Business Economics

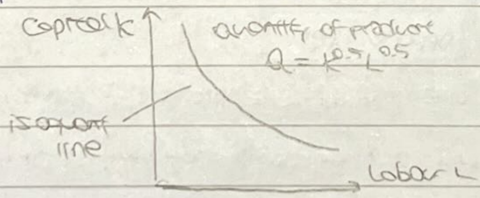
The theory of the firm

Theories of the firm

- A firm is an organisation consisting of one or more individuals working as a decision-making unit to produce goods or services.
- Firms can take a variety of legal forms:
  - ↳ Sole proprietors — Hairdresser
  - ↳ Partnerships — Lawyers
    - (Sole proprietors and partnerships: unincorporated businesses)
  - ↳ Private limited company — Virgin Atlantic
  - ↳ Public limited company — ITV
    - (Private and public limited companies: incorporated businesses)
    - (All of the above: private sector firms)
  - ↳ Public sector firms — NHS
- An alternative to the firm is the market — an institution for resource allocation which is based on horizontal (non-hierarchy) voluntary exchanges by individual economic agents motivated by preferences and price signals.
- Production distribution can be organised within the firm or via the market:
  - ↳ Firm: Uni of Cam employs lecturers on a salary and owns the lecture halls
  - ↳ Market: Educational entrepreneur contracts in the spot market for lecturers and lecture halls.

Neoclassical theory of the firm.

- The neoclassical theory reduces the firm into a mathematical production function. A production function of a company could be as follows:



- Reducing the firm into a mathematical construct is convenient for modelling.
- It helps the modelling of firm strategies under diff. types of market structure and specific assumptions (eqm. framework)
- It can explain the size of the firm — if technology input (price) change, then given the natures of EoS, and rational pursuit of "profit-maxing" size, the size of the firm will change.
- If the nature of competition in the market changes, this will also cause a change in size of the firm (e.g. other firms compete less strongly → firm should increase in size as it is profitable to do so)
- However, this theory does not explain why the firm exists. It treats the firm as a black box and does not explain what happens within the firm
- The theory assumes rationality (maximisation of profit) and perfect information.

Transactional cost theory of the firm

- Transactional costs are the costs of discovering prices and the cost of negotiating and concluding prices, as well as making and enforcing contracts.
- The firm is characterised by an authority structure (hierarchy) and incomplete contracts
- An employment contract does not detail specific duties. Uncertainty leads to incomplete contracts, where uncertainties may be decided in the future by one party in a long-term contract
- Firms thus have flexibility of response in conditions of uncertainty in the future.
- Firms exist because they offer a cheaper alternative to the market for organising production based on the ability to direct the use of employees and owned capital w/ their hierarchy
- As a single firm gets bigger, transactions are spatially dispersed, transactions are dissimilar, costs of intervention rise over time (cost of disciplining employees increases due to extended chains of command)
- The size of the firm is determined by the pt. the cost of internal organisation transaction equals the cost of external organisation transaction.

Property rights view of the firm

- The property rights view is set in a world w/ transaction costs and incomplete contracts.
- Ownership matters because it carries residual control rights → it reduces the possibility of returns to particular investments being partially appropriated by other firms.
- Thus, collections of assets (firms) may represent the optimal trade-off btwn operational and investment incentives.
- While it may be operationally more efficient to outsource the operation to a third party, the problem is they would own the assets that the first firm relies on to produce the final product.
- e.g.: GM acquisition of Fisher body (Fisher body made the body of GM cars)

Marxist view of the firm

- The firm is an attempt by the owners of capital to increase their share of the value added in production by reducing the share going to wages. → purpose is exploitation
- This view suggests the firm may develop in ways designed to shape the distribution of value rather than to improve efficiency
- It highlights the potential conflict of interest btwn owners vs workers (capital vs labour)

Managerial theory of the firm

- A firm is characterised by dispersed shareholding and the observed separation of owners and managers
- Thus we see the pursuit of conflicting managerial and shareholder objectives — Managers want to max. their own welfare; shareholders want to max. profit.
- Instead of maximising profit, managers may want to maximise sales, slack or growth.

