

Types of Legal Entities:

1. Sole Trader:

- One individual runs the business.
- The individual is liable for all business debts (personal assets like home, savings at risk).

2. Partnership:

- Two or more people share responsibility.
- Joint and several liability (all partners are fully liable for the debts).
- Often used by professionals (e.g., doctors, lawyers).

3. Limited Liability Partnership (LLP):

- Partners have limited liability.
- A legal entity separate from its owners.

4. Limited Company:

- A separate legal person from its owners.
 - Divided into shares, limiting the owners' liability to the amount they've invested.
 - **Private Ltd (Ltd)**: Shares not offered to the public.
 - **Public Ltd (PLC)**: Shares offered to the public.
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Why a Limited Company is Preferred:

- Limited liability for owners (they only risk what they've invested).
 - Easier to raise capital by selling shares.
 - It exists separately from the owners.
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Key Terms:

- **Takeover**: When one company buys another by acquiring its shares.
 - **Merger**: Two companies join to form a new one.
 - **Management Buyout**: When a company's management buys out the existing owners.
 - **Outsourcing**: Contracting out certain tasks (e.g., IT services) to specialist companies.
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Regulation of Limited Companies:

- Must register with Companies House.
 - Submit annual reports and accounts.
 - Directors must act in good faith, be aware of the company's financial position, and avoid conflicts of interest.
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Other Bodies:

1. Non-Commercial Bodies:

- Government-run organizations (e.g., NHS, police, schools).
- Aim to provide public services, not make profits.

2. Charities/Non-Profit:

- Legal status as a company limited by guarantee.
 - Profits are not distributed to members but used for charitable purposes.
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Setting up a Company:

- Registering costs around £100 (UK).
- Memorandum and Articles of Association are the key documents.
- No lawyer or accountant needed—many use "off-the-shelf" companies.

Directors' Responsibilities:

- Act in good faith for the company's benefit.
- Declare conflicts of interest.
- Submit annual reports and accounts.

Takeovers & Mergers:

- Takeover: Larger company buys a smaller one (e.g., cash, shares, or both).
- Merger: Two companies combine to create a new entity.

Management Buyouts & Outsourcing:

- **Buyout:** Management buys out the owners.

- **Outsourcing:** Hiring external firms for specialized tasks like IT.
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Annual Report (finance and accounting):

- Required for public companies.
- Provides information to shareholders about operations and financial conditions.
- Includes:
 - General corporate information.
 - Financial highlights.
 - Financial statements (balance sheet, income statement, cash flow statement).
 - Auditor's report.
 - Summary of financial data.

2. Balance Sheet:

- Shows what the company **owns** (assets) and **owes** (liabilities) at a specific point.
- **Net Worth:** The difference between assets and liabilities, showing the company's financial value.
- **Depreciation:** Gradual reduction in the value of fixed assets over time.

3. Assets:

- **Fixed Assets:** Long-term assets (e.g., land, machinery) used to generate income.
- **Current Assets:** Short-term assets (e.g., cash, inventory) that can be easily converted to cash.
- Example: Cars for business use are fixed assets, while cars for resale by a dealer are current assets.

4. Depreciation:

- **Straight Line Method:** Depreciate an asset's cost evenly over its useful life.

- Example: A server bought for Rs. 100,000 depreciated by Rs. 20,000 each year for 5 years.

5. Working Capital:

- Calculated as **current assets minus current liabilities**.
- Represents the money available for day-to-day operations.

6. Creditors:

- **Current liabilities:** Debts due within one year.
- **Long-term liabilities:** Debts due after more than a year.

7. Profit and Loss Account:

- Shows how much money has been received and spent over a period.
- Does not include money borrowed or spent on fixed assets.

