/newspapers, employment exchanges, walk-ins, placement consultants.

### Classification 4: Types of training

1 **On-the-job** — coaching, job rotation, apprenticeship, understudy assignments.

2 **Off-the-job** — classroom lectures, seminars, workshops/role-plays, e-learning, simulations.

### Classification 5: Performance appraisal methods

1 **Rating (graphic rating) scale** — scores on job factors.

2 **360-degree appraisal** — feedback from boss, peers, subordinates, customers.

3 **Ranking / paired comparison** — comparing employees with one another.

4 **Critical incident method** — recording specific effective/ineffective behaviours.

5 **Self-appraisal** — the employee evaluates their own performance.

### Classification 6: Leadership styles

1 **Autocratic** — leader decides alone; fast, strict.

2 **Democratic (participative)** — leader consults the team; slower, high acceptance.

3 **Laissez-faire** — leader gives full freedom; works only with expert, self-driven teams.

### Classification 7: Team development stages

**Forming → Storming → Norming → Performing → Adjourning.**

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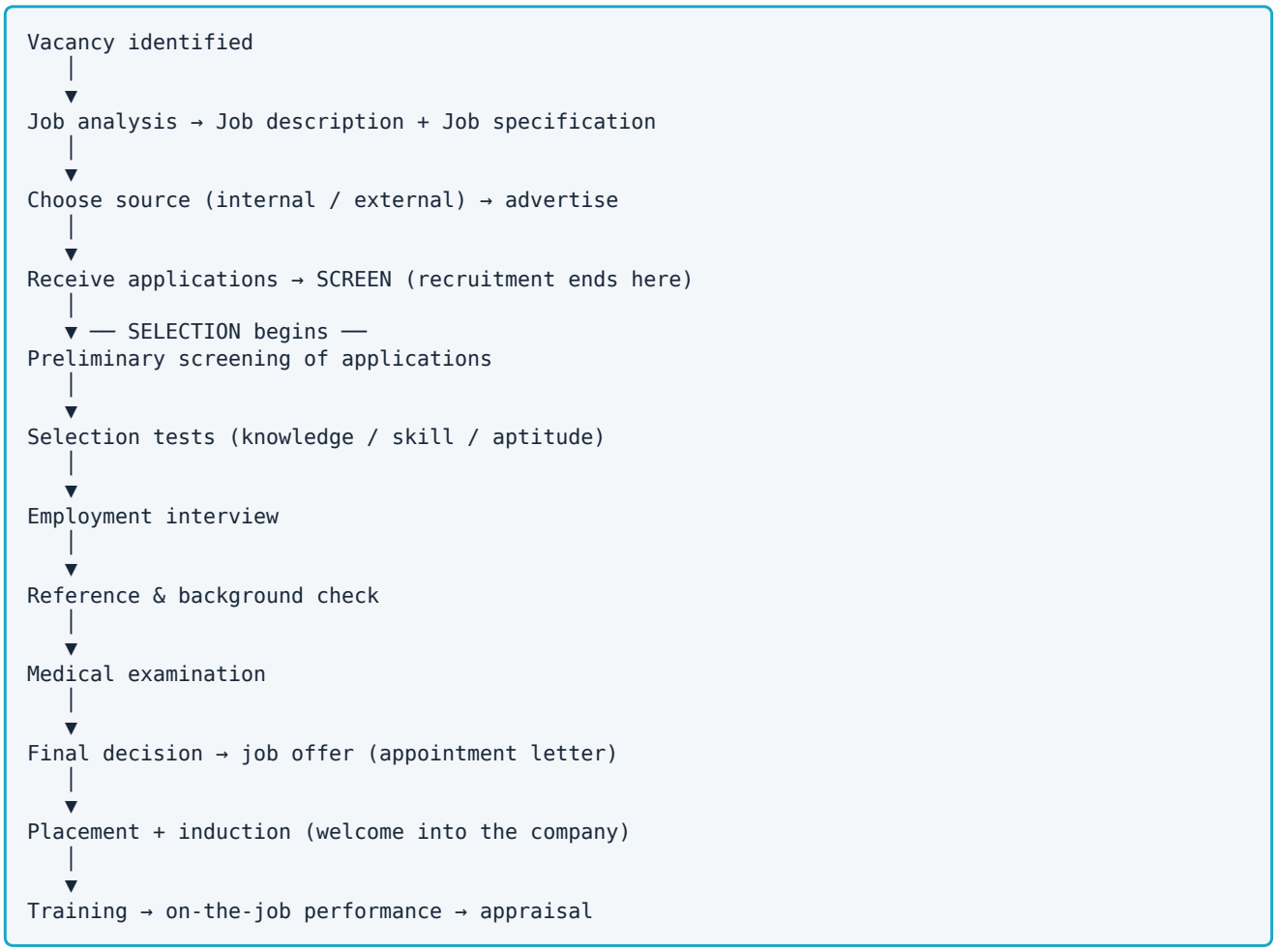
## Processes/Flows

