Consulting Club, IIM-I

presents

Consulting Casebook

2023 - 2024

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Case Book, IIM-Indore

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Foreword

The IIM Indore Casebook issue from July 2023 covers the interview experiences of students across various consulting firms. It has been documented to assist the students of the campus and other MBA institutes in their interview preparation.

The goal of the team responsible for conceptualizing this documentation is to serve as a comprehensive toolkit for introducing students to the consulting industry and equipping them with the information they need to be better prepared. The team aspires that the document is able to bring home the basic concepts of consulting and instill a creative and structured way of thought in the minds of the readers.

The casebook has been so designed that it briefs about the introduction to case interviews, followed by frameworks that can be applied to different cases, and finally the interview experiences.

The experiences given below might not be the best way to handle case interviews. Yet, they will undoubtedly serve as a guide for the candidates. As a tip, while resolving the problems, we request our readers to consider their own methods as well.

Acknowledgement

We are grateful to all the people at IIM Indore who have helped by sharing their interview experiences with the Consulting Club, which has enabled us to compile and present this casebook.

We would like to thank the members of Consulting Club, IIM Indore (Batch 21-23 and Batch 22-24) who have helped by designing, structuring and compilation of this casebook.

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Table of Contents

Table of Contents

Table of Contents

Table of Contents

THEORY

What is a Case Interview?

During a case interview, an interviewer presents a situation or case and then asks the applicant to **explore the underlying causes of the problem and suggest recommendations to remedy the problem**. The cases given tend to be real business situations, often drawn from the interviewer's actual project experience.

Duration

Case interviews typically last from **45 to 60 minutes**, with a focus on the case itself lasting 30 to 45 minutes.

Mantra

Success won't depend on identifying the "correct" answer, but rather on

1. How clearly do you **define the problem,**
2. How logically did you **structure your analysis**,
3. How well do you **communicate your thoughts** to the interviewer.

Skills

Consulting firms are looking for people who can show problem-solving and business analysis skills, think under pressure and maintain a professional presence with their teams and clients.

Approach for Business Case Interviews

OPEN THE CASE

- Listen to the question properly
- Paraphrase the question to confirm your understanding

STRUCTURE

- Describe the approach
- Identify the problem type
- Map your framework

ANALYZE

- Ask relevant questions
- Bucket the information
- Prioritize issues & use hints
- Segment and Isolate

CLOSE THE CASE

- Synthesize the discussion
- Develop final recommendation
- Relate back to the Problem statement

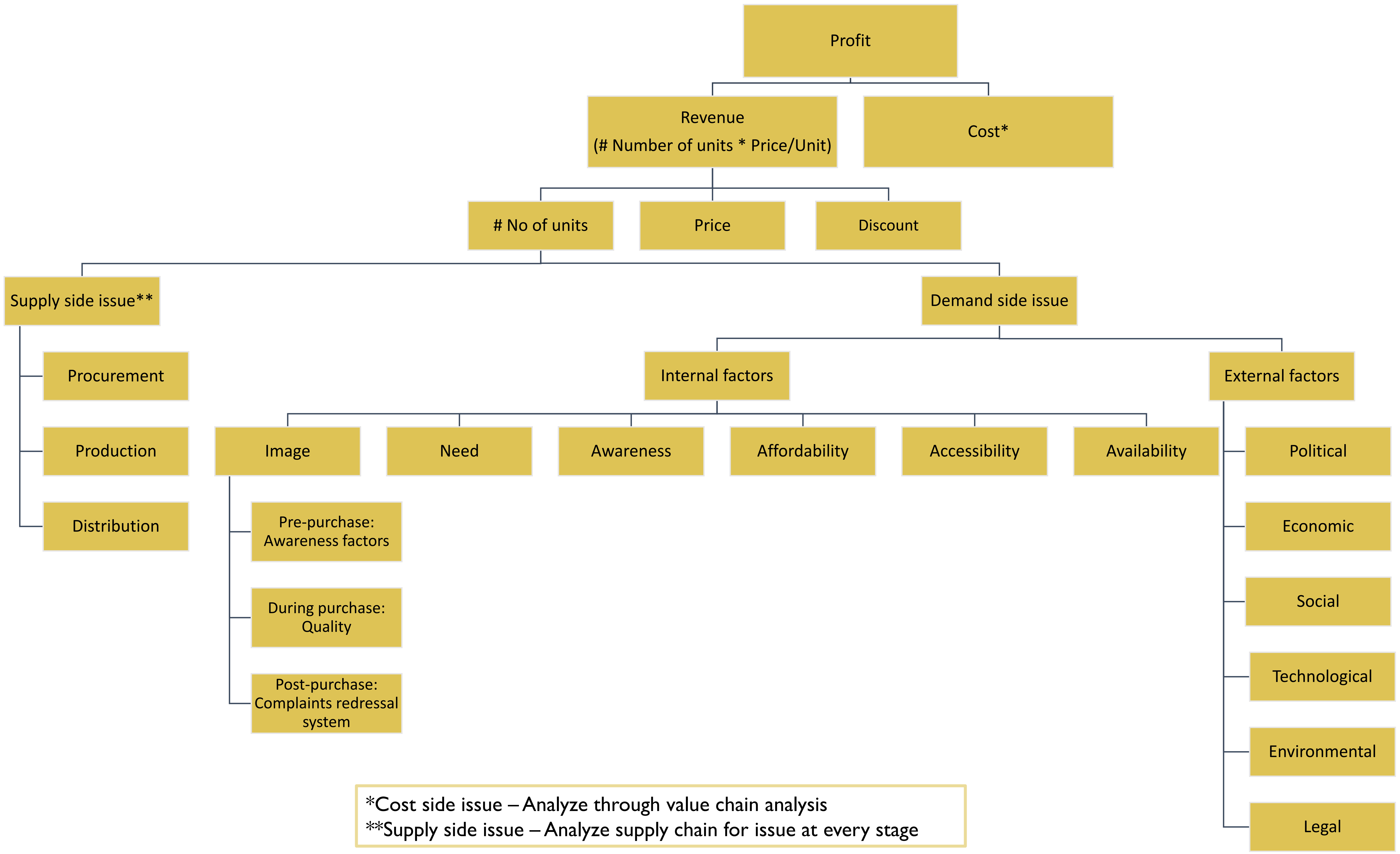
Tip: Never start the case with frameworks. Try to bring it organically.

How to Begin?

	Preliminary questions to be asked while solving the case	Profitability	Market entry	Growth
C	Could you tell me about the company? (Include Value chain + Performance)		Ask about prior experience in the industry as well.	
C	Could you tell me about the customer?			
C	Could you tell me about the competition?			
C	Could you tell me about the Channels of revenue?			
P	Could you tell me about the product portfolio?		Ask everything about the product and direct competitors as well as indirect substitutes.	Ask about each product's market share, growth & industry
P	Could you tell me about the price of the product?			
P	Could you tell me about the geography/location?			
I	Is this an Industry wide problem or is it specific to us?		Not applicable	
O	What is the objective of the client?	Ask if we must increase revenues or profits	Ask if we must increase market share or profits or if any other objective is there. Ask: why, why now, why this market?	Ask if we must increase market share or profits etc (clarify right objective)
Q T	Time and Quantum	Since when is this happening, and what is the decline in % (quantum)?	How much market share at what time? Payback period?	In what time do they want to grow & by how much?

4C 3P I O QT

Profitability Framework



*Cost side issue – Analyze through value chain analysis
**Supply side issue – Analyze supply chain for issue at every stage

Cost Reduction Framework

R&D → Procurement → Manufacturing → Storage & Transportation → Distribution → Marketing → Customer Service

R&D
- Equipment
- Technology
- Human capital
- Financing
- Patents
- Timelines

Procurement
- Cost of raw material
- Contracts/Deals
- Supplier Party
- Wastage
- Use efficiency
- Bulk orders
- Supplier Power
- Credit Policy
- Transportation Cost
- Quality of raw material

Manufacturing
- Machinery(Wear and tear)
- Rent/Electricity
- Labor Hours
- Technology
- Capacity Utilization
- Packaging
  - Quantity/Size + Appeal, Quality, Wastage
- Defects
- Process adherence
- Setup time
- Wastage

Storage and Transportation
- Transport to Warehouse(routes, vehicles)
- Storage facility(rent, electricity, labor)
- Transport to customer
- LIFO/FIFO Arrangement
- Spoilage/ Thrift
- External Environmental Conditions
- Important terms: Quantity per trip, number of trips, cost/trip
- Imp: No of warehouses x cost per warehouse

Distribution
- Sales force
  - Channel, training, incentives, efficiency
- Deals
- Think at all wholesaler, retailer, customer levels

Marketing
- Channel
- Spend on each channel
- Conversion rate/channel
- Sales force perception
- CRM

Customer Service
- Repair and returns, spare parts
- Service contracts
- Renewals/replacements
- Service contracts
- Number of customers x frequency of service x cost incurred

Market Entry Framework

Feasibility triangle

Preliminary feasibility:
Understand the following fits:
- Company-product (does it go with our current position),
- Product-customer (do customers need it & what do they currently use otherwise, willingness to pay, customer habits)
- Company-customer (how is the company perceived),
- Product-competitor (how does our product stand against competition and substitutes?)

Economic feasibility:
Check these factors:
- Market size : Find out the total obtainable market size.
- Market Growth : Is it growing?
- Find out if the market entry will be profitable by using EBITDA, ROI, Breakeven, Profit etc.
- Pricing can be done if needed.

Operational feasibility:
Understand that based on our current capabilities is it possible for us to operationalize the decision.
We do this by evaluating:
- Production feasibility,
- Distribution Feasibility
- Operations feasibility in other stages in the supply chain if applicable.

Evaluation of risks

The following factors can be used to understand various risks:
- PESTEL Factors
- Competitor's reaction
- Lack of resources/experience
- Barriers to exit
- Regulations

Mode of entry

The mode of entry decides the execution strategy of the plan.
Most popular modes of entry are:
- Greenfield
- Joint Venture
- Acquisition

It must be noted that the route depends on your risk-taking ability, timeline and resources.

Go to market

Go-to-Market Strategy is about how detailed a plan can be made once the mode of entry, risk-related and feasibility related decision making is done. This can be done by dividing the steps to be taken in three phases:
- **Pre-launch**: This would consist of all preparation needed before launching, getting approvals etc.
- **During Launch**: This is about marketing the product, communication strategy etc.
- **Post Launch**: This is about ensuring good service and query redressal is being done.

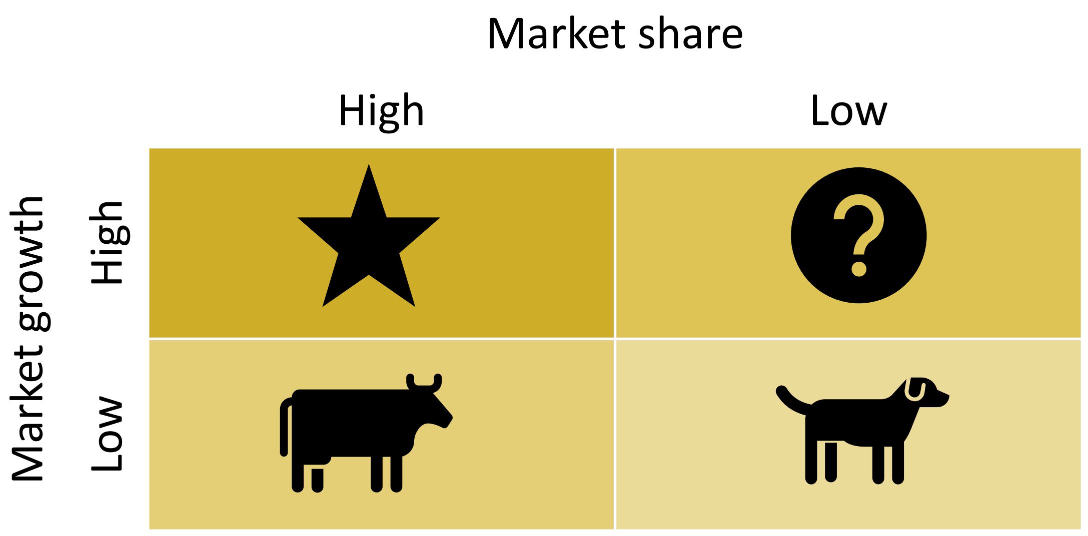
Go to market strategy

Segmentation	Targeting	Positioning
• Geographic	• Select segments	• Product
• Demographic	• Evaluate attractiveness	• Price
• Psychographic	• Segment size	• Place
• Behavioral	• Segment growth	• Promotion

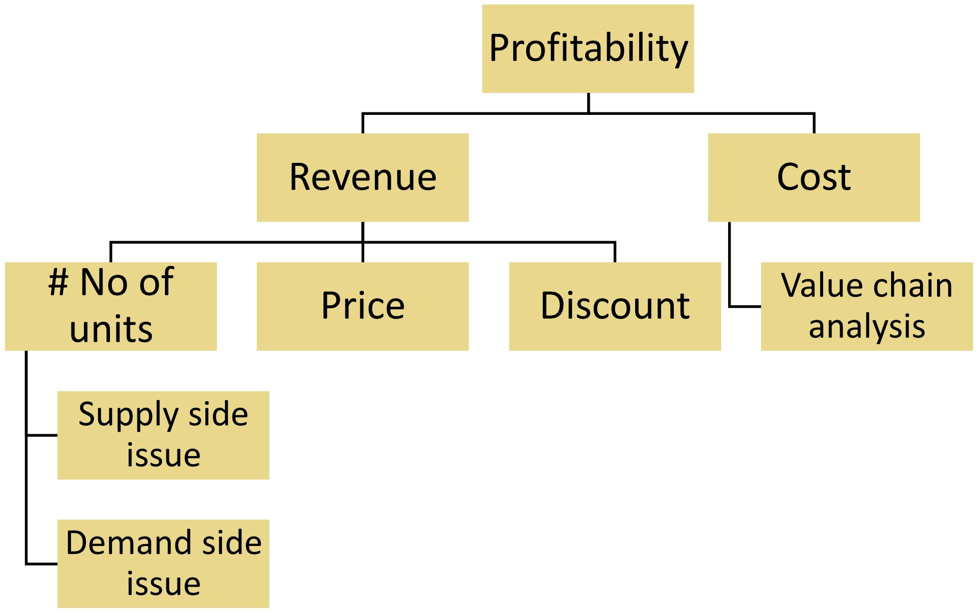
Growth Framework

The growth framework is normally used to solve problems where the growth of a company has stagnated. It consists of the following steps :
1. Identify the product in the problem using the **BCG matrix**
2. Identify the problem due to which the growth has stagnated using the **Profitability framework**.
3. Recommending possible solutions using the **Ansoff matrix**

