

HR Analytics - Complete NPTEL Study Notes

Consolidated notes from Parts 1-3

Coverage and editing approach: These notes consolidate all three supplied parts. Repeated explanations have been merged, while distinct definitions, lists, formulas, examples, case studies, numerical values, dashboards, and questions have been retained. Where the source slides supplied only a heading or unclear chart labels, the notes preserve the available information rather than inventing missing values.

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1. HR Analytics: Fundamentals and Types of Analytics

1.1 Core terms

The course introduces three related labels: **HR analytics**, **people analytics**, and **workforce analytics**. The material lists all three in the introductory context but does not formally distinguish them. Across the course, analytics means using HR data, measurement, and analytical methods to make better evidence-based decisions about people and organizational outcomes.

HR metrics are measures of key HR-management outcomes. They are classified as measures of **efficiency**, **effectiveness**, or **impact**. HR analytics goes beyond reporting metrics: it connects HR processes and decisions with organizational performance and can range from simple HR reporting to predictive modelling.

An **HR Management Information System (HRMIS/HRIS)** is a source of HR data. It can provide the information used to create recruitment-effectiveness, training-effectiveness, performance, compensation, and other HR metrics. Analytics can link those HR processes and decisions to business performance, helping HR play a more strategic role.

1.2 Questions HR analytics can answer

HR analytics can investigate:

- What has happened?
- What is happening?
- Where is it happening?
- How is it happening?
- What appear to be the underlying causes?

1.3 Four types of analytics

Type	Core question	Meaning
Descriptive	What did happen?	Summarises historical or current observations.
Diagnostic	Why did it happen?	Investigates explanations, relationships, and sources of variation.
Predictive	What will happen?	Uses patterns in data to estimate likely future outcomes.
Prescriptive	What should happen, or how can we make it happen?	Uses models and optimisation to identify actions or scenarios likely to achieve a desired goal.

Descriptive analytics tools

- Mean/average
- Standard deviation
- Variance
- Mode
- Median
- Counts
- Ratios

Visualisation: histograms; pie charts to show proportions; bar charts to compare counts across categories.

Diagnostic analytics questions

- Why did the observed result occur, and where did it occur?
- Is the monitored measure (dependent variable) related to other collected information (independent variables/features)?
- If there is a relationship, how strong is it?
- How much of the variability in the measure can be accounted for by the collected data?

Tools: correlation and regression; analysis of variance; factor analysis; cross-tabulation; principal component analysis; correspondence analysis; multiple correspondence analysis.

Visualisation: scatter plots, regression plots, residual plots, box plots, and multiple density curves.

Predictive analytics tools

- Regression: linear, curvilinear, and logistic
- Decision trees and their variants
- Random forests
- Discriminant analysis

Visualisation: line charts and scattergrams/correlation plots.

Prescriptive analytics

A predictive model can be applied to new real-world data, or its inputs can be varied to explore a desired outcome. The course lists **operations research**, including optimisation problems, and **mathematical models** as tools.

1.4 LAMP and the HR scorecard

LAMP stands for **Logic, Analytics, Measures, and Processes**. The course also identifies the **HR scorecard** as a way of linking people, strategy, and performance.

Basic HR analytics questions include what the analytics procedure does, what is needed for analytics to succeed, and what outcomes it produces. Success requires:

- HR professionals' analytical skills;
- HR information technology;
- knowledge of data-analytics tools and techniques.

One stated outcome is establishing a link among **HR processes, employee engagement, and store performance**.

2. HR Data, Measurement, Metrics, and Preparation

2.1 Questions to ask about data and analysis

Trusting analysts does not remove the need to ask difficult questions. Check:

1. What were the data sources?
2. How well does the sample represent the population?
3. Does the distribution contain outliers, and how did they affect the results?
4. What assumptions underlie the analysis?
5. Why was this analytical approach selected?
6. What alternatives were considered?

2.2 Measurement forms

The course lists:

- Absolute value as measured
- Ratio or percentage
- Percentile
- Correlated information, for example the relationship between leader behaviour and employee engagement

2.3 Data-preparation checks

Before analysis, evaluate:

- **Reliability:** whether the data are dependable/consistent.
- **Adequacy:** whether enough suitable data exist for the purpose.
- **Completeness:** whether required data are present.
- **Variation:** whether there is enough variation to support the intended analysis.
- **Applicability:** whether the data fit the specific question or decision.

HRMIS data may not be stored in the exact form required for analysis. Data preparation may therefore require extraction, transformation, and loading (ETL). Trustworthy sources are essential: poor input data can produce poor output ("garbage in, garbage out").

In a model, the **dependent variable/label/metric** is the outcome being examined; the **independent variables/features** are the factors used to explain or predict it.

2.4 Developing HR metrics

Areas named for HR metrics include:

- Recruitment and selection
- Learning and development
- Performance and compensation

Every KPI is a metric, though a metric is not necessarily a KPI.

Criteria for good HR activity metrics

Every metric should:

1. Be documented.
2. Have a narrative definition that explains the measure to someone unfamiliar with it.
3. Have a mathematical formula, even if the formula is simply a count.
4. Explain what the calculation includes and, just as importantly, what it excludes.
5. Explain why it is collected and how it will be used; unused information should not be collected without purpose.
6. Be placed in a useful category/group where appropriate.
7. Identify the official source of the raw data.

2.5 Building an HR analytics model: end-to-end steps

1. **Define the goal / HR problem or issue.** This is foundational because later choices about data and tools depend on it. Poorly framed questions can waste time and produce no value.
2. **Define the problem clearly.** Include a statement of what the issue is, why it matters, and the desired state/outcome. Example mentioned: job classification or HR-operations efficiency.
3. **Collect and manage data.** Identify trustworthy sources; inspect HRMIS data; extract, transform, and load it; structure measures and features.
4. **Build the model.** Input = data; processing = analytical tool (descriptive, diagnostic, predictive, or prescriptive); output = statistical result.
5. **Evaluate and critique the model.** Scrutinise its quality and limitations before relying on it.
6. **Present results.** Communicate findings clearly to decision-makers.
7. **Deploy the model.** Put the result into use and connect it to decisions/actions.

2.6 Common data-science pitfalls

- **Confirmation trap:** paying more attention to findings that agree with prior beliefs while ignoring contradictory facts or patterns.
- **Overconfidence trap:** decision-makers, especially those promoted after past successes, may overrate their judgement, stop questioning methods/motives, and communicate findings too confidently.
- **Overfitting trap:** surprising or counterintuitive predictions may indicate discovery, but they may instead arise because the model fits the observed data too closely and does not generalise.

Do not allow analytics to hide the truth; pay attention to outliers.

3. HR Analytics Framework, Implementation, Stakeholders, and Visualisation

3.1 Why organisations need HR analytics

Reasons stated in the course:

- Competitive advantage
- Belief/support of top management
- Operational efficiency
- Pressure to reduce costs

3.2 Stakeholders

- **Stakeholders served:** business leaders, HR leaders, and board of directors.
- **Stakeholders depended upon:** data owners, technology owners, and subject-matter experts.
- **Stakeholders impacted:** employees.

3.3 Complexity-impact matrix

Projects can be assessed on **complexity** and **impact**, each from low to high. The matrix labels supplied in the course are **Trivial, Endeavour, Pet Project, Quick Win, and Big Bet**. The text does not give further operational definitions for each cell, so the labels are retained as supplied.

Assessing complexity: politics, skills, data, and technology implementation.

Assessing impact: return on investment (ROI), timing, and opportunity cost.

3.4 Building analytics capabilities: six skill groups

1. **Business acumen:** financial literacy, political astuteness, internal awareness, external awareness.
2. **Consulting:** problem definition, hypothesis development, project management, solution development, change management, stakeholder management.
3. **Human resources:** HR sub-functions, HR interdependencies, international HR, privacy, and ethics.
4. **Work psychology:** organisational psychology, research and design.
5. **Data science:** data awareness and qualitative and quantitative methods.
6. **Communication:** storytelling, visualisation, writing, presenting, and marketing.

Also: know the data (numeric or text; structured or unstructured); know the technology (HRIS, statistical, and visualisation technology); build an analytical team.

Team-configuration questions include what projects should be delivered, how many people are needed, what skills they have, and whether skilled people should be hired. For outsourced skills, first understand in-house HR analytics capabilities and then develop an outsourcing strategy.

An operating model should establish **strategy, governance, implementation, and accountability**.

3.5 Steps of data analytics and tools

Process: data collection -> data preparation -> data visualisation -> data analysis -> findings -> action.

Visualisation tools named: Power BI, Tableau, Excel, Data Studio, and R.

Applicant analysis example

The example applicant dataset contains serial number, gender, department, city, interview status, source of application, work experience, and education. A manager may ask how many male/female candidates applied, how many are coming/attending, which cities they come from, how many are UG/PG/PhD, and average work experience. Excel tools listed are pivot tables, pivot charts, and recommended pivot tables.

3.6 Choosing a visualisation

Know the audience and its analytics expertise and project-specific knowledge. The course's audience map includes **Newcomer, Enthusiast, Scientist, and Master**, across low/high project knowledge and low/high analytics expertise. Experts and general audiences have different expectations.

Ask:

- Who is the audience, and how will it read and interpret the visual?
- Can viewers be assumed to know the terminology/concepts, or are clues/explanations needed?
- What is the visualisation's functional role, and how should viewers act on it?

A visualisation may serve **confirmation, education, or exploration**. After creating a graph, ask: What message am I conveying? Do the visuals accurately reflect the numbers? Is the data memorable?

4. Recruitment: Concepts, Process, Sources, and Environmental Influences

4.1 Meaning of recruitment

Under **Prospecting Theory**, recruitment is locating and encouraging potential applicants to apply for existing or anticipated job openings. Under **Matching Theory**, recruitment is two-way traffic: the linking function that joins organisations with jobs to fill and people seeking jobs.

Recruitment aims to widen the general pool and attract applicants. The recruitment process connects organisational demand for high-quality employees with applicants' demand for suitable work; the process is affected by the environment and information flow.

Factors that may restrain a firm's choice of recruitment source include poor image, unattractive jobs, conservative internal policies, limited budgetary support, and restrictive government policies.

4.2 Recruitment process and end-to-end practices

A recruitment/selection lifecycle can be organised as:

1. Anticipate the need.
2. Specify the job.
3. Develop the candidate pool.
4. Assess candidates.
5. Close the deal/offer.
6. Integrate the newcomer.
7. Audit and review the process.

Anticipate needs

- **Poor practice:** hiring only after a vacancy opens; ad-hoc succession planning; overlooking future skills; irrational optimism.
- **Best practice:** ongoing proactive analysis of future needs, continual evaluation of the potential talent pool, and rigorous talent-demand forecasts.
- **Implementation challenge:** link talent plans to strategic plans and incorporate HR-professional input into strategy development.

Specify jobs

- **Poor practice:** generic competency models or looking mainly for charisma, general ability, and track record.
- **Best practice:** define specific job demands, relevant skills/experience, team context, and the effects of culture and context on the role.
- **Challenge:** maintain close HR-top-management dialogue and early consensus among decision-makers.

Develop the pool

- **Poor practice:** shortcuts, narrow pools, or searching exclusively internally or externally.
- **Best practice:** develop a large pool, include insiders and outsiders, and consult employees.
- **Challenge:** encourage senior-level discussion on when and how to conduct external talent searches.

The course's end-to-end material also identifies integrating newcomers and auditing/reviewing hiring practices. For integration, a poor practice is treating hires as "plug and play" and providing inadequate mentoring; a better practice uses veteran top performers as mentors, rewards mentors, and allocates enough time. For audit/review, avoid retaining bad hires without review or failing to institutionalise lessons; remove an unsuitable hire within the first year where appropriate, regularly review hiring practices, accept mistakes, learn, and move on.

4.3 Recruitment sources and alternatives

Common sources: internal applicants, external recruitment, direct applications, campus recruitment, employee referrals, recruitment agencies/consultancies/head-hunters, job portals, organisation websites, newspapers and magazines, placement

agencies, and professional networks. Other alternatives listed include outsourcing, overtime, subcontracting, temporary employees, and employee leasing.

Examples of job-search sites in the supplied course material:

- India-focused: Naukri, Shine, JobsAhead, Monster India, Career India, Placement India, BestJobsIndia.
- International/other: USAJOBS, Monster, CareerBuilder, Indeed, SimplyHired, Snagajob, Job.com, TheLadders, CareerArch.
- Additional sites in the India recruitment discussion: TimesJobs, Fresherworld, and company career websites.

Situational factors affecting recruitment

- Economic factors
- Social factors
- Technological factors
- Political factors
- Legal factors

Acts listed in the course: Factories Act, 1948; Apprentices Act, 1961; Employment Exchanges Act, 1959; Contract Labour Act, 1970; Bonded Labour System Act, 1976; Child Labour Act, 1986.

4.4 Alternatives and evaluation of recruitment sources

Time-lapse data show the interval from a department's manpower requisition to the date vacancies are actually filled.

Yield ratios show how many contacts are needed to generate a given number of hires at a point in time.

Surveys and studies can assess whether a particular recruitment source is suitable for particular positions.

4.5 LinkedIn and modern recruiting case

In 2015, LinkedIn was growing rapidly and needed to hire excellent employees quickly. It used LinkedIn Talent Solutions to attract and retain talent and developed modern recruiting models. As it scaled, a major challenge was competing with other technology firms for enough highly skilled engineers. Its recruiting team applied techniques across more than 100 people for engineering, sales, and other roles:

1. Replace cold calls with "warm connections" through LinkedIn networks.
2. Use data-driven methods to identify candidates worth pursuing.
3. Develop personalised online relationships with top candidates.

LinkedIn prioritised internal hiring. For external hiring it focused on **passive candidates** who were already employed and not necessarily seeking work. Its proposition highlighted transformation opportunities after joining: internal job moves and formal/informal programmes to pursue and share employees' passions.

5. Recruitment Analytics, Workforce Planning, Attrition, and Employer Branding

5.1 Recruitment questions managers need to answer

Questions listed in the course include:

- How many candidates should be invited to interview?
- What screening criteria should be used, and how can a very large number of applications be screened?
- How many interview rounds should be conducted?
- Can candidates be attracted in the future without advertising?
- How can suitable candidates be attracted for vacancies?
- What information should a job advertisement contain?
- Which recruitment method should be selected?
- How many applications are sufficient to fill vacancies?
- How many employees are likely to leave?
- How many job offers are needed to fill one role?
- Who are the organisation's target candidates?
- What is technology's impact on recruitment?
- How many interview rounds are suitable for each role?
- How can candidates be attracted and selected for top positions?

The recruitment/selection matrix can support human-resource planning, resourcing plans, retention strategy, flexibility strategy, and talent-management strategy.