### Flow 1: The budgeting cycle (how budgets are prepared and used)




### Flow 2: The recruitment → selection → placement pipeline




## Flow 3: The cost-control loop




## Flow 4: Conflict resolution steps

```
Conflict noticed (falling output, arguments, complaints)
        |
        ▼
1. Listen to both sides SEPARATELY — collect facts
        |
        ▼
2. Bring parties together in a calm, private setting
        |
        ▼
3. Each side speaks WITHOUT INTERRUPTION — focus on the PROBLEM, not the person
        |
        ▼
4. Brainstorm WIN-WIN options together
        |
        ▼
5. AGREE on a solution — write who does what, by when
        |
        ▼
6. FOLLOW UP after a few days — is it working?
```

### Flow 5: How a ceiling price protects the patient (DPCO logic)

```
Drug listed in essential-medicines list
        |
        ▼
Its formulations become SCHEDULED formulations
        |
        ▼
NPPA fixes the CEILING PRICE (maximum legal price)
        |
        ▼
Manufacturer + retailer must sell AT or BELOW the ceiling
        |
        ▼
Patient gets the essential medicine at an affordable, uniform price
        |
        ▼
NPPA monitors the market → penalises overcharging
```

## Infographic Concepts

**Infographic 1 — "The Budget Family Tree" (one page):** A tree diagram. The trunk is labelled **MASTER BUDGET**. Four big branches: **Sales Budget** (shopping-cart icon, "start here"), **Production Budget** ("sales + stock − opening stock"), **Cost Budgets** (three leaves: material, labour, overhead), and **Cash Budget** (wallet icon, "never run out of cash"). At the roots, a loop arrow labelled **Budgetary Control: compare actual vs budget → fix variances**. Caption: *"Every rupee planned before it is spent."*

**Infographic 2 — "Fixed vs Variable Cost" (one page):** A split screen. Left: a factory building with a lock icon — **FIXED COST** — "Rent ₹50,000/month — same whether we make 1 lakh or 5 lakh tablets." Right: a tablet strip with a rising arrow — **VARIABLE COST** — "Raw material ₹2 per strip — doubles when output doubles." Bottom strip: **Total cost = Fixed + (Variable per unit × Units)** with a small break-even seesaw balancing "Total revenue" against "Total cost."

**Infographic 3 — "Maslow's Pyramid at Work" (one page):** A five-layer pyramid, bottom to top: **Salary for food & shelter → Job security & safety → Team belonging → Recognition & respect → Growth & self-development**, each with a small icon (pay slip, helmet, team huddle, trophy, graduation cap). Side

note: *"Motivate from the bottom up — a hungry worker cannot be motivated by a certificate."*

**Infographic 4 — "Three Leaders, Three Styles" (one page):** Three panels. Panel 1: a pointing figure — **AUTOCRATIC** — "I decide. You obey." (use in emergencies). Panel 2: a round-table discussion — **DEMOCRATIC** — "Let's decide together." (best for daily pharma work). Panel 3: birds flying free — **LAISSEZ-FAIRE** — "Do as you like." (only for expert teams). Bottom bar: the seven qualities of a good leader as seven stars: integrity, knowledge, communication, decisiveness, empathy, accountability, vision.