BCG matrix



Profitability framework



Ansoff matrix

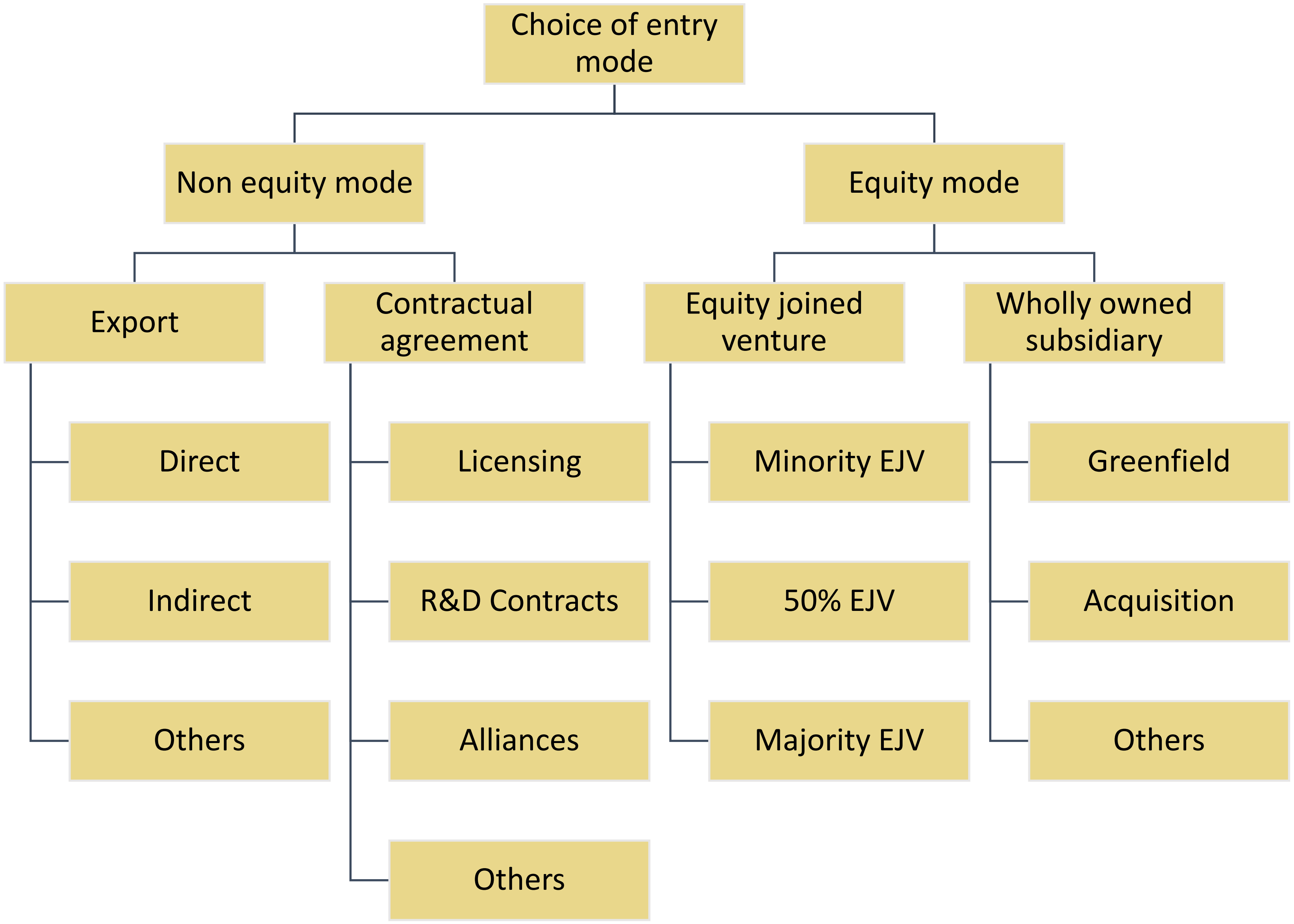
Markets \ Products	Existing	New
Existing	Market penetration strategy	Product development strategy
New	Market development strategy	Diversification

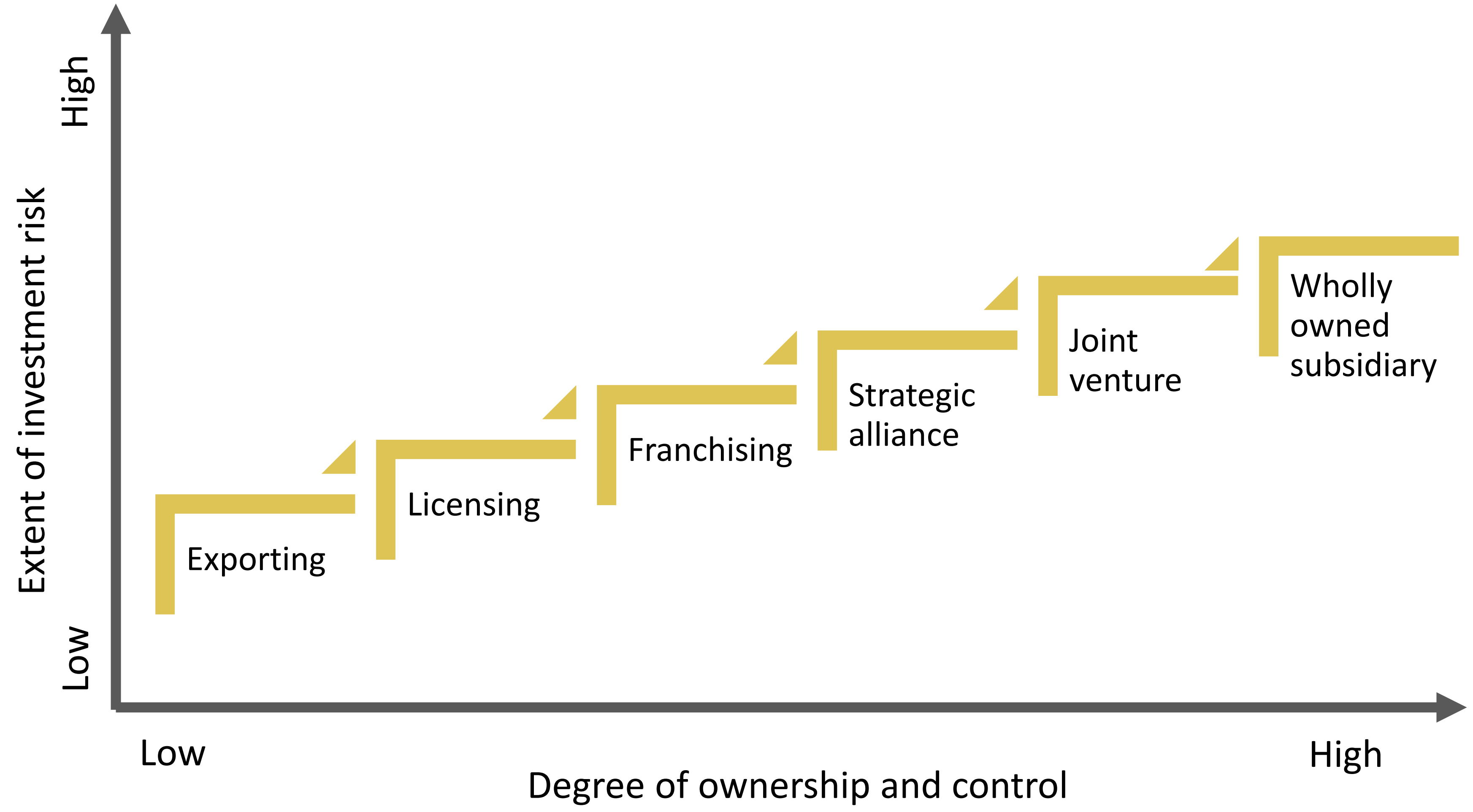
Step 1: Firstly, ask if it is known why the growth has stagnated; else put all the products of the company into one of the other categories mentioned above based on the data of their market share and market growth.
- For products where market share is low, but market growth is high, we need to further penetrate the market or upgrade/change the product.
- For products where only market growth is low, we need to find out other markets.
- In a case where both market share and growth are low, we must diversify.

Step 2: Once we know which product is the major reason behind stagnating growth, we will use the profitability framework, explained earlier, to identify the root cause of the problem. Reasons can vary from supply side constraint to change in customer preferences, and this framework helps us identify that quickly.

Step 3: Based on the root cause of the problem that you find in step 2, only 4 cases are possible:
- You can enter new markets with same product
- You can change/upgrade product or launch new products itself in same market
- You can enter new market with new product
- You can further penetrate the same market with same product.

Growth Framework





International Strategy: Creating Value in Global Markets
Chapter Seven

Entry strategy	Exit strategy
The decision is a highly contextual one, few decision variables being: • Nature of the market (in terms of economics: oligopoly, monopoly, etc.) • Regulatory environment of the target market's geography • Alignment with the strategic goals of the parties • Entry barriers typical to the industry • Long-term objectives and plan of the entry mode, etc.	Often in business, decisions go wrong, and managers must cut losses before things get worse. An interviewer might ask you for an exit strategy in case the recommended entry strategy fails to meet its objectives. Depending on your recommendation, a few options are common: Sale to a Private Equity firm, Sale to an industry player, Salvage assets and shut operations, etc. Goes without saying, all these options will be highly case-context specific

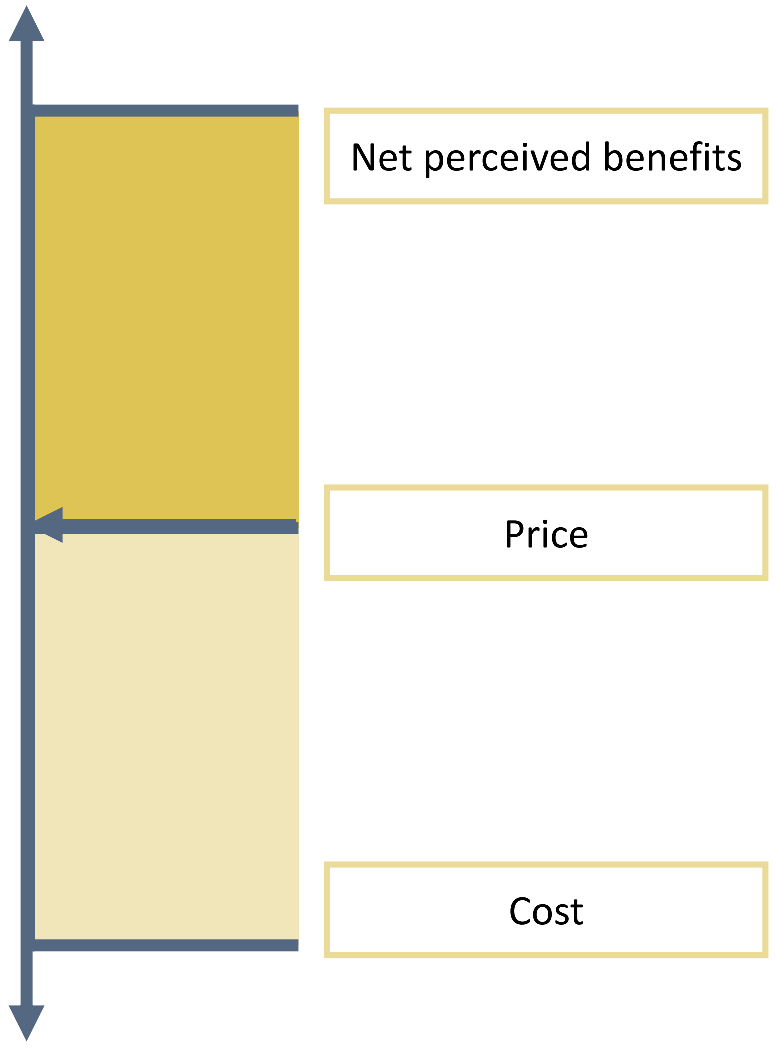
Pricing Framework

Focus on supply side factors

- Product in terms of existing universe of products
    - Radical Innovation/Invention in the product
    - Modification to existing product
    - Similar to existing product
- Possible use cases (think of all you can!)
- Advantages/Disadvantages of the product in discussion

Focus on demand side factors

- Differentiation with respect to competition
- Existence of , Number of, and Threat from substitutes
- Buyer Characteristics, customer vs consumer considerations
- Price Benchmarking and evaluating willingness to pay considerations
- Always consider the Total Cost of Ownership (not just cost of your offering)



Common approaches to arrive at pricing

Competitor-based Pricing

- Competitor’s price is used as a benchmark
- Based on strategic objectives, one prices the product as premium (skimming strategy) or discount (penetration strategy)

Cost-plus Pricing

- Based on corporate objectives/profitability targets, a markup percentage/amount is decided for a product
- Price is determined by adding the markup to the cost of production

Value-based Pricing

- Charging customers what they are willing to pay based on the “value” delivered/utility derived
- Try quantifying the monetary advantage the customer is able to derive from the product/service

Few other points to note:

- A good case solution to a pricing task is usually derived by estimating the price by all the three methods or by a combination of methods wherever applicable, and then giving a final recommendation based on the approaches
- It might be helpful in a lot of cases to have a look at the pricing structures of the next best alternative
- It is extremely important to be quick and correct with numbers in cases involving pricing exercise

Merger and Acquisition Framework

Important questions to be asked

Alliance or acquisition?

