1 Time Value of Money

1.1 Future Values and Compound Interest

Compound Interest: The interest is earned on the interest. A powerful engine that speeds you up.

Simple Interest: It only earns interest on the principal. A slower, basic engine that moves steadily.

1.1.1 Future Value (FV)

The amount you want to know how much your current investment will grow

1.1.1.1 Future Value and Compound Interest

$$\text{FV} = P \times (1 + r)^t$$

Where: `t`: The term (number of years) `r`: The interest rate `P`: The principal amount

1.1.1.2 Future Value and Simple Interest

$$\text{FV} = P \times (1 + r \times t)$$

Where: `t`: The term (number of years) `r`: The interest rate `P`: The principal amount

1.2 Present Value

How much is the future value worth today? If you need $100 in the future, it might only be worth $95 today. **Future cash in today's value**

$$\text{PV} = \frac{\text{Future value after t periods}}{(1+r)^t} \qquad \text{PV} = \text{Principal} \times \text{DF (Discount Factor)}$$

1.2.1 Discount Rate

The **interest rate** used to calculate how much future money is worth today.

This rate represents things like: Inflation, Opportunity cost (what you could earn elsewhere) and Risk

1.2.2 Discount Factor (DF)

$$\text{DF} = \frac{1}{(1+r)^t}$$

A **multiplier** you use to turn future money into present value.

1.3 Perpetuities and Annuities

1.3.1 Perpetuities

It's a stream of income that never ends (forever). Mr Wonderful's favourite deals.

Think like this:
- You receive $100 **every month forever**.
- There's no end date.
- Example: A preferred stock that pays dividends forever.

1.3.1.1 Formula

To figure out how much you need in order to receive $C forever: $\text{PV} = \frac{C}{r}$ Where: `C`: Cash payment `r`: Interest rate

1.3.2 Annuity

A fixed series of cash flows (like $100 every month) That happens at regular intervals and ends after a certain time.

Think of it like:
- You receive $100 every month for 10 years.
- After 10 years, **it stops**.
- Examples: Car loans, student loans, retirement pensions.

1.3.2.1 Present Value of Annuity

$$\text{PV}_{\text{Annuity}} = C \times \left(\frac{1}{r} - \frac{1}{r(1+r)^t}\right)$$

When to use: How much are future payments worth in today's dollars. Retirement Income and Loan Value

Where: `C`: Cash Payment `r`: Interest rate `t`: Total number of periods

1.3.2.2 Present Value Annuity Factor

The present value of $1 a year for each of t years.

$$\text{PVAF} = \frac{1}{r} - \frac{1}{r(1+r)^t}$$

1.3.2.3 Future Value of Annuity

$$\text{FV}_{\text{Annuity}} = C \times \left(\frac{1}{r} - \frac{1}{r(1+r)^t}\right) \times (1+r)^t$$

Where: `C`: Cash Payment `r`: Interest rate `t`: Total number of period

1.3.2.4 Future Value of Annuity Payment

How much money will I have if I save $100 every month?

When to use: If I save/invest monthly, how much will I have in X years? Monthly savings into investment account

Option 1: $\text{FV} = [C \times \text{PVAF}] \times (1+r)^t$

Option 2: $\text{FV} = C \times \left(\frac{(1+r)^t - 1}{r}\right)$

Where: **`C`**: Cash flow per period **`r`**: Interest rate per period **`t`**: Number of total periods

1.3.3 Annuities Due

Annuity Due is when you need to make payment immediately instead of at the end of the year. The name "annuity due" stems from "due now". Cash flow start immediately.

1.3.3.1 Present Value of Annuity Due

$$\text{PV}_{\text{Annuity Due}} = \text{PV}_{\text{Annuity}} \times (1+r)$$

1.3.3.2 Future Value of Annuity Due

$$\text{FV}_{\text{Annuity Due}} = \text{FV}_{\text{Annuity}} \times (1+r)$$

1.4 Relevant Spreadsheet Formulae

(Section heading included for reference - formulae not listed)

1.5 Effective Interest Rates

1.5.1 Effective Annual Interest Rate

This is the **real** rate after including compounding. This is what banks use, but APR is the one they show.

$$\text{EAR} = (1 + \text{MR})^{\{12\}} - 1$$

Where: **`MR`**: Monthly interest rate

1.5.2 Annual Percentage Rate (APR)

Interest rate that is annualised using simple interest.

$$\text{APR} = \text{MR} \times 12$$

1.6 Inflation

The rate at which prices go up over time. Something that costs $100 today may cost $103 next year.