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# Tables

## Table 1: Types of budgets — at a glance

| Budget | What it plans | Prepared by | Example in a pharma company |
|---|---|---|---|
| Sales budget | Expected sales (units × price) | Sales/marketing dept | 12 lakh strips of multivitamin next year |
| Production budget | Units to manufacture | Production dept | 12.5 lakh strips (sales + stock needs) |
| Material budget | Raw/packing material purchases | Purchase + production | 500 kg of API, 13 lakh aluminium foils |
| Labour budget | Manpower and labour cost | HR + production | 40 operators across 2 shifts |
| Overhead budget | Indirect costs | Finance | Power, maintenance, admin expenses |
| Cash budget | Month-wise cash in/out | Finance | Ensure salary + supplier payments each month |
| Capital expenditure budget | Big long-term spending | Top management | New tablet press machine |
| Master budget | Summary of all budgets | Finance | Budgeted profit and financial position |

## Table 2: Fixed cost vs variable cost

| Point | Fixed cost | Variable cost |
|---|---|---|
| Meaning | Stays the same whatever the output | Changes directly with output |
| Per-unit behaviour | Falls per unit as output rises | Stays the same per unit |
| Total behaviour | Constant in total | Rises in total with output |
| Examples | Factory rent, insurance, manager salary | API, excipients, packing foil per strip |
| Control focus | Controlled by top management decisions | Controlled by shop-floor efficiency |

## Table 3: Recruitment vs selection

| Point | Recruitment | Selection |
|---|---|---|
| Purpose | Attract maximum suitable applicants | Choose the best, reject the rest |
| Nature | Positive process (inviting) | Negative process (rejecting) |
| Stage | Comes first | Comes after recruitment |

| Point | Recruitment | Selection |
|---|---|---|
| Outcome | A pool of candidates | One (or few) appointed candidate(s) |

### Table 4: On-the-job vs off-the-job training

| Point | On-the-job training | Off-the-job training |
|---|---|---|
| Location | At the actual work spot | Away from the work spot (classroom/online) |
| Methods | Coaching, job rotation, apprenticeship | Lectures, workshops, e-learning, simulations |
| Cost | Lower | Higher |
| Disruption | Work continues during learning | Employee is away from work |
| Best for | Practical, machine-specific skills | Concepts, GMP theory, soft skills |

### Table 5: Maslow vs Herzberg — the two motivation theories

| Point | Maslow's hierarchy | Herzberg's two-factor |
|---|---|---|
| Core idea | Needs form a 5-level pyramid | Satisfaction and dissatisfaction come from different factors |
| Levels/factors | Physiological → safety → social → esteem → self-actualization | Hygiene factors vs motivators |
| Manager's rule | Satisfy lower needs first, then higher ones motivate | First remove dissatisfaction (hygiene), then add motivators |
| Example | Fair salary before awards | Good salary + recognition together work best |

### Table 6: Leadership styles — comparison

| Style | Decision-making | Speed | Employee morale | Best situation in pharma |
|---|---|---|---|---|
| Autocratic | Leader alone | Fast | Low | Emergency — fire, recall, accident |
| Democratic | Leader + team together | Medium | High | Daily work, quality improvement |
| Laissez-faire | Team decides freely | Varies | High only if team is expert | Senior R&D scientists' team |

## Worked Examples

### Worked Example 1 — Break-even analysis (step-by-step)

**Situation:** A small pharma unit makes vitamin strips. Each strip sells for **₹20**. The variable cost per strip (material + packing) is **₹12**. The fixed cost per month (rent, salaries, insurance) is **₹80,000**.

**Question A: How many strips must be sold per month to break even?**

- **Step 1:** Find the contribution per unit.

Contribution = Selling price − Variable cost = 20 − 12 = **₹8 per strip**. *(Every strip sold contributes ₹8 toward fixed costs and profit.)*

- **Step 2:** Apply the break-even formula.

Break-even (units) = Fixed cost ÷ Contribution per unit = 80,000 ÷ 8 = **10,000 strips**.

- **Step 3:** Verify. At 10,000 strips: revenue = 10,000 × 20 = ₹2,00,000. Total cost = fixed 80,000 + variable (10,000 × 12 = 1,20,000) = ₹2,00,000. Revenue − cost = 0. **Profit is zero — verified.**
- **Answer:** The unit breaks even at **10,000 strips per month**, i.e., **₹2,00,000** of sales.

**Question B: If the unit actually sells 14,000 strips, what is the profit?**

- **Step 1:** Units above break-even = 14,000 − 10,000 = 4,000 strips.
- **Step 2:** Profit = extra units × contribution = 4,000 × 8 = **₹32,000**.
- **Answer:** Monthly profit = **₹32,000**. Margin of safety = 4,000 strips (sales can fall by 4,000 strips before losses begin).