Behavioural theory of the firm

- This theory suggests that bounded rationality and uncertainty make optimisation impossible.
- Organisations have multiple objectives reflecting interest groups (finance, marketing, engineering, etc.)
- Managers reconcile the competing objectives of interest groups within the firms, subject to a satisfactory level of profit.
- The need to adjust to an uncertain environment may lead to organisational slack.
- Firms engage in gift exchange — workers supply effort in return for fair treatment.

Capabilities approach to the firm

- Firms exist because it knows how to do certain things, and can exploit this ability.
- Those capabilities may reflect core competencies based on
  - ↳ management skill
  - ↳ specific assets
  - ↳ history in the industry
  - ↳ particular location

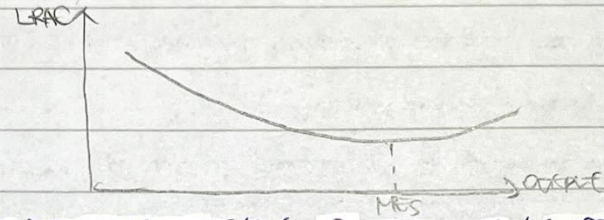
Evolutionary theory of the firm

- Some firms are going to be lucky and discover a new technology which is now possible to be discovered given other technological advances. (Firms part of the discovery process)
- In this view, competition is a process that gives rise to variation, selection and retention. Innovation drives structural change in the economy.

The growth of the firm

Firm growth and profitability

- Neoclassical theory suggests firm size/growth as a quest for the profit maximizing size of the firm.
  → firms driven by the shape of their long run average cost (LRAC) curves. (want to minimise LRAC).
- If a firm operates at a scale s.t. LRAC is min, the firm will be as efficient as it can be and will be best placed to survive in a competitive market.
- If the min. occurs at a low level of output, firms will not seek to grow beyond this.
- The level of output at which LRAC are first min. is the minimum efficient scale (MES).
  The quest for lower LRAC and achievement of MES can drive growth.



- The standardisation and increased desirability for the product facilitates growth.
- Many firms diversify their products at rel. low cost in attempt to increase their market size
  — this exploits economies of scope (produce differentiated products using shared assets)
- Firms may become more profitable as output grows and costs fall, but the ability to grow relies on finance being available to pay for investment in growth → growth, profitability interlinked.

→ Growth is not always a profitable/desired strategy

Constraints on firm growth

- The growth of the firm is determined by the level of and changes in
  ↳ Management
  ↳ Technology
  ↳ Market size
  ↳ Available finance
  ↳ Opportunity for learning
  ↳ Macroeconomic environment.
- Every firm has some capacity to grow every year, due to natural learning of managers. → leaving free resources to expand output.
- If a firm expands faster than the "free" capacity allows then they need to take resources away from current output to increase management input /money for expansion.
- At some pt, the marginal growth achieved by diverting existing managers' time to onboard new managers time will turn -ve → diseconomies of expansion → there is a max. growth rate.
- Growing at the max. growth rate may not be optimal as it may not be profitable

Entry, innovation and industry growth

- New firms in the economy challenge the monopolistic positions of larger firms through the introduction of new technologies and new ways of doing business into the market
- New and small firms find more efficient ways to satisfy existing needs / identify new needs to be satisfied → more efficient firms survive and grow; less efficient firms shrink and exit.
- Smaller firms should be more innovative as it is their only chance to gain a competitive edge.

Small firms and job growth

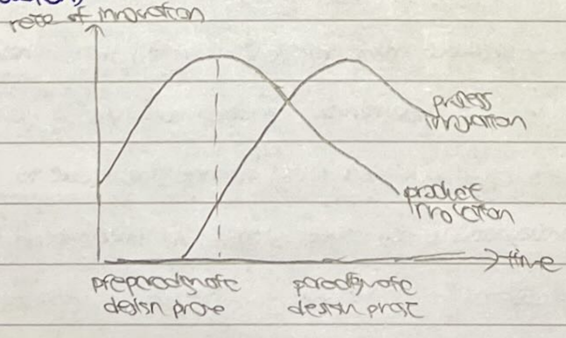
- Small and medium enterprises (SME) contribute to net job creation more than prop. to size of firms.
- SMEs create new jobs, but as many may be lost among SME as they are created ("revolving door")
- Increase in no. of SMEs and associated employment do not correspond to prop. increases in the share of economy-wide turnover accounted for by SMEs.