1.6.1 Nominal Interest Rate

The current rate at which money invested grows — it doesn't account for inflation. Discounts **Current dollar cash flows**

1.6.2 Real Interest Rate

The **actual increase in your purchasing power**, after removing inflation. Discounts **Real Cash Flow**.

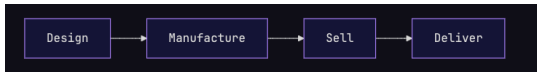
1.6.2.1 Approximation Formula

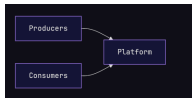
$$\text{Real Interest Rate} = \text{Nominal Interest Rate} - \text{Inflation Rate}$$

1.6.2.2 Accurate Formula

$$1 + \text{Real Interest Rate} = \frac{1 + \text{Nominal Interest Rate}}{1 + \text{Inflation Rate}}$$

2 Platform Business Model





- Everything happens linearly meaning we come with the idea then move on to manufacturing and so on. **(Linear Value Chain)**
- In a platform business model, the user can be either a **consumer**, **producer**, or **both**.

2.1 Network Effect

A **network effect** is when a product or platform becomes more valuable as more people use it. (I.e. A phone for connectivity)

2.1.1 Types of Network Effect

2.1.1.1 Direct

Occur when the value of the platform increases directly with the number of users on the same side of the platform.

Example: Social media platforms like Facebook or WhatsApp become more valuable as more people join, enabling richer social interactions.

2.1.1.2 Indirect

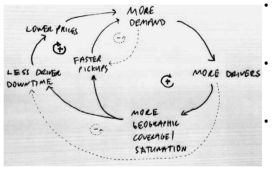
Happen when the value for one group of users increases as more users from another group join.

Example: On platforms like Uber, riders benefit from more drivers joining (**shorter wait times**), and drivers benefit from more riders (**higher earnings**).

2.2 Two-Sided Network Effect

- Involves **two distinct user groups**, each attracting the other.
- Value increases for **one side** as the **other side grows**.
- **Example**: Grab (2016) offered consumer discounts to attract users → more drivers joined due to higher demand.

2.3 Negative Effect



- Generally, **more users and sellers → stronger network effects → higher value for everyone**.
- A negative network effect occurs when **platform value drops** as user base grows too large or imbalanced.
- **Example**: On a dating app, if there are too many guys chasing the same small group of girls, most users feel ignored or get no matches.

2.3.1 Types of Network Effects

2.3.1.1 Positive Same-Side

- The more people on your side, the better the platform is **for you**.
- **Example**: Telegram and WhatsApp — more users = more value through better communication.

2.3.1.2 Negative Same-Side

- More users on your side can make the experience worse.
- **Example**: Too many job seekers but limited job postings → overcrowding and intense competition.

2.3.1.3 Positive Cross-Side Effects

- You benefit when more people join **the other side** of the platform.
- **Example**: MasterCard and Visa — more merchants → more users want to use the cards.

2.3.1.4 Negative Cross-Side Effects

- Growth on one side causes **problems for the other side**.
- **Example**: More men on a dating app → makes it harder for women to find suitable matches.

2.4 Monetization

Monetising in the Platform business model is risky, why? Because if you ask someone to pay they might not want to use the platform which affects the network effect

2.4.1 Types of Business Models

2.4.1.1 Transaction Fee

This is the basic basic model. Just simply take a fee for the transaction between the consumer and producer. Depending on the needs of the peers, you could charge the producer, the consumer or both. Example: AirBnB

2.4.1.2 Pay for access

The main value is the size of your platform's user base. Consumers or Producers are looking at your platform as a lead generation machine. Therefore you should charge the side, that needs the other side more. E.g. the restaurants need visitors (OpenTable), or recruiters need the registered users (Linkedin)

Enhancers: This is like Tinder Gold. If are normal you don't have to pay anything but you are restricted in terms of features. You pay for the gold you can see the profile of the women who liked you.