8. Cash Flow:

- Ties together the balance sheet, profit and loss account, and capital expenditure.
 - Represents cash available after covering short-term obligations.
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Why Capital is Needed:

- **Capital:** Wealth in money or assets to start a company or invest.
- **Reasons for needing capital:**
 - Customers may delay payments after services.
 - Business needs funds for purchasing supplies, equipment, and living expenses.
 - Cash required for salaries, rent, marketing, equipment, and other operational costs.
 - If developing a product/package, more money and time are needed upfront.

2. Business Plan:

- A plan is necessary to convince funders the business is feasible.
- The business plan should include:
 - A description of the business and market, showing expertise and technical feasibility.
 - Market analysis, competition assessment, and target audience.
 - Financial forecasts: budgets, cash flow predictions, balance sheets, and profit/loss projections.

3. Sources of Finance - Grants:

- **Grants:**
 - Used for capital investment (e.g., premises, equipment).
 - Usually come with conditions and require additional funding from other sources.
 - Grants are often a **short-term solution** and cover part of the investment.

4. Sources of Finance - Loans:

- **Loans:**
 - If the company liquidates, the lender recovers the loan from asset sales.
 - **Overdraft loans:** Short-term borrowing; can be withdrawn by the bank.
 - **Long-term loans:** Fixed period and rate; repayment of capital at the end of the term.
 - **Soft loans:** Lower interest rates, typically for start-ups.
- **Corporate Bonds:**
 - Debt instruments issued by companies to raise capital.
 - Pay fixed interest regularly (fixed-income securities).

5. Sources of Finance – Equity Capital:

- **Equity Capital:**
 - Money invested in exchange for company shares.
 - **Business angels** and **venture capitalists** invest to grow the company and sell shares at a profit.
 - Shares are taken from the difference between issued and authorized capital.

6. Gearing or Leverage:

- **Gearing:** Relationship between loan capital and equity capital.
 - **High gearing** is undesirable because:
 - Too much is committed to loan payments, leaving little for shareholders.
 - Lenders may worry that high debt encourages risky trading behavior.
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1. Bureaucratic Model:

- **Structure:** Hierarchical, tasks are specialized.
- **Advantages:** Clear authority, efficient, merit-based hiring, and predictability.
- **Disadvantages:** Can lead to boredom, low productivity, and inefficiency.

2. Organic Model:

- **Characteristics:** Flexible, less rigid, cross-functional teams, free-flowing information.
- **Advantages:** Adaptable to changes, decentralized decision-making, emphasis on expertise over authority.

3. Matrix Management:

- **Structure:** Employees work on multiple projects and report to different managers.
- **Advantages:** Combines skills, fosters collaboration, innovation, and flexibility.
- **Disadvantages:** Potential conflicts, dual reporting.

4. Structuring Principles:

- **By Function:** Based on departments like operations, marketing, and R&D.
- **By Geography:** Used by multinational companies, accounting for cultural and linguistic differences.
- **By Product Line:** Common in industries like motor vehicles and software, focuses on specific product types.

- **By Market Sector:** Organizes by the type of customer market (e.g., IT industry).
- **By Technology:** Divides teams based on technological expertise (e.g., AI, web systems).
- **Operational Structure:** Often project-based (e.g., custom software, motor vehicle manufacturing).