Objective of both firms?

Profit/market share/ Long term corporate strategy/ Technology acquisition etc.

Company?

Both – where in value chain? Scale, Presence, Market Share, growth

Customers?

Both the firms

Products?

Acquisition will result in Horizontal Integration/vertical integration?

Industry?

Nature, competitive forces, Growth

Desired Synergy

- Modular – Non equity (NE) Alliance
- Sequential – Equity (E) Alliance
- Reciprocal – Acquisition

Modular- Resources not shared and managed independently – results are pooled.
Sequential – More control needed as activity of firms are sequentially interdependent
Reciprocal – Both firms are interdependent thus share resources to create more value

Resources

Hard – Acquisition
Soft – Alliance (E/NE depending on control desired)
Hard resources – IP, technology, plant, equipment etc. Can be easily valued and start generating synergy faster
Soft resources – Human Resources. Productivity can decline post-acquisition.
Redundant resources – high – Acquisition (as EoS or cost cutting can be achieved)

Market

- Uncertainty: High – Alliance, Low- Acquisition
- Firm are less exposed to risk in alliance
- Competition: High – Acquisition, Low – Alliance
- In highly competitive markets, firms tend to consolidate if they don't get ways to differentiate (new segments, products) to acquire consumer surplus.

* *When to Ally and When to Acquire*. (2004, July 1). Harvard Business Review. https://hbr.org/2004/07/when-to-ally-and-when-to-acquire

Merger and Acquisition Framework

Financial feasibility and deal structure	• Valuation for acquisition/ revenue-cost sharing for mergers should be financially justified
	• Deal structure
	  • LBO? – Cash/debt
	  • Equity
	  • Mix	

Synergies	**Revenue** • Channels - overlapping/complementary • Customers - overlapping/complementary • Products - IPs, monopoly possible? • Salesforce - how to rationalize?	**Cost** • Rationalize suppliers • Logistics - overlapping/complementary • Admin cost - lean top management • Rationalize workforce • Tax benefits • Manufacturing - assets, HR, Technology, capacity, Economies of Scale?
Exit	Exit clause time and options	
Risks	• Industry analysis – Porter 5 forces • Macroeconomic environment analysis – PESTEL	

Due diligence	• Relationship with stakeholders?
	• Legal aspects?
	• Cultural Compatibility?
	• Market Factors?
	  • Uncertainty – Low – Acquire
	  • Competition – Low - Acquire	

Post deal implementation	• Delve into value chain and look for operational feasibility	

Approach to Unconventional Cases

Conventional Case Mapping

- Think of the case from a broad perspective.
- Envision the key problem as a business scenario.
- Most unconventional cases can be mapped to one of the conventional case types.
- Eg - Investment analysis for a PE fund can be mapped to a market entry case.

Story lining – Journey Format

- Think of a hero who travels through the case problem.
- Divide the journey into phases as suitable.
- Carefully visualise the interactions through every phase of the journey.
- Pay attention to the chokepoints that define change from one phase to another.
- Depending on the case you may have to face circular loops as well.

Break Down

- Divide the case into level of granularity as applicable. Eg - channels, drivers, markets, shops, etc.
- Looking at the key factors for every level of analysis.
- Isolate factors that are not performing up to the benchmarks.
- Focus further analysis on these factors and phases.

How to give Recommendations

Problem – Solution Fit

- Ensure that you have correctly identified all the possible causes to the case problem.
- Tackle the problems exclusively without getting biased by your general knowledge.
- Any solution that tackles the problem can be presented with relevant caveats.
- Make sure your solutions are divided into short-term and long-term solutions.

Solution – Organizational Thinking

- Divide the organizations into its core capability areas – marketing, finance, operations, etc.
- Think of possible measures along every area to solve the problem.
- Look at the broad goals and profit drivers of the organization.
- The solution should be beneficial to the company and not aim at just solving a micro-problem.

Business Cases

- Several solutions are obvious for conventional cases. These are hygiene factors.
- Use your learnings from the MBA & industry knowledge to present solutions from successful companies.
- Do not use a lot of technical language you may have learned from classroom cases.
- Explain the same solution in a simple way and make sure to mention any caveats.

Approach to Product Cases

CIRCLES -
The CIRCLES Method is a methodology for product management that aids in providing answers to design – related that applies to a variety of products or services being developed, such as what the product is, whom it is intended for, why they need it, when and where it will be made available, and how it functions.

- **C** – Comprehend the situation
- **I** – Identify the customers
- **R** – Report the customers' needs
- **C** – Cut through prioritization
- **L** – List all solutions
- **E** – Evaluate tradeoffs
- **S** – Summarize solutions

RICE
Stands for Reach, Impact, Confidence, and Effort—is a prioritization framework for quantifying the potential value of features, project ideas
RICE formula - (Reach * Impact * Confidence)/Effort

<u>Reach:</u> Measures the # No of customers the product is expected to arrive within a particular time period.
Example: Customers per month, transactions per month

<u>Impact:</u> Measures the extent to which the given product impacts individual end
3 – massive impact
2 – high impact
1 – medium impact
0.5 – low impact
0.25 – minimal impact

<u>Confidence:</u> A scale to gauge the level of confidence we have in our reach and impact scores.
100% = high confidence
80% = medium confidence
50% = low confidence

<u>Effort:</u> Measures how much time in person months this design/ product development will take

Effort – Impact Matrix
Used organizing and prioritizing work. The prioritizing process involves weighing the work required for a task against the effect it will have.

Impact	Effort: Low	Effort: High
High	Quick wins These are easy victories, with low-effort methods that have a huge effect on your clients.	Major projects Large projects that will have a significant effect on your client and need a lot of time and work.
Low	Fill ins Involves very little work and have a negligible impact on your clients.	Thankless tasks Tasks that demand a lot of your time and energy but don't have much of an effect on your clients and are referred to as pointless.

5C Framework

The 5C framework can be used to evaluate internal and external factors that impact a company's marketing strategy.

5C

Company

- What are our core competencies?
- What is our mission and vision?
- What are our strengths and weaknesses?
- What is our brand reputation?
- What are our financial resources?

Competitors

- Who are our primary competitors?
- What are their strengths and weaknesses?
- What is their market share?
- What is their pricing strategy?
- What is their marketing strategy?

Customer

- Who are our target customers?
- What are their needs and wants?
- What is their purchasing behavior?
- What are their demographics?
- What are their psychographics?

Collaborators

- Who are our suppliers?
- What are our distribution channels?
- What are our strategic partnerships?
- What is our relationship with stakeholders?
- What is our regulatory environment?

Context

- What is the overall market size and growth rate?
- What are the macroeconomic conditions?
- What are the industry trends?
- What is the technological environment?
- What are the political and legal factors?

4P Framework

The 4P framework, also known as **"Marketing Mix"** identifies the four major elements for developing a marketing strategy which is crucial for customer acquisition.

Product

- What does the customer want from the product?
- What features does the product have to meet these needs?
- How and where will the customers use it?
- What does the product look like in size, colour etc.?
- How does the product differentiate from others?

Place

- Where do buyers look for your product or service?
- If it is a store, then what kind of store are we placing our products in? (supermarket, kirana store etc.)
- How can you access the right distribution channels?
- Do we need to use a sales force? If yes, what will be their mode of selling?
- Where do your competitors place their product?
- What can we learn from them and how can we differentiate?

4P

Price

- What is the value of the product or service to the buyer
- Are there established price points for the products or services in this area?
- How price sensitive is the customer?
- What discounts should be offered to trade customers?
- How will your price compare with that of the competitors?

Promotion

- When is the best time to promote?
- What media will be used for promotion such as print, TV, social media etc.?
- How do the competitors do the promotion?
- Where and when can you get across your marketing messages to your target market?

SWOT Analysis

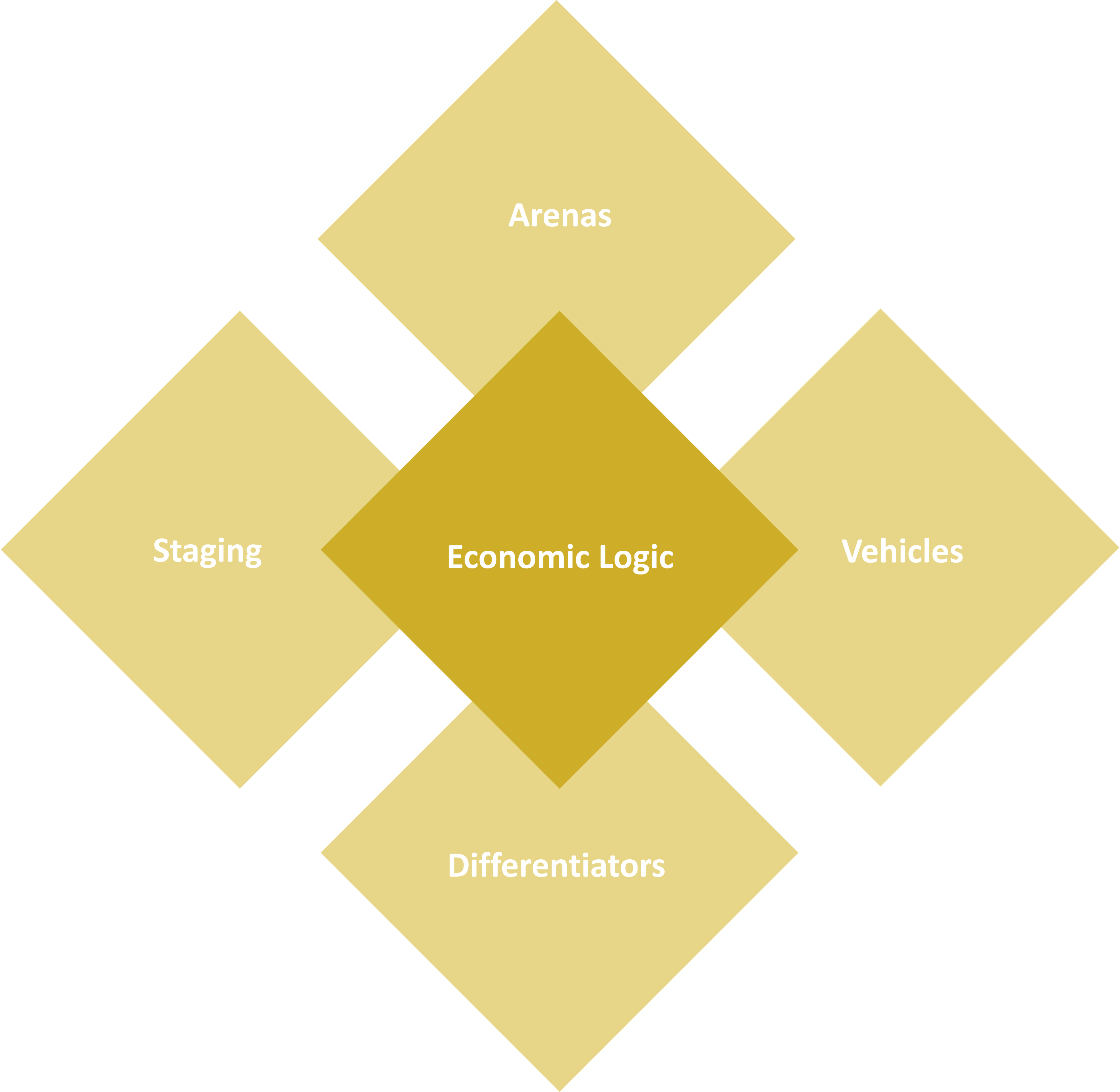
The SWOT analysis is used to assess the internal factors (through strengths and business) and external factors (through opportunities and threats) that might affect a business

Strengths	Weakness
• Technological Skills • Production Quality • Scale of Operation • Distribution Channel • Loyalty/Relationship	• Changing Customer Preferences • Globalized Economy • Favorable Regulatory Policies • Low Tax Regimes

Opportunities	Threats
• Unreliable Production • Sub-Optimal Scale of Operation • Poor Access to Distribution • Weak Brand	• Shifting Customer tastes • Restricted Geographical Access • Obsolescence • Adverse Regulatory Changes

Strategy Diamond

Strategy diamond helps in identifying, defining business strategy by answering questions to five parts: Arenas, Vehicles, Differentiators, Staging and Economic Logic



Arenas: Where will we be active?
- Which geographical areas?
- Which core technologies?
- Which value creation stages?
- Which product categories?
- Which market segments?