5.2 Workforce planning and recruitment plan matrices

A workforce planning matrix can be built by job category and level. Track current workforce, inflow, outflow, and forecast staffing. Movement categories include promotion, transfer, and demotion. Recruitment-planning fields include:

- Number of vacancies and level/criticality
- Time to fill (months)
- Number of candidates to attract per vacancy
- Source: employee referrals, agency, direct applications, campus recruitment, walk-ins, newspapers, and other channels
- Expected cost per hire and expected lead time

Organisation-wide or department-wise HR planning should ask what recruitment philosophy the organisation wants and what kinds of people HR should hire and retain.

Applicant analysis fields include age, gender, work experience, education, city, reference, and expected salary. A talent/potential grouping in the course labels:

- **A:** can become a key leader in the function.
- **B:** can become the leader in the function.
- **C:** can progress to greater expertise.
- **D:** has reached the level of expertise.
- **E:** is in the wrong area.

CPP means Current Perception of Potential. Succession-planning measures include the percentage of posts without an immediate designated successor; percentage with no successor now or long term; percentage of posts in the plan becoming vacant; and marginal cost of filling senior roles externally instead of internally (including percentage salary increase for an external hire).

Recruitment-planning and vacancy-criticality case examples

Human-resource planning and strategic alignment

- **TechForward Inc. - workforce aligned to strategy:** the goal was leadership in AI within five years. Workforce analysis showed gaps in AI expertise and project managers with AI-project experience. The plan combines hiring AI specialists/project managers with training current staff in foundational AI and project management. Key question: how does today's workforce align with strategy, and what gaps will emerge in the near/medium term?
- **AutoManufac - technology and automation:** robotic assembly lines are expected to reduce manual-labour demand over five years while increasing demand for robotic technicians, engineers, and data analysts to manage/optimize automation. Technical-college partnerships and internships build the pipeline.
- **FinServe - workforce diversity/inclusion:** gender and ethnic gaps, especially in senior management, are addressed through targeted recruitment, diverse professional partnerships, mentorship for underrepresented staff, and unconscious-bias training.
- **CreativeSolutions - remote/hybrid model:** hybrid work broadens the geographic talent pool and diversity but creates collaboration/culture challenges. Cloud collaboration tools and in-person retreats support cohesion; office requirements must be reconsidered.
- **GreenTech - reskilling/upskilling for industry transition:** moving from fossil fuels to renewables requires training in solar/wind technology, renewable-project management, and environmental compliance, using current employees' institutional knowledge while retaining them.

Identifying HR requirements

- **NovaTech - skills/experience/qualifications:** for a cybersecurity analyst, requirements include a bachelor's degree in computer science or related discipline, at least **three years** of cybersecurity experience, CISSP or CISM certification, network-infrastructure understanding, real-time threat analysis/mitigation, problem solving, and working under pressure.
- **HealthData - regulations and technology:** new Data Compliance Officers need to understand HIPAA in the United States and GDPR for European patients and implement technological compliance solutions. Blockchain for secure patient records creates a need for combined legal, technology, and innovative thinking.
- **AgriGrow - emerging role:** a Drone Operations Specialist combines drone piloting, data analysis, and basic agronomy to manage drones monitoring crop health and irrigation, supporting yield and sustainability.
- **DiversityDesigns - inclusive job descriptions:** use inclusive language, avoid unnecessary jargon and arbitrary experience thresholds that exclude self-taught/non-traditional candidates, state flexible work/family-friendly policies, and encourage underrepresented groups to apply.
- **FinCorp - critical succession role:** with the CFO due to retire in two years, identify internal successors and offer tailored development, mentoring, and rotations while remaining open to external talent that brings fresh expertise.

Vacancy numbers, levels, and criticality

- **WebWorld - critically understaffed customer service:** peak-season staffing shortages caused longer response times and threatened satisfaction/sales. Emergency hiring targets people experienced in high-volume, fast-paced service; AI chatbots may handle basic queries so staff can focus on complex needs.
- **GreenBuild - vacancy levels for strategic growth:** growth in sustainable construction requires senior architects skilled in green technology/sustainable design, mid-level project managers, and entry-level site supervisors.
- **EventSphere - immediate project staffing:** a contract for international conferences requires fast hiring of event coordinators, logistics managers, and digital-marketing specialists; industry networks and targeted campaigns are used because timeliness affects client expectations and reputation.
- **TechSolve - business continuity:** rising cybersecurity demand makes the security team essential. A risk assessment identifies critical roles, which are fast-tracked with competitive pay/benefits to avoid interruptions to client security.
- **PharmaInnovate - pipeline for hard-to-fill roles:** partnerships with universities, scholarships, internships, and collaborative projects for students/post-docs provide early access to research scientists and familiarise them with company culture before full-time hiring.

Implementing recruitment channels and programmes

- **InnovateTech - internal promotion versus outside hiring:** it sets a policy of **60% internal promotions and 40% external hires** for leadership, balancing employee morale/career pathways with fresh skills. It supports internal candidates through leadership-development and cross-department projects.

- **DesignSphere - platform by role:** Instagram and Behance showcase culture/portfolio for creative roles; LinkedIn sources experienced project managers and business-development roles; niche design job boards reach specific skill sets.
- **SafeGuard - employee referrals:** improve the referral programme through higher incentives, tiered rewards by job level, and internal events where employees invite potential candidates to experience the culture.
- **HealthLink - AI and recruitment technology:** an AI-driven ATS screens nursing/administrative resumes using predefined criteria; video interview software analyses candidate responses and non-verbal cues to shortlist candidates, aiming to lower time to hire and allow recruiters to focus on promising applicants.
- **EcoConstruct - education/professional partnerships:** sustainable-construction recruitment draws on university programmes in sustainable design/engineering through guest lectures, internships, and research, and professional associations through sponsored events/workshops.

5.3 Attrition analysis

Classifying employee exits

- **Employee-initiated:** avoidable (e.g., dissatisfaction) or unavoidable (e.g., health or maternity).
- **Organisation-initiated:** discharge or downsizing.

Analyse numbers and percentages. The course also separates hires, quits, layoffs/discharges, and other separations, with percentages for each.

Attrition rate = (Number of employees leaving ÷ Average number of employees) × 100.

An attrition/cost-benefit analysis may include financial cost (HR staff time), replacement cost (cost per hire), training cost, and percentage salary increase when filling a role internally or externally.

HR planning / attrition dashboard measures

- Current workforce, inflow, outflow, forecast staffing
- Attrition by reason, department, job category, source, demographic group, and tenure
- Expected staffing and recruitment plan
- Average tenure by recruitment channel, gender, position, and marital status
- Average compensation by recruitment source
- Absenteeism measures
- Turnover forecasts
- Recruitment-source and diversity-hire comparisons

An example dashboard gives average budgeted team strength **2,700**, **124 branches**, and overall separations for 2022-23 of **3,100**. Its objectives are to examine attrition reasons, understand employee expectations for retention, and recommend actions that reduce attrition and improve retention/profit.

Recruitment-source table supplied in the course

The slide labels this “Absenteeism - Recruitment Source” and reports F/M/total counts; retain its given labels and values:

Source	Female	Male	Total
CareerBuilder	16	7	23
Diversity Job Fair	15	14	29
Employee Referral	11	20	31
Google Search	33	16	49
Indeed	50	37	87
LinkedIn	44	32	76
Online web application	1	0	1
Other	1	1	2
Website	6	7	13
Grand total	176	135	311

Other listed comparisons include absenteeism versus marital status; recruitment source versus average salary and average days worked; turnover forecasts; source of hire and diversity hire.

5.4 Employer brand analysis

Challenges in attracting talent

Competitors, shortage of candidates, candidate expectations, organisation culture, and leadership can make attraction difficult.

Employer-brand funnel

- **Awareness:** "Do you know this company?" (Yes/No)
- **Consideration:** "Would you like to work for this company?" (Yes/No)
- **Preference:** "Are you planning to apply to this company?" (Yes/No)

The course gives employer-brand image strength as:

Employer brand image strength = Talent gained from competitors - Talent lost to competitors.

Praises/complaints and value propositions

The crowdsourced employer-branding material groups both praise ("best place to work") and complaints ("worst place to work") across: social, interest, application, development, economic, management, and work-life balance dimensions. These identify why people come, stay, or leave. The cited study is Dabirian, Kietzmann & Diba (2017), "A great place to work!? Understanding crowdsourced employer branding," *Business Horizons*, 60(2), 197-205.

Competitor-positioning categories listed are purpose, teamwork, empowerment, innovation, learning, career, performance, and status. Impact measures include Employer Brand Index, annual turnover, absence rate, employee engagement, and customer satisfaction. Employer-brand impact areas also include business excellence and ethics.

Tata employer branding example: training, coaching, mentoring, and knowledge-sharing sessions by seniors.

Internal branding methods: interactive voice response (IVR), chatbots, best-place-to-work surveys, and website content.

Measuring employer-branding initiatives

- Job-search intensity: how often candidates visit the website, call after applying to check application status, or call after interview.
- Monthly new followers.
- Career-page views.
- Monthly job applications.
- YouTube video views and average viewing time.
- Social-media matrix.

5.5 Recruitment calendars, source mix, signals, and diversity

A Gantt chart may plan sourcing profiles, telephonic interest screening, HR discussion, follow-up with candidates who receive offers, ATS workflow updates, and joining-day coordination for smooth onboarding. The recruitment and selection workflow is described as: **anticipate the need -> specify the job -> develop the pool -> assess the candidate -> close the deal.**

A **recruitment source-mix** table compares each channel's number of relevant applications and cost per application for walk-ins, job portals, employee referrals, website, newspaper, and campus recruitment.

Internal hire versus external hire

Consider expected pay increases, cultural fit, person-job fit, and elapsed time through lead generation, invitations, interviews, offers, and joining.

Recruitment signals that may attract candidates

Pay; culture/family-oriented atmosphere; nature of job; community sentiment concerning environment, health, and education; location; leadership; revenue; career progression; diversity; work-life balance; job security.

Primary reason for application is an effectiveness measure.

Diversity matrix

- **Surface diversity:** gender, religion, city, education.
- **Deep diversity:** opinions, life/industry/family background, attitude, belief, values, motivation.

Diversity-impact indicators listed are number of reported conflicts, number of subgroups in the organisation, employee happiness index, employee knowledge-sharing index, and employee engagement index.

Recruitment-effectiveness metrics

Pre-hire: number of applications, job-offer acceptance rate, application-to-job-offer ratio, and renege rate (candidate rejects/withdraws after accepting an offer).

Post-hire: early attrition, plan-fulfilment ratio, quality of hire, cost per joiner, time to hire, and job-offer-to-joining ratio.

Candidate-experience activities can be scored out of 100 for application through the website, application updates, interview scheduling, and hospitality during the interview. Early attrition should be counted for departures within one month, six months, and one year and compared with the industry average.

5.6 Recruitment-process challenges: cases by stage

Analysing recruitment cost and time

- **FinTech Innovations - budget and cost optimisation:** annual recruitment budget **\$100,000** for technical and administrative roles. To preserve quality while controlling cost, HR used internal recruitment tools and social-media advertising instead of relying only on expensive agencies, added modest employee-referral incentives, and used a recruitment-management system to track channel cost-effectiveness and adjust budgets in real time.
- **GlobalTech - time to hire:** software-engineer time to hire averaged **60 days**, versus an industry average of **45 days**. Workflow analysis found bottlenecks in initial resume screening and interview scheduling; AI screening and self-service scheduling were introduced to reduce delay and improve candidate experience.
- **Retail Giant - cost of poor hires:** high turnover in management drove training/recruitment costs. The company added structured interviews, predictive assessment tools, and better onboarding, and adopted “hire for attitude, train for skill” to improve retention and reduce repeated hiring cost.
- **EduCare - technology-enabled recruitment:** an integrated ATS automated postings across platforms, tracked applications, filtered candidates by qualifications/teaching experience, and offered video interviews, reducing administrative burden, time to hire, and cost.
- **EcoSolutions - recruitment-spend effectiveness:** quarterly KPIs were cost per hire, time to hire, quality of hire (performance ratings and retention), and recruitment-channel ROI. Results guide allocation of the budget.

Starting/implementing the recruitment programme

- **DiversityCorp - diversity and inclusion:** revised job ads to use inclusive language and imagery; partnered with organisations/job boards serving underrepresented tech candidates; and created a diversity hiring panel to review practices/decisions.
- **FinServe - hiring-manager training:** modules cover unconscious bias, effective interviews, standardised evaluation criteria, cultural competency, and inclusion so managers can assess skills/experience objectively.
- **HealthWell - candidate experience:** improved career-site navigation and visible application buttons; automated status updates at each stage; and collected post-interview candidate feedback for continuous improvement. Even rejected candidates gave positive feedback about transparent, respectful communication.
- **TechInnovate - transparency and fairness:** published recruitment stages; anonymised resume screening; used structured, standardised questions; and offered constructive feedback to unsuccessful candidates.
- **CreateSpace - pipeline engagement:** built a talent community with monthly newsletters, industry insights, career advice, webinars, workshops, and occasional free online courses to maintain interest in future roles.

Selection and hire

- **NextGenTech - consistency:** set standard scoring against job competencies and used a panel with members from different departments to reduce individual bias and obtain varied perspectives.
- **CreativeMedia - skills and culture:** practical job-like assignments tested technical skills; behavioural interviews tested values; and team-based informal sessions let candidates interact with potential colleagues.
- **RemoteFirst - remote selection:** used video-conferencing tools with recording/sharing, clear technology instructions, pre-interview technical checks, structured schedules, and virtual assessments in controlled settings.
- **FinSolutions - offer process:** a senior team member gave a personal verbal offer, then a detailed formal letter within **24 hours**, including compensation, benefits, and work perks. A reasonable acceptance deadline preserved momentum while giving time to decide.

- **InclusiveInc - unconscious-bias mitigation:** hiring-team bias training, blind applications/resumes, and standard questions for every candidate supported objective assessment.

Evaluating the recruitment programme

- **TechVentures:** tracked time to fill, cost per hire, first-year performance-based quality of hire, and candidate satisfaction quarterly to locate bottlenecks and compare sources.
- **HealthCarePlus:** anonymous candidate surveys measured communication clarity, interviewer professionalism, and overall employer impression; hiring managers separately assessed process effectiveness and candidate quality. HR reviewed the feedback monthly.
- **EcoFriendly:** a past-year hire retention rate of **85%**, above the industry average, was interpreted as evidence of effective attraction, matching, engagement, and retention.
- **DiversityFirst:** tracked demographic representation among applicants, hires, and leaders against internal goals and industry benchmarks, then refined outreach where gaps remained (e.g., women in leadership).
- **AutoInnovations:** ATS integration with LinkedIn, Indeed, and other job boards tracked applicants, time/cost to hire, and channel effectiveness. A Candidate Relationship Management (CRM) tool maintained relationships with prospects for future vacancies.

