**Human Capital Management (HCM)**

**What is HCM?**

Human Capital Management means managing people in a smart and organized way so that the company can benefit from their skills and efforts.

\* Just like companies take care of their machines and money, they also take care of people, because people are the most important asset.

\* HCM uses data and analysis to decide how to:

\* Hire people

\* Train them

\* Keep them happy (so they don’t leave)

\* Improve their performance

**Example of HCM in real life:**

If a company sees through data that many workers are leaving after 6 months, they’ll investigate why. Maybe it’s low salary or bad working environment. HCM helps find the problem and fix it.

**Why is HCM important?**

Because if your employees are happy, skilled, and motivated:

\* They will work better

\* Company will grow

\* You will beat your competitors

**What is Human Capital?**

Human Capital means the knowledge, skills, and experience that people bring to a company.

**It has 3 main parts:**

1. Intellectual Capital: – What people know (ideas, skills)

2. Social Capital: – Teamwork, trust, communication

3. Organizational Capital: – Info stored in company systems (manuals, databases, SOPs)

**Why do we need to measure Human Capital?**

Because if you don’t measure, you can’t manage. Measuring helps:

\* Know how many people are in each department

\* Track who needs training

\* See how well HR policies are working

\* Plan future hiring or training

**What do we measure in HCM?**

1. Basic info: – age, gender, number of employees, salary, sick days

2. Training info: – who attended what training, who needs it

3. Employee feedback: – surveys, interviews

4. Performance: – sales, profits, customer satisfaction

### Knowledge Management (KM)

**What is Knowledge Management?**

Knowledge Management means saving and sharing important knowledge inside the company, so that:

\* People don’t keep repeating mistakes

\* New workers can learn fast

\* Everyone can benefit from expert knowledge

Example:

Imagine a senior employee knows how to fix a technical bug. If he quits without sharing that knowledge, no one can fix it. KM solves this by recording and spreading knowledge

inside the company.

**Why is knowledge so important now?**

Before, companies focused on things like land and machines.

Now, in modern businesses, knowledge is the real power.

Smart companies don’t just sell products — they sell ideas, services, and innovation.

**Types of Knowledge:**

1. Explicit Knowledge: – Easy to write down or store (manuals, guides, websites)

2. Tacit Knowledge:– Knowledge in someone’s brain, hard to write, learned from experience (like riding a bike)

**Difference between Data, Information, and Knowledge:**

\* Data: – Raw facts (e.g. 92, 80, 67)

\* Information: – Processed data (e.g. Class average is 80%)

\* Knowledge: – When you use information to make good decisions

**Example:**

\* Data: Your marks

\* Info: Class average

\* Knowledge: You decide you need to study more

**Goal of Knowledge Management:**

To capture expert knowledge and share it across the company so:

\* Everyone learns faster

\* Mistakes are avoided

\* Company becomes smarter

**How is knowledge shared?**

1. Codification Strategy :– Save the knowledge in documents and databases. Anyone can search and use it.

Example: YouTube tutorial, user manuals

2. Personalization Strategy: – People share knowledge face-to-face.

Example: One-on-one teaching, group discussions, workshops

**Final Point**

A successful company is not just the one with big buildings or products. It’s the one with smart employees, who share knowledge and learn continuously.

**Intellectual Property Rights – Part 1**

**What are Intellectual Property Rights (IPR)?**

* Intellectual Property (IP) means **ideas or creations** (like software, logos, music, designs) that belong to someone.
* **IPRs** are legal protections for those ideas so that others can’t copy or steal them.
* For software houses, IP includes:
  + Code, designs, manuals
  + Confidential Information
  + Trademarks, patents, copyrights

**Why is IP Important?**

* Protects your work from being stolen
* Gives legal right to sue anyone who copies your work
* Helps in business growth and innovation

**What is Confidential Information (CI)?**

* CI means **secret business information** (like a software algorithm or client list).
* If someone leaks this info without permission, it's called **breach of confidence**.
* Example: If a worker leaves your company and uses your secrets in another company, it's a breach.
* **How is CI Protected?**
* Through **contracts** (written or verbal) which say “don’t leak our secrets”
* Even after employees leave the company, they can’t use those secrets (only general experience is allowed)

**Rules About Confidentiality:**

* If the info is meant to be **used only for a specific purpose**, it should not be used elsewhere.
* Example: A software house is given secret manufacturing data to design a robot — they can’t use it for anything else or share it.