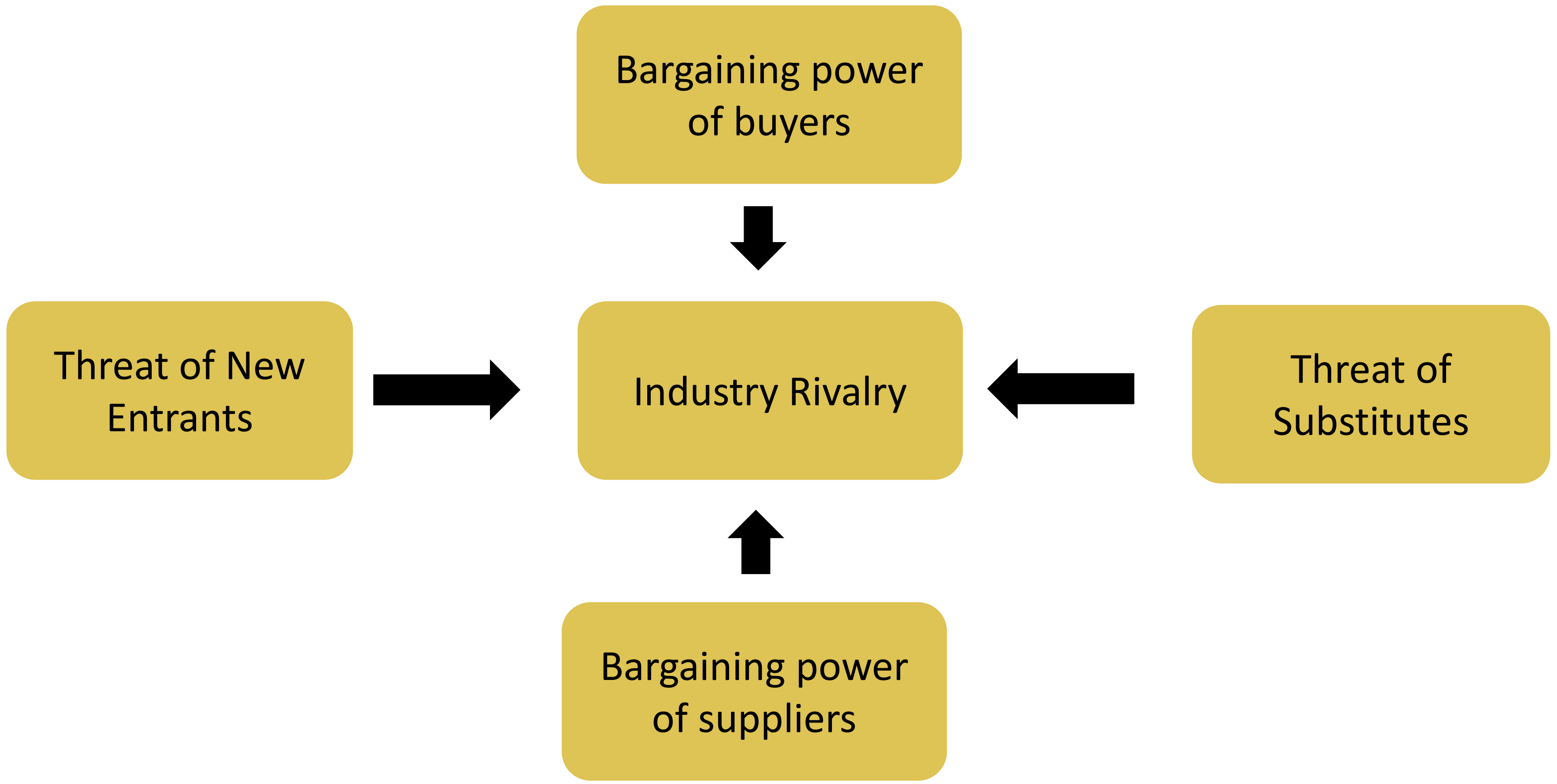
Vehicles: How will we get there?
- Internal development?
- Joint venture?
- Licensing/Franchising?
- Acquisition?

Differentiators: How will we win?
- Image?
- Styling?
- Pricing?
- Customization?

Staging: What will be our speed and sequence of moves?
- What should be the speed of expansion?
- What should be the sequence of initiatives?

Economic Logic: How will we obtain our returns?
- Lowest cost through scale advantage?
- Lowest cost through scope and replication advantage?
- Premium prices through unmatchable service?
- Premium prices through proprietary product features?

Porter 5 Forces



Porter 5 forces can be used in the following scenarios:

- **Industry analysis:** To analyze the competitive environment of an industry, evaluate industry attractiveness, and identify key drivers of profitability.
- **Company strategy development:** To develop strategies to improve companies' competitive advantage, address competitive threats, and prioritize resource allocation.
- **Investment decisions:** To evaluate the attractiveness of an industry, identify potential risks and opportunities, and inform investment decisions.
- **Market entry strategies:** To analyze the competitive environment of a new market, identify potential barriers to entry, and develop strategies to successfully enter the market.
- **Innovation and differentiation:** To identify areas for innovation and differentiation, evaluate the potential impact of new products or services, and inform strategic decision-making.

Threat of new entrants:

Increases with
- Barriers to entry (increase)
- Economies of scale (increase)
- Brand recognition (increase)
- Access to distribution channels (increase)
- Government policies (increase or decrease)

Bargaining power of buyers:

Increases with
- Number of buyers (increase)
- Size of buyers (increase)
- Availability of substitutes (increase)
- Switching costs (decrease)
- Importance of supplier to buyer (increase)

Threat of substitutes:

Increases with
- Availability of substitutes (increase)
- Price of substitutes (decrease)
- Quality of substitutes (increase or decrease)
- Switching costs (decrease)
- Perceived differences (increase)

Bargaining power of suppliers:

Increases with
- Number of suppliers (decrease)
- Size of suppliers (increase)
- Availability of substitutes (increase)
- Switching costs (increase)
- Importance of buyer to supplier (decrease)

Industry rivalry:

Increases with
- Number of competitors (increase)
- Size of competitors (increase)
- Industry growth rate (decrease)
- Product differentiation (increase or decrease)
- Exit barriers (decrease)

PESTEL Analysis

This framework is helpful to identify and evaluate the external factors and forces that can impact company's operations, performance, and growth. By considering these external factors, businesses can identify potential opportunities and threats and develop strategies to adapt to changes in the external environment.

P

Political:

- Government stability
- Regulations and policies
- Tax policies

E

Economic:

- Inflation and interest rates
- GDP and economic growth
- Exchange rates

S

Sociocultural:

- Demographics and social trends
- Lifestyle changes
- Attitudes and beliefs

T

Technological:

- Innovation and research and development
- Automation and efficiency
- Intellectual property right

E

Environmental:

- Climate change and weather patterns
- Natural disasters
- Environmental regulations

L

Legal:

- Labor laws and employment regulations
- Intellectual property laws
- Consumer protection laws

Basics of Economics

Types of Price Discrimination

1st degree: It involves selling the product at the exact price that each customer is willing to pay. Thus, the price is different for everyone.
Eg: An online auction where each good is sold to the highest bidder based on his maximum willingness to pay.

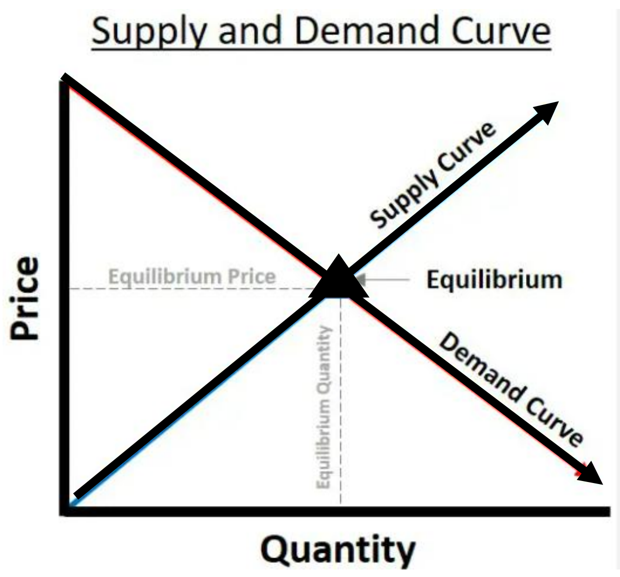
2nd degree: It occurs when a company charges a different price for different quantities consumed such as quantity discounts on bulk purchases.
Eg: A phone plan that charges a higher rate after certain minutes of usage.

3rd degree: It involves selling product at different prices for different groups. These segments can be based on characteristics such as age, sex, location etc.
Eg: A theater pricing tickets differently for seniors, adults, and children for seeing the movie.

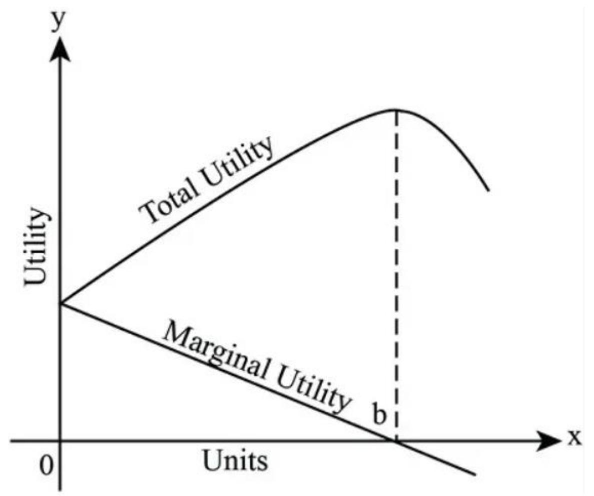
Key Terms:

- **Willingness to pay:** The maximum price that a customer is willing to pay for a product or service.
- **Price discrimination:** It is a pricing strategy that charges consumers different prices for identical goods or services.
- **Marginal utility:** The incremental satisfaction received from consuming a good or service.
- **Market clearing condition:** The market is said to clear when the supply and demand of goods in the market are in equilibrium. The corresponding price and quantity are called market clearing price and market clearing quantities.

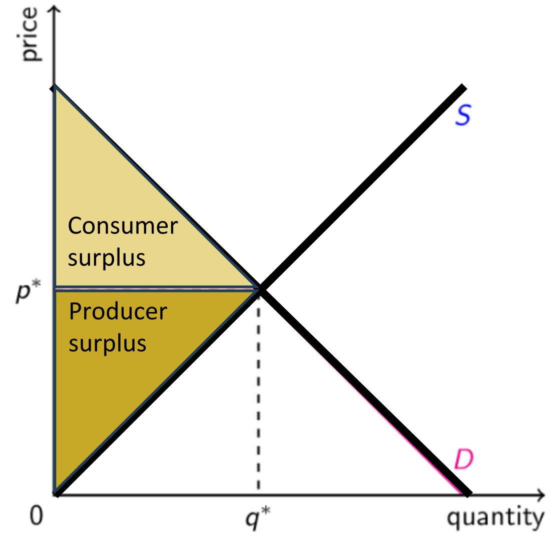
Important Graphs in Economics



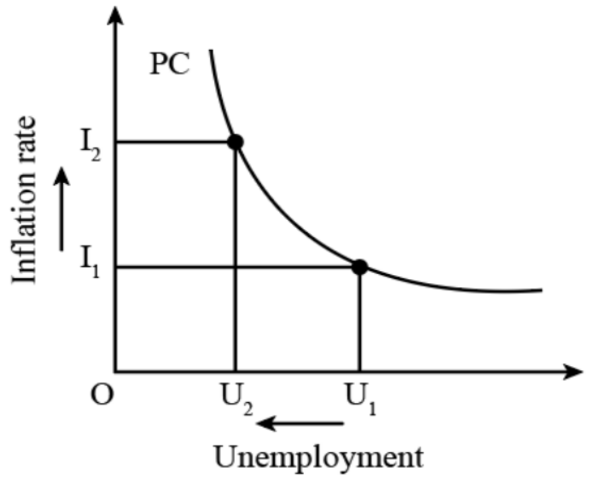
Law of Supply – Keeping all other factors constant, an increase in price leads to an increase in the supply of goods.
Law of Demand – Keeping all other factors constant, as the prices of goods increases, the demand for the good decreases.



Law of Diminishing Marginal Utility – The extent of satisfaction (utility) decreases with the consumption of each additional unit of good. Thus, there is a point of consumption where the total utility is maximized.



Consumer Surplus – Maximum Price that the buyer is willing to pay – Actual Price (It happens when the product is priced at a level below the consumer's maximum willingness to pay)
Producer Surplus - Market Price – Producer's Minimum Acceptable Price (It happens when the product is priced at a level higher than the producer's minimum acceptable rate)



Phillips Curve – The higher the rate of inflation, the lower the rate of unemployment and vice-versa. Thus, we can either control inflation or unemployment but not both.

Basics of Finance

Income statement
Known as P&L statement, shows company's Revenue, Expenses, Depreciation, Interest and Tax payments. It can help understand company's profitability of a period of time.

Balance sheet
It is a statement of company's assets, liabilities and shareholder's equity at a specific point in time. It is used to determine company's health on a specific day.

Cashflow statement
It is a statement of company's incoming and outgoing cashflows consisted of Cashflows from Operations, Financing and Investing during a specific period of time.

After subtracting dividend payments from Profit after tax, remaining amount is added as Retained earnings to balance sheet.

Net cash is added under Cash and Cash Equivalents section under Short term Asset items

Free cashflows = NOPAT + Depreciation − Capital expenditure − Net change in working capital

Free cashflows: FCFs are money left with the company after fulfilling all the obligations

NOPAT: Net Operating Profit after tax/ PAT/ Profit After Tax

Depreciation: Depreciation is added back to PAT because of it is a non-cash expense i.e., no actual cash is moved.

Capital expenditure: Planned Capital expenditure is subtracted for that particular year.

Net change in working capital: Addition/subtraction of company's working capital requirement is subtracted/ added to PAT.