## Worked Example 2 — Moving-average sales forecast (step-by-step)

**Situation:** Monthly sales of a cough-syrup brand (bottles): January **1,200**; February **1,400**; March **1,600**; April **1,500**.

**Question: Using a 3-month moving average, forecast sales for May.**

- **Step 1:** Take the most recent 3 months: February (1,400), March (1,600), April (1,500).
- **Step 2:** Add them: 1,400 + 1,600 + 1,500 = **4,500**.
- **Step 3:** Divide by 3: 4,500 ÷ 3 = **1,500**.
- **Answer:** Forecast for May = **1,500 bottles**. (When May's actual sales are known, drop February and average March–May to forecast June — the average "moves.")

## Worked Example 3 — Budget variance analysis (management scenario)

**Situation:** The sales budget for Quarter 1 was **50,000 strips** at **₹20** = **₹10,00,000**. Actual sales were **46,000 strips** at **₹20** = **₹9,20,000**.

- **Step 1:** Variance = Actual − Budget = 9,20,000 − 10,00,000 = **−₹80,000 (adverse)**.
- **Step 2:** Investigate the cause — the price was as budgeted (₹20), so the shortfall is entirely a *volume* variance: 4,000 fewer strips sold.
- **Step 3:** Corrective action — the sales manager finds a distributor in one territory stopped promoting the brand; the manager schedules a distributor meeting and a small promotional push for Quarter 2.
- **Lesson:** A variance is not just a number — it is a signal pointing to a cause that needs action.

## Worked Example 4 — Conflict resolution (management scenario)

**Situation:** In a tablet plant, the **production supervisor** wants to run an extra batch on Saturday to meet a dispatch deadline. The **maintenance in-charge** refuses — Saturday is the scheduled preventive-maintenance day for the tablet press, and skipping it risks a breakdown.

- **Step 1 — Listen separately:** The manager hears both: production fears missing the dispatch and losing the customer; maintenance fears a mid-week breakdown that would halt production for days.
- **Step 2 — Bring them together:** In a calm meeting, each states their concern without interruption. Both agree the *real* problem is "meet the deadline AND keep the machine healthy."
- **Step 3 — Win-win options:** (a) Do maintenance on Friday night shift and produce on Saturday; (b) split the batch — half Saturday after a short maintenance window, half Monday with overtime.
- **Step 4 — Agree:** They choose option (a); maintenance completes the work Friday night, production runs Saturday morning. Responsibilities and timings are written down.
- **Step 5 — Follow up:** On Monday the manager checks — dispatch met, machine running fine. Conflict resolved, relationship intact.
- **Lesson:** Focus on the problem ("deadline + machine health"), not the persons; a win-win beats a win-lose.

### Worked Example 5 — Choosing a training method (management scenario)

**Situation:** A pharma company installs a new high-speed blister-packing machine. Twenty operators must learn to run it.

- **Step 1 — Training need:** Gap = operators know the old machine, not the new one.
- **Step 2 — Objective:** "Each operator will independently run the new machine at rated speed with zero critical errors."
- **Step 3 — Choose methods:** *On-the-job coaching* by the supplier's engineer for hands-on running + *off-the-job classroom* session on safety systems and cleaning + a short *e-learning* refresher for later.
- **Step 4 — Evaluate:** After two weeks, each operator runs a supervised trial batch; error rates are recorded. Operators below standard get extra coaching.
- **Lesson:** Match the method to the need — hands-on skills need on-the-job practice; theory and safety need classroom.

## Analogies

1 **Budget = a travel itinerary with money.** Planning a trip, you decide the route (plan), estimate hotel and food costs (budget), and during the trip you check spending daily (budgetary control). A company tour through the financial year works the same way.

2 **Fixed vs variable cost = house rent vs electricity.** Your room rent is fixed — same whether you stay home or travel all month. Your electricity bill is variable — it rises with every extra hour the fan runs. A factory's rent and raw materials behave exactly the same.

3 **Break-even = the waterline of a boat.** Load a boat lightly and it floats high (profit); overload it and it sinks (loss). The waterline is break-even — the exact load where it neither rises nor sinks.

4 **Forecast = a weather prediction.** The meteorological department studies past weather to predict tomorrow's rain. A sales forecast studies past sales to predict next month's demand. Both can be wrong — but both are far better than guessing blindly.