Skewness and heterogeneity

- Growth rates and innovation are highly skewed among firms, w/ a small minority of firms responsible for most of the overall +ve contributions of all SMEs to the economy.
- High-growth firms are disproportionately more likely to be innovators

Industry dynamics and dominant designs

- In the early stages of industry growth, there is a fluid design spec and lots of experimentation. Over time, we see the emergence of a dominant design.
- The competitive process switches from being about product innovation and over to price and cost factors (process innovation)



Growth strategies of firms

Growth of a firm

internal expansion	external expansion
(1) differentiation horizontal expansion (same product, ↑ market share)	(1) horizontal integration merger of firm producing same product
(2) vertical integration diff. product but belong to diff. stage of same product.	(2) vertical integration merger of firm producing at diff. stage of same process
(3) conglomerate diversification — totally new product	(3) conglomerate diversification — merger of firms producing totally unrelated product

Growth by differentiation / horizontal integration

- Differentiation (internal expansion) is where a firm changes/adopt product characteristics to conquer market share
- Horizontal integration (external expansion) is where a firm merges/acquires another firm producing the same product to lower costs (EoS, ↑ efficiency), increased differentiation (↑ no. of products/services), increased market power and access to new markets (diff region/segment)

Growth by vertical integration

- vertical integration is where a firm expands internally or via merger/acquisition (externally) from one stage in the supply chain into another.
- vertical integration can vary from none to partial to full (full vertical integration would mean the firm provides products/services involved in each part of the value-chain in that industry.)
- vertical integration can involve forwards or backwards integration
  - ↳ forward : expand a step downstream in the supply chain (eg. manufacturing → sales)
  - ↳ backward : expand a step upstream in the supply chain (e.g. manufacturing → raw materials)
- vertical integration can increase efficiency (↑ coordination), reduce uncertainty (↓ hold up risk), increase barriers to entry for non-integrated firms (thus ↑ monopoly power)
- However vertical integration can also have high coordination costs, lack of flexibility (cannot choose suppliers), and lack of incentives (reduced profit incentives)
- Partially integrated firms have better cost information (leverage on suppliers) than non-integrated firms, while also req. less capital to undertake full integration (though cannot exploit EoS like fully integrated firms)

Growth by diversification

- Diversification is where a firm expands internally or via merger/acquisition (externally) into a closely related / far away product.
- Diversification can be narrow spectrum or broad spectrum
  - ↳ narrow : use existing technological base + existing/new market areas
  - ↳ broad : use new technological base + existing/new market areas.
- Diversification can offer stability + spread risk across diff. products. It helps maintain profitability by entering new markets or maintain growth beyond mature market.

The regulation of the firm

Markets and the role of the government

Strategy

Strategy

Competitive advantage

- competitive advantage is the edge/superiority a firm has in comparison to its rivals
- Types of competitive advantage include:
  - ↳ cost advantage → produce at lower cost → ↓ price vs rivals or ↑ profit margin.
  - ↳ differentiation → increased sales → charge a premium

Different strategy schools.

- 1) Positional (External) [Porter, 1980]
  - ↳ comp. adv. is achieved by having a unique configuration of activities allowing differentiated meeting of customer needs and defensible position vs competitors.
  - ↳ Decision principle: reinforce uniqueness, maintain differentiation
  - ↳ Adv. comes from industry structure and mitigating the five forces
  - ↳ sustainable adv comes from trade-offs, single mindedness, etc
  - ↳ This strategy may focus on competitors + timing, but not value creation.
- 2) Competence (Internal) [Barney 1991].
  - ↳ Comp. adv. is achieved by having a rare and hard-to-imitate resource/capability underlying the firms ability to compete.
  - ↳ Decision principle: protect/reinforce the core and spin it into growth opportunities
  - ↳ Adv. comes from internal capabilities.
  - ↳ Sustainable adv. comes from the ability to repeatedly repurpose capability
  - ↳ this strategy may lock in to dominant capability
- 3) Cooperative/keystone ecosystem [Adner 2012]
  - ↳ Comp. adv. is achieved w/ the ability to orchestrate a unique set of stakeholder relationships to achieve superior information flow.
  - ↳ Decision principle: Build a unique ecosystem and leverage it.
  - ↳ Adv. comes from collaboration (cooperative) / locking everyone in (keystone)
  - ↳ sustainable adv. comes from superior flow of info (cooperative) / switching costs (keystone)
  - ↳ Firms don't "own" the advantage, relies on trust (cooperative) / firms may get too greedy (keystone)
- 4) Agility [McGrath 2013]
  - ↳ Comp. adv. is achieved w/ the ability to spot and execute a series of temporary advantages.
  - ↳ Decision principle: Be fast to enter, be ready to exit
  - ↳ Adv. comes from creating options
  - ↳ Sustainable adv. comes from the capability to adapt, experiment and exit
  - ↳ The firms efforts may be diffuse