- Need to ensure customers can distinguish between content that has been elevated by paid access
- Important to limit sponsored posts so that the platform still remains relevant

2.4.1.3 Enhanced Curation

"Curation" refers to filtering, organizing, and improving quality.

So this model charges users (or providers) not just for access, but for a better experience like:
- Higher quality matches
- Trusted providers
- Better recommendations
- Less noise/clutter

2.4.2 Whom to Charge?

1. Charging all users
   - Rare, as it could reduce network effects
   - Used as a vetting process
2. Charging one side while subsidizing another
3. Charging most users full price while subsidizing stars
   - **Example**: Online Chess platforms offering perks to high-ranked players
4. Price discrimination based on price sensitivity
   1. Smart pricing strategy
   2. Some users are charged more, some less — based on:
      - Location
      - Usage patterns
      - Whether they're new vs. loyal

2.4.3 Important Principles

1. **Don't charge for what was free**
   - Users dislike paying for previously free features
   - E.g., Meetup backlash, Zvents failed
2. **Don't reduce expected value**
   - Users resist losing free features
   - E.g., Facebook reduced organic reach
3. **Always add value when charging**
   - Users pay only if they see benefit
   - E.g., Uber's "Safe Rides Fee" lacked visible value
4. **Build monetization early**
   - Platform must support pricing logic
   - E.g., LinkedIn limits profile access for recruiters

2.5 Metrics

2.5.1 Pipeline Models

Traditional business models focus on the efficiency with which value flows through the pipeline
- **Operations**: Produce goods and services efficiently at scale to meet demand
- **Marketing**: Reach customers through proper channels at appropriate prices
- **Finance**: Ensure sufficient revenue generated to produce profits and value for investors
- **Metrics**: Cash flow, inventory turnover, operating income, gross margin, overhead, ROI

Platform business models generate value through network effects
- Rate of interaction success (e.g., first few interactions)

2.5.2 Platform Models

2.5.2.1 What Platforms Do

- Platforms don't make products — they connect people
- Metrics should measure connection success, not just users

2.5.2.2 Key Metrics Principles

1. Network Effects: More users → more value (e.g. more drivers → faster rides → more users)
2. Measure Interaction Success: Focus on meaningful actions (not just activity)
3. Quality Metrics:
   - % of successful matches
   - Avg. time to match
   - Repeat users / engagement

2.5.3 Startup Phase

2.5.3.1 Active User Growth

- Focus on active producers and active consumers
- Measure successful interactions (e.g. rides completed)

2.5.3.2 Liquidity (Metric 1)

- Can users actually find and interact quickly?
- Use ratios:
  - How many actually engage = $\text{Active Users} \div \text{Total Users}$
  - Growth Rate = $\text{New Actives} \div \text{Total Actives}$

2.5.3.3 Matching Quality (Metric 2)

- Match = Conversion → success
- Metrics:
  - Conversion Rate: % of searches → completed action
  - Threshold Tracking: E.g. >40% interactions in week 1 → likely to stay

2.5.3.4 Trust (Metric 3)

- Users must feel safe & confident to use the platform
- Build trust with:
  - Reviews & verification
  - Mutual ratings (e.g. Airbnb)
  - Verified listings (e.g. photoshoots for listings)

2.5.4 Platform-Specific Metrics

- Always track the right numbers, not just any

1. **Commitment**
2. **Outcome based**
3. **Content creation**
4. **Market Access regardless of complete interaction**

2.5.5 Growth Phase

2.5.5.1 Focus

- Ensure balanced user base (both sides)
- Avoid one side growing too fast → causes drop-offs

2.5.6 Producer Side Metrics

- Frequency of activity
- Interaction failures (e.g. no-shows)
- Fraud tracking
- Retention & Lifetime Value (repeat producers = ecosystem strength)

2.5.7 Consumer Side Metrics

- Engagement: app usage, searches, conversions
- Retention: repeat visits, higher order value
- Example: YouTube Shorts improved retention

2.5.8 Maturity Phase

2.5.8.1 Innovation

1. Acquire/absorb tools (e.g. Apple buying features)
2. Build alternatives (e.g. Apple Maps vs Google Maps)

2.5.9 Summary

1. **Actionable**: Helps in strategy & management
2. **Accessible**: Easy to understand & use
3. **Auditable**: Based on real, accurate, and relevant data

Goal: Metrics should show how many happy, returning users engage in valuable interactions on all sides.