5 **Recruitment vs selection = fishing vs choosing fish.** Recruitment casts a wide net to catch many fish (attract applicants). Selection inspects the catch and keeps only the healthy ones (choose the best).

6 **Maslow's pyramid = building a house.** You cannot put the roof (self-actualization) before the foundation (food, safety). Each floor of motivation needs the floor below it.

7 **360-degree appraisal = a cricket review by the whole stadium.** Instead of only the coach's opinion, you hear from teammates, the captain, and even the audience — a fuller picture of the player's game.

8 **DPCO ceiling price = a speed limit.** You may drive slower than the limit, but never faster. A scheduled medicine may be sold below the ceiling price, but never above it.

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## Pharmacy Relevance

- **Every pharmacist-manager uses budgets.** Whether you run a retail pharmacy or head a production block, you will prepare purchase budgets, control costs, and explain variances to your seniors.
- **Break-even thinking protects small pharma businesses.** A new distributor or a small manufacturing unit must know its break-even sales before committing money — this one calculation has saved many businesses from failure.
- **DPCO knowledge is a pharmacist's duty.** Pharmacists must ensure scheduled medicines are sold at or below the ceiling price; overcharging is both unethical and punishable. Counselling patients about affordable essential medicines is part of pharmaceutical care.
- **HRM skills make pharmacists into leaders.** A production pharmacist supervises operators; a hospital pharmacist leads a dispensary team; a medical representative leads a territory. Recruitment, training, motivation, and conflict resolution are daily tools.
- **Training is a GMP requirement.** Regulators expect documented training for everyone doing critical work — as a QA or production pharmacist, you will conduct and record training, not just receive it.

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## India Context

- India is often called the **"pharmacy of the world"** because it supplies affordable generic medicines to many countries — cost control and efficient operations are what make this possible.
- The **DPCO and NPPA** exist specifically to keep essential medicines affordable for India's large population, where many patients pay for medicines from their own pocket.
- India's pharma industry employs lakhs of people — from production operators in industrial clusters like Hyderabad, Ahmedabad, and Baddi, to medical representatives covering every district. Good HRM practices directly affect the quality of medicines reaching patients.
- Regulators expect pharma units to follow **GMP**, which includes requirements for qualified, trained personnel — linking HRM directly to legal compliance in India.

- The rise of **e-pharmacies** in India has created new jobs (pharmacist verification, logistics coordination) and new HR challenges (training staff for digital processes).

## Key Points

1 A **budget** is a number-based plan of income and expenditure; budgeting serves planning, coordination, control, motivation, and communication.

2 Budget sequence: **sales → production → cost budgets → cash → master budget → approval → control**.

3 **Forecasting** predicts the future from the past: the **trend method** extends the direction; the **moving average** averages the latest few periods.

4 **Cost control** = set standards → measure actuals → find variances → correct.

5 **Fixed costs** stay constant in total; **variable costs** change with output.

6 **Break-even (units) = Fixed cost ÷ (Selling price − Variable cost)**; at this point profit is zero.

7 **DPCO** controls prices of **scheduled formulations** (essential medicines); **ceiling price** is the legal maximum; **NPPA** fixes and enforces it.

8 **HRM** = obtaining, developing, and maintaining a competent workforce; in pharma, people *are* the quality system.

9 **Recruitment** attracts (positive process); **selection** chooses (negative process) through screening → tests → interview → checks → offer → induction.

10 **Training**: on-the-job (coaching, job rotation) vs off-the-job (classroom, e-learning); steps: need → objectives → design → conduct → evaluate.

11 **Performance appraisal** methods: **rating scale** (quick) and **360-degree** (full picture); uses: promotions, pay, training needs, feedback.

12 **Maslow**: five-level pyramid, lower needs first. **Herzberg**: hygiene factors prevent dissatisfaction; motivators create satisfaction.

13 **Autocratic** (fast, emergencies) → **Democratic** (best for daily work) → **Laissez-faire** (only for expert teams).

14 Team stages: **Forming → Storming → Norming → Performing → Adjourning**; resolve conflict by listening, focusing on the problem, win-win options, and follow-up.