Methods of evaluation

No.	Valuation method	Input	Output
1.	Discounted Cashflow Model (DCF)	Future cashflows and Terminal Value discounted with cost of capital to present value	Value of a Firm
2.	Dividend Discount Model (DDM)	Future dividends discounted with difference between cost of equity and growth rate to present value	Share price of a Firm
3.	Relative Model	Comparison of Parameters using Industry multiples to parameters with similar risk profiles.	Value of compared Asset

Types of share price

Book value	Intrinsic value	Market value
Ratio of equity available to common shareholders divided by number of outstanding shares.	True value of a firm calculated by fundamental analysis of firm divided by number of Outstanding shares.	Price at which security is currently trading in stock exchange.

Intrinsic Value > Market Value : Stock is **Undervalued**
Intrinsic Value < Market Value : Stock is **Overvalued**

Terminal Value: It assumes that the business will grow at constant growth rate for perpetuity. Consideration of Terminal value is mandatory to assume that business will not stop after certain years and will keep growing.

Basics of Finance

Financing options

Companies require funds to meet capital requirement for expansion or R&D or may be to meet daily operational needs. They generally have two options to finance:

Equity

Companies can raise funds by issuing equity either through IPO, FPO or Rights Issue.

IPO (Initial Public Offering)	FPO (Follow-up Public Offer)	Right issue
New stock issuance to Public by Private company for the first time. It is referred to as "going public" sometimes.	Stock issuance by existing listed companies to public investors. It is an issuance of additional shares after IPO.	Offering of rights to existing shareholders to buy shares at discounted price from current secondary market price.

Cost of Equity = Risk Free Rate + Market Risk Premium * Beta of company.

Debt

Companies/Government can raise funds by issuing bonds

Companies pay cost of debt when financing through this option. Cost of Debt is generally effective interest rate company pays on debt.
Characteristics affecting Cost of Debt: Maturity, Coupon Rate, Required Return

Corporate Bonds have higher cost of debt compared to Government Bonds because of Liquidity, Maturity and Inflation Risks.

Annuity: Contract to pay/earn fixed sum of money at the end of each equal interval.
Annuity Due: Contract to pay/earn fixed sum of money at the beginning of each equal interval
Perpetuity: Type of Annuity which continues indefinitely.

Few Important Metrices to analyze Company's Financial Health

Profitability

Evaluates company's ability to generate profits from its operations.

$$\text{Net Profit Margin} = \frac{\text{Profit after Tax}}{\text{Sales}}$$

$$\text{Return on Equity} = \frac{\text{Profit after Tax}}{\text{Shareholder's Equity}}$$

Solvency

Evaluates company's ability to stay afloat over a long haul, by paying off debt.

$$\text{Debt to Equity} = \frac{\text{Outstanding Debt}}{\text{Shareholder's Equity}}$$

$$\text{Interest Coverage} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

Market Prospect

Helps investor to estimate trend and earnings by comparison with other trading stocks.

$$\text{P/E Ratio} = \frac{\text{Market Value of Share}}{\text{Earnings per Share}}$$

$$\text{Earnings per Share (EPS)} = \frac{\text{Profit after Tax}}{\text{No. of Outstanding Shares}}$$

Efficiency

Evaluates how efficiently company utilizes its assets and liabilities to maximize profit.

$$\text{Inventory Turnover} = \frac{\text{COGS}}{\text{Average Inventory}}$$

$$\text{Fixed Assets Turnover} = \frac{\text{Sales}}{\text{Average Fixed Assets}}$$

PROFITABILITY

Saudi Snacks Company

FMCG | Easy

Your client is a Snacks Company from Saudi, they are facing a decline in profits. Find out the issue and recommend solutions for the same.

Just to reiterate the problem statement, my client is a Snacks Company from Saudi, they are facing a decline in profits. I must find out the issue and recommend solutions for the same.

Yes, that's correct. Please go ahead.

Can you tell me a little more about the company, customers and the competitive landscape?

You can consider it to be like any other snack company with only one product which is chips like Lays; they sell their products from retail shops just like in India. We are the market leader with 75% market share. The rest of the industry is fragmented. You can consider customers to be Lays, anyone.

Sure, thanks. Can you tell me if this is an industry-wide issue or specific to us? Also, how much has the profit declined, and since when is this problem happening?

Given that we are the market leaders, the industry has faced the problem as well. The profit has declined by 15% and this has been happening since last two years.

Alright, thanks. I need a minute to structure my thoughts.

Sure.

Since profit is a function of revenue and costs, can you tell me if the revenues are declining, or costs are increasing?

Costs have remained the same, you can look at the revenue side first.

Sure, I think the revenue is a multiple of price and number of packets sold, so can you tell me if the price has decreased, or the packets sold has gone down.

The number of packets has gone down.

Oh, okay, is it a supply side issue or a demand side issue?

I think the supply side is fine, you can look at why the demand has gone down.

Demand can fall because of internal and external factors. First, I would like to check the external factors. Has there been any change in political, economic, social, technological, environmental and legal factors?

Well, the sunflower oil prices have gone up, that has had economic impact.

Sure. I get it. This must have probably increased the cost of ingredients for us. Noted, is there anything else you'd want me to explore, or can I go to the internal factors?

No, you can go to internal factors.

Except for increase in price of oil which is external, has there been any change in the need, awareness, availability, accessibility, or perception of quality has gone down. I am ruling out affordability given that the prices haven't changed. I hope that is a fair assumption.

Well, the perception has changed. People don't like the product as much any more maybe. Can you think of why is that?

Perception can change because for three reasons: pre-purchase information which is reviews, word of mouth, news, etc.; during purchase factors like quality and post-purchase which includes complaint redressal, etc.

The quality of the product has gone down.

Have we started using a different oil since the sunflower oil prices spiked?

Absolutely. We have switched to palm oil which has led to decline in quality. Now that you know the problem, can you suggest recommendations for the same?

I need 30 seconds to structure my thoughts.

Sure

Alright so I have the following recommendations:

1. We can decrease the packet grammage, and fill in air in packets, while keeping the prices same while we switch back to sunflower oil.
2. We can also increase the prices. Given that we are market leaders, I feel that even if we face some losses in near future, it will be recovered later. Quality is more important here.
3. We can do marketing campaigns that attract our loyal customers back.
4. We can find alternatives to the oil such that the quality does not decline.
5. We can sell multiple SKUs of different quality a charge premium on the original sunflower oil variant. People can choose what they like.

Sure. That's great. Thanks.

Soap Manufacturer

A soap manufacturer is facing a decline in profits and wants to increase them. How would you help them achieve this goal as a consultant?

Repeated the question to confirm my understanding properly.

Yes. You can proceed now.

We can increase our profits by either increasing our total revenue or decreasing our existing costs. I can look into both of these buckets to find out some solutions. Do you want me to focus on any one of the two first?

Give your recommendations only from the cost side first.

Sure. Costs are of 2 kinds: fixed and variable. In fixed, we can include the capital cost and the labor cost. Labor cost is included as even if a single unit or a batch increases production, the number of employees will remain the same. Thus, it's mostly fixed. In variable costs, we can include transportation, raw materials, electricity (units required to produce a single unit or batch), and most importantly, packaging, since soaps require that.

Good eye on packaging one. Explain how you would go about reducing these costs.

Firstly, I would dive into the fixed costs and like to know if we've constructed any new plant or done any expansion.

Yes, we've constructed 3 new plants.

Great, so that could probably be one of the causes of the decline in profits as new costs have been incurred. And I believe this also means that labor has been hired for the new plants, thus adding to labor costs. Also, has there been any ramp-up in production then? This would mean more electricity costs too.

Yes, the plants have been constructed because we see an increase in demand in the future, and our current plants are working at full capacity. But the new plants aren't operational yet.

Oh, okay. That's all I have for fixed costs for now. Delving deeper into the variable costs, I would like to know how we manage our transportation, i.e., the whole supply chain. Is it in-house or 3rd party? Further, how does the competition handle the same? In case of any difference, which one costs more and by how much?

We have our supply chain controlled by a 3rd party. The competition manages its supply chain itself. We incur 20% more costs than them.

Okay, noted. That would be useful for my further recommendations. And has there been any Change in the price of raw materials?

Yes, they've become pricier.

Do any other supplier options exist for raw materials? Does any long-term contract bind us?

There exist different options, and we can change our supplier without much hassle.

Great. Coming to the packaging, I would like to ask about our product portfolio.

Sure, I was waiting for this. We have 3 major SKUs (stock-keeping units) Adult soaps for bathing, adult soaps for sanitation, and kid soaps.

I would like to know the packaging costs, the margins, and the revenue of all three, please.

Kid's soaps have the highest profitability and the highest packaging costs. Adult sanitation soaps have the lowest margin and lowest packaging costs, and they sell the most. Adult bathing soaps are in between for all the factors you asked for. You can give your recommendations now.

Sure. I would like to give my recommendations for the short-term and long-term. In the short term, I would suggest reducing the packaging for the soaps, especially the kid's ones. Increase the sales of kid soaps as they give the highest profits and change raw material suppliers. I see the plants eventually paying for themselves for the long term as the plant's capacity will increase, and the new plants will become operational soon. Also, we should try to own our supply chain gradually. This will take time but will eventually save us a significant amount of money.

Good, pretty convincing. But now, I also want you to answer how you would approach this from the revenue side. Just give an overview.

Sure. For increasing the revenue, we would have to increase our sales. I propose the following methods for that –

1. Increase ticket size: This can be done by various activities to get buyers to spend more per visit than they usually would.

2. Explore more distribution channels: If we're only into one or two distribution channels, we could explore more ones. These could include a supermarket tie-up, pharmacies, or e-commerce if we aren't into any of these.

3. Loyalty programs: Since this is a business where you want repeat purchases from the customer, keeping the customer in the system is crucial. Thus, implementing some loyalty programs would go a long way.

4. Bundles: Soaps are often sold as bundles. Combining the lowest-selling product with the highest one could be an excellent method to push the former. Also, we can combine various SKUs or quantities to increase sales.

5. Promote best-selling products: Push kid soaps more as they give the highest margin per product, thus pushing our profitability.

Food Delivery Customer Service

Your client is a leading online food delivery platform. For months they have been cutting costs in their various operations. Currently, their customer complaints are handled by executives. However, they are evaluating the possibility of eliminating the executives and replacing them with chatbots. What factors would you consider to decide whether they should replace their executives or not?

To ensure whether I have understood the problem well and that we are on the same page, I will reiterate the problem statement (Clarified the statement)

Yes, that's right, go-ahead

First, I would like to clarify certain things like the geography that we operate in, the competitive scenario, and any particular customer segment that we target (if any)

(Gave all the information) First of all, tell me what all factors can you think of broadly that would impact the decision?

(Took a minute) I can think of a few like the total number of queries received, the average time spent by the executives to solve each query, the kind of queries (standards like getting to know the delivery time or the status of the delivery versus the specific ones that require human intelligence like lousy food quality, missing items, etc. to generate refunds, etc.)

Yeah, absolutely right! So now tell me what should you evaluate to arrive at the decision?

(Was not able to understand and asked her to give me a moment)

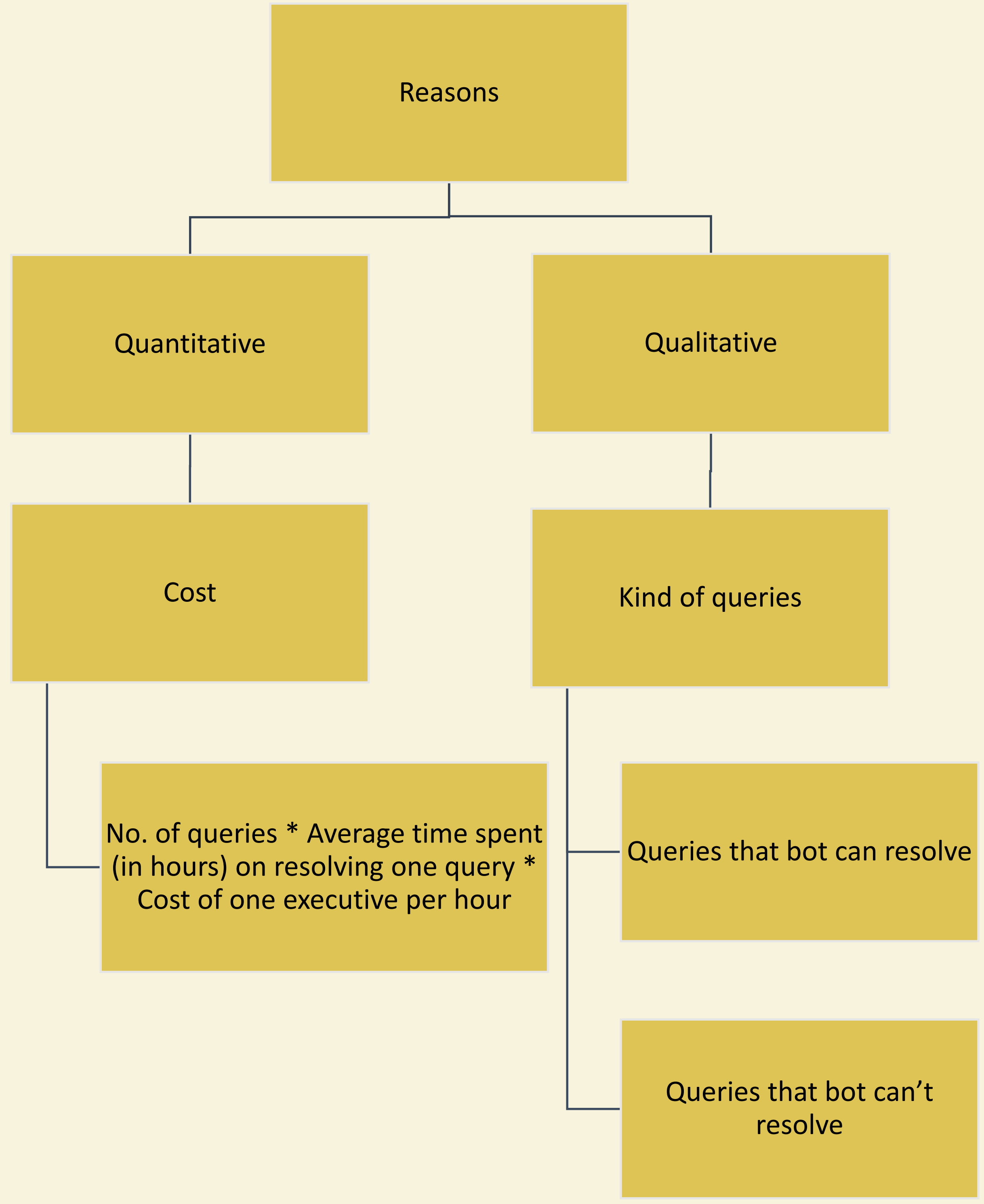
Let's first try to figure out how many queries the client receives in a week. Choose a city of your choice and start.