Positional — why are some firms more successful than others

- 1) Operational effectiveness is not strategy
  - ↳ Operational effectiveness does not work due to hypercompetition → methods of best practice is rapidly diffused to competitors.
  - ↳ Improving operational effectiveness often involves benchmarking → leads to lack of distinctness.
- 2) Strategy rests on unique activities
  - ↳ Customer offerings should rest on capabilities — it should have one or more of the following strategic positions.
    - (i) variety-based → organise the company as efficient as possible → provide customers superior value
      e.g. IKEA, low-cost airlines
    - (ii) need-based → value chain tailored to needs of target customer (marketing approach)
      e.g. Apple, Selfridges
    - (iii) access-based → being at the right place at the right time.
      e.g. Airport car rentals, local cornershop
  - ↳ The strategic position should take priority over growth (deepen not deviate)
- 3) Sustainable strategic position rests on trade-offs
  - ↳ If your differentiated strategy works, you will be copied → deeply commit to the strategic position to have more barriers (e.g. brand image, commitments, tight coordination and control)
  - ↳ Do not straddle, i.e. being "stuck in the middle" → stick to the differentiated strategy
    e.g. Tesco stuck in the middle, w/ Aldi/Lidl at low end, M&S, Waitrose at high end → less profit.
- 4) Fit drives advantage and sustainability
  - ↳ Ensure there is simple consistency btwn activity and strategy, i.e. no weakest link.
    e.g. fancy restaurant should have clean toilets
  - ↳ Reinforcing activities
    e.g. Apple shop having Genius bar to educate people how to use their devices

Positional — Porter's five forces.

- Porter's five forces is a useful framework to assess an industry
  - ↳ Rivalry among existing competitors : no./diversity of competitors, barriers to exit, slow industry growth
    → differentiate
  - ↳ Threat of new entrants : barriers of entry, EoS, brand loyalty, capital req., switching costs
    → tie up distribution channels, make alliances unavailable for new players
  - ↳ Threat of substitute products : no. of substitutes available, rel. price performance of substitute, switching costs.
    → mergers and acquisitions
  - ↳ Bargaining power of suppliers : no./size of suppliers, uniqueness of supplier's product
    → build a network, find alternatives
  - ↳ Bargaining power of buyers : no. of customers, differences btwn competitors, price sensitivity
    → create more value, increase switching costs, building a network.
- Strategies that help you push back the forces' effect on your firm compared to others help you win
- Weak forces → opportunities to increase profits.
  Strong forces → pain pts for someone → gives rise to innovations
- Old ways of addressing the five forces inc : collusion (illegal), consolidation M&A, integration BVI, FVI, retaliation price wars
- New ways of addressing the five forces inc : market segments, value chain steps, cost advantage, differentiation advantage, ecosystem advantage.

Positional — Porter's generic strategies.

- Porter's generic strategies is a tool to help managers find strategic position in market → sustainable comp. adv.

Competitive scope	Competitive advantage: Low cost	Differentiation
Broad	Cost leadership	Differentiation.
Narrow	Focus	

→ avoid straddling, don't get "stuck in the middle"

Competence — VRIO framework.

- The VRIO framework tells us if our use of resources can give us a sustainable comp. adv.