## Common Confusions

1 **Budget vs forecast.** A *forecast* is a prediction ("sales will probably be 1,500 units"). A *budget* is a plan/target ("we aim to sell 1,600 units"). The forecast feeds the budget; they are not the same.

2 **Recruitment vs selection.** Recruitment *attracts* many (positive); selection *rejects* most and keeps the best (negative). Students often swap these.

3 **Fixed cost per unit vs fixed cost in total.** Fixed cost in *total* stays the same, but fixed cost *per unit* falls as production rises (the same rent spread over more tablets). Variable cost behaves oppositely: same per unit, rising in total.

4 **Maslow vs Herzberg.** Maslow arranges *needs* in a pyramid (one list, bottom to top). Herzberg separates *two lists*: hygiene factors (prevent pain) and motivators (create joy). Salary is a hygiene factor for Herzberg but covers lower needs for Maslow.

5 **Ceiling price vs MRP.** MRP (maximum retail price) is printed by the manufacturer for *any* product. The DPCO *ceiling price* is fixed by the government (NPPA) specifically for *scheduled* medicines and no one may exceed it.

6 **Training vs development.** *Training* improves skills for the *current* job; *development* prepares the person for *future*, bigger roles. Induction training for a new analyst is training; sponsoring their M.Pharm is development.

7 **Autocratic vs strict discipline.** A democratic leader can still be strict about quality and discipline. "Democratic" means sharing *decisions*, not abandoning *standards*.

## Common Mistakes

1 **Preparing the production budget before the sales budget.** Sales drive everything — the sales budget must come first.

2 **Treating a forecast as a guarantee.** A forecast is a probability, not a promise; always keep a margin of safety in plans.

3 **Forgetting that break-even assumes constant price and costs.** If the selling price or cost structure changes, the break-even point must be recalculated.

4 **Confusing contribution with profit.** Contribution (price − variable cost) first covers fixed costs; only the remainder is profit.

5 **Writing vague training objectives.** "Train the operators" is useless; "each operator will run the machine independently with zero critical errors" can be tested.

6 **Using only the boss's opinion in appraisal.** Single-rater appraisals carry bias — that is exactly why 360-degree feedback exists.

7 **Trying to motivate with awards before paying fairly.** Per Maslow, lower needs (fair salary, security) must be satisfied before higher motivators work.

8 **Using laissez-faire leadership with a new, untrained team.** Freedom without competence produces chaos, not creativity.

9 **Skipping the follow-up step in conflict resolution.** Agreements fade; without follow-up, the same conflict returns.

## Mnemonics

1. **Budget order — "SPCCM":** *Sales, Production, Cost, Cash, Master* — "Sell Products, Count Cash Masterfully."
2. **Break-even formula — "FOC":** *Fixed ÷ (Price − Variable)* = Break-even units. Think: "**F**ind **O**utput where **C**ontribution covers fixed."
3. **Fixed vs variable — "RV": *R**ent is fixed, **R**aw material **V**aries.***
4. **Selection steps:** "**S**elect **T**hrough **I**nterview, **R**eference, **B**ackground, **M**edical, **F**inal offer" (screening → tests → interview → reference → background/medical → final offer).
5. **Team stages — "FSNPA": *F**orming, **S**torming, **N**orming, **P**erforming, **A**djourning* — "Friends Sometimes Need Patience Always."
6. **Leadership styles — "ADL": *A**utocratic decides **A**lone, **D**emocratic **D**iscusses, **L**aissez-faire **L**eaves alone.***
7. **Maslow's pyramid — "PSS ES": *P**hysiological, **S**afety, **S**ocial, **E**steem, **S**elf-actualization* — "People Seek Safety, Esteem, Success."
8. **Herzberg — "HM": *H**ygiene stops **H**urt; **M**otivators make **M**agic.***