5.7 Source-of-hire example

A dashboard interpretation in the supplied material states that most positions are filled through **employee referrals for entry-level roles** and **job portals for mid-level roles**. The organisation seeks to raise the female new-hire ratio from **30% to 50%**. Suggested actions: identify more suitable positions across departments, launch social campaigns to attract women candidates, introduce returnship programmes for women returning after career breaks, and increase referral bonuses.

One chart reports male hiring as **70%, 152** and female hiring as **30%, 66**. Another source-mix visual appears to report campus **34 (16%)**, consultants **20 (9%)**, employee referrals **82 (38%)**, and job portal **82 (38%)**. A department-wise time-to-fill graphic contains values **23, 17, 30, 30, 62, 47**, and a separate **Voice Process 30** label across Distribution, Operations, Projects, R&D, Sales, and Solution & Design Engineering; the original text does not make every value-to-department pairing unambiguous. A separate analysis says the highest proportion of high-level role expectations were fulfilled through employee referrals (**36%**); the XYZ TA team met **45%** of above-average expectations and **31%** of high-level expectations.

6. Recruitment and Selection: Methods, Process, Tests, Interviews, and Bias

6.1 Meaning and purpose of selection

Selection is choosing individuals with relevant qualifications to fill jobs. It is more than choosing “the best” candidate: it attempts to balance what applicants can and want to do with what the organisation requires.

The course selection flow includes resume/CV review, preliminary/initial screening interviews, analysis of the application blank, tests and performance evaluation, core/departmental interviews, reference checks, job offer, medical examination, placement, and acceptance or rejection. If an offer is rejected, the offer may go to the next suitable candidate.

6.2 Application blank

Common application-blank contents:

- **Personal data:** address, gender, identification marks, etc.
- **Marital data:** single/married, children, dependants.
- **Physical data:** height, weight, health condition.
- **Educational data:** formal education, marks, distinctions.
- **Employment data:** past experience, promotions, duties, reasons for leaving, salary drawn.
- **Extracurricular data:** sports/games, NSS, NCC, awards, leisure-time activities.
- **References:** names of at least two people who can certify the applicant’s suitability.

6.3 Recruitment and selection practices by country

India

The material describes a shortage of trained workforce associated with limitations in the education system and situations where jobs are few but applicants many. Internal recruitment is commonly used for higher roles, motivation, deployment, and career development; external recruitment is commonly used for entry-level work.

Four methods are listed:

1. **Direct:** campus interviews and unsolicited applications.
2. **Indirect:** advertisements in newspapers, television, radio, journals, magazines, etc.
3. **Internal:** transfers and promotions, communicated through internal advertisements and decided by management.
4. **Third party:** consultancy firms, head-hunters, and computerised databases.

Other sources include company websites, recruitment-only websites, placement agencies, print media, and newspaper/magazine advertisements for government jobs. Sites named include Naukri, MonsterJobs, Shine, TimesJobs, and Fresherworld.

Selection can include written aptitude and personality tests. The notes describe interviews as often unstructured and the process as sometimes unclear to candidates. Problems listed are external influence, prejudice, and gender bias. Employers traditionally avoid unskilled labour, but globalisation has increased casual and contract hiring; workers may move up and be retained if performance is satisfactory. Skilled workers are often trainees hired through campus interviews and placed on probation for one to two years before absorption if performance is satisfactory. Middle- and top-level managers are generally promoted internally.

Japan

The course describes merit-based higher education as a way to grade human potential and channel strong talent to organisations. Selection varies, with interviews, personal skills, teamwork, and interpersonal skills as common criteria. Attitude is important; long-term employment, lifetime careers, loyalty, and job security are emphasised for regular employees, often without written employment contracts in the account provided.

A common process recruits graduates annually at roughly the same time: announcements begin in early summer; applications, personal contacts, written exams, interviews, and medical checks occur; final decisions are made in autumn; joining is from 1 April. Team performance receives emphasis over individual performance. The material mentions Maruti Suzuki and Hitachi in India as examples associated with Japanese recruitment practices.

United Kingdom

The notes describe HR-conducted interviews, often three to four rounds. Qualifications should match job requirements; work experience matters in some cases. The older workforce is increasingly important as the proportion of workers under 35 declines. The lifetime-employment concept is described as not existing in organisations.

Cross-country conclusion

Culture strongly shapes recruitment and selection practices. The material contrasts European preference for independent work with Asian workers' greater desire for belonging and pride in the organisation, and emphasises that HR policies and procedures vary with workforce diversity and national context. Reference given: Singh, A. (2014), "Cultural Difference in Recruitment and Selection Practices in Select Countries," *IITM Journal of Business Studies*, Vol. 1, Issue 1.

6.4 Selection-test standards

- **Reliability:** a tool measures an attribute consistently; repeated testing of the same person should yield approximately identical scores.
- **Validity:** the extent to which a test measures what it intends to measure; a typing test, for example, should measure typing speed and accuracy.
- **Suitability:** the test fits the group to which it is applied.
- **Usefulness:** exclusive reliance on one test should be avoided.
- **Standardisation:** norms for finalising test scores should be established.
- **Qualified people:** tests require appropriate professional expertise.

6.5 Selection tests listed

Intelligence, aptitude, personality, projective, achievement, simulation, assessment-centre, graphology, integrity, and polygraph tests. Graphology and integrity appear more than once in the original list; they are shown once here to avoid duplicate entries.

6.6 Interview process and types

Interview steps: **preparation, reception, information exchange, and termination**, followed by objective evaluation of responses, records, and other relevant facts.

- **Non-directive:** interviewer asks questions as they occur to them.
- **Directive/structured:** predetermined, clearly job-related questions.
- **Situational:** hypothetical incident; candidate explains what they would do.
- **Behavioural:** asks about actual work-related incidents and what the applicant did.
- **Stress:** tests responses to aggressive, embarrassing, rule-based, or at times insulting questions.
- **Panel:** three or four interviewers ask questions and assess suitability.

Interviewing mistakes

- **Snap judgement:** decide suitability too quickly from an early impression.
- **Leniency:** rate an employee highly on all criteria.
- **Stereotyping:** assign characteristics based on group membership.
- **Bias:** let personal likes/dislikes influence ratings.
- **Halo effect:** one trait affects the overall judgement (the example given is "athletes make good salespeople").
- **Candidate-order error:** interview order affects ratings.

6.7 Detailed selection questions by step

Resume review

- **Experience alignment:** Alex's project-management application showed Agile/Scrum certification, software-development lifecycle management, and team leadership relevant to cross-functional leadership and risk-management requirements.
- **Growth and adaptability:** Jordan progressed from Marketing Coordinator to Senior Marketing Manager in six years, managed larger teams and budgets, and helped increase market share by **30%** through targeted social campaigns.

- **Employment continuity:** Samantha's one-year engineering-employment gap was explained as care for an ill parent and further study in renewable-energy technologies.
- **Skill proficiency:** Liam's leadership of a critical system upgrade, timeline management, cross-department communication, and workshops evidenced communication, project management, and leadership.
- **Commitment to diversity:** Maria's volunteer work expanding technology education for underrepresented groups and participation in her employer's diversity committee/w cultural-competency workshops evidenced commitment to inclusion.

Initial screening interview

- **Motivation and contribution:** Taylor explained her interest in the employer's innovative social-media campaigns and described increasing engagement by **40%** using targeted content strategies.
- **Technology adaptability:** Michael recovered quickly from a remote-interview technical glitch by switching to a backup connection and rejoining in under a minute.
- **Industry knowledge:** Emma discussed AI and machine learning in financial forecasting and described using AI tools to improve market-trend prediction accuracy.
- **Soft skills:** Chris resolved a team conflict by facilitating discussions, listening to each person's concerns, and guiding the team to a compromise-showing empathy and emotional intelligence.
- **Task management:** Priya prioritised conflicting deadlines by assessing urgency and importance, using a project-management tool, and communicating realistic expectations or negotiating extensions.

Application-blank analysis

- **Consistency verification:** Laura clarified inconsistent employment dates by explaining that the later resume date included consulting work after formal employment to help a successor transition.
- **Qualification match:** John had a Master's in Cybersecurity and CISSP and CEH certifications matching cybersecurity protocols and risk-assessment requirements.
- **Legal/compliance checks:** Sarah disclosed an earlier accounting-association administrative action over continuing-education non-compliance, then provided evidence of subsequent compliance and extra courses.
- **Relevance/customisation:** Ben tailored a sustainable-goods marketing application to eco-friendly campaigns, digital marketing/PR, sustainability interests, and NGO volunteering.
- **Professional values/integrity:** Anita supplied a complete legal-advisor application with detailed roles, law-journal publications, legal-ethics committee activity, accurate verifiable references, and consistent statements.

Tests and performance evaluation

- **Skill/competency focus:** software-engineering tests may include Python/JavaScript coding challenges, complex algorithms, debugging realistic bugs, and collaborative tasks.
- **Fairness and inclusion:** offer tests in multiple languages, make them accessible through adaptive technology (e.g., screen readers), and use culturally neutral situational scenarios.
- **Benchmarking:** compare project-planning, budget-management, and crisis-resolution results with internal historical outcomes and external Project Management Institute (PMI) standards.
- **Growth/adaptability:** assessment-centre scenarios may include sudden market shifts or public-relations crises; evaluate strategy under pressure, learning, curiosity, and innovation.
- **Technology relevance:** cybersecurity tests should use current tools (e.g., penetration-testing and threat-detection systems) and current threats/countermeasures.

Preliminary interview

- **Motivational insight:** Emily wants greater innovation and product ownership and an opportunity to lead cross-functional teams and cutting-edge technology products that affect user experience globally.
- **Feedback reception:** Mark asked for detailed feedback after criticism of a marketing campaign, revised his approach, and improved engagement by more than **30%**.
- **Career alignment:** Sarah sought progression towards engineering director and aligned her aspirations with the company's R&D growth and renewable-energy innovation plans.
- **Conflict management:** Lisa mediated resource-allocation conflict between department heads through active listening, communication clarification, and collaborative problem-solving.
- **Professional development:** Jason attends conferences and analytics workshops and completed a machine-learning certification to keep data-science skills current.

Core and developmental interviews

- **Strategic alignment:** COO candidate Nina proposed automation and AI to streamline production, improve efficiency, and reduce waste. Her roadmap covered audits, pilot projects, and full implementation, aligned with sustainability, cost, and growth goals.
- **Role understanding:** finance director candidate Tom connected financial challenges and market trends to investment optimisation, cost management, shareholder value, and competitive positioning.
- **Leadership-style compatibility:** Grace described participative leadership, regular open team meetings, shared decision-making, and fit with a transparent, engaged, flat culture.
- **Innovation:** R&D candidate Jeremy described development of a composite material that reduced costs **15%** while increasing durability through iterative tests, feedback, cross-functional collaboration, and customer input.
- **Role evolution:** senior analyst Isabel planned to build predictive-modelling capability and eventually lead a data-science innovation division.

Reference checks

- **Professionalism/ethics:** Elaine's former law-firm senior partner praised integrity, ethical conduct, discretion, and resolution of a previously overlooked conflict of interest.
- **Achievement verification:** Simon's former supervisor confirmed that a software tool increased project efficiency **20%**, exceeding original goals and earning an innovation award.
- **Stress management:** Alex's references described calm coordination during a critical system outage, clear stakeholder communication, judicious resource deployment, and reduced downtime.
- **Reliability/punctuality:** Carla's former manager cited tardiness and missed internal deadlines despite strong sales ability.
- **Initiative/responsibility:** Lily identified office-supply-chain inefficiencies and recommended a vendor that saved **15% of annual supply costs**.

Medical examination

Medical exams must be legally and ethically compliant, focused on relevant job capabilities, and confidential.

- For a safety-critical manufacturing role, the company uses an external certified provider and checks relevant health requirements; the example refers to compliance with the US Americans with Disabilities Act (ADA).
- Medical staff explain procedures and tests and provide privacy protections in advance.
- Airline-pilot checks may include vision, hearing/audiometry, and cardiovascular health, using aviation-certified medical examiners and FAA standards in the example.
- For a wheelchair-using software-engineer candidate, HR consults accessibility experts and discusses an accessible workstation/software and necessary accommodations.
- Chemical-plant assessments should consider medically relevant capabilities for safe handling of hazardous materials and avoid discrimination.

Job offer

- **Competitive compensation:** Maya, a blockchain engineer, receives a proposed salary **10% above the industry standard** plus health insurance, stock options, and performance bonus.
- **Work flexibility:** Daniel's offer highlights flexible hours, remote work up to three days a week, and a coworking-space fund.
- **Career development:** Priya's offer lays out progression from account manager to senior account manager to account director, tied to performance and leadership training.
- **Role clarity:** Alex's project-coordinator offer details direct reports, cross-functional duties, key deliverables, and involvement in strategic planning.
- **Negotiation:** for Laura's counteroffer, HR considers budget, pay guidelines, skill scarcity, and internal equity; the example compromise is a modest base-pay increase, one extra vacation week, and a performance bonus.

Placement/onboarding

- **Team integration:** Julia, a senior developer, gets a buddy, weekly follow-ups, introductions, team lunches, and informal one-to-ones.
- **Training/orientation:** Michael receives company history, mission, and values, CRM training, customer-query guidance, and job shadowing.

- **Performance/well-being support:** Emma receives biweekly check-ins, access to well-being/mental-health resources and stress-management workshops, and a monthly new-employee pulse survey.
 - **Feedback gathering:** Tom submits anonymous digital feedback about job-clarity, training, and team dynamics after two weeks.
 - **Process assessment:** an engineering firm asks the newcomer and supervisor to evaluate job-description clarity, training suitability, and placement satisfaction; retention and performance KPIs are tracked during the first six months.
-

6.8 Research paper: Expert Systems in HRM Selection and Appointment

The supplied research-paper summary focuses on developing and implementing an **expert system** to improve selection and appointment and other HRM decisions. Its intended uses include intelligent support for job-applicant selection, appointment, job rotation, training, job classification, personnel evaluation, and salary determination according to organisational and job requirements.

Objectives: design an expert system that matches candidates to organisational/job needs; optimise recruitment, job classification, and personnel evaluation; and support more accurate selection, appointment, and compensation decisions.

Methodology: compare expert systems with operations-research methods; use knowledge engineering to build a rule-based knowledge base; use multidimensional scaling (MDS) to identify important job/person specifications; identify organisational needs, collect data, and develop logical decision rules; and implement the model as a case study in an R&D organisation.