2.5.10 Business likely to join the platform revolution

1. Information-intensitve industries
2. Industries with non-scalable gatekeepers (Retailing and Publishing)
3. Highly fragmented industries (Yelp, Uber, AirBnB)
4. Industries characterized by extreme information asymmetries (Used car dealers have more info about the cars than customers)

3 Marketing

3.1 What's Marketing

- **Need**: The core human requirement.
- **Want**: How culture shapes that need.
- **Demand**: Whether the person can afford the want.
- The goal of **marketing** is to deliver value to customers in a way that also benefits the company.
- **Marketing myopia**: When companies only focus on short-term wants instead of long-term needs.

Concept	Feature of products	Organisational implications	Evaluation
Production concept	Easily available and highly affordable	Improve production and distribution efficiency	Demand > Supply Economies of scale and experience curve Assembly-lines
Product concept	Quality, performance, features	Product innovation	Marketing myopia (focus on improving product instead of solutions)
Selling concept	Not bought unless stimulated aggressively	Selling and promotion	"Hard sell" Unscrupulous image Focus on sales volume
Marketing concept	Meets the needs and wants of consumers	Understand target markets	"Sense and respond" instead of "make and sell" Focus on customer satisfaction

3.2 Customer-Driven vs Customer Driving

3.2.1 Customer-Driven

You let the customer lead you. You listen to what they say they want, and then build exactly that. This approach focuses on current desires and aims to satisfy existing demand.

3.2.2 Customer Driving

You lead the customer. You understand their needs better than they do, and create products that solve problems they didn't even realize they had yet. This approach is about shaping the future.

3.3 Customer Relationship Management (CRM)

CRM is the process of building and maintaining profitable customer relationships. A key concept in CRM is the **Customer Lifetime Value (CLV)**.

CRM helps you maintain customers after acquisition. You don't want them to just buy once—you want them to:
- **Buy more** over time
- **Refer others**
- **Stay loyal** (increasing their Customer Lifetime Value)

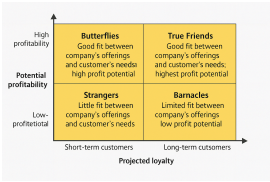
- **Require less spending** to retain

3.3.1 Customer Data Collection

- Track what customers buy, how often, and what they like/dislike.
- Examples include: **purchase history**, **feedback**, **complaints**, and **browsing behaviour**.

What better way to understand your customers than by collecting and analysing data about them?

3.3.2 Customer Segmentation



CRM is about **managing relationships profitably**. To do that, you need to **segment** your customers based on:

1. **Profitability** – How much $ they bring
2. **Loyalty** – How long they'll stay

Use this framework to prioritize who to attract, retain, or let go. That way you're not spending time and money on customers who don't return the value

3.3.3 Personalisation & Communication

CRM helps tailor your:

- **Promotions** (e.g., discounts for loyal customers)
- **Messages** (e.g., birthday greetings, product suggestions)
- **Timing** (e.g., send emails when they are most likely to open)

3.3.4 Customer Satisfaction

CRM ensures customers have **smooth, enjoyable experiences** at every step:

- Browsing
- Buying
- Customer support
- Returns

If a customer is satisfied, they are more likely to stay **loyal**.

3.3.5 Retention Over Acquisition

It's **5× cheaper** to keep an existing customer than to acquire a new one.

CRM strategies focus on:

- **Reducing churn**
- **Rewarding loyalty** (e.g., points, tiers)
- **Re-engaging inactive users**

3.4 Marketing Process

3.4.1 Analyse & Identify Market Opportunities

- Understand the market to spot growth/competition spaces.
- **Marketing Research**: Data on customers, trends, competitors.
- **Info Systems**: Tools like CRM, surveys, focus groups.
- **Environmental Scanning**: PEST factors (Political, Economic, Social, Tech).
- **Consumer vs Business Markets**: Different buying behaviors.