**Third Parties and CI**

* Even if a **rival company** receives leaked info, **they are also responsible** if they use it.
* Law will take action against anyone involved in leaking or using confidential info.

**Copyright**

* Copyright gives legal rights to the creator of:
  + Books, articles, music, software, videos, images, etc.
* Internet has made it easier to **pirate/copy things**, so copyright laws are now more important.

**What Can a Copyright Owner Do?**

* Copy the work
* Share it with public
* Sell or rent it
* Show or play it publicly
* Broadcast (TV, YouTube, etc.)
* Adapt or remix the work

No one can do these things without permission.

**What Can Be Copyrighted?**

1. **Literary, artistic, dramatic, musical works**
2. **Databases** (if arranged originally)
3. **Software & flowcharts**
4. **Sound recordings, films, broadcasts**
5. **Designs, images, page layout, etc.**

Example: A software product can include copyrighted code, UI design, manual layout, background music, etc.

**Intellectual Property Rights – Part 2 (Simple Summary)**

**Who Owns the Copyright?**

* The **original creator** (author, artist, developer, etc.)
* But if someone is working **as an employee**, then the company owns the copyright — not the person.

**How Long Does Copyright Last?**

* **Literary/art/music/art**: lifetime + 70 years
* **Computer-generated work**: 50 years from creation
* **Sound recording**: 50 years
* **Films**: 70 years after death of last key contributor
* **Broadcasts**: 50 years from broadcast date

**Infringement (Violation) of Copyright**

If someone uses your work without permission, it’s called **infringement**. This includes:

* Downloading, copying, storing the work
* Sharing it with others
* Making small changes but copying the main part

Even if the copy is **temporary** (e.g., in RAM), it’s still an infringement.

**Copying and Similar Works**

If someone creates a **very similar product**, and can't prove it’s original, then it will be considered copied.

Example:

* If two songs sound the same, even a small copied part (like the hook/chorus) can be a violation.

**Non-Literal Copying**

* Happens when a person copies the **structure, design, or flow** (not exact code) of a previous product.
* If it's too similar, it can still be a copyright issue.

**Idea vs Expression**

* **Idea** = General concept (not protected)
* **Expression** = Actual written code, design, music, etc. (protected)  
  Example:
* Idea of “a to-do list app” is free for anyone.
* Your **unique design** and **code** of your app is protected.

**Secondary Infringement**

Even if someone doesn’t copy directly, they can still be guilty if they:

* Sell pirated software
* Share it online
* Use copyrighted material in business

**Copy Protection**

Modern digital content (like Spotify, Apple Music, etc.) is **protected using software**.

* If someone creates tools to break this protection, they are guilty of copyright infringement.

**What is Allowed (Fair Use)?**

* Private study or research
* Criticism or review
* Reporting news
* Making backup copy of software (for personal use)

Example: If you buy a program, you're allowed to use it, but not keep extra illegal copies.

**Designs**

* Copyright also protects **drawings, product layouts, artistic designs**, etc.
* But **actual tools/machines** made from drawings are protected by **design law**, not copyright.
* **Design protection** lasts up to 15 years (e.g., layout of circuit boards, product shape).

**™️ Trademarks**

* These protect **names, logos, and looks** of brands (like McDonald's logo, Pepsi, etc.)
* Trademarks should be **registered**
* Be careful in international markets — translation mistakes can hurt the brand (e.g., Pepsi in China = “bring your ancestors back to life

**Chapter 4:**

**Recruitment and Selection – Super Simple Explanation**

**What is Recruitment and Selection?**

It’s the process of finding the right people for a job in a company.

Recruitment = Finding people

Selection = Choosing the best one from those people

If a company hires the right person, work becomes easier, faster, and better.

If they hire the wrong person, it causes problems, waste of time, and low-quality work.

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**Why is it important?**

Because:

Good employees = Better product, less stress

They stay longer = No need to keep hiring again and again

They understand the company = Work becomes smooth

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**Recruitment Process – Step by Step**

1. Know the Job Role

→ What kind of person and skills are needed?

2. Find People (Sourcing)

→ Through websites (LinkedIn), universities, referrals, etc.