Findings: expert systems offered advantages for HR decision support, learning, and inference compared with traditional operations-research approaches. A comprehensive knowledge base was critical, and rule representation was considered suitable for HRM. The R&D application showed the system could handle personnel operations such as training allocation, workplace assignment, and salary determination.

7. Selection Analytics: Metrics, Cut Scores, Candidate Fit, and Technology

7.1 E-selection and selection-method measures

Selection questions include which method is appropriate, how to ensure the best candidate is selected, how long to interview, whether every job needs an interview, and whether every employee needs an ability test.

Technology-based/e-selection methods named: **text selection, MOOC selection, AI games, and computer-based interviews.**

Track:

- Number of candidates who received an interview letter
- Number who appeared for interview
- Number given a job offer
- Number of interview rounds and conversion ratio between rounds (example: three rounds-first, second, third)

The selection-method matrix can compare job categories using multiple-choice/basket exercises, structured panel interviews, presentation exercises, writing samples, and training-and-experience evaluation exercises.

7.2 Selection and workforce measurement

- Gender-wise applicants, hires, and selection rate for male and female applicants.
- Selection rate by department and job position.
- Selection rate/time-management comparisons.
- Candidate-fit percentage as assessed by a panel across **person-job, person-team, person-supervisor, and person-organisation fit.**
- Impact of fit on performance rating, retention, attendance, and satisfaction.

7.3 Cut-score consequences and outcomes

A selection cut score creates four possibilities:

Actual candidate suitability/performance	Decision: no hire	Decision: hire
Successful/good	False negative: potentially suitable candidate rejected	True positive: suitable candidate selected
Unsuccessful/poor	True negative: unsuitable candidate rejected	False positive: unsuitable candidate selected

A separate actual-performance matrix labels the four cells **A, B, C, D**, with actual performance (good/poor) crossed with selected/not selected. The supplied slide does not define each letter beyond that layout.

7.4 Quality of hire, cost per joiner, and outcome measures

Quality of Hire = (PR + HP + HR) ÷ 3

- **PR:** average performance-review rating of new hires.
- **HP:** percentage of new hires reaching acceptable productivity within the prescribed period.
- **HR:** percentage of new hires retained after one year.

The source gives “100 candidates are selected” as an example context but supplies no further calculation.

Cost per joiner: track each year’s cost per joiner, number of joiners, and total cost.

Other outcome tables compare actual performance (good/poor) with selected/not selected and assign cells A-D as noted above.

7.5 Employee rejection analysis and selection-method effectiveness

Record rejection reasons by person-job fit, person-team fit, person-organisation fit, and person-supervisor fit, with counts and percentages.

Operational indicators include average interview time, average number of interview questions, number rejected after application screening, number rejected after reference checking, and number rejected after medical check-up.

Compare selection methods on person-job fit, performance ratings, and cost. Testing-importance analysis may compare candidate name, company experience, performance rating, cognitive ability, interview rating, and integrity-test result.

7.6 Biodata and predictive accuracy

The supplied slides classify biodata as follows.

Verifiable data: age; work experience; number of jobs held in the last five years; time in the previous position; marital status; living arrangements (renting, owning a home, living with parents); personality test; performance ratings over the last five years; education; family background.

Non-verifiable data: preferences; future expectations; self-description of ability.

The course includes a high/low predicted-performance versus high/low actual-performance matrix with cells labelled correct predictions (A and C) and prediction errors (B and D). Correct classification is the goal; the precise cell-to-condition mapping is not fully legible in the supplied text.

Parameters for technology in assessment

- Speed of hire
- Applicant reaction
- Size, diversity, and quality of applicant pool
- Accuracy of hiring decisions
- Cost of hire
- Effect on employer brand
- Cheating
- Privacy concerns

7.7 Yield ratio and recruitment dashboard examples

A recruitment funnel reports these percentages:

- Total applications: **100%**
- Screen/select: **71%**
- Round 1 cleared: **32%**
- Round 2 cleared: **13%**
- Offers generated: **13%**
- Offers accepted: **11%**

The material does not specify the denominator used for each stage beyond the funnel labels; percentages are preserved as reported.

“Stay & Flourish: Metric 2” reports competency results:

Performer group	Technical competencies	Business competencies
High performers	94%	98%
Mid-tier performers	78%	74%
Low performers	50%	50%

The visual material names a Tableau dashboard for understanding turnover of existing employees and a proposed-versus-actual budget dashboard, including state-wise gender counts.

8. Training: Foundations, Needs Assessment, Methods, and Evaluation

8.1 Meaning, features, and purpose of training

Training is a planned programme designed to improve performance and produce measurable changes in employees' knowledge, skills, attitudes, and social behaviour.

Features:

- Increases knowledge and skills for a particular job.
- Focuses on the individual job and individual employees.
- Emphasises short-term performance.

Training supports job success and can lead to higher production, fewer mistakes, greater job satisfaction, and lower turnover.

Training versus development

Dimension	Training	Development
Main focus	Current job	Current and future jobs; future-oriented growth
Typical audience in course	Operatives	Executives
Scope	Individual employee	Work group or organisation
Goal	Fix current skill deficit / prepare for current job	Prepare for future work demands
Initiated by	Management	Individual
Content	Specific job-related information	General knowledge
Time frame	Immediate/shorter term	Long term
Use of work experience (later comparison slide)	Low	High
Participation (later comparison slide)	Required	Voluntary

Training versus education: training is more job/skill-oriented; education is person-oriented and theory-based, building understanding of a subject (conceptual learning).

Training pitfalls to avoid

- Teaching too quickly or trying to teach too much.
- Treating all trainees as the same.
- Allowing too little practice time.
- Offering too little encouragement, praise, or reward.

8.2 Learning principles: philosophy of training

The course lists **modelling, motivation, reinforcement, feedback, spaced practice, whole learning, active practice, relevance, and environment**.

8.3 McDonald's "Bible" for employees

McDonald's, founded in 1940 as a barbecue restaurant by Richard and Maurice McDonald, is described as standardising its product and work methods to reduce the need for discretionary human input. Its Operations and Training Manual, known as "the Bible," runs to 600 pages and uses full-colour photographs to specify details such as placement of ketchup, mustard, and pickles on each burger, six counter-service steps, and arm movements for salting fries. Kitchen/counter technology reinforces the instructions: lights and buzzers tell employees when to turn burgers or remove fries; dispensers provide measured ketchup in a prescribed "flower" pattern; and till lights replace handwritten orders and prompt staff to offer additional items.

8.4 Areas of training

- Knowledge
- Technical skills
- Social skills
- Techniques

8.5 Systematic approach and training-needs assessment

Three phases: **assessment** -> **implementation** -> **evaluation**.

Assessment

1. Determine training needs.
2. Identify training objectives.
3. Select suitable training methods.
4. Conduct the training.
5. Compare outcomes against criteria.

Training should meet both organisational and individual needs. Needs analysis comprises:

- **Organisational analysis:** goals/objectives, personnel inventories, skills inventories, organisational-climate analysis, efficiency indices, management requests, exit interviews, training committees.
- **Task/role analysis:** job descriptions, job specifications, performance standards, questions about the job, analysis of operating problems.
- **Person analysis:** interviews, performance appraisals, questionnaires/surveys, training progress, MBO/work-planning systems, on-the-job tests, role-play/assessment centres.
- **Training objectives:** state the desired outcome after the analysis.

Examples linking analysis to objectives in the source include anticipating problems before they occur; training clerks to reduce complaints; orientation; team-building with departments to reduce grievances; training supervisors in communication; recurring interviewer training; and refresher safety courses.

8.6 Training needs and skill inventories

Workforce analysis

Assess age, gender, work experience, and job category.

Task analysis

For each task, rate:

- Frequency of performance (1-5)
- Importance (1-5)
- Difficulty (1-5)

These ratings help decide which training should be given first.

Readiness for training

Check attitude, motivation to learn, and basic skills; estimate the percentage of employees ready for training.

Competency levels for deciding who receives training first

1. Unable to perform basic tasks.
2. Understands basic principles and performs with assistance/direction.
3. Performs routine tasks reliably with minimal supervision.
4. Performs complex/multiple tasks and can coach/teach others.
5. Expert in the job; can describe, teach, and lead others.

Analyse employee names/needs department-wise and age-wise.

Skill inventory analysis

Compare available skills (department-wise), required skills, current performance/skill level, and required level. Teamwork and other skills may be rated high, average, or low.

8.7 Training methods

Delivery categories and programmes

- Instructor-led, technology-based, and online methods.

- Formal training, informal training, knowledge-sharing, self-regulated/self-directed learning, blended learning, MOOCs and simulations, and online learning.

Common delivery forms

Classroom teaching, e-learning modules, workshops, group activities, on-the-job methods, self-directed learning, simulations, case studies, business games, role-play, and action learning.

Training content categories

Industry-specific; managerial and supervisory; mandatory/compliance; IT and systems; customer service; and basic skills.

Sources for training ideas

Customer complaints, low performance ratings, job incidents, employee input, expert opinion, and top-management suggestions.

8.8 Transfer of training and learning culture

A course question asks which obstacle most inhibits transfer: time pressure, inadequate equipment, few opportunities to use skills, inadequate budget, lack of peer support, or lack of management support.

Positive climate for transfer

- Supervisors and co-workers encourage goal-setting and use of new behaviour/skills.
- Job characteristics prompt/reinforce use of new learning.
- Supervisors support application of new skills.
- Trainees receive extrinsic rewards for applying them.
- Trainees receive intrinsic rewards for applying them.

Learning-culture diagnosis scale items

- Innovation is encouraged.
- Employees are encouraged to acquire knowledge and skills.
- Work is challenging and designed to motivate development of new skills.
- Employees share learning with peers and subordinates.
- Employees are rewarded for trying new things.
- Employees have opportunities to use newly learned skills.
- Training is regular.
- Immediate seniors encourage training participation and provide resources to apply learning at work.
- Peers/co-workers support and encourage each other.
- The organisation provides libraries, magazine/journal subscriptions, newspapers, and technical reports.

Manager support for training

Managers should be able to explain the training's purpose and usefulness to the employee and unit, see why the organisation is investing in it, evaluate employees on what they learned during appraisal, understand enough to support employees on return, ensure required tools/technology exist, show support for attendance, discuss the class beforehand, demonstrate care about what is taught, and be accountable for employees applying the learning.

8.9 Training metrics

Metrics named in the course:

- Hours of training received per employee.
- Expenditure per employee.
- Learning received per employee.
- Training expenditure as a percentage of payroll / number of hours worked.
- Training expenditure as a percentage of revenue.
- Cost per learning hour received.
- Percentage of expenditure on external services.
- Learning hours per training-and-development staff member.
- Average percentage of training activity outsourced.

- Percentage of learning hours supplied through each delivery method.
- Supervisor-to-staff ratio.
- HR-to-staff ratio.
- HR cost per employee.
- Learning-and-development hours ratio.
- L&D cost per employee.
- Absenteeism in training.
- E-learning share of training.
- Full-time employees versus contract employees.
- Number of training staff members per employee.
- Employees trained ÷ total employees.
- Total training cost ÷ number of employees trained.
- Total training cost ÷ number of training hours provided.

The source gives these formulas:

- **Training absenteeism** = Number of employees absent ÷ total training participants.
- **E-learning share** = Total e-learning training ÷ total training.

8.10 Outcomes of learning and training evaluation

Types of learning outcomes:

- Verbal information
- Intellectual skills
- Motor skills
- Attitude
- Cognitive strategies

Training evaluation levels are described as **employee reactions, learning, behaviour, organisation, and business results**.

Evaluation questions include whether to evaluate; who should evaluate; purpose; what to measure; how comprehensive it should be; who has authority/responsibility; data sources; collection and evaluation method; and how analysis/results should be reported.

Employee-reaction survey items

The sample asks whether:

- The employee had the knowledge/skills needed to learn.
- Facilities and equipment supported learning.
- The course met stated objectives and the objectives were clear.
- Delivery was an effective way to learn.
- Materials were useful and content logically organised.
- Time was sufficient.
- The employee felt comfortable asking questions.
- The instructor was prepared and knowledgeable.
- The employee learned a lot and can use the learning in the job.
- Course information was accurate.
- Overall satisfaction with instructor and course was high.

Learning and behaviour/skill assessment examples

A learning question asks what an employee would do when setting up a new office process: act alone; ask the boss; ask subordinates; or consult friends outside the company.

Decisiveness is defined as recognising when a decision is required and acting quickly. A sample frequency scale is Always, Usually, Sometimes, Seldom, Never. The source repeats this decisiveness question under behaviour/skill-based outcomes.

Value-of-training metrics

- Performance improvement / percentage of goal achievement
- Reduced customer complaints

- Reduced turnover
- Employee engagement
- Employee reaction/satisfaction
- Percentage promoted within one year after training
- Percentage whose performance rating improves
- Percentage who leave for a better opportunity after training
- Number of training programmes by department and type (functional/behavioural)
- Employee focus time and average working days versus training attendance
- Number of new training programmes started and number stopped

8.11 Training ROI and broader organisational effect

Training ROI (%) = [(Financial gains attributable to training - Training cost) ÷ Training cost] × 100.

Measure pre/post performance (e.g., accuracy of financial reports, completion time, errors reduced) and productivity (work volume and efficiency), then compare the benefits with programme cost. FinCorp is the example: it trained employees in financial analysis and tracked report accuracy, time to completion, error reduction, and productivity.

Training can improve engagement, satisfaction, morale, job security, career progression, and retention. The material states that well-designed training tailored to employees may reduce turnover by **30-50%**. TechBright evaluated a development programme using engagement surveys, satisfaction/commitment, retention before and after implementation, and internal promotion rates.

Training can foster innovation and agility: expose employees to trends, methods, and technologies; develop flexibility, rapid decision-making, and resilience; and create cross-departmental collaboration. InnovateX measured idea submissions, implementation rate, the speed with which teams adapted to project demands, and employee feedback.

Compliance-training effectiveness can be assessed through completion rates, tests, practical simulations, audit results, non-compliance incidents, corrective actions, regulatory-body feedback, and customer complaints. The example Regime Corp operated in pharmaceuticals and tracked these measures following compliance training; regular refreshers are needed as regulations change.

Long-term post-training tracking includes promotions, role expansion, use of new skills in projects, retention, and performance/business outcomes. CareerPath Solutions' "Career Milestone System" tracked milestones over several years and used annual career-development interviews to understand training's long-term influence.