3.4.2 Research & Select Target Markets

- **Demand Forecasting**: Estimate market size and interest.
- **Segmentation**: Divide by needs, characteristics, behavior.
- **Targeting**: Pick segments that are profitable & aligned.
- **Positioning**: (Perception based!)
  1. **Differentiate** from competitors
  2. **Position** in customers' minds

Examples: Volvo = Safe Apple = Premium McDonald's = Fast & Cheap

3.4.3 Develop Marketing Mix [The 4Ps]

Product	Price	Place	Promotion
• Variety	• List price	• Channels	• Advertising
• Quality	• Discounts	• Coverage	• Personal selling
• Design	• Allowances	• Assortments	• Sales promotion
• Features	• Payment period	• Locations	• Public relations
• Brand name	• Credit terms	• Inventory	
• Packaging		• Transportation	
• Services		• Logistics	

And then you manage the Marketing Effort through SWOT analysis, Planning, Implementation and Control(Evaluate results and take action)

4 Customer Lifetime Value

Customer Lifetime Value is the **total revenue a business expects from a single customer** over the **entire duration** of their relationship.

4.1 Three Value Disciplines

You just need to be best in one of those three parameters and you are industry average on the other two.

4.1.1 Operational Excellence

Goal: Make purchasing **easy, fast, and low-cost**.

Focus on:
- **Efficiency**, **Reliability**
- **Speed**
- **Consistency**
- **Cost control**

Best for:
- **Price-sensitive** customers
- **High volume, low margin** businesses
- Winning through **scale** and **process optimization**

4.1.2 Product Leadership

Goal: Be the best in **innovation**, **design**, and **performance**. Match niches demand.

Focus on:
- **Cutting-edge features** & breakthrough tech
- **Premium design** and top performance
- **High R&D investment** and risk-taking
- **Strong brand trust** for quality

Best for:
- Customers willing to **pay more** for the best
- Marketing through **storytelling** and **innovation branding**

4.1.3 Customer Intimacy

Goal: Build **deep relationships** with customers.

Focus on:
- Knowing customer **preferences** & **pain points**
- **Tailored** products/services for individuals or segments

Best for:
- Competing on **fit** and **personalisation**, not features
- Winning loyalty through **trust** and **custom experiences**
- Offering the **right solution**, not just the best tech

4.2 Customer Centric Model

- **Identify valuable customers** – Focus on those with the highest long-term value.
- **Maximize CLV** – Prioritize long-term value, not just single purchase profits.
- **Build relationships** – Loyalty leads to repeat purchases, referrals, and trust.
- **Customer acquisition** – Spend less than the CLV to acquire ideal customers.
- **Customer retention** – Only retain if the CLV gained is greater than the retention cost.
- **Customer development** – Grow existing customers via upselling, cross-selling, loyalty perks.

4.3 Formula

Before Reverence :

$$\text{CLV} = (M - R) \times \frac{1+d}{1+d-r}$$

After Reverence :

$$\text{CLV} = (M - R) \times \frac{r}{1+d-r}$$

Where:
- **M** = Gross margin per period = Revenue - Variable Cost
- **R** = Retention cost per period
- **r** = Retention rate
- **d** = Discount rate

Insights:
- **Low retention & high discount** → Most CLV comes from **early periods**.
- **High retention & low discount** → CLV spreads over **many years**.

4.4 Segmentation CLV

$$\text{CLV of Segment} = \text{Avg CLV} \times \text{Number of Customers in Segment}$$

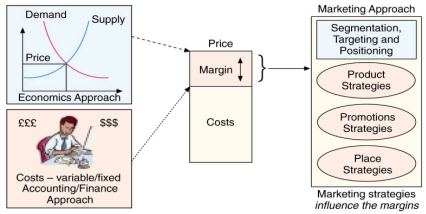
4.5 How Much to Spend on Retention

$$\text{CLV}_{\text{With Retention}} - \text{CLV}_{\text{Without Retention}} > \text{Retention Spend}$$

5 Pricing

- **Most tactical of the 4 P's**: Among the 4 P's of Marketing (Product, Price, Place, Promotion), *Price* can be adjusted quickly and tactically to respond to market changes.
- **Only P that generates revenue**: All other P's involve spending money (e.g. building products, advertising), but only *Price* brings money **in**.
- **Sensitive to economic changes**: Price has to adapt during **inflation** (rising prices) or **recession** (shrinking demand).
- **Dynamic**: Pricing strategies change constantly based on market, competition, cost, or customer demand.