Oh yes, sure. (Choose New Delhi, began with the population, took an average household size to find out the number of households, applied the filter of income (low, middle, and high), and then further categorized the type of households into family and bachelor to figure out the frequency of orders. Then, took a ballpark number for the percentage of complaints out of the total number of orders to arrive at the total number of complaints in a week)

Okay, that's great. Now what do you think? Should the executives be replaced or not?

Given that the number of complaints is too high, one thing is sure that the number of executives required to solve them would be too high which would be a major cost component and will not help in cost-cutting. But at the same time, chatbots will not be sufficient to cater to all kinds of queries. So in that case, we can try to have a mix of both the chatbots and the executives. This would be helpful as the number of executives would be reduced thereby reducing the costs and the remaining executives can cater to the specific queries.

Yeah, that sounds reasonable. Thanks, we can now close the case.



Your client is a bank that gives personal loan. It wants to increase its profits in this division.

So, to reiterate, my client is a bank that wants to increase its profits in a personal loan division. I need to figure out ways to do so. Is there anything else I should look into?

No. that is it.

Where is the bank? What is its current market share in personal loan industry? Who are its customers?

It is situated in Bombay. It serves people from Bombay and nearby cities. It is a small bank and has very less market share.

Alright. To increase profits, we can either try to increase the revenue which the bank is earning from the personal loan division or try to decrease the cost we are incurring in giving personal loans to customers. Do you want me to look into any one of these or both?

Let's look into increasing the revenue first.

Okay. Revenue can be increased in 2 ways- either by increasing the number of customers we serve or by increasing the amount of loan we give to each customer: because we earn interest proportionate to that. Are there any criteria we look for, in customers, before giving them personal loans? How is the loan amount we give to them decided?

We have a list of parameters that considers age, residential information, earnings, etc. for giving a personal loan.

So, to increase the no. of customers, we can reduce the minimum earning threshold that we look out for, before giving a loan to a customer. This will help us serve more customers. Since we are serving customers only in Bombay, we can try setting up more branches in other parts of Maharashtra to increase our reach.

All that is fine. Any other way to increase the revenue that you could think of?

(Takes some time to think)

Could you look at the distribution channels we might be using?

Yes. Insurance could be sold through sales agents or through online mode via our website. Am I missing any other channel?

We also sell insurance through external websites like Policybazaar. All the rich businessmen who take personal loans from us prefer the online mode of getting the personal loan.

Alright. So, we can try to give some sort of commission to sites like Policybazaar for every customer we get from their website. We can also commission them to place our loan option on the first page of their website where it could be easily visible to customers. Since the businessmen who take a loan from us form a vital part of our revenues, we can put up digital ads on websites that these people are likely to visit more, such as moneycontrol.com, Investopedia.com, etc.

That seems fine. Okay, now viewing the cost aspect. What do you think would be the costs for the personal loan division of a bank?

There could be 2 types of costs -fixed and variable. Fixed cost includes rent of bank branch and employee salaries. Variable cost includes stationary cost, sales, and marketing cost.

Any other variable costs you could identify?

I can't think of anything else right now.

The commission you pay to Policybazaar will be a variable cost. There would be a technology cost involved: which will also be variable. Thank you. It was nice talking to you

Delhi Metro

The Delhi Metro is not making enough profit. Identify the reasons and recommend a few solutions.

I would like to begin with a few clarifying questions. Should I be considering a normal pre-COVID year? As per my understanding, profit is a function of both revenue and expenses/ costs. Is it okay if I start with the revenue part?

Yes, you can consider a normal year. The decline in revenues is the key issue, costs are not a problem for now.

Okay, so my focus would now be on identifying the reasons behind the fall in revenue. Is there any other objective that I should keep track of?

No, you may proceed with exploring the revenue part.

Regarding the problem that we are facing, is this a problem specific only to the Delhi metro, or are other metros also facing the same issue?

For now, let's focus on Delhi. The other metros are doing considerably well.

I would now like to go into the details of the revenue generated. Per my understanding, a metro earns its revenue primarily from ticket sales. There are other sources of revenue such as the rent paid by various shops in the metro complex, rent/commission obtained from the taxi/auto drivers, etc. I would like to begin with the ticket revenue first.

Sure, please continue.

Thank you, sir. I would like to break up the revenue part into two components, namely ticket fare and the number of tickets sold. Do we have any details if any of these have declined?

The ticket fare has undergone no change. It is the number of tickets sold that have fallen.

The number of tickets sold could have decreased due to the market share captured by Delhi metros in specific. Have there been any recent changes due to which the metro passengers have now shifted to other modes of transport?

Which segment of the public do you think travels by metros? And if they have opted out of availing metro service, what could have been the reasons?

According to me, people consider metros as a cheap, safe, and convenient mode of transport to travel to their offices or schools/colleges. Another reason would be to escape from the heavy chaotic traffic on the road during the peak hours. So, a major portion of the passengers are regular customers going on the same route every single day. If they have opted out of the metro service, it may be because they now have cheaper and even more convenient modes of transport. Has there been a reduction in the bus ticket fare?

No, nothing of that sort. The bus fares have been constant for a long time now.

Okay, in that case, considering the convenience factor, have there been any new infrastructural developments such as underpasses or flyovers or any new routes introduced as an attempt to reduce the traffic on road?

No, that is not the change we are looking for. No new developments on that front. Can we come back to metros and explore more reasons for people not availing of the metros?

Sure, Sir. Considering that most of the metro stations are situated in the cities and not in the residential areas, I feel there could be connectivity and transportation issues for people staying in residential areas.

Yes, could you elaborate on it?

Sir, in my opinion, most people who are interested in the metro services but cannot avail of them are those who stay far from the metro stations. The cost of traveling to the metro stations is an additional expense to be incurred. So, we are losing out on such prospective passengers

That could be one reason. You are correct. Could you give some recommendations in this regard?

The Delhi metro can resolve such hiccups by introducing feeder buses/taxis or by launching an entirely separate subsidiary that would operate electric buses and three-wheelers to connect its stations with residential areas.

That sounds good to me. Can you think of any other issues faced by passengers?

Sir, another issue I feel is that of the long queue system at the ticket counter. Is this an issue I should be looking into?

Most metros issue travel passes with validity for about 3 months for regular customers who are a majority. They just have to swipe the card and use the metro service. The long queue wait time thus does not apply to them. Anything else that you would want to point out?

Sir, that is all I can think of at the moment.

No problem. That should be enough. I had a good conversation.

A US-based regional bank wants to improve its Efficiency Ratio (= Non-interest expenses/Revenue). The competitors have reduced their efficiency ratio, and hence, the US bank has collected the last 5 years' publicly available data of these competitors. Suggest what data will be useful in improving the efficiency ratio, and the final strategy the client should use to improve the Efficiency ratio.

Thank you. I'll repeat the problem statement to be sure that we are on the same page. Went on to repeat it.

That sounds right. By improving the efficiency ratio, what do you think the client means?

Since the Efficiency Ratio is Non-interest expenses/Revenue, intuitively, I believe the client wants to decrease it since they would want to have lower expenses for a fixed revenue.

Yes, and let's start with Revenue first.

I will look at the Revenue drivers and Non-interest expenses broadly.

Within Revenue, we can look at Interest (interest levied on loans) and Non-interest revenue (inactivity fees, insufficient funds fees, annual maintenance/service charges, etc.). Non-interest expenses will be the Fixed Operating costs including Rent, salaries, Bonuses, etc. Is the approach correct?

Yes, this looks good. Where do you think you can get this data for the competitors?

We can look at the Annual Reports of the banks, which are available publicly. Also, within the reports, we will look at the Balance sheet, Cash flow, and P&L statements for the last 5 years and see what strategies they have used.

Okay, let's start with Revenue first, specifically the Non-interest revenue.

To increase the Non-interest revenue, we can increase the customer base, and increase the number of products/services being offered (introduce digital products, maybe). What kind of customers is the bank servicing right now?

Why do you need that?

I want to understand the customer base we are catering to. Certain services/products catering to underserved customers could be strategized, like wealth management services for HNIs, etc. This would help us by tapping into a new customer base, if we are not serving them right now. If there are already customers, this would introduce new services. Either way, we would be increasing revenue. Is that something the competitors have done?

No, so the approach could have been good, but competitors' revenue has remained stable. Let's look at the expense side. What are the various costs, and what further sub-elements would you like to look at?

Ok, so looking at the Non-interest expense side, we want to decrease them. The Fixed costs we can look at include Employee costs (Salaries + Bonuses) and Plant & property costs (Utilities + Equipment + Rent). Am I missing out on any cost elements?

No, for this case, let's stick to the costs you have mentioned.

Ok, so Employee Cost = Salary + Bonuses. We can look at how competitors are paying their employees, or if there's any industry standard, we can come up with to devise a new pay scale. Also, looking at the number of employees per branch of competitors can help us see if they are overstaffed/understaffed. We can compute the ratio (# of customers served/Employees per branch) for the different banks, including us.

Since that will not be available in the Annual reports. Also, the client employee costs are comparable to the competitors. So, let's look at the rent expenses first.

Ok. So, have the competitors reduced their Rent expenses over the years?

Yes, they have. How would you advise the client to reduce the rent costs?

Using a Mathematical approach, Rent = # of branches x Branch size x Rent per sq. ft. Based on the formula, I can look at the cost drivers for each of the 3 parameters. Is it fine? Also, how is the client positioned on the above 3 w.r.t the competitors?

So, we can leave out branch size.

To decrease rent per branch, the client can shift from premium locations to less expensive locations and sign long-term leases to negotiate cheaper rent. And the client can shut down some branches to reduce rent costs as well. These are a few ways I can think of to reduce rent costs. Am I missing out on something?

No, it's fine. That's actually what the client was advised – shut down some branches and provide digital services to serve those customers. Thank you!

A pizza shop is facing the problem of declining revenues.

Can you tell me something more about the Company? What kind of pizzas is he selling? Is he selling only pizzas or other food products as well?

The client is selling 4 types of pizzas namely Cheese, Veg, non-veg, and Mushroom Pizza. No, He is not selling any other product apart from pizzas.

How is the competitive landscape? Has there been an entry of any new player?

The market is huge. The entry or exit of a player doesn't matter much here. The client has some degree of competition. There hasn't been the entry of any new player.

Who are the prime customers of our client? Does the client target any particular type of consumers like students, bachelors, family, etc.?

The is no specific segment that our client focuses.

Since when is the client facing this issue? Is it common across all the players or only limited to the client?

The client is facing the problem of reducing revenue for the last 3 months. The problem is only limited to our client.

Is it safe to assume that the client is facing the problem of reduced profitability as well since it is facing reduced revenue?

No, there has not been any fall in the profits of the client. It is only the revenue that has taken a hit.

Let me divide the revenue into prices, quantity sold, and product mix. Since the profits have remained stable, they have worked hard to improve their efficiency. I won't look into the cost component here for my analysis. Shall I proceed with these assumptions?

Fair enough.

Has our client reduced the prices of pizzas in these 3 months? Like giving price offs every time in all seasons

No, the prices have remained relatively stable.

Has there been a reduction in the number of pizzas sold?

No

Talking about the product mix, has there been any significant changes in the pattern ordering of pizzas which has led to a fall in the sale ticket size?

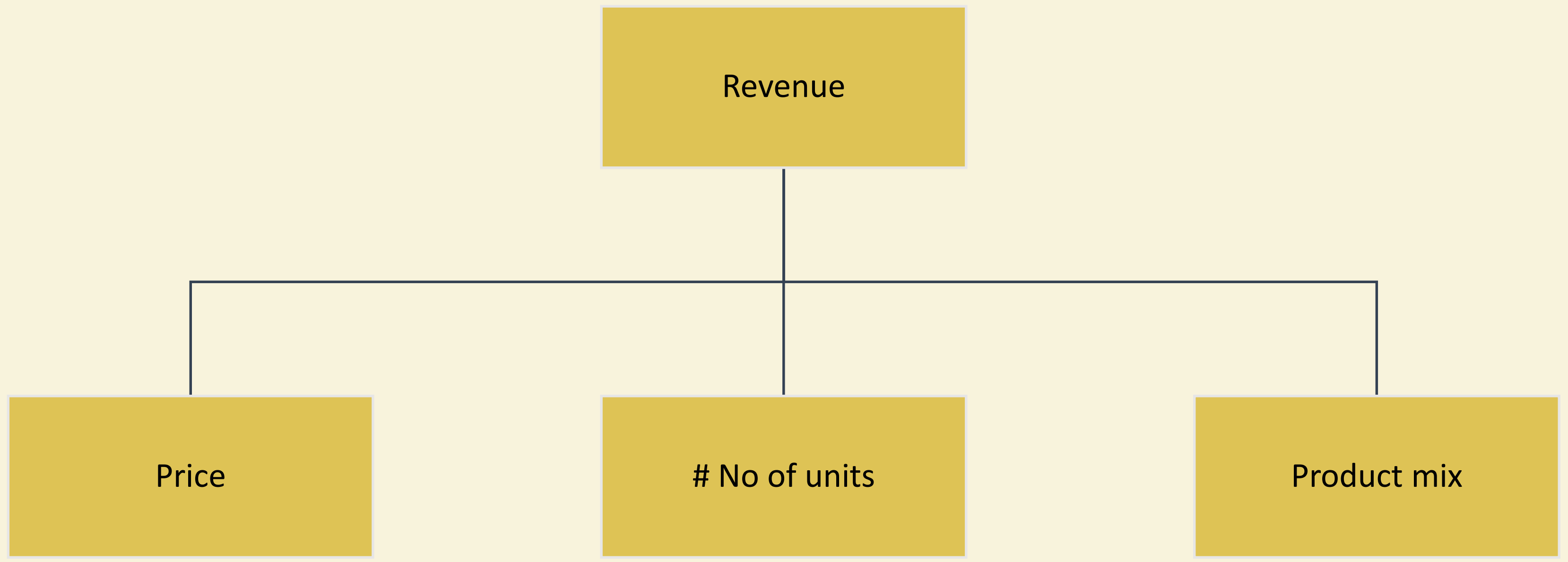
Good point. The customers are now ordering the smaller pizzas. The value of ticket size has reduced.