## Exam Summary

- **Budgeting:** meaning (quantitative future plan), purposes (planning, coordination, control, motivation, communication), types — sales, production, cash, master (+ material, labour, overhead, capital expenditure), and the 9 preparation steps ending in budgetary control.
- **Financial forecasting:** meaning (predicting future financial outcomes from past data); trend method (extend the direction — e.g., +10,000 bottles/year) and moving-average method (average of latest *n* periods; worked example: May forecast = 1,500 bottles).
- **Cost control:** meaning (keeping actual costs within planned limits via the standard → actual → variance → action loop); fixed vs variable cost with examples; break-even formulas and the full worked numerical (break-even = 10,000 strips / ₹2,00,000; profit at 14,000 strips = ₹32,000); cost-reduction ideas (wastage, energy, purchasing, preventive maintenance, staffing, inventory, process improvement).
- **DPCO pricing:** DPCO = government order controlling prices of scheduled formulations (essential medicines); ceiling price = legal maximum price; NPPA fixes, monitors, and enforces; no invented figures.
- **HRM:** meaning (obtaining, developing, maintaining competent people); importance in pharma (quality is human, GMP needs trained people, knowledge work, ethics, competitive advantage).
- **Recruitment** (attracting; internal vs external sources; 5 steps) → **Selection** (choosing; 7 steps from screening to induction) → **Training** (on-the-job vs off-the-job; 5 programme steps).
- **Performance appraisal:** meaning (systematic evaluation vs standards); rating scale and 360-degree methods; uses (promotions, pay, training needs, feedback, career planning).
- **Motivation:** meaning; Maslow's 5-level pyramid (lower needs first); Herzberg's hygiene vs motivators; 7 practical motivators.

- **Leadership:** autocratic vs democratic vs laissez-faire with impacts and best-use situations; 7 qualities of a good leader.
- **Team building & conflict resolution:** 5 stages (forming → storming → norming → performing → adjourning); 6 sources of conflict; 6 resolution steps with the production-vs-maintenance worked scenario.

## One-Minute Revision

Budget = money plan: **sales** → **production** → **costs** → **cash** → **master** → **control**. Forecast the future: **trend** (extend direction) or **moving average** (average latest few). Control costs: **standard** → **actual** → **variance** → **fix**. Fixed = rent (constant); variable = material (moves with output). **Break-even = Fixed ÷ (Price − Variable)**; profit starts above it. **DPCO** caps prices of essential (**scheduled**) medicines; **NPPA** fixes the **ceiling price**. **HRM** = get, grow, keep good people — in pharma, people are the quality system. **Recruit** (attract) → **select** (choose: screen, test, interview, check, offer) → **train** (on-job: coaching; off-job: classroom). **Appraise** fairly: rating scale or **360-degree**. Motivate: **Maslow** (pyramid, bottom first), **Herzberg** (hygiene stops pain, motivators create joy). Lead by situation: **autocratic** (emergency), **democratic** (daily work), **laissez-faire** (experts only). Teams: **forming** → **storming** → **norming** → **performing** → **adjourning**; conflicts need listening, win-win, and follow-up.

## MCQs

**1.** The budget that is prepared FIRST in the budgeting sequence is the: (a) Cash budget (b) Production budget (c) Sales budget (d) Master budget

**2.** Production budget = Planned sales + Desired closing stock − ____. (a) Fixed cost (b) Opening stock (c) Variable cost (d) Cash balance

**3.** A 3-month moving-average forecast for May, given Feb = 1,400, Mar = 1,600 and Apr = 1,500 units, is: (a) 1,400 (b) 1,450 (c) 1,500 (d) 1,600

**4.** Which of the following is a FIXED cost for a tablet factory? (a) API consumed per tablet (b) Aluminium foil per strip (c) Factory rent (d) Packing cartons per unit

**5.** Contribution per unit is defined as: (a) Selling price + Variable cost (b) Selling price − Variable cost (c) Fixed cost ÷ Units sold (d) Total cost − Fixed cost

**6.** Fixed cost ₹80,000, selling price ₹20, variable cost ₹12. The break-even point is: (a) 4,000 units (b) 6,667 units (c) 10,000 units (d) 13,333 units

**7.** Scheduled formulations under the DPCO are medicines: (a) Sold only in government hospitals (b) Made from drugs in the essential-medicines list, with controlled prices (c) Sold without prescription (d) Exported to other countries

**8.** The ceiling price of a scheduled formulation is fixed by the: (a) Manufacturer (b) Retailer (c) NPPA (d) Distributor

**9.** Recruitment is best described as a: (a) Negative process that rejects candidates (b) Positive process that attracts applicants (c) Final step of selection (d) Type of training

**10.** Which of the following is an OFF-the-job training method? (a) Coaching (b) Job rotation (c) Classroom lecture (d) Apprenticeship

**11.** In a 360-degree appraisal, feedback is collected from: (a) Only the immediate boss (b) Only the customers (c) Boss, peers, subordinates and sometimes customers (d) Only the HR department