5.1 Factor Influencing Price



5.1.1 Costs

- Fixed Costs: Stay the same regardless of production volume → e.g. rent, salaries, licenses
- Variable Costs: Increase with production → e.g. materials, packaging, shipping

Floor Price: The **lowest** price without losing money and based on **total cost** (fixed + variable)

Ceiling Price: The **highest** price customers are willing to pay

Based on: Market demand, Perceived value and Competitor prices

5.1.2 Internal Factors

5.1.2.1 Marketing Objectives

- **Survival**
  - Intense competition or downturn
  - Very low prices to cover variable costs
  - Goal: Stay in business, not profit
- **Current Profit Maximisation**
  - Maximise short-term profits
- **Competitive Entry Barriers**
  - Low prices to deter new entrants
  - Maintain market dominance
  - Common in tech/platforms
- **Reseller Support**
  - Prices allow healthy reseller margins
  - Prioritise cash flow over long-term goals
  - Common in mature/cash cow products
  - E.g. Apple clearing AirPods 2 before launching AirPods 3
- **Market Share Leadership**
  - Low prices to attract customers
  - Goal: Increase market share
  - High volume offsets low margins
  - E.g. Budget airlines, discount retailers
- **Cost Recovery (Non-Profit & Public)**
  - Goal: Recover production/service cost
  - Seen in govt services, healthcare, education
- **Product Quality Leadership**
  - Premium pricing for premium quality
  - Customers pay more for superior features
  - E.g. Apple, luxury brands

5.1.3 Marketing Mix Strategy & Cost

- **Product Design**
  - Premium design → perceived value
  - Enables high price, less promotion
- **Distribution (Place)**
  - Exclusive → premium image
  - Wide → mass-market feel, lower pricing power
- **Promotion**
  - Prestige/lifestyle ads → higher price
  - Price-driven ads → lower expectations
- **Price vs. Non-Price Competition**
  - Compete via:
    - **Price** → be cheaper
    - **Non-price** → be better (quality, branding, service)
  - Motivates intermediaries to push product
  - E.g. Apple gives margin to Courts/Challenger/Harvey Norman

5.1.4 Organization for Pricing

Who sets the price? (Cost = Floor Price, Demand = Ceiling Price)

- **Top Management**:
  - Sets price for major strategic products (e.g. iPhones)
  - Often done by senior leadership or pricing committee
- **Product Managers**:
  - Handle pricing for smaller product lines
  - Based on product/brand goals
- **Sales Teams**:
  - Especially in B2B or negotiation-heavy industries
  - Adjust prices directly with clients
- **Cross-Functional Teams**:
  - Common in large/complex organizations
  - Collaborative pricing: marketing + finance + ops

5.1.4.1 Experience and Experience Curves

Experience = The combined effects of:
- **Learning**: you get better over time
- **Volume**: you produce more
- **Investment**: in machines, automation, etc.
- **Specialization**: your workers and systems become more efficient

The **Experience Curve** illustrates the relationship between cumulative production & per-unit costs.

The more units a company produces, the lower the cost per unit becomes over time

5.1.5 External Factors

5.1.5.1 Market and Demand

5.1.5.1.1 Market Types

- **Pure Competition**
  - Many sellers, identical products
  - No control over price (market sets it)
  - E.g. Farmers selling rice/wheat
- **Monopolistic Competition**
  - Many sellers, slightly different products
  - Sellers differentiate (branding/features)
  - E.g. Apple vs Samsung, shampoo, cafes
- **Oligopoly**
  - Few big sellers dominate
  - Products can be similar or different
  - High barriers to entry, rivals monitor each other
  - E.g. Airlines, telcos, car brands
- **Monopoly**
  - One seller, full control
  - No competition, can set high prices
  - E.g. Water/electricity utilities