$\boxed{\text{resource}}$ → $\boxed{\text{VRIO framework}}$ → $\boxed{\text{sustainable comp. adv.}}$

- The VRIO framework is as follows:

$\boxed{\text{V valuable?}}$ (provide value) —Y→ $\boxed{\text{R rare}}$ (not everyone has) —Y→ $\boxed{\text{I inimitable}}$ (hard to copy) —Y→ $\boxed{\text{O organised}}$ (to use resources) —Y→ sustainable comp. adv.

- V ↓ competitive disadvantage
- R ↓ competitive parity
- I ↓ temporary comp. adv.
- O ↓ unused comp. adv.

- Examples of "VRI" resources inc: brand, enforceable IPs that generate profits, relationships, effective culture of execution, location.
- Competence-based strategy focuses on identifying a core and protecting that core (the core special thing that makes us different).
- Focusing on the core means not to diversify → just penetrate existing market.

Markets \ Products	existing	new	
existing	market penetration	product development	increase risk ↓
new	market development	diversification	
	increase risk →		

Ecosystem — shift from egosystem to ecosystem

- Ecosystem-based strategy focuses on cocreating value w/ diff. parties

"egosystem": Entrants, Suppliers, Rivals, Buyers, Substitutes, Regulators

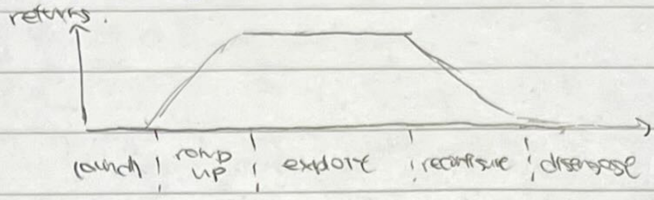
→

"ecosystem": Innovators, Partners, Allies, Collaborators, Complementors, Non-market collaborators

- Ecosystem-based differentiation acts both as an enabler and a constraint.

Agility

- Agility-based strategy involves focusing on tempo and rhythm, → get good at launching fast, ramping up fast, developing profits, max. time period we can develop profits, ready to reconfigure and get out, disengage.



- Agility-based advantage is possible when one fits the defn of success in the direction of surviving rather than optimisation

Marketing

Marketing

Why marketing

- Many new ventures fail, w/ the top reason being there is no market need for the product/service
- Most successful ventures have no breakthrough products/services and compete in matured industries.
- They succeed by meeting the evolving needs of customers better than competitors in ways that cannot be easily replicated.
- "There is no business w/o customers" → need marketing

What is marketing

- Customer is the first and foremost to think in marketing.
- The product, selling and promotion are just ways to serve / provide value to the customer.

Product-oriented marketing philosophy

- Product-oriented marketing focuses solely on the product — how to make a great product.
- It does not involve any customers in the development stage (keep market testing to a min.)
  → don't know what customers want/need/concerns
- e.g: Segway — breakthrough technology, but failed in the end
  ↳ Didn't address customers' concerns: bulky, no place on road to use it, dork factor
  ↳ only focused on developing the best product → forgot about cost → 5000 USD unit price.
- Product-oriented marketing only works in one context — a monopoly (dominating the market)
- e.g: Ford vehicle — only produce black cars
  ↳ Black paint is cost effective and provides operational benefits (quick to dry)
  ↳ customers want more colours (but they had no alternative)
- e.g: Kodak — only focus on film, not investing in digital camera technology
  ↳ Kodak only joined the digital camera business 18 years after it was designed → too late, market already dominated by Canon
  ↳ only focused on what they are good at — didn't think what might be a better option for customers / what they need
  ↳ Failed to see potential / what customers can benefit from this technology

sales/promotion-oriented market philosophy

- sales/promotion-oriented marketing is putting effort into selling the product/service, which mostly focuses on short term gain/revenue (e.g. discount).
- studies show that price discounts do not bring long term gain. — just shifts demand from the future to the present
- This is most effective if the product is v. similar w/ competitors → price gives an extra edge
- If a product cannot be competed w/ → no need to sacrifice the price.