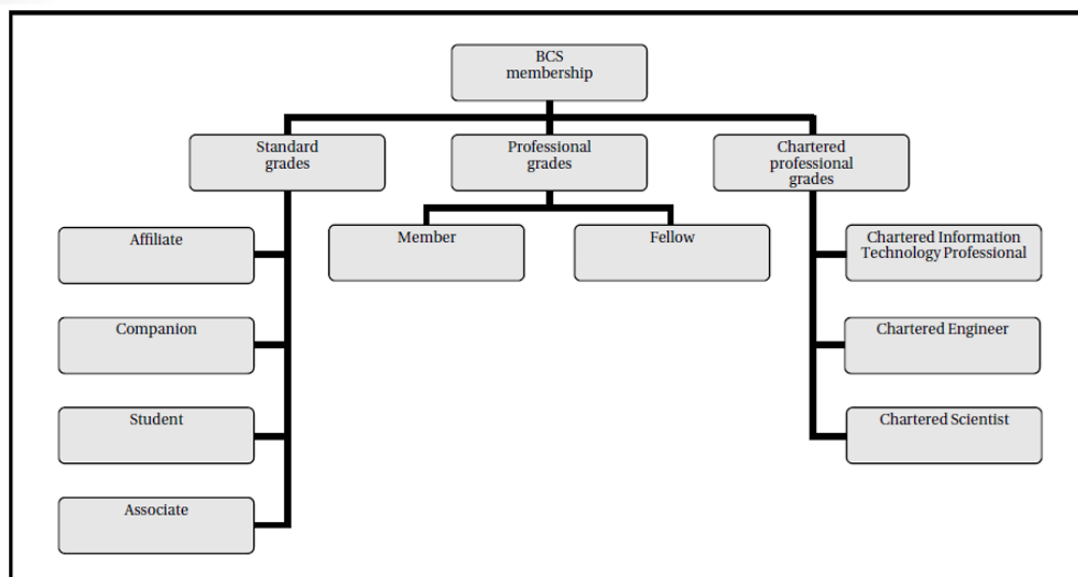
5. Centralization vs. Decentralization:

- **Centralized:** Power concentrated at the top.
- **Decentralized:** Power distributed, common in tech companies.

6. Job Design:

- **Project-Based:** Jobs aligned with project plans.
- **Bureaucratic:** Narrow, defined roles leading to high turnover.
- **Solutions:**
 - **Job rotation:** Moving employees through different tasks.
 - **Job enlargement:** Expanding roles to include more tasks.
 - **Job enrichment:** Making jobs more fulfilling.

MEMBERSHIP GRADES OF BCS



Nature of a Profession:

- **Professional:** Prioritizes the organization's interests over personal convenience and performs tasks competently and conscientiously.
- Common characteristics of a profession:
 - Requires substantial education and training.
 - The profession controls entry through standards.
 - It is organized into professional bodies with codes of conduct and disciplinary procedures.

2. Professional Bodies:

- **Functions:**
 - Establish codes of conduct.
 - Disseminate knowledge through publications and conferences.
 - Set education and experience standards for membership.
 - Advise governments and regulatory bodies.
- **Royal Charter:** Grants legitimacy to a professional body (e.g., BCS in 1984).

3. Reservation of Title and Function:

- **Reservation of Title:** Legal monopoly where a title like "architect" is reserved for those registered with a specific body (e.g., Architects Act 1997).
- **Reservation of Function:** Certain activities (e.g., auditing) are restricted by law to members of specific professional bodies (e.g., Chartered Accountants).

4. The Status of Engineers:

- **USA:**
 - Engineers must be registered with the State Engineers Registration Board to use the title "engineer".
 - Engineering work must be supervised by a registered engineer.

5. Arguments for Licensing Software Engineers:

- **For:**
 - Prevents disasters like Therac-25 (USA) and London Ambulance System failures.
 - Ensures professionalism and safety in critical systems.
- **Against:**
 - Challenges in defining critical vs. non-critical systems.
 - Diversity of roles in software engineering.
 - Rapid technological advancements that licensing cannot keep up with.
 - The global nature of software development complicates standardization.

6. Software Engineers Registration Difficulties:

- **Diversity:** Software engineers specialize in various fields (e.g., system architecture, UI design).
- **Rapid Change:** Technologies evolve quickly, making licensing hard to maintain.
- **Self-Regulation:** The software industry relies on certifications from bodies like IEEE and ACM.
- **Global Collaboration:** Software development is global, making standardized licensing difficult.

7. Continuing Professional Development (CPD):

- **BCS Support:** BCS offers resources for members to keep skills up to date (e.g., publications, courses).
- **Industry Standards:** Models like SFIPlus help organizations ensure their training meets industry best practices.

8. Advancement of Knowledge:

- Professional bodies like IEEE and ACM provide journals and organize conferences to advance industry knowledge.