5.2 Price Elasticity of Demand

- **Elastic Demand**
  - Small price change → big quantity change
  - E.g. Bubble tea prices rise → people switch
- **Inelastic Demand**
  - Price change → small quantity change
  - E.g. Grab still used despite fare increase
- **Cross Elasticity**
  - **Substitutes**: Samsung ↓ → iPhone demand ↓
  - **Complements**: iPhone ↓ → AirPods demand ↑
  - Apple ecosystem is the classic case

5.2.0.1 Consumer Perceptions (External)

- **Higher Price = Better Quality**
  - When unsure, people use price to judge
  - Luxury brands leverage this psychology

5.2.0.2 Competitors (External)

- **Reference Point**
  - Customers compare your price to others
  - E.g. MrBeast ($5) vs Hershey's ($2)
- **Responsiveness**
  - How fast competitors react to your price drop
- **Product Homogeneity**
  - If products are similar → small price difference matters
  - E.g. 1 cent more → customer might switch

5.2.0.3 Other Factors (External)

- **Economic Conditions**
  - Recession → spend less
  - Boom → luxury spending rises
- **Distributor Reactions**
  - Higher prices might upset retailers
  - Distributors control shelf space
- **Government**
  - Taxes, price caps, subsidies
  - Regulations can limit pricing flexibility

5.3 Methods and Strategies

5.3.1 New Product Pricing

5.3.1.1 Price Skimming

- Start high, lower gradually
- Targets early adopters, maximises profit per sale
- Used when:
  - Different willingness to pay
  - Premium brand image
  - Early return needed
  - Low production cost at low volume
  - No strong competition
- **Why people use it:** Maximise revenue early, recover R&D cost quickly, maintain brand prestige

5.3.1.2 Price Penetration

- Start low to attract mass market quickly
- Builds market share and discourages competition
- Used when:
  - Customers are price-sensitive
  - Experience curve effects
  - Many potential competitors
- **Why people use it:** Quickly gain market share, build customer base, block competitors

5.3.2 Cost-Oriented Strategies

5.3.2.1 Markup Pricing

- Price = Cost + Fixed % (I.e. 1 times 1.25 = 1.25; Given 25% markup)
- Simple and fair
- Downside: Ignores demand
- **Why people use it:** Easy to calculate, fair to seller & buyer, doesn't rely on demand estimation

5.3.2.2 Target Profit Pricing

- Price ensures profit based on invested capital
- Covers variable + fixed costs + return
- **Why people use it:** Ensures ROI, helps in financial planning, useful for high-investment products

$$\text{Price} \sim (P) = \text{DVC} + \frac{\text{FC}}{X} + \frac{r \times K}{X}$$

- **DVC**: Direct Variable Cost
- **FC**: Fixed Cost
- **X**: Units expected to sell
- **r**: Desired return rate
- **K**: Capital invested

5.3.3 Demand-Oriented Pricing

5.3.3.1 Perceived-Value Pricing

- Price based on customer-perceived value
- Most customer-focused approach
- **Why people use it:** Maximises value capture, aligns with brand image, flexible for premium pricing

5.3.3.2 Psychological Pricing

- Set price just below round number
- Makes product feel cheaper
- **Why people use it:** Influences customer perception, boosts sales without major price cut

5.3.4 Loss-Leader Pricing

- Sell at a loss to attract customers
- Goal: Increase store traffic, upsell profitable items
- **Why people use it:** Attracts attention, drives volume, improves overall profit through cross-selling

5.3.5 Optional-Product Pricing

- Base product is low-priced
- Add-ons offered at extra cost
- **Why people use it:** Keeps entry price low, enables customization, earns more from extras

5.3.6 Captive-Product Pricing

- Main product is cheap
- Necessary accessories priced high
- **Why people use it:** Locks customer into repeat purchases, long-term revenue model

5.3.7 Bundled Pricing

- Multiple products sold together at a lower combined price
- **Why people use it:** Increases perceived value, encourages purchase of multiple items, clears inventory

5.3.8 Price Discrimination

- Different prices for same product based on:
  - **Time**
  - **Place**
  - **Customer**
- **Why people use it:** Maximises revenue across customer segments, captures consumer surplus