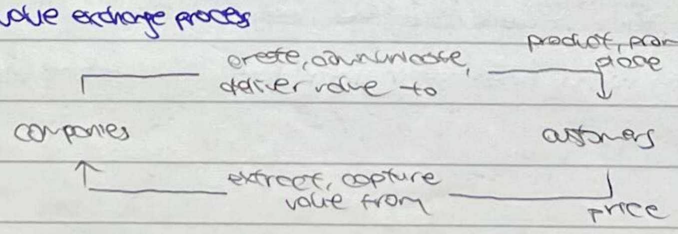
customer-oriented marketing philosophy

- customer-oriented marketing focuses on how to improve the customers' UX
- e.g: Google vs Yahoo search
  ↳ Yahoo focuses on ads, Google gives more organic searches
  ↳ Google runs experiments to optimise customer search experience
- e.g: Amazon
  ↳ Use metrics to measure customer experience
- e.g: Apple
  ↳ start from customer experience and work backwards to the technology

customer-orientation and product innovation.

- e.g: Automobile industry
  ↳ why do people need cars?
  (i) travel from A to B → public transport / taxi / uber
  (ii) more comfortable / signal social status → UberX.
- e.g: designing a drill
  → ✗ design the best drill w/ the best specifications, using newest technology
  ↳ ✓ focus on the customer → what is it for? hanging paintings → design based on customer need.

Marketing as a value exchange process



Marketing in the digital era

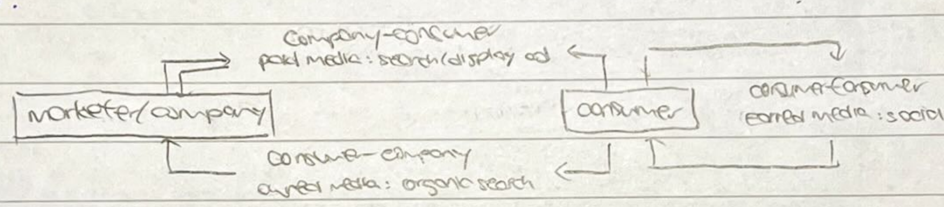
Why is the digital era different.

- Connectivity : decreasing information friction, i.e. transmitting info w/ little delay/error.
  (Metcalfe's law — value of network prop. to no. of users², $V \propto n^2$ → connectivity is important)
- Scalability : de-physicalization → replicating at zero marginal cost. (product/service digitization)
- Data : growing computing power → storing and processing in real time at low cost (use data analytics)

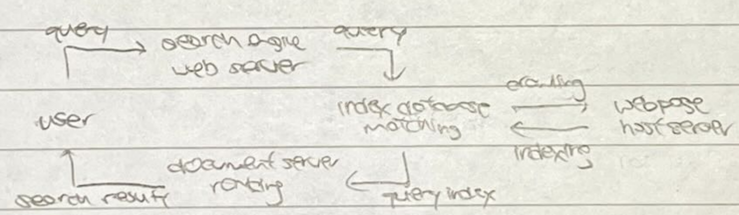
How has the customer journey changed in the digital era

- Connected : we hear from others → check reviews/social media
- Highly heterogeneous : each customer's journey is v. diff.
- Multi-channel : need to look into each channel's importance/role to effectively reach out to customers
- Proxy-dependent : depend on the "algorithm" to promote your product to customers

Digital platforms.



How search works



Importance of search to marketing

- search analytics can provide customer insight — the fundamental motivations that underlie the customers behaviour (e.g. search for vodka peak before search for hangover peak). ↙ we to maximise organic search
- Having a high search ranking greatly improves your click through rate (CTR) ↖ need for search engine optimisation
- CTR measures how many people clicked your ad to visit a website.
  conversion rate displays percentage of website visitors that complete an action on the website.
- The estimated traffic to a website can be estimated by