**12.** According to Herzberg's two-factor theory, salary is a: (a) Motivator (b) Hygiene factor (c) Esteem need (d) Self-actualization need

**13.** Which leadership style is MOST suitable during a plant emergency such as a fire? (a) Democratic (b) Laissez-faire (c) Autocratic (d) Free-rein

**14.** The correct order of team development stages is: (a) Forming → Norming → Storming → Performing (b) Forming → Storming → Norming → Performing (c) Storming → Forming → Performing → Norming (d) Norming → Forming → Storming → Performing

**Answer Key:**

1 **(c)** — Every other budget (production, costs, cash) is derived from the sales budget, so it is prepared first.

2 **(b)** — Production = sales + desired closing stock − opening stock (stock already in hand need not be made).

3 **(c)** — (1,400 + 1,600 + 1,500) ÷ 3 = 4,500 ÷ 3 = 1,500.

4 **(c)** — Rent stays the same whatever the output; the others vary per unit produced.

5 **(b)** — Contribution = selling price minus variable cost per unit.

6 **(c)** — Contribution = 20 − 12 = 8; break-even = 80,000 ÷ 8 = 10,000 units.

7 **(b)** — Scheduled formulations contain drugs from the essential-medicines list and their prices are controlled.

8 **(c)** — The NPPA (National Pharmaceutical Pricing Authority) fixes and enforces ceiling prices.

9 **(b)** — Recruitment is positive (attracting); selection is negative (rejecting).

10 **(c)** — Classroom lectures happen away from the work spot; the rest are on-the-job methods.

11 **(c)** — 360-degree means feedback from all around the employee.

12 **(b)** — Salary is a hygiene factor: its absence dissatisfies, but it alone does not create real satisfaction.

13 **(c)** — Emergencies need fast, single-point decisions — the autocratic style.

14 **(b)** — Forming → Storming → Norming → Performing (→ Adjourning).

## Viva/Application Questions

**1. Why is the sales budget called the starting point of all budgets?** *Model answer:* Because production, material, labour, and cash budgets are all derived from expected sales — you cannot plan how much to make or spend until you know how much you expect to sell.

**2. A manager says, "Our forecast was wrong, so forecasting is useless." How would you respond?** *Model answer:* A forecast is a probability based on past data, not a guarantee. Even an imperfect forecast is better than blind guessing because it forces the manager to study trends and keep a margin of safety.

**3. Distinguish fixed cost and variable cost with one pharma example each.** *Model answer:* Fixed cost — factory rent, same every month whatever the output. Variable cost — API consumed, which rises with every extra tablet produced.

**4. What is the practical use of knowing the break-even point before starting a small pharma unit?** *Model answer:* It tells the owner the minimum sales needed to avoid loss, helping decide whether the business is viable and how much sales effort is required.

**5. A chemist sells a scheduled medicine above the ceiling price. What is wrong here, and who acts against it?** *Model answer:* It violates the DPCO — scheduled formulations cannot be sold above the NPPA-fixed ceiling price. The NPPA monitors prices and can penalise the seller and recover the overcharged amount.

**6. "We hired the best candidate, so training is a waste of money." Do you agree?** *Model answer:* No. Even the best candidate does not know this company's machines, SOPs, and quality systems; GMP also requires documented training for critical tasks.

**7. Your team is demotivated despite good salaries. Using Herzberg, diagnose and suggest a fix.** *Model answer:* Good salary only satisfies hygiene factors (removes dissatisfaction). Add motivators: recognition, responsibility, growth opportunities, and meaningful work.

**8. Two departments fight over limited machine time every week. Which conflict-resolution steps would you apply?** *Model answer:* Listen to both sides separately, bring them together to state the real problem, brainstorm win-win options (e.g., a shared time-slot schedule), agree in writing who gets which slots, and follow up weekly.

## References

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3 Drucker, P. F. *Principles of Management*. Harper Business. (Management functions, leadership.)

4 Joseph, A. S. *Pharmaceutical Management and Marketing*. CBS Publishers & Distributors. (Pharma-specific management applications.)

5 The Drug Price Control Order and NPPA framework — students should consult the current DPCO and NPPA notifications for the latest ceiling-price position. (No figures, notification numbers, or dates reproduced here.)