9. Training Analytics and Contemporary Training Challenges

Training-needs assessment topics named in the slides

The training-process outline explicitly identifies the following assessment challenges/topics: **alignment of skill requirements; training needs of remote workers; preparation for automation and AI; inclusive training-needs assessment; and adaptive monitoring of training effectiveness.** It then moves to identifying training objectives. The slides list these items but do not provide a separate detailed procedure for each one.

9.1 Soft skills for technology adaptation

Soft skills help employees manage and integrate technology effectively. Key capabilities:

- **Critical thinking:** evaluate complex issues and develop solutions when adopting technology.
- **Change management:** lead and facilitate transitions.
- **Communication and collaboration:** explain new technology and integrate it into teams.
- **Continuous learning and adaptability:** keep up with evolving technologies.

TechGlobal example: workshops called “TechTalks” train technical staff to explain complex ideas to non-technical colleagues. “Leadership in Tech” develops soft skills for potential team leaders managing projects and diverse teams.

9.2 Align training with career and personal growth

Training should support organisational strategy and individual aspirations; HR should clarify career paths, offer targeted transition training, collaborate with employees on skills/goals/timelines, and build continuous-learning culture.

Aspire Marketing Solutions: high turnover among mid-level employees was linked to unclear progression. “Growth Tracks” creates personalised pathways and “Aspire Academia” offers seminars on emerging marketing trends, leadership, and personal branding.

9.3 Cross-functional synergy

Cross-functional training breaks down silos, combines different skills/perspectives, improves innovative problem-solving and strategic insight, and strengthens communication, conflict resolution, team-building, and leadership. Feedback/performance reviews keep it effective.

Fusion Enterprises: “Collaboration Bootcamps” use mock business challenges; “Fusion Projects” let cross-department teams tackle real projects outside their usual scope each quarter.

9.4 Multi-generational workforce management

Training should recognise varying values, communication styles, and expectations from Baby Boomers to Generation Z. Use traditional and digital communication methods; flexible policies/benefits; mentoring and reverse mentoring; and leadership skills in inclusivity, adaptability, and conflict resolution.

Legacy Bank: “Generational Intelligence Workshops” teach differences in values/preferences; “Mentor-Mentee Mixers” pair younger employees with experienced staff for mutual knowledge exchange.

9.5 Cybersecurity awareness

Train employees about phishing, malware, secure passwords, internet safety, and remote-work security. Use regular refreshers, simulated attacks/mock phishing, IT updates, newsletter tips, and incentives for secure behaviour.

InfoSec Corporation: mandatory “CyberSense Initiatives” covers phishing detection, correct data handling, and breach reporting; advanced IT simulations cover cyberattack scenarios; “Privacy Protocols” covers data-privacy laws and regulations.

9.6 Selecting and delivering training methods: contemporary challenges

E-learning for remote workforce

E-learning uses electronic technology to train employees outside traditional offices and ensures access regardless of location. Benefits: flexibility across schedules/time zones, lower travel/space/accommodation costs, scalable custom learning paths, and AI/analytics to personalise and track progress.

ClearView Analytics: a cloud LMS hosts “DataMastery,” with video tutorials, virtual data labs, quizzes, and AI analytics for progress and personalisation.

Training-method diversity

Use different approaches for different preferences: visual aids, podcasts, interactive/kinesthetic sessions, reading/text, simulations, digital modules, lectures, and immersive VR/AR/LMS. Mixed techniques may improve engagement, retention, accessibility, and flexibility.

OmniDesign: surveyed staff and introduced a mixed-method programme plus “DesignLearning Hub,” a central learning-resource repository.

Practical technology training for HR

Hands-on training should build digital literacy, use of HRIS/ATS to automate processes, recruitment/search/screening/onboarding, analytics of performance/turnover, and data privacy/security compliance such as GDPR.

VirtualTech: “Tech Immersion Labs” provide the latest VR/AR equipment and hands-on projects/prototypes; hardware-manufacturer partnerships offer early access to technology.

Social learning

Learning through observation, imitation, modelling, interaction, peer learning, mentorship, and discussion. Use social platforms for knowledge sharing; evaluate with surveys and performance assessments and incorporate feedback.

SocialNet: “SocialNet Connect” offers forums, peer chat, resource sharing, and group challenges; “Weekly Wisdom” webinars allow teams to discuss projects and lessons.

Scalability

Scalable training expands to more participants without reducing quality using LMS/VR, modular content, automated assessment/feedback, reduced reliance on live sessions, and internal trainer capability.

ExpandCo: “Expand Learning” contains common core and specialised role modules; an online platform accommodates workforce growth, and “Train-the-Trainer” creates internal trainers while the company expects to double staff in a year.

Remote engagement

Remote training must address technology differences and home distractions. Tools include LMS/interactive platforms, breakout rooms, polls, gamification, feedback, and follow-up.

NavigateTech: an “Interactive Learning Series” uses badges, leaderboards, VR sessions, on-demand modules, and “Virtual Coffee Breaks.”

Change management through training

Training prepares people for new methods, technologies, and processes. Engage leaders; use multiple methods; measure employee performance and feedback; reduce resistance by explaining benefits and supporting adoption.

OldTree Publishing: “Change Champions Workshops” train early adopters to guide resistant peers, alongside “Understanding Change Sessions.”

Balancing technical skills and culture

Technical training in data analysis, HR systems, employment law, and other functions should accompany soft skills, cultural competence, diversity management, and inclusivity. Role-play and case studies can combine both.

CodeCraft: “CodeCraft Connect” follows each technical module with discussions of company values and collaborative exercises.

Data-driven training customisation

Use surveys, performance assessments, and learning analytics to identify gaps and forecast needs. Personalised programmes can improve engagement/resource efficiency but require privacy safeguards and continual updates; AI/VR are identified as future trends.

HealthStat: “Personal Progress Plans” use an AI-powered platform to personalise material to performance gaps, pace, and mastery.

Real-time training feedback

Immediate feedback corrects misunderstanding, reinforces correct practice, boosts engagement, and individualises learning; AI/VR can automate feedback.

EcoBuild: a mobile-app “Feedback Loops” mechanism captures instant reactions; “Mid-Training Reviews” gather more detailed feedback; HR/facilitators adjust content, format, and delivery during the programme.

Continuous feedback, benchmarking, and adaptive development programmes

- **Continuous feedback integration:** use feedback portals immediately after training and focus groups for qualitative insight. **Global Logistics Corp** provided an online portal after each session and held semi-annual participant focus groups; findings guided adjustments to content, format, and delivery.
- **Competitive benchmarking:** compare employee turnover, training cost, productivity, time to fill, leadership-development indices, manager retention, and innovation against competitors/industry standards. **TechWave Software** used annual reviews, industry surveys, and an independent consulting firm to benchmark programmes and identify where more/different investment was needed.
- **Adaptive programme development:** continually refine training/development using feedback, results, annual strategic reviews, and trend analysis. Track performance improvements, skill acquisition, and ROI; revise content/structure after significant industry or company-strategy shifts. **Creative Design Studios** combined yearly strategy reviews, ongoing feedback, and trend analysis to keep programmes relevant.

9.7 Training visualisation

The training-visualisation slides name these views: **training effectiveness by subject** (scale: 0 = Poor, 5 = Excellent); **job-role-wise skill-gap analysis score**; **job role versus average post-training performance score**; **department-wise training cost**; and **department-wise training duration**.

9.8 Executive development and the research on development practices

A research-paper summary in the course examined development practices and employee attitudes using two UK samples from six companies collected in **1997 and 2000** by the Leading Edge Research Consortium. It compared perceptions of development importance, satisfaction, and organisational commitment; examined correlation patterns; and used regression models controlling for individual characteristics.

Findings/implications:

- Development should include older and low-skilled workers, not only managers/professionals, especially as workforces age and diversify.
- On-the-job learning, self-directed/self-motivated employees, and a more participative model of workplace development are important.
- Practices were moving away from traditional approaches towards a different career model, changing the role/status of L&D.
- Limitations included commitment-heavy sample bias, organisation size/industry, and the need to consider contextual factors in career attitudes.
- HR should preserve and expand organisational knowledge and make it accessible and useful.

Book recommendation in the source: *The Future of Human Resource Management*, a collection of perspectives from 64 HR thought leaders on HRM's evolving challenges and opportunities.

10. Employee and Executive Development

10.1 Meaning and steps of executive development

Executive development seeks to improve managerial performance by adding knowledge, changing attitudes, or increasing skills. Training improves job-related skills; executive development prepares executives to handle diverse jobs and future challenges.

Steps:

1. Analyse organisational development needs.
2. Appraise present management talent.
3. Inventory management manpower.
4. Plan individual development programmes.
5. Establish the development programme.
6. Evaluate results.

10.2 Organisational development needs and strategic adaptation

Industry/technology adaptation

HRM adjusts strategy/practice as industries, the economy, technology, workforce expectations, laws, and societal values change. This may involve AI in recruitment, analytics in decisions, flexible work, diversity initiatives, tailored benefits, labour/health/safety/data-protection compliance, work-life balance, ethics, and corporate responsibility.

TechnoCraft Industries: a desktop-software company shifted towards AI-driven cloud software, hired AI specialists, trained current employees in cloud computing, and set a goal of **15% share of the AI software market within five years**.

Skills-gap analysis

Compare current workforce skills with those needed for organisational goals. Benefits: competitiveness, retention through career development, and succession planning. Challenges: defining/quantifying requirements and current capability, employee resistance, management support, and alignment with strategy.

GreenTech Solutions: a renewable-energy firm identified gaps in project management and predictive analytics via a skills audit; recruited specialists and trained current staff as it aimed to double project capacity by the end of the decade.

Diversity, equity, and inclusion (DEI)

DEI means actively including/supporting diverse employees, treating them fairly, and building an environment in which people feel valued and able to contribute. Embed DEI from recruitment/onboarding through performance evaluation and leadership development; measure demographics and surveys; benchmark and set SMART targets; provide training on unconscious bias, cultural competence, and inclusive leadership; report transparently and include DEI in performance, development, compensation, and promotion decisions.

Luxe Fashion Group: a DEI audit exposed underrepresentation in management; diversity hiring, inclusive leadership training, and mentorship for underrepresented groups aimed to reflect the market and improve innovation.

Structural reorganisation for flexibility

Changes may flatten hierarchies, decentralise decisions, redefine jobs, enhance responsiveness, support cross-functional teams, and reduce silos. Clearly communicate role changes, support people through training, and continue development.

AutoAdvance Motors: replaced rigid hierarchy with autonomous cross-functional teams across R&D, manufacturing, and sales, and created an internal innovation lab where employees could pitch ideas with executive support.

Adapting to new work environments and hybrid work

Structured onboarding, mentoring, skill training, cultural sensitivity, digital fluency, continuous learning, and resilience help people adapt.

Vertex Communications: a survey of its long-term hybrid arrangement found productivity stable but concerns about career progression and team cohesion. The response included virtual career workshops, remote team-building, and a clear remote-work policy.

Technological change

Forecast trends, identify skills gaps, integrate technology into workforce planning, provide learning/workshops, reward innovation, communicate changes, support employees emotionally and technically, and collect feedback.

DigitalEdge Media: managers strong in traditional marketing but weak in AI-driven analytics/automation received hands-on workshops, tech-firm learning partnerships, and conference participation.

10.3 Leadership development and management capability

Leadership development systematically improves leadership skills via training, mentoring, and significant assignments. It should align with strategic goals and combine formal learning, experiences/job rotation/action learning, and relationship development through coaching/mentoring. It supports succession planning; progress and organisational impact should be measured and the programme adapted.

BrightPath Healthcare: an annual review exposed gaps in crisis management and strategic thinking among senior managers. A customised programme used scenario-based and real-world problem-solving exercises to develop decisions under pressure and strategic planning.

Remote team management

Requires effective video/chat/project-management communication; fair, transparent performance measurement without physical oversight; regular virtual one-to-ones/reviews; remote culture, belonging, engagement, recognition; and digital literacy, self-management, virtual teamwork, and continuous learning.

OmniTech Solutions: following a permanent hybrid model, manager surveys exposed lack of readiness in cohesion/productivity; training covered virtual leadership, digital tools, and engagement of dispersed employees.

Lifelong learning

HR professionals should continually update knowledge of HR trends, laws, and technologies through formal education, certifications, workshops, and seminars; model learning for employees and build career prospects.

GreenFields Agri Corp: annual appraisal and promotion criteria were linked partly to ongoing learning; an LMS gave managers courses, webinars, and certifications.

Change management skills

HR change leaders align initiatives with strategy, communicate, inspire, engage stakeholders, address resistance, remain flexible, and continuously learn.

Vista Retail Group: amid a shift to e-commerce, industry-expert workshops taught managers to anticipate shifts, communicate change, and implement new strategies, aiming to become proactive rather than reactive.

Diversity/skill inventory and demographic alignment

Catalogue employees' skills, competencies, cultural backgrounds, age, gender, and other demographics to align teams and projects, identify gaps, plan training, improve inclusive recruitment/retention, and forecast staffing/succession. Handle demographic data ethically and preserve privacy.

GlobalTech Innovations: a skills/diversity audit found weak blockchain expertise and underrepresentation of women/minorities; the firm recruited emerging-technology experts and introduced diverse-talent mentoring.

EcoWear Apparel: a mainly male, over-50 management team differed from its younger, diverse workforce/customer base; it promoted younger staff and recruited women and minority leaders.

Strategic succession planning

Identify critical future roles, high-potential employees, and successors; train/mentor/rotate them; review plans regularly.

Atlas Manufacturing: an aging management team had no formal succession plan; it developed internal leaders and ensured at least **two named successors for each key management position**.

Optimal staffing balance

Have the right number of people with the right skills at the right time while controlling labour cost. Use workforce planning, talent management, outsourcing/contingent workers, turnover/productivity data, and workforce analytics. Rebalance overstaffed/understaffed functions and cross-train where suitable.

HealthBridge Medical Centers: an operational review found administration overstaffed and clinical management understaffed; it reallocated roles, increased clinical-management hiring, and cross-trained managers for peak periods.

Technological integration in resource management

HRIS, ATS, advanced analytics, e-learning, VR, and AI can manage employee data, recruitment, planning, and personalised learning. Analytics of performance, engagement, retention, project pipelines, and growth forecasts supports data-led decisions.

Quantum Consulting: an integrated HRIS/analytics solution forecast manager staffing from project pipelines and growth projections, helping optimise allocation and anticipate needs.

10.4 Individual development programmes

Tailored development

Assess each employee's current competencies, strengths, weaknesses, goals, and aspirations; create a personalised plan aligned with organisation strategy. One-size-fits-all programmes may miss differing needs.

Innovatech Solutions: managers received individual skills/aspiration analyses and customised combinations of online courses, internal training, and external workshops.