Ok. Since the average ticket size value has reduced, which has led to a drop in overall revenue. Since smaller pizzas also come at a lesser cost, that's how they have managed to keep the profits unchanged.

Great. Would you like to give recommendations?

Sure. The following recommendations could be helpful for the client:

1. Since they are only selling pizzas, they should introduce items like Choco lava cakes, cold drinks, French fries, meatballs, etc. They can be termed add-ons.
2. Our client can promote the sale of the bigger pizzas as they have lower costs, they can do this by bundling the lower sold item with the more selling items. Or bundling the pizzas with the add-ons.
3. Doing sales promotions on special occasions and festivals can boost sales.
4. Introduce newer varieties of pizzas, since there is some degree of competition existing, they can introduce new lines of pizzas which can be a differentiating factor for them and bring in more crowd.



Fast Food Restaurant

The client is a North American casual fast-food restaurant chain. It has branches in over 2000 locations across the US, of which 50% are company-owned outlets and the rest are franchises. They mainly serve sandwiches, salads, and soups and pride themselves on providing fresh food made from fresh ingredients to their customers. For the past few years, the client's profits have been declining even though their sales figures have been relatively consistent. Identify the potential causes of their declining profits and give suitable recommendations.

Thank you. I'll repeat the problem statement to be sure that we are on the same page. Went on to repeat it.

That's correct. Go ahead.

So, from what I understand, several factors contribute to a firm's profitability. If it's okay, may I write these down and list them all for you? I'll then like to tackle each factor one by one and try to find the cause.

Sure, go ahead.

(Broke up Profit into Cost & Revenue) Revenue comes from sales volume and prices. Since you mentioned that sales have been consistent, I think the problem lies in the cost side of things. Cost can be broken down into Fixed costs and Variable costs. Fixed costs would include things like opening new outlets. Was there any change in Fixed Costs?

No, there was no change in fixed costs.

Okay. Coming to the variable costs may include several factors – Raw materials, supply, employee wages, and maintenance costs of the stores (Electricity, water, rent, etc). Also, since you mentioned that the firm gives extra attention to the freshness of their food, there must be wastage.

Yes, there has been an increase in wastage throughout their outlets, especially in the past year. They also bake fresh bread every day for use on that day only, and the leftover bread is thrown away. What do you think could be the reason for this wastage?

So, wastage has been increasing. That makes up the list of variable costs involved with running the client's business. Right. Let me add that the outlets have two modes of business – in-house dining and takeaway/deliveries. Due to COVID, dining has decreased substantially. Deliveries have also increased, but not as much. Okay, then let me add Delivery costs to the variable costs as well. Dining was affected due to COVID, and the delivery side was unable to regain the sales lost due to that. I'd like to tackle possible causes of increased cost first.

Okay, go ahead.

Firstly, was there any change in raw material costs and maintenance costs?

Maintenance costs were the same as before, but raw materials like certain vegetables got costlier during COVID.

Okay, raw material prices increased. Was there a change in the number of employees or their wages?

Many of the front-of-house employees were let go due to low dine-in volumes.

Okay. And what about the delivery side? Was staff added there? How were the deliveries carried out?

Delivery was usually done by companies like Uber Eats and not handled by our firm. There was also no particular change in staff on the delivery side.

Okay, but since the staff had reduced, costs must have decreased. So, this is not the cause of the increase in cost. Next, we can consider the wastage problem, which is essentially caused when we are unable to accurately predict the daily demand for raw materials. Their focus on freshness also prevents them from keeping inventory.

Correct. So, what do you suggest?

We can recommend some software-based prediction tools to better predict consumption and thus help them avoid wastage. We can use past data and seasonal trends to better predict consumption.

They already have prediction techniques in place, but it is unsuccessful, and the wastage problem pertains. By the way, could you explain, what you mean by "Supply" as a contributing factor to cost?

I meant supply of raw materials to the outlets. These mainly include fresh vegetables and other food items.

Okay. Well, suppliers had increased their prices lately. But this was because certain vegetables had limited supply. These are the same vegetables we discussed in your Raw Materials point. Is there any way to tackle this problem?

I don't think there is a way we can directly tackle the shortage of vegetables which is causing the rise in prices. What we can do though is to remake the menu in such a way that these vegetables are not required or are substituted by cheaper, more readily available alternatives. We can include data about the most ordered menu items and keep those while removing the ones rarely ordered. This will help with the wastage problem as well.

Okay. This will surely help with vegetable wastage, but what about bread? Daily, 30% of the bread they baked went to waste. What can we do about that?

In that case, can we look towards an alternative for bread? Something that can retain its freshness for longer?

Unfortunately, bread is tied closely to the firm's brand and can't be removed.

Okay, then can we at least keep bread for an extra day? Instead of just a day of freshness, can we assign two days of shelf life to the bread? That will help combat demand variability.

That is not possible. Any other recommendations? Are you sure you have considered everything?

(I went over all headers under cost and revenue, listing them out to the interviewer) We can also look towards increasing revenues to bring up profits. Can we increase the prices of our menu items?

The firm has already increased prices amid COVID.

But you said sales were consistent. So that means sales volume must have reduced.

Continued…

Yes, the number of customers has reduced, and prices have increased, keeping revenue constant.

Then we can look towards increasing our sales volumes.

That is not feasible during the pandemic. What else?

Well then, my earlier recommendation ought to help improve margins as the cost will go down once, we substitute/remove the costly ingredients. We can also reduce serving sizes to cut down on costs. These measures will allow us to reduce our prices and thus improve sales volumes.

Okay. Can you summarize now?

Sure. The firm has been witnessing a decline in profits. Since revenue was constant, we focused on cost-side analysis and found that certain raw materials were getting costlier and wastage was also very high. To avoid wastage, we can remove rarely ordered food items from the menu, thereby improving our predictions. The firm can also revamp its menu to include substitutes for the costly vegetables, or at least remove them from the dishes. This will also allow them to decrease the price of menu items and thus increase sales volumes. These steps will help increase revenue and decrease costs, thereby increasing the firm's profits.

Medical Equipment Company

A medical equipment company that operates in the US has recently seen a dip in its profitability over the past two years. As a consultant, please find the cause of the same and give recommendations.

The problem statement as I understood it is as follows. (And I repeated it)

Yes, that is right.

I have a few questions to understand more about the company. What exactly are our company's products? And are we localized or do we operate throughout the US?

We deal in medical equipment ranging from a wheelchair, crutches to stretchers. We have a wide portfolio of up to 10-15 products. And we serve across the whole of the US.

Regarding the problem that we are facing, is this a company-specific problem or are other competitors in the industry also facing the same issue?

The other players are doing well as of now.

Could you help me understand a bit more about the market? Like what is our market share? Who are our target customers? I understand that these are medical equipment, but are we shipping directly to the customers or do we have channels like pharmacies or retailers?

In terms of the market, we are the market leader, with around 30% of the market share. The next biggest competitor has around 15% of the market share. Concerning the customers and shipment. We have three channels of distribution. We directly ship to customers, we sell via pharmacies, retail outlets, and hospitals, and finally, we have recently started sales via online platforms like Amazon.

Thank you, sir, that was helpful. If it's fine, I would like to take 2 minutes to just think through the details before we try to find out more about the problem.

Sure, go ahead.

Sir, here's what I have in mind. As the problem the company is facing is a dip in profitability, I would like to evaluate two broad components that contribute to the profits, namely the revenue, and costs. If the revenue has been decreasing or the cost has been increasing this can affect the profits. We can explore each of these aspects to identify potential problems. Shall I start with the Revenue side?

That seems like a good approach, let's explore the revenue side.

On the revenue side, we have mainly two factors. The price side and the number of quantities sold. In the quantity sold, depending upon the three identified channels, we will have to inspect the sales number in each. And correspondingly we can verify if prices have fallen that contributed to a loss in profits.

Prices have remained competitive. Whereas in terms of channel-wise sales, we are seeing an increase in online sales & decrease in other channels. Overall our sales figures are fine & we are growing at a steady state.

In this regard, the revenue seems to be unaffected, and I would like to verify the costs to see if we are having any significant increases there.

Please, go ahead.

In terms of cost, we have two main classifications that we can explore to determine any faults. Fixed costs and variable costs. In terms of fixed costs, we can verify if we made any significant investments in machinery, plant, labor, etc., and in the case of variable costs, we can verify each part of the value chain.

Can we look into the variable costs side first?

Sure sir. Could you please help clarify which part of the value chain we occupy in the industry of medical equipment? Like are we involved in production, distribution or sales, or a combination of any of these?

We are involved only in the distribution and sales of the equipment.

Okay, so that means we are sourcing the products from various manufacturers?

Yes, you are correct.

Okay, thank you, that was helpful. About the variable costs, we will have costs associated with distribution and those that are associated with sales. In the case of distribution, we have transportation costs and inventory holding costs. This can also be segmented according to the channels of distribution. Has any of these cost heads seen an increase in the past two years in any of the aforementioned channels?

We can consider a similar transportation method for all channels, and yes, the transportation cost head has increased significantly.

Could you help clarify how we perform the transportation? Are we leasing out trucks, do we own logistics providers, or are we outsourcing the same to courier services?

We rely on courier services.

Okay so sir, we can split the transportation costs into the distance to be travelled * the cost per distance unit. Has any factor that affects the cost per unit, petrol prices, partner tariffs, etc. increased in the past two years?

From the information already provided could you come to a conclusion for the same?

Since this is not an industry-wide phenomenon, we can assume that tariffs and fuel prices have remained industry competitive.

That is correct.

That implies that our distances have increased, or that we are supplying larger distances, thus adding to our cost heads.

That could be one reason. You are correct.

Sir, other than this the other variable cost head contribution is from advertising and sales. Has there been any increase in the advertisement expenditure?

Continued…

From our analysis, there hasn't been any significant increase in this cost head.

Sir finally moving to the fixed cost head. The fixed costs can increase significantly from the increased borrowing or investment in a new plant or machinery. Since we do not have any manufacturing capability, our investments can be in warehouses and associated machinery. We can also hire more management professionals.

We had 3 warehouses. But in the past year, we have set up a new warehouse which has just become functional. No other investments or overheads are adding to fixed costs.

Sir, the addition of the warehouse seems to be a necessary step to address the problem of servicing longer distances. With a warehouse in a newer region, inventory can be held closer to customer locations.

Yes, that was the idea. Can you please go back to the value chain and verify if any other cost is yet to be accounted for?

Sure sir, could I take two minutes to just think about the same?

Allowed.

The other cost head that can be added to the variable costs is the sourcing costs. If the raw materials for the products have seen an increase in prices, or if for some other reasons, our manufacturers are not able to produce the products at the same costs, it can affect our procurement prices. Has any such thing affected our sourcing?

Yes, our procurement costs have increased recently. Due to the tensions between the US and China, we had to move our manufacturing away from China to different countries. Earlier only 15% of the manufacturing was done in the US. After this situation we have about 30-40% of our manufacturing being done in the US.

Sir, this is a significant cost problem and is the root of our declining profits. Due to greater wage rates and expenses in the U.S., our manufacturers would not be able to produce competitively.

You are correct. Could you give some recommendations for the same?

Sir one recommendation would be to increase the quantity demanded from some specific manufacturers in the U.S. In that way their production increases, and they can invest more to increase capacity and thus benefit from the economies of scale. Another recommendation would be to acquire or move into a partnership with a manufacturer thus bearing the costs of production.

These are good recommendations for the long term, but is there anything we can do for the short term?

Sir, I am not able to think of anything at the moment.

That is fine. I had a really interesting conversation.

Thank you, sir, it was a very interesting problem and conversation. I hope you have a great day ahead!

Thank you and same to you. Goodbye!

Ice-cream Manufacturer

Your client is an Ice cream manufacturer, facing losses for the past 3-4 years, can you help them find out the reason?

Clarified the problem statement.

Yes correct.

Asked preliminary questions: where is the client operating? Where is the client manufacturing? What kind of ice creams does the client manufacture? Significant information about where the client is situated in the supply chain? Has the loss been consistent across all regions and what about the competitors?

The client operates pan India, manufactures in the western region, and distributes to the north, south, and west. The client manufactures and distributes through exclusive retail stores (I asked like Naturals? said yes) and all kinds of ice creams are manufactured by the client. The loss is been seen across the company and no other competitors are facing the same issue.