$$\text{estimated traffic} = \text{search volume} \times CTR.$$

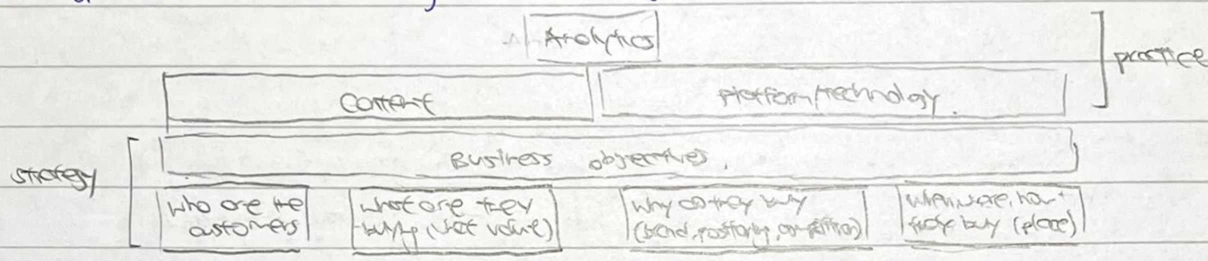
Online tracking and user targeting

- The key diff btw digital and traditional advertisement is the ability to track
- Google uses cookies (snippets of code to store customer's information) to track the customer and target ads to the consumer
- All actions on the internet is tracked → data analytics for Google.

Marketing on social platforms.

- What to create : content that can increase arousal level → more shareable.
- Who to reach : initial exposure → use influencer marketing.
- Monitoring progress : monitor customer-related performance, response, brand perception
- Optimising : use data analytics to optimise marketing (social listening)

Strategy and practice for marketing in the digital age.



Key questions in marketing

- Who are the customers?, what are their needs?, Any opportunity to create value to satisfy the need?
  - ↳ customer ; competitor, company, collaborators
- How to create value for customers? How to frame value proposition?
  - ↳ Product innovation ; Marketing strategy — segmentation, targeting, positioning, branding.
- How to communicate values to the customer
  - ↳ M&C, place and promotion.
- How to capture value from customers
  - ↳ Pricing.

The marketing strategic planning process

customer | competitors | company — Market opportunity analysis (3C analysis)

↓ customer insights

segmentation (divide market) | targeting. (which segment) | positioning/branding. (perceived as what) — Marketing strategy (STP)

product | place | promotion | price — Marketing mix (4-Ps)

↓ marketing intelligence

execution and evaluation

Strategic brand management

Why do we need a brand

- Brand is the set of associations that exist in the minds of the customers (not logo).
- Brand can provide value to customers in the stages of buying a product
  - ↳ 1) Information search → reduce search cost
  - ↳ 2) Alternative evaluation → signal quality
  - ↳ 3) Purchase → reduce risk
  - ↳ 4) Post-purchase → provide social + experiential value
- Brand can provide value to firms in various ways
  - ↳ Differentiation, communicate unique values.
  - ↳ Build relationships, command price premium.
  - ↳ Drive sales, increase customer lifetime value (CLV)
  - ↳ Greater leverage in distribution
  - ↳ Create competitive advantage

Importance of brand building.

- e.g. Xiaomi — "born for fans" (為發燒而生) → extremely successful brand.
  - ↳ monitor and respond to user feedback.
  - ↳ offer customisation
  - ↳ use of social media.
  - ↳ feature-rich
  - ↳ leverage fan community (customer to customer Q&C)
  - ↳ regular software updates.

Brand equity.

- Brand management is all about increasing brand equity

  brand equity = value of branded product − value of unbranded product.

- e.g. plastic tote bag : generic vs celine
  - ↳ celine tote bag 590 USD , generic tote bag 0.1 USD → huge brand equity
- Brand equity is gained from :
  - ↳ strong, favourable and unique brand associations
  - ↳ high level of awareness and familiarity.

Brand positioning

- Brand positioning is creating an image/impression of your brand and placing it in the minds of your target customers wrt your competition. It involves the following parts :
  - ↳ competitive frame of reference : who are your competitors.
  - ↳ point of parity (POP) : what qualifies you to compete w/ competitors
  - ↳ point of difference (POD) : benefits associated w a brand, differentiation. offer something customers value that competitors don't have. "purple cow"
- e.g: 7-up entering soft drink market
  - ↳ competitive frame of reference : Pepsi, Coca Cola
  - ↳ POP : 7-up is qualified as soft drink → demonstrate drinking 7up at parties
  - ↳ POD : 7-up is better → no caffeine or artificial flavour/colour.

Brand building ladder

stages of brand management	objective	Example – AirBnB.
1) Brand identity — who are you	Brand awareness	what AirBnB does
2) Brand meaning — what are you	POP, POD	why AirBnB is superior
3) Brand response — what about you	the reactions	the host review, word of mouth
4) Brand relationship — what about you and me	Loyalty	building a community