Tools/platforms for development

Mobile learning apps provide anywhere access, microlearning, and gamification. LMS, interactive webinars, VR simulations, and AI tutoring enable scalable, consistent learning.

RemotePath Inc.: digital platforms supported interactive webinars, VR hands-on simulations, and AI tutoring for remote managers worldwide.

Align career goals and organisational objectives

Connect personal aspirations to organisational mission/career paths to increase motivation, job satisfaction, and retention.

EcoGlobal Corp: managers chose one of two pathways-leadership in environmental projects or operational management-and held regular career-planning sessions.

Measure development success and ROI

Completion rates show whether employees finish programmes. ROI compares monetary benefits (e.g., productivity, fewer errors, more sales) with programme cost. Also evaluate pre/post performance, retention, 360-degree feedback, revenue, and customer satisfaction.

FinServ Partners: used pre/post performance, retention, 360 feedback, revenue, and customer-satisfaction data to refine management development.

Manager feedback

Managers can identify skill gaps and operational realities. Use surveys/focus groups and implement changes to curriculum and delivery.

HealthCare United: managers supplied feedback after each training module; a dedicated team identified themes and changed the programme swiftly.

10.5 Establishing development programmes

- **New leadership theories/practices:** keep up with transformational, servant, and authentic leadership; build adaptability, empathy, inspiration, and continuous learning. **Visionary Tech** created an L&D team that scans research, collaborates with universities, attends global leadership forums, and updates curricula annually.
- **Blended learning:** combine in-person training, webinars, online courses, and self-paced tutorials. **Global Retail Group** used self-paced modules for theory, quarterly face-to-face workshops for practice, and annual retreats for networking/experience.
- **Collaborative educational enhancement:** employees, managers, HR, peers, universities, and professional groups co-create learning; use peer teaching, mentoring, team-led and cross-department sessions. **CleanEnergy Corp** partnered with a technical university on energy-management/sustainability courses and sponsored research/capstone projects.
- **Inclusive development:** accessible/culturally responsive materials, multiple languages and formats, disability-accessible venues, different learning paces, and feedback on participation barriers. **HealthFirst Medical Providers** provided accessible programmes for managers at different career stages.

- **Technology-enhanced learning (TEL):** LMS/mobile/collaboration platforms plus in-person methods, AI-personalised paths, real-time tracking, and VR scenarios. **AutoInnovators** personalised manager paths and used VR for crisis management/leadership under stress.

10.6 Employee-development analytics, coaching, mentoring, and dashboards

Managerial questions and action errors in employee development

Important managerial questions include how L&D should create a development plan for each employee; how the impact of L&D should be measured; how many hours employees should spend in developmental activities; for whom development should be planned first; how activity should align with workplace needs; and who is an effective coach or mentor.

An **action error** is non-attainment of defined goals and/or nonconformity to a plan. The source refers to an organisational action-error cycle and four matrices (Matrix 1-4), but the matrices' actual cells/criteria are not present in the supplied text. The listed outcome/intervention areas are self-efficacy, feedback mechanisms, after-action review, culture development, customised development plans, and training in emotion management.

Employee need assessment and coach/mentor analysis

An employee need-assessment matrix can use **360-degree feedback**. If the employee deals with customers, customer ratings should also be considered. The course lists employee-need assessment, coach-performance analysis, mentor-performance analysis, and outcomes of coaching/mentoring as separate analytics topics, without supplying a complete data schema for coach/mentor scores.

Outcomes of coaching/mentoring, as defined in the slides:

- **Dysfunctional:** increased deviant behaviour and increased turnover.
- **Ineffective:** performance rating or goal-achievement percentage remains unchanged.
- **Marginally effective:** performance rating improves and turnover decreases.

Development approaches and budget

The course's approaches-to-development table includes formal education, assessment, job experiences, and interpersonal relationships, to be tracked by number of employees and percentage. A combined **training + development** budget should separately record budget amount and percentage for Training and Development.

Benchmark and skill-rating instruments

A desired-versus-actual skill benchmark uses low/average/high ratings for skills such as resourcefulness, leading subordinates, compassion/sensitivity, straightforwardness, self-awareness, and putting people at ease.

A second skill-set instrument uses a five-point frequency scale: **Never (1), Seldom (2), Sometimes (3), Usually (4), Always (5)**, with points that may compare self and others. Dimensions/items are:

- **Communication:** listens to others; processes information; communicates effectively.
- **Leadership:** instils trust; provides direction; delegates responsibility.
- **Adaptability:** adjusts to circumstances; thinks creatively.
- **Relationships:** builds personal relationships; facilitates team success.
- **Task management:** works efficiently; works completely.
- **Production:** takes action; achieves results.
- **Development of others:** motivates successfully.
- **Personal development:** displays commitment; seeks improvement.

The supplied worksheet also calls for total checkpoint scores by employee and department, a development summary, and identification of strengths. A similar shorter summary list repeats displays commitment, works completely, achieves results, takes action, builds personal relationships, adjusts to circumstances, instils trust, and listens to others.

Developmental areas specifically named are succession planning, dealing with dysfunctional managers, and creating more opportunities for women managers.

Job experiences and developmental opportunities

A job-experience matrix lists challenging situations employees may learn from: making transitions into unfamiliar responsibilities; proving oneself; creating change/new directions; inherited problems; reduction decisions; high responsibility; high stakes; managing business diversity; job overload; external pressure; influencing in non-authority relationships; handling obstacles/adverse business conditions; lack of top-management support; and a difficult boss.

Job-experience methods include job rotation, promotion, transfer, downward move, and temporary assignment. Other development opportunities listed are on-the-job training, full-time courses, short-term courses, self-guided study, mentoring, conferences/trade shows, “mixing with the best,” obtaining a degree, and membership/leadership roles in professional, trade, or non-profit organisations.

E-learning/development opportunities include **live sessions, MOOCs, gaming, and simulations.**

Development activity dashboard

Suggested fields: department, job category, developmental activity, budget, employees' average work experience, and cost per employee. Track the number developed internally, the number developed through external programmes, and the number who leave within one year of completing development.

Development activities can be grouped as formal education (online/offline, on-campus/outside campus), assessment (assessment centres and 360 feedback), job experiences, and interpersonal relationships. Record targeted skill and number of days. Targeted-skill labels in the source include character/enduring values, communication, customer champion, confidence, driver of change, thought leadership, and domain knowledge.

The impact of employee-development activities can be monitored using scores for commitment, organisational trust, engagement, and workplace happiness.

10.7 Executive development methods

Method	Use/description
Decision-making exercises	Develop judgement and decisions.
Interpersonal methods: role play, sensitivity training, behaviour modelling	Build interpersonal, self-awareness, and behavioural skills.
On-the-job experiences	Learn by doing under an experienced supervisor; particularly useful for scientific/technical staff.
Coaching	Supervisor actively imparts job knowledge/skills; needs an open, healthy relationship.
Understudy	Potential manager temporarily substitutes for an experienced manager, gaining direct insight and preparing for succession.
Job rotation	Move trainees between jobs to broaden skills/outlook.
Multiple management	Permanent advisory committees study business problems and recommend actions to senior management.
Special courses/meetings/readings	Workshops, academic/government/voluntary meetings, and relevant professional reading.
Special projects	Assign a project closely tied to departmental objectives.
Committee assignments	Ad-hoc committees investigate and make recommendations on important business issues.
Conferences	Structured exchange of ideas about a shared topic.
Lectures	Formal expert presentation supported, where useful, by discussions, cases, audiovisuals, and films.
Group discussion	Two or three trainees present papers on a topic followed by discussion.
Programmed instruction	Learner receives small sequential information units, responds frequently, and receives immediate correctness feedback.
In-basket	Trainee handles memoranda, reports, and messages typical of a manager within time constraints.
Case study	Analyse a simulated business problem and choose actions.
Business game	Simulated real-life competitive situation with defined objectives.

Method-specific merits, limitations, and use

In-basket: fast learning in a time limit and healthy competition; limitations include academic/unrealistic situations and low enthusiasm for imagined scenarios. Suitable for situational judgement/social sensitivity.

Case study merits: problem solving; application of theory; learning by doing; seeing others' reasoning; debate and defence of analytical/judgement skills; high interest where the case reflects real life. **Limitations:** good cases are difficult/costly/time-consuming to prepare; historical evidence may not build reasoning; cases may be unrealistic or contain inappropriate

information; indiscriminate use may not suit immature/unprepared trainees; an unskilled trainer can reduce value; transfer may be limited if the case has little in common with the workplace.

Using case studies effectively: state objectives; choose objectives suited to cases; locate or create cases; prepare materials/room/schedule; guide group interaction; give everyone a chance to contribute and keep groups small; check group process and intervene when needed; accommodate learning styles; clarify the facilitator role; bridge theory and practice.

Business games: compress time, allow learning from mistakes/consequences, show interdependencies, develop problem-solving and planning, and provide prompt feedback. They are costly/difficult to create; may be unrealistic; competition can distract from management principles; unconventional creative strategies may be rejected by the game dynamic. Suitable for quick thinking, reaction, initiative, organisation, and leadership.

Role play: trainees take different identities to experience others' perspectives. It develops interpersonal skills and learning-by-doing, and makes people listen/observe/analyse, but may be unrealistic, fail to recreate real decision pressure, and make trainees uncomfortable. Trainer responsibilities: ensure participants get along; select/brief the situation; help define characters; use volunteers where possible; give observers tasks; guide unscripted enactment; keep it short; discuss learning afterward.

Sensitivity training/T-group: changes behaviour through unstructured group interaction, usually 10-12 participants, a leader as catalyst, no specified agenda, open expression, focus on behaviour rather than duties, and the aim of more effective dealings with the environment. Benefits: interpersonal experience, behaviour observation/analysis, comparison with others, open discussion, and opportunities to lead. Costs/risks: time lost to aimless discussions; leaders may lack skill; potential unjustified privacy intrusion based on faulty assumptions; openness may be punished later; hostile interaction can damage team learning/spirit.

Coaching: learning by doing and immediate feedback can be quick; an open relationship encourages clarification and correction. Outcomes depend heavily on the supervisor's interpersonal skill, and development may be limited by the supervisor's own capabilities.

Selection of a suitable executive-development method (course mapping): job rotation-diverse skills/outlook; understudy-succession; multiple management-functional knowledge/outlook; case study-analytical/reasoning/problem-solving; role play-apply theory and improve human relations; behaviour modelling-interpersonal/cognitive skills; in-basket-situational judgement/social sensitivity; business games-smart thinking, quick reactions, initiative, organisation, leadership; sensitivity training-self-awareness and impact on others; conference-knowledge, attitudes, interpersonal skills; lecture-conceptual knowledge to a large audience quickly.

10.8 Executive development programmes in named organisations

- **TAS (Tata Administrative Service):** conceived by J.R.D. Tata in the 1950s for young managers; structured classroom orientation and field visits; seven-week rural assignment/community work; three 15-week business stints in sales/marketing, manufacturing/operations, and corporate strategy/finance/HR.
- **Infosys:** Management Development Center, Software Development Center, Global Education Center, and Infosys Leadership Institute (ILI). The source reports campus capacity of **6,000** students/learners/faculty; ILI has **40 specialist professionals** and an objective to develop managerial abilities, onboarding, and leaders. Its three pillars are Learning Managers, Leaders Teach, and Line Partnership. "On-boarding" is a **14-week** programme for soft skills. Managerial-ability programmes include Consulting Skills, Pravesh, Maestro, Ambassador, and Diplomat, with hygiene and functional modules. The source names K. G. Ramachandran, CMD of BHEL, as ILI head.
- **AIMA:** in-house business simulation exercises at Tata Power, TISCO, RIL, Aditya Birla Group, NTPC, CESC, ONGC, IOCL, HPCL, ESSAR, BSES, JEUSCO, MUL, Hero Honda, and others. Such simulation is increasingly made a regular training feature. National Student Management Games are conducted in association with Infosys as title sponsor.
- **Wipro:** emphasises internal growth; it is willing to appoint an internal person who is 60% ready rather than hire externally. Programmes support communication and presentation skills, Future Managers, Global Managers, New Leaders (first-time leaders), Wipro Leaders Program (mid-level), Business Leaders (GM moving into business role), and Strategic Leaders (top management).
- **Cognizant Technologies:** designs managerial-development curricula to an executive's needs rather than offering a menu. It partners with IIM Bangalore for a customised two-week residential programme for middle/senior managers; senior executives attend leadership programmes at Stanford and Harvard.
- **Other organisations:** L'Oréal, Procter & Gamble, Goldman Sachs, and GE are named as recognising attractive management-development programmes as a factor in attracting and retaining high-calibre employees.

11. Performance Appraisal and Potential Appraisal

11.1 Meaning and definitions

Performance appraisal is the stage at which management evaluates how effectively it has hired and placed employees. It is a systematic, objective evaluation of work-related behaviour and employee potential.

- **Dale Yoder:** performance appraisal includes formal procedures for evaluating the personalities, contributions, and potential of group members in a working organisation; it is a continuous process to obtain information needed for correct, objective employee decisions.
- **Newstrom:** it evaluates employee performance, shares the information with employees, and searches for ways to improve performance.

11.2 Performance management versus performance appraisal

- **Performance management:** processes used to identify, encourage, measure, evaluate, improve, and reward employee performance.
- **Performance appraisal:** evaluates how well employees perform their jobs and communicates that information to them.

The course frames performance management as including performance appraisal, feedback, and performance rewards/development.

11.3 Objectives and reasons for appraisal

Appraisal helps with compensation decisions, promotions, training/development programmes, employee feedback, and personal growth/development.

Level	Reasons
Individual	Recognition of past effort; discover development requirements.
Team	Align effort with objectives; motivate team members.
Organisation	Develop human capital; use resources well.

A conceptual diagram lists purpose, empowerment, relationships, flexibility, optimal performance, recognition/rewards, and morale.

11.4 Appraisal process

1. Establish performance standards.
2. Communicate the standards.
3. Measure actual performance.
4. Compare actual performance with standards and discuss the appraisal.
5. Take corrective action if necessary.

11.5 Best-practice examples in India

- **Larsen & Toubro:** competency matrix of **73 competencies**, varying by managerial level. Each competency has associated knowledge, skills, and attributes. Individual assessment identifies functional, managerial, and behavioural gaps, which are addressed through customised reinforcement. The matrix connects business strategy to training needs, making reskilling more focused.
- **Hughes Escorts:** competency-based performance enhancement; each position has **23 key competencies** in four groups: attitude-based, knowledge-driven, skill-centred, and value-based. Shortfalls guide training to improve productivity and make employees aware of their professional standing.
- **National Panasonic:** Key Result Areas (KRAs) specify business, functional, and behavioural goals with timeframes. Employee and manager jointly set them at the year's start in a written format. Progress is tracked; training addresses gaps. The company prefers growing its own talent over expensive mid-career hiring.
- **Elh Ltd.:** made appraisal more participatory and competency-based. Employees are assessed on individual/functional targets and technical, functional, managerial, decision-making, and leadership competencies; ratings range from outstanding to below average. Feedback follows, and managers receive extensive orientation to the system.