3. Shortlist Candidates

→ Check CVs, portfolios, and projects. Pick the best ones.

4. Interview Them

→ Ask questions to see if they really know their work

5. Give Job Offer

→ Select best one, give salary package, and help them settle in with a 30-60-90 day plan.

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### ****Sourcing Pipeline Basics****

* **Active Candidates**: People currently looking for jobs
* **Passive Candidates**: People working somewhere else but open to offers

Both are useful. Try to reach **diverse people** from different places to avoid hiring only one type of person.

**Track metrics** like:

* How long it takes to hire
* Which source gives better candidates
* How many applied vs how many selected

**Where Do Companies Find People?**

LinkedIn

GitHub (especially for programmers)

Universities (fresh graduates)

Hackathons and tech meetups

Employee referrals (current employees recommend someone)

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**How to Use LinkedIn for Hiring?**

\*Company should have a professional profile

\*Use smart search to find people (e.g., “Python developer in Peshawar”)

\*Send a nice message about the job

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**How to Use GitHub for Hiring?**

Find people who:

. Commit regularly

. Solve issues

. Upload their code

Solve bugs in open-source projects

Write clean and smart code

Before messaging, \*\*comment on their work\*\* or \*\*like their projects\*\* to build a connection

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**What Happens in Campus Drives or Job Fairs?**

\*Companies visit universities

\*They take quick tests or interviews

\*Give free stuff (t-shirts, stickers)

\*Shortlist students on the spot

### ****Other Sourcing Channels****

* **Employee Referrals**: Ask current employees to recommend people. Often very good fits.
* **Hackathons and Meetups**: Great places to find smart problem-solvers and team players.

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**How to Check Someone’s Resume or Portfolio?**

Look for:

Real, recent projects

Clear explanation of what they did

Any success or results (e.g., "improved speed by 40%")

**Portfolio checklist**:

* Clear README
* Good code structure
* Fast responses to issues

**Red flags:**

No proof of work

Gaps in job history

Projects with no real explanation

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**Screening Using Tools**

Some companies use ATS software (Applicant Tracking System) to:

Automatically scan CVs

Match keywords (e.g., “Python”, “Machine Learning”)

Good for speed, but may miss creative or unique candidates.

But human check is still better for understanding the \*\*real person\*\* behind the CV.

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**Prescreening (Phone or Video Call)**

Short call to check:

\* What projects the person has done

\* How well they explain their work

\* Their communication skills

Good Sample Questions:

 “Walk me through your last project’s architecture”

 “What challenge did you face and how did you solve it?”

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### ****Interview Techniques Overview****:

### Interview Types

**Technical vs behavior**

**1. Technical Interview**

\*Code questions

\*Problem-solving

\*System design

**2. Behavioral Interview**

\*Teamwork

\*How they handle pressure

\*Past real-life situations

**Structured Interview**:  
– Same questions for all. More fair and consistent.

**Unstructured Interview**:  
– Like a casual chat. More open, but may be biased.

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### ****Technical Interviews****

* **Whiteboard**: Tests planning and explanation
* **Live coding platforms** (like LeetCode): Candidate writes and runs code

**Question Types**:

* **Algorithms**: e.g., merging sorted lists, BFS search
* **System Design**: e.g., build a URL shortener like bit.ly

### ****Behavioral Interviews****

* Based on the idea that **past behavior predicts future behavior**
* Ask for **real stories**, like:

“Tell me about a time you disagreed with your teammate. What did yo do?

### ****How to Design Good Interview Questions****

* **Map questions to real skills**  
  (e.g., “Tell me about a hard bug” → tests debugging)
* Ask about **real-world scenarios**  
  (like problems from your own codebase)
* Avoid brain teasers (e.g., “How many ping pong balls fit in a car?”) — they don’t show real skills

### ****Structured vs Unstructured Interviews****

* **Structured**:
  + Same questions
  + Same scoring
  + More fair, less bias
* **Unstructured**:
  + More natural conversation
  + But harder to judge fairly

**Best way**: Use **hybrid style** – start structured, then allow free conversation at the end

**Summary:**

**Recruitment and Selection is about:**

Finding the right people

Testing their skills

Understanding their personality

And choosing someone who will fit in and stay long-term