- **PepsiCo India:** annual numerical-target appraisal tied to performance pay; variable bonus ranges from **15% at junior levels to 60% at senior levels**. Managerial results use volume growth, market share, and net operating profit to calculate variable compensation. Behavioural and functional competencies are also rated for advancement potential.

11.6 Benefits of performance appraisal

Administrative uses: contributes to company performance; creates documentation/feedback that may support legal defence; provides a rational basis for bonuses/merit pay; and translates strategic goals into appraisal standards and clear expectations.

Developmental uses: individual feedback helps people correct mistakes and build on strengths; reassessment and communication of performance levels can motivate improvement.

11.7 What is appraised and who appraises?

Appraise job-related result objectives. Possible appraisers: supervisors, peers, subordinates, customers, consultants, and the employee through self-appraisal.

11.8 Methods of performance appraisal

The course groups methods as individual-evaluation methods, multiple-person evaluation methods, and other methods.

Individual-evaluation methods listed

1. Confidential report
2. Essay evaluation
3. Critical incidents
4. Checklists
5. Graphic check list
6. Behaviourally Anchored Rating Scale (BARS)
7. Forced-choice method
8. Management by Objectives (MBO)

Multiple-person methods listed

9. Ranking
10. Paired comparison
11. Forced distribution

Other methods listed

12. Group appraisal
13. Human Resource Accounting (HRA)
14. Assessment centre
15. Field review

Graphic/linear rating scales

The supplied examples rate **attitude** and **decisiveness** along anchored descriptions. Attitude anchors range from no interest/consistent complaint; carelessness or indifference to instructions; interest and acceptance of others' advice; enthusiasm about work and colleagues; to being so enthusiastic that others seek the person's opinion/advice. Decisiveness anchors range from slow decisions or requiring consultation, through careful consideration and prompt decisions, to taking decisions without consultation. The original scale shows **0, 5, 10, 15, 20** as rating points.

Forced-choice method

Listed as an individual method; the source provides no further procedure/detail.

Forced-distribution method

At Sun Microsystems, managers rate groups of about 30 people: top **10%**, middle **70%**, bottom **10%**. Employees in the bottom 10% can take a quick exit package or undertake a **90-day performance-improvement action plan**.

Critical-incident method

Records important job behaviours/events, e.g. fire, sudden breakdown, or accident. The supplied worker-reaction scale is:

- A: informed supervisor immediately - 5
- B: became anxious about loss of output - 4
- C: tried to repair the machine - 3
- D: complained about poor maintenance - 2
- E: was happy to force-test - 1

Field-review method

Listed as an appraisal method; the supplied slide does not describe its procedure.

MBO process

Set organisational goals -> define performance targets -> performance review -> feedback.

Paired-comparison method

Employees are compared in pairs to identify relative performance. The source names the method but provides no further procedure.

BARS: sample anchors

The behaviourally anchored example gives these ratings:

- **7 Extremely good:** expected to make valuable sales suggestions and maintain positive customer relationships nationally.
- **6 Good:** expected to initiate creative ideas to improve sales.
- **5 Above average:** expected to keep in touch with customers throughout the year.
- **4 Average:** can manage, with difficulty, to deliver goods on time.
- **3 Below average:** can unload trucks when asked by the supervisor.
- **2 Poor:** informs only part of the customer base.
- **1 Extremely poor:** takes extended coffee breaks and wanders without purpose.

360-degree appraisal

A process in which employees receive confidential, anonymous feedback from people around them. It measures behaviours and competencies; addresses listening, planning, goal-setting, teamwork, character, and leadership effectiveness; and shows how others perceive the employee. Companies listed with dates in the course: Bell-Core International Ltd. (1998), Johnson & Johnson Ltd. (1980s), Wipro Technologies Ltd. (Dec. 17, 2002), Xerox (1980s), IBM (1980), and Bell Atlantic (1980).

11.9 Potential appraisal

Potential is a latent but unrealised ability. An employee may want and be able to move to a higher level of competence within the same type of work or into a larger role. Potential appraisal evaluates qualities that exist and can be developed, beyond present-role performance.

Cadbury review example

Cadbury's appraisal system was evolving toward potential appraisal. The current review involved the immediate supervisor, department head, or functional VP, evaluated growth potential, and established career-development action plans. Six generic competencies were rated on a five-point scale: job knowledge; clarity of thinking; goal-setting and planning; relationships; leadership; and innovation. The cited principle is that a potentially good manager should display behavioural characteristics that transcend the immediate job.

Steps of potential appraisal

1. Role descriptions.
2. Qualities needed to perform the roles.
3. Rating mechanisms.
4. Organising the system.
5. Feedback.

11.10 Performance-appraisal research paper

A survey of **137 employees** provided data on reviews conducted by **38 managers**. Participation was influenced more by which manager conducted the review than by the circumstances of the specific review. Participation had a greater effect on future-relationship variables (potential in the firm and seeking feedback from a manager) than immediate-decision variables (self-evaluation and intention to stay). Reactions were moderated by subordinate experience and prior feedback. The paper emphasised review context and the limited extent to which managers change their own review behaviours. The source marks the journal category **ABDC-A** *.

12. Performance Management Analytics, Goal Clarity, and Balanced Scorecard

12.1 Establishing effective performance standards

Standards should directly link to strategic objectives and organisational values. If innovation is a priority, for example, standards can include ideas generated or successfully implemented projects. Standards should be adapted to job/department while remaining aligned with enterprise objectives.

InnovateTech example: workshops with department heads define KPIs that include software quality, project completion, innovation-sprint contribution, and cross-functional training, reflecting agility and empowerment.

Fair, equitable, inclusive metrics

Use impartial, non-discriminatory criteria based on job-relevant outcomes and responsibilities. Use common criteria where appropriate plus job-specific standards. Transparency about measures/rationale builds trust.

GlobalSolutions: assessed standardised project outcomes, teamwork, and cultural competence for diverse/remote employees, focusing on outcomes rather than office presence or hours.

Continuous improvement

Use regular assessment/feedback, training for identified gaps, performance-management software, analytics, real-time feedback, trend analysis, and predictive insight.

AutoAdvance: quarterly employee improvement goals were linked to operational efficiency and innovation; appraisal considered outcomes plus documented learning/process optimisation, supported by online courses and in-house training.

Changing jobs and industry standards

Update job descriptions/criteria as roles, technologies, and industry regulations change; benchmark against current external standards. **HealthPlus** annually reviewed roles and skills programmes, adding telehealth proficiency and updated privacy-compliance criteria as technologies/regulations changed.

12.2 Communicating standards and collecting actual-performance data

Standards must be clear, measurable, accessible, and consistent across departments and levels. Use digital platforms, printed material, regular meetings, training, and examples. Explain how standards were created, how they relate to career progression, and why they support organisational goals. Revisit standards annually or twice a year, incorporate stakeholders' feedback, and communicate changes.

- **TechGlobal:** intranet documentation, recorded video workshops, and examples for employees across continents/time zones.
- **FinanceCorp:** monthly leadership town halls explained links to customer satisfaction/efficiency; quizzes and e-learning checked understanding.
- **RetailChain:** trained managers on communication, cultural sensitivity, and constructive feedback through role-play/cases, with toolkits/checklists.
- **HealthInnovations:** biannual standards review ahead of fiscal-year start and mid-year, followed by webinars/newsletters.
- **CreativeDesigns:** anonymous digital suggestion box plus quarterly focus groups about standards.

Actual-performance collection can use performance-management software, HRIS, and tools for feedback/goal tracking, including platforms named in the course: SAP SuccessFactors, Workday, Oracle HCM, 15Five, and Lattice.

DataStream example: integrated performance software joined project management, time tracking, and multi-source real-time feedback, automatically generating metric-based reports while reducing manual data entry and improving accuracy.

12.3 Performance-management planning tools and metrics

Gantt chart of performance-management steps

Track planned versus actual days for performance planning, execution, assessment, and review.

Employee focus time

Consider shift hours (example **9 AM-5 PM**), meeting time, training, employee development, lunch, and the percentage of time used to achieve goals versus the percentage used to develop employees.

Goal-setting template

For each goal category, record required working days and measures of achievement; the supplied template leaves three numbered goal rows.

Skills required for goals

Rate problem-solving, communication, teamwork, and other needed skills as excellent, satisfactory, fair, or unsatisfactory.

Goal/performance metrics listed

- Cases where skill rating and goal-achievement percentage mismatch.
- Average number of goals not achieved.
- Average goals set per employee.
- Average goal achievement by department, age group, and gender.
- Talent-utilisation percentage.
- Unutilised competencies.
- Unplanned time.

Goal clarity index

The example questionnaire asks employees to select 25%, 50%, 75%, or 100% for each:

1. How clearly did you set your work plan for the last six months?
2. How much shared understanding of the work plan/priorities did you have with seniors in the last six months?
3. How well could you use most of your capabilities in the last six months?
4. How clear are you about the next six months' work plan/priorities?

Additional performance metrics

- **Promotion rate in department** = Number of promotions ÷ Total employees in department.
- **Performance-appraisal fill rate** = Employees completing PA without help ÷ Total employees.
- **Appraiser literacy rate** = Trained appraisers ÷ Total appraisers.

12.4 Intentional performance-rating distortion

Reasons for deflating ratings

Shock employees; teach a rebellious employee a lesson; signal that the employee should consider leaving; build a record of poor performance.

Reasons for inflating ratings

Maximise merit raises/rewards; encourage employees; avoid creating a written record; avoid confrontation; promote an unwanted employee out of the unit; or make a manager look good to a supervisor.

A team-performance worksheet compares Manager X, Y, and Z ratings from subordinates, seniors/bosses, and colleagues, then totals scores.

A relationship exercise pairs engagement level (scale **1-7**, from never to every time) with how often a leader treats the employee respectfully.

12.5 Balanced-scorecard approach

Align individual goals with organisational goals through financial, customer, internal-business-process, and learning/growth perspectives. Indicators are classified as leading or lagging.

Perspective	Stakeholder/responsibility	Lagging indicators	Leading indicators
Financial	Accounting professionals	Return on equity; revenue growth	New/existing product revenue mix

Perspective	Stakeholder/responsibility	Lagging indicators	Leading indicators
Customer	External customers	Market share; customer satisfaction	On-time delivery; customer-specific development
Internal business processes	Internal customers	Product-defect rate; unit product cost	Supply-chain efficiency
Internal learning and growth	Employees	New-product development rate; employee job satisfaction	Develop strategic competencies; new-product development time

A year-end scorecard template captures each perspective's key result area, measure/indicator, goal, weighting, and percentage achieved. Overall results list Financial, Customer, Process, People, and aggregate percentage of goal achievement. The accompanying business-outcome survey asks respondents how effectively performance measurement supports motivating, growing/developing, attracting, and retaining talent and aligning with business goals, together with organisational-goal achievement percentages.

12.6 Potential-performance matrix, underperformance, and appeals

The course includes a **nine-box potential/performance matrix** crossing low/high potential ratings with low/high performance ratings/goal achievement.

Causes of underperformance: **ability, motivation, and opportunity**; a table can count underperformers under each cause.

Review-meeting material includes appeal analysis by department and job position, counts of appeals, and **rater-error training** as an area for improvement. The source names types of review meeting but does not enumerate them in the extracted text.

13. Compensation Management and Wage Administration

13.1 Meaning and components of compensation

Compensation is what employees receive in exchange for their contribution to the organisation. It includes:

- **Basic/base pay:** wages or salary, generally fixed/non-incentive and calculated from time spent at work.
- **Variable pay:** payment linked directly to performance, such as bonuses, incentives, or stock options.
- **Benefits:** indirect rewards associated with organisational membership, such as health insurance, vacation pay, pensions, paid leave, maternity leave, travel facilities, HRA, and other benefits.

Compensation may be financial or non-financial. Examples of non-financial items in the source include a family picnic, dinner/lunch, and a company car, alongside its broad classification of employee benefits.

Another classification is direct versus indirect:

- **Base pay:** wages and salaries.
- **Variable pay:** bonus, incentives, stock-option plan.
- **Benefits:** medical/life insurance, paid time off, retirement pension, workers' compensation, and others.

13.2 Variable performance-linked pay (VPLP)

A survey by NFO-MBL India and HT Careers reported:

- **73%** of Indian organisations had begun offering VPLP.
- VPLP was generally pegged at **10-30% of executives' fixed pay**.
- It was used to obtain better performance.
- Success requires transparent plans, fair evaluation, and proper communication.

13.3 Total rewards and compensation philosophy

A compensation philosophy is a statement of the employee value proposition and general principles guiding pay strategy/rewards programmes.

Objectives of compensation philosophy:

- Attract talent.
- Retain talent.
- Ensure equity.
- Reward appropriately.
- Comply with legal rules.
- Ensure ease of operation.

13.4 Compensation administration and factors

The source identifies compensation administration, decisions about compensation levels, internal contingent factors, external contingent factors, and the nature of the HR market. It also has a heading about items that do not come under "wages," but the extracted material does not provide the associated list or full process details; these headings are preserved without adding unsupported lists.

13.5 Pay-policy choices

Compensation systems must fit the firm's character/culture and support strategic objectives. Design choices include:

- Internal versus external pay equity.
- Fixed versus variable pay.
- Rewarding performance versus membership.
- Below-market versus above-market pay.
- Open versus secret pay.

13.6 Wage policy in India

A wage policy provides guidelines for a wage structure, meaning pay scales with pay ranges within each grade. Three elements named in the source are **minimum wage, fair wage, and living wage**. The extracted slides provide the headings but not explanatory definitions.

13.7 Wage and salary administration

Wage/salary administration manages the organisation's base and supplementary compensation programme.

- **Base compensation:** monetary wages/salaries, fixed and not incentive-based, calculated by time spent on the job.
- **Supplementary compensation:** incentive payments linked to actual employee performance.

Objectives:

- Establish fair and equitable remuneration.
- Attract competent personnel.
- Retain current employees.
- Control labour cost.
- Improve motivation and morale.
- Project a good company image.

Principles:

- Wage/salary plans should be sufficiently flexible.
- Job evaluation should be scientific.
- Pay plans should match overall organisational plans.
- Plans should respond to changing conditions.

13.8 Institutions involved in wage regulation/fixation

The course lists employer, collective bargaining, legislation, wage boards, and pay commissions as institutions/processes involved in state regulation/fixation of wages.

13.9 Historical case examples from the course

These cases illustrate the risks of compensation/job protection becoming detached from productive capacity; the notes retain the historical figures as given in the source.

- **Bharat Ophthalmic Glasses (BOG):** from 1984-85 to 1990, annual gross benefits for **521 employees** exceeded company turnover each year. Employees had reduced capacity utilisation to **27%** of achievable capacity. When government released **₹76 lakh** for plant and machinery, **50%** was diverted to salary/wage payments.
- **National Textile Corporation (NTC):** **120 mills** and **1.7 lakh workers**; accumulated losses above **₹3,000 crore**, rising by over **₹400 crore per year**. The source says 40 mills were useless, 40 likely to become useless soon, and 40 terminally sick. Nearly **₹2,000 crore** was spent by government over 20 years protecting jobs.
- **Hindustan Fertilizer Corporation Ltd., Haldia:** plant shut in **August 1986**, but **1,500 employees** continued receiving total wages/salaries of **₹150-175 lakh per month**, including further DA instalments. Losses up to 1992 exceeded **₹1,400 crore**. The source describes it as "no work but full pay."
- **Heavy Engineering Corporation:** source describes a company producing almost nothing but employing over **17,000 people**, with annual losses above **₹100 crore**, established in collaboration with the Soviet Union and Czechoslovakia.

14. Compensation Analytics, Pay Equity, Incentive Plans, and Case Studies

14.1 Compensation analytics questions and pay structure

Analytics should examine total employee salary structure by quartile/pay gap; annual salary; employee-benefit mix; top-management compensation; behavioural encouragement/reward matrices; incentive planning; pay mix by department; job-evaluation points and compensation matrices; the impact of performance ratings on salary; the impact of pay increases; and other key HR analyses.

A pay-mix table may contain department, job position, base wage, benefits, long-term incentives, and short-term incentives. A job-evaluation matrix compares job position/evaluation points with core compensation and benefits amounts.

Performance rating and salary increments

A table may compare number of employees and average percentage salary hike for ratings:

- Above expectations
- Meets expectations
- Below expectations

A separate analysis compares old employees' average percentage hike after promotion with new employees' average percentage hike on joining.

Pay-gap and salary distributions

- Employee salary quartiles Q1, Q2, Q3, Q4, each with average salary.
- Annual salary by job position and department, job-evaluation point/job worth, and average annual salary.
- Department cost per employee.
- Average salary by job position and job-evaluation point.

Employee-benefit analysis

Assess benefit patterns for worker characteristics including vacations, sick leave, retirement plans, employee assistance plan, childcare, wellness programmes, and flexible workplace.

Top-management compensation

Separate fixed compensation, annual performance-based compensation, and long-term performance-based compensation.

Behaviour-encouragement plan

A matrix links number of days absent, number of employees, and expected reward.

14.2 Incentive-plan planning

Individual incentive plan

Qualifying criteria may include quantity of output, quality of output, monthly sales, work-safety record, and attendance; track number of employees and amount paid.

Group incentive plan

Criteria may include customer satisfaction, labour-cost savings, and service-cost savings; track number of employees and amount.

Company-wide incentive plan

Criteria include operational efficiency and revenue. The material also lists "earning per employee stock," wage/salary-to-employee-benefit ratio, and cost per employee as relevant measures, without defining the first phrase further.

14.3 Gender pay-gap analysis and market-competitive compensation

A gender pay-gap matrix compares job position, average salary, number of males, average salary for males, number of females, and average salary for females. Another comparison measures cost per employee for male and female employees by job position. Job-evaluation points can also be compared for part-time versus full-time employees by cost per employee.

Consumer price index change formula

$\text{CPI change (\%)} = [(\text{Current CPI} - \text{Previous CPI}) \div \text{Previous CPI}] \times 100.$

Compa ratio

$\text{Compa ratio} = \text{Employee's pay rate} \div \text{Pay-range midpoint}.$

The midpoint normally corresponds to the market pay line, based on compensation-survey analysis; it may represent the market average or median.

Performance index and compa ratio table

The source provides these associations:

Performance grade	Compa ratio
Exceptional	1.20
Outstanding	1.12
Proficient	1.04
Developing	0.88
Minimal	0.88

The same ratio **0.88** is given for both Developing and Minimal in the supplied material; it is retained as provided.

Salary-increment decision analysis compares job position/department against **market match** and **market lag**. Salary-component analysis includes bonus, position/rank, and core salary.

14.4 Case: Ahuja Cements Ltd. - PMS and compensation challenges

Ahuja Cements is described as a **25-year-old company** with more than **1,000 employees**, using traditional appraisal and seeking to modernise its Performance Management System (PMS) to meet business needs. HR convened business and department heads. Issues surfaced:

- Gaps between desired and existing skill levels / low skill-matrix scores, causing poor performance.
- Lack of manpower causing productivity issues.
- Lack of motivation.

Demographic charts and headcount information

- Gender ratio shown: **34% / 66%**, labelled F/M in the source chart.
- The department/headcount graphic shows the labels and values below, but the original chart's mapping is not fully clear: values include **62, 9, 9, 7, 7, 7, 6, 4, 2**.
- The role-wise graphic lists values **23, 18, 16, 16, 14, 5, 5, 3, 3, 3, 3, 1, 1, 1, 1** alongside role labels Officer, Sr. General Manager, Sr. Officer, VP Marketing, Articleship, General Manager, Jr. Engineer, Sr. Manager, Engineer, Sr. Engineer, Assistant Manager, Executive, Sr. Executive, Manager, and Intern. The slide does not unambiguously match every displayed value to a role.
- Other chart labels include "Satisfied vs Dissatisfied" and "Tooth vs Tail." The supplied raw numbers and category alignment for these graphics are not fully legible.
- One department graphic lists E&I 8%, Customer Service 2%, CPP 7.57%, Finance 14%, IT 8%, HR 2%, Marketing 46%, Mechanical 4%, Process 8%, and "Other 58%"; the original labels appear to overlap, so they are preserved rather than reconciled.

Problem 1: skills gap

Pre-training skill distribution:

Skill level	Employees	Distribution
High (H)	20	18%
Medium (M)	37	33%

Skill level	Employees	Distribution
Low (L)	56	50%
Total	113	100%

Post-training table as reported:

Skill level	Pre-training employees	Pre-training distribution	Post-training employees	Skill movement	Post distribution
High	20	18%	57	185%	50%
Medium	37	33%	50	35%	44%
Low	56	50%	6	-89%	5%
Total	113	100%	113	-	100%

Solution: introduce a training criterion of **45 hours**.

Problem 2: manpower shortage/productivity

For the last five manager hires:

Particular	Count
Applications received	9
Interviews conducted	8
Selected	5
Offers issued	5
Offers declined	1
Reneged	2
Joined	3

Solution proposed: hire management trainees and build a talent pipeline. For ten management trainees:

Particular	Count
Requirement	10
Campus size	25
Selected	12
Offers issued	10
Offers declined	0
Reneged	0
Joined	10

Recruitment KPI comparison:

KPI	Managers	Management trainees
Selection versus interviewed (selected/interviewed)	63%	48%
Offer honour/acceptance (offers accepted/offers issued)	80%	100%
Reneged rate	40%	0%
Joining rate	60%	100%

A nine-box potential/performance grid is presented, but several displayed raw values (including strings such as 223, 22, 33, 33, 657, and 12340) do not have a sufficiently clear mapping in the extracted text to reproduce as cell values.

The HR KRA topics for FY 2022-23 include talent selection; role and responsibilities; goal setting aligned with the business plan; learning and development; regular performance review; and building a growth culture around values. A gender-wise performance graphic lists raw values **144, 272, 185, 114, 71, 670, 187, 292, 71, 223** across Accounting & Finance, Human Resources, Production, R&D, and Sales & Marketing; the source extraction does not make every gender/category pairing fully clear.

Problem 3: operator compensation/retention

Machine operators were paid less than competitors. Temporary workers completed six months of skill development and became Assistant Machine Operators after evaluation, but many left after one year for higher competitor salaries. The source

graphs reasons for leaving (personal reasons, asked to leave, better opportunity, medical reasons) and compares operator/staff tenure/attrition in 2022 and 2023; not every graph value/category pairing is clear in the extracted text.

Conclusion: operators leave for better pay after **1-2 years**; operator attrition is higher than staff attrition. Recommendation: benchmark competitors' compensation and provide a comparable/equivalent package to retain internally developed talent.

14.5 Compensation-related research paper

The research summary examines how the design/mix of a firm's external financial claims affect optimal top-management compensation. It considers agency conflict between shareholders and management and conflicts arising from other contractual relationships. Objectives: assess effects of equity, risky debt, and convertible debt on compensation; minimise agency costs tied to debt; derive optimal compensation under differing capital structures.

Findings:

- Risky debt favours compensation less sensitive to pay-performance to reduce management's incentive to shift risk.
- With convertible debt, optimal pay may more closely align with shareholders and show higher pay-performance sensitivity.
- Optimal pay-performance sensitivity is inversely related to the level of firm debt.
- The finding accords with the negative relationship between managers' equity stakes and leverage, and with observed low/declining CEO compensation sensitivity as corporate capital structures became more complex.

Conclusion: capital-structure decisions affect managerial incentives, compensation design, and overall governance. The course labels the journal category **ABDC-A***.

14.6 Further case studies: compensation analytics

InnovateTech/TechNova - pay-structure alignment

The case begins with a technology firm's need to align pay with strategy, career progress, pay equity, engagement, and retention. A time-motion study found discrepancies between job descriptions and actual work: developers spent significant time on maintenance rather than new development, lowering morale and contributing to turnover. Skills assessments identified gaps in cloud computing and cybersecurity; the company used targeted training and recruitment. Benchmarking against pay surveys/job analyses found some roles broad in scope but without sufficient depth/authority/resources (e.g., project managers). Turnover was highest where responsibilities misaligned with employee expectations (e.g., customer support); clearer job descriptions and role realignment were used to improve satisfaction and retention. HR questions: key duties versus strategy; actual time use; skill gaps; role scope/complexity versus industry; turnover by role and indicators of dissatisfaction.

The longer InnovateTech case adds: the existing pay structure was market-driven but weakly aligned with strategic goals; clear salary bands existed but career paths were unclear. The organisation linked pay increases to skills development/performance milestones, conducted gender/racial pay-equity analysis (gaps particularly in technical roles), introduced structured equitable reviews, made pay more flexible for evolving roles/market/performance, found competitive pay correlated with retention, and added performance bonuses/stock options.

DataCorp - individual pay, performance, and inclusion

HR analytics found high performers were paid more, but the differences were not always big enough to motivate exceptional performance; the strategy was revised to better align rewards with performance. Analysis of promotions, market adjustments, and performance increases revealed inconsistencies in communication; transparent explanations improved employee understanding. Higher-paying roles underrepresented women and minorities; targeted mentoring, unbiased performance assessment, and equitable adjustments were introduced. Base pay gave stability, while bonuses/stock options significantly increased motivation/satisfaction; variable components were weighted more heavily. Pay transparency was linked to trust and positive culture; regular audits, aggregate pay data, and open communication were introduced.

BioMedTech - implementation, communication, and monitoring

Employees preferred combined digital and in-person communication, so email, intranet, and town halls were used for compensation changes. Anonymous surveys and focus groups assessed fairness/transparency; detailed explanations and HR Q&A sessions addressed concerns. Metrics included satisfaction, turnover, and performance, tracked regularly to refine policy. Higher performance bonuses were associated with productivity and team collaboration; improved health/wellness benefits with better well-being and lower absenteeism. Pulse surveys, suggestion boxes, and manager one-to-ones generated employee input; demand for personalised benefits led to flexible benefits.

15. Consolidated Formula and Metric Reference

Metric/formula	Definition/use
Attrition rate	$(\text{Employees leaving} \div \text{average number of employees}) \times 100$
Quality of Hire	$(\text{PR} + \text{HP} + \text{HR}) \div 3$, where PR = average new-hire performance-review rating; HP = % reaching acceptable productivity within the prescribed time; HR = % retained after one year
Cost per joiner	Recruitment total cost analysed against number of joiners; report cost per joiner and total cost by year/source where useful
Training absenteeism	Number of employees absent $\div$ total training participants
E-learning share	Total e-learning training $\div$ total training
Employee trained %	Employees trained $\div$ total employees
Training cost per employee trained	Total training cost $\div$ number of employees trained
Training cost per training hour	Total training cost $\div$ number of training hours provided
Training ROI (%)	$[(\text{Financial gains attributable to training} - \text{training cost}) \div \text{training cost}] \times 100$
Promotion rate	Number of promotions $\div$ total employees in the department
Performance-appraisal fill rate	Employees completing appraisal without help $\div$ total employees
Appraiser literacy rate	Trained appraisers $\div$ total appraisers
CPI change (%)	$[(\text{Current CPI} - \text{previous CPI}) \div \text{previous CPI}] \times 100$
Compa ratio	Employee pay rate $\div$ pay-range midpoint
Employer-brand image strength	Talent gained from competitors - talent lost to competitors
Selection rate	Hires $\div$ applicants, reported by gender/department/position as relevant (course dashboard asks for this measure)
Application-to-offer ratio	Applications compared with job offers; track the organisation's defined numerator/denominator consistently
Offer acceptance rate	Offers accepted $\div$ offers issued
Offer-to-joining ratio	Candidates who join $\div$ offers issued/accepted, using a documented definition
Renegade rate	Candidates who withdraw after accepting an offer $\div$ accepted offers (document the denominator used)
Goal achievement %	Actual achievement compared with defined goal; report by department, age group, gender, or role when relevant

Final study reminders

1. Start analytics with a clearly defined HR/business question, not with whatever data happen to be available.
2. Document every metric: definition, formula, inclusions/exclusions, purpose, source, and intended use.
3. Distinguish description, diagnosis, prediction, and prescription; their questions and tools differ.
4. Recruitment and selection measures should cover the whole funnel, candidate experience, source quality, diversity, cost/time, quality of hire, and retention-not just applications or hires.
5. Training evaluation should consider reactions, learning, behaviour, organisational results, ROI, retention, innovation, and compliance, along with whether employees can actually use learning at work.
6. Development should align individual strengths/career goals with organisational needs, and build succession capability across different workforce groups.
7. Appraisal is one part of performance management. Clear, fair, job-relevant standards, communication, feedback, development, and review are essential.
8. Compensation analytics should examine market competitiveness, internal equity, performance linkage, pay mix, benefits, transparency, and outcomes such as engagement, retention, productivity, and absenteeism.
9. Where slide-chart values were unclear in the supplied content, this document flags the ambiguity rather than guessing at a mapping.