Okay, so I would first like to focus on the revenue aspect. Has the price decreased or has the number of units sold decreased?

No, price has increased by about 5-6% annually and quantity sold has been growing by about 4-5% annually.

Okay, so I would like to focus on the cost aspect since revenue is not a problem. I would like to divide the costs into manufacturing and distribution costs. In manufacturing, I would like to consider labor costs, raw material costs, and other operating expenses. In distribution, I would like to consider the transportation and storage costs (cold storage) and the retail store costs.

The labor costs have been constant for the past 4-5 years, the raw material costs have been increasing by about 12-13% annually. The company bought new machinery for all plants 2 years ago and transportation costs are about 100 per km in the western region and 6 times the cost in the northern and southern regions.

I can infer that the rising raw material cost is one of the biggest problems for our client. The machinery is a capital investment and would not affect the bottom online. Also, it was bought 2 years ago and losses are evident for the past 3-4 years. The transportation costs could be another major contributor to the losses. Which one would you like me to focus on first?

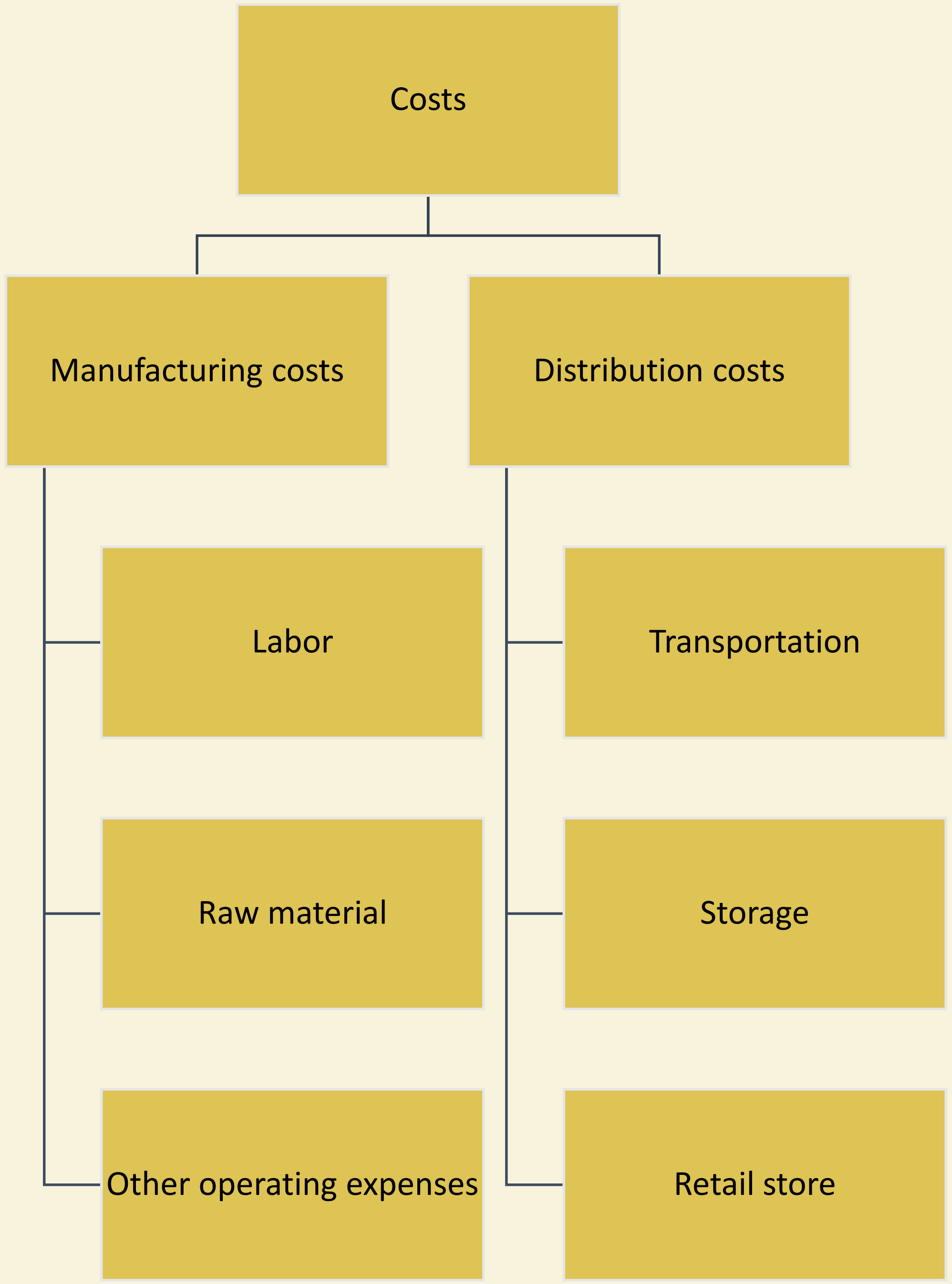
The transportation costs are in line with our competitor's focus on the material costs.

Okay so I feel since these costs are only valid for our client, we are not sourcing our materials economically. Maybe we are not receiving good enough discounts from our supplier, or we are sourcing from a different supplier than our competitors, or we have entered into some unprofitable agreement with the supplier.

Yes, we changed our supplier about three years ago and we did not receive favorable terms in the agreement. There is some escalation cost in the agreement which is increasing our costs consistently.

Do you want me to consider anything else?

No, its fine we can close the case now.



US-based Pharmaceutical Company

A US-based pharmaceutical company has 5000 applications and 2000 servers. The client wants to cut down on the cost of the company. What do you suggest?

Just to reiterate the problem, our client is a US-based pharmaceutical company that has 5000 applications and 2000 servers and we have to reduce the cost of the company.

Yes

Allow me a minute to structure my thoughts. There are three main broad categories of cost. Human Resources, Hardware cost, Infrastructural cost. Also, I want to know, why are we handling 5000 apps and 2000 servers on our own. Why do not we shift to cloud service providers?

Well, that could be one of things you can suggest to the client.

Yes, I think the client shall switch to a Cloud service provider such as AWS, or Azure. Try to map their requirements such as Virtual VMs and go for the package that is most feasible for the company. This will help them, in two ways. First, we will be able to cut costs on the workforce and second, there will be cost-cutting on hardware requirements. I think this is something that must be implemented now.

Okay, can you look into other factors?

We can look into the processing costs. We can automate the process by implementing IoT. This will reduce packaging and labor costs and improve productivity.

Can you look into other factors of cost? Look from application side.

Allow me a moment to think (I was lost at this point but I tried to catch the cues). So, from the application side, there are four departments – UI, UX, Development, and Testing. We can use automation to cut down on manual efforts and thus increase productivity and reduce human resource costs.

Okay, there are operating systems & other things that are used by IT companies. Can you think of something along those lines?

Please allow me a moment to think. Yes, there are licensing costs that will be saved if we reduce the workforce and this is also one of the major costs.

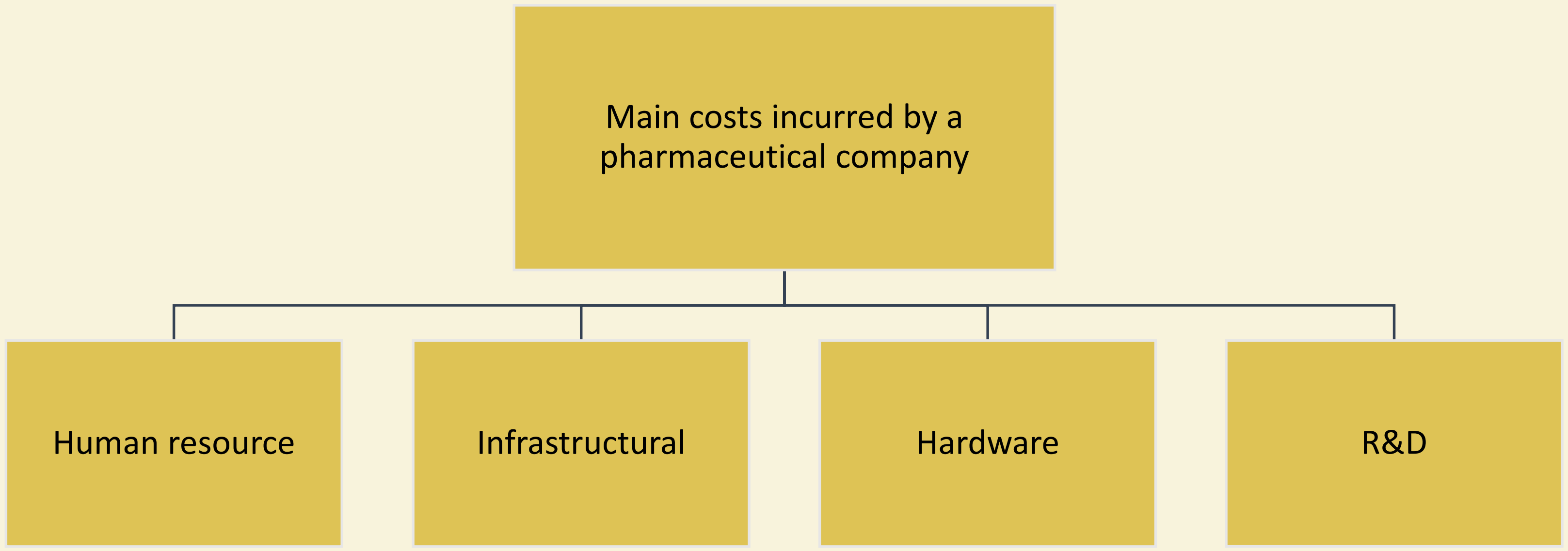
Yes, can you look into something else through which you could reduce costs?

(After thinking for 10 seconds) I have thought of almost everything, can you give me a hint on this?

Yes, Look into the geographical factors.

Okay, since we are US based the workforce in the US is costly. So, we can outsource our work to India to companies like Wipro, TCS, and Infosys and reduce our costs there too. Do you want me to look into something else?

Yes, you are right. No, that's all. Thank you.



Semiconductor Chip Shortage

Your client, an automobile major, is affected by a semiconductor chip shortage. What will be your steps from a planning perspective?

Requested the interviewer to elaborate on the problem statement

The company does not have enough chips to carry on production. What will you do?

There are two aspects here; short-term and long-term. I'll consider the immediate situation at hand first and then dive into the long-term steps from a planning perspective.

Sounds good, go ahead.

In the short term, one of the first possible actions could be to stop the production line if CBA (cost-benefit analysis) works out in favor of shutdown i.e. if the fixed costs of keeping the plant shut are less than the losses from operating plant at low utilization.

Okay. What else could be done?

From a revenue perspective, to keep them constant, the following could be done: Contract restructuring can be done. Terms and conditions of the Supply Contract/ Purchase Order should be revisited with our chip supplier and efforts can be made to renegotiate the T&C to minimize the current delivery lead times. Additional incentives can be given/promised like assurance of future orders or additional cash payment for shorter chip delivery time.

Okay. Any other view point?

From a cost perspective, to minimize the costs, reducing WIP for other parts will help in better cash flow management. Layoffs could also be a possibility. From a long-term perspective, as this is a rare event, I would like to model all the future forecasts and production plans keeping in mind the possibility of a repeat of the global semiconductor chip shortage. Another action should be to restructure supply contracts to aid better flexibility for us or to forge a long-term contract with favorable conditions in case of a repeat of such an event.

Okay. Now, we are done with the case. Now, I will give you a Guesstimate related to the same case. Estimate revenue loss for an auto major for an SUV in the Indian market. The company had to stop its production of cars due to a semiconductor chip shortage. Assume numbers accordingly keeping the context in mind.

Clarified that we are only considering the tangible revenue lost and not the intangibles here.

Okay

Clarified if both the (one-time revenue earning on the sale of an automobile) as well as the (continuous earnings from post-sales services and accessories) are to be considered.

Why is it important here?

The former will contribute to immediate revenue losses whereas the latter will contribute to revenue impact in upcoming quarters & years across the life cycle of SUV which were supposed to be sold now but were not.

Consider only the former.

Okay. To go forward, I have two approaches:

Supply and Demand. The supply approach will consider SUV's sold by the company whereas the demand approach will consider the demand for SUVs considering India's demographic factors and rising income levels of the middle class. Which approach would you like me to take?

Take the supply approach.

Defined revenue lost as (# of units that could have been sold) * (the price of an SUV). Estimated 12 Lakh as the price of an SUV in the Indian market. For estimating units, started with estimating the number of showrooms in India, using state capitals and other tier 1&2 cities except the capital. Came up with 29 states + 10 extra T1 + 15 extra T2/T3 = 54 showrooms. 30 SUVs would be sold in a day in one showroom on average considering it as one of the better-selling models.

Stop and take your time to think once before going forward. Take the demand approach. What other factors will impact it?

Seasonal sales will be an impact on either of the approaches i.e. if it's a festive season like Diwali etc. For the demand side approach, I mentioned the basic template starting with India's population, dividing into rural and urban, and then further as per income levels.

I got your approach and what you are trying to do. This is sufficient.

Switchboard Shop

A shop selling switchboards wants to increase revenue. Suggest ways.

Reiterated the question to make sure I understood it correctly.

That's correct.

Clarified if that is the only objective I need to focus on. Asked a few preliminary questions about the shop and the product.

The client owns just one shop and it sells just one type of switchboard. You need not delve into Customer or competitor information. Suggest as many ways as possible through which the shop can increase its revenue.

Asked for a few seconds to gather my thoughts. Then, mentioned the profitability framework and the revenue side branching. Said that revenue can be increased by either increasing the price or by increasing the number of units sold.

Are you sure it's 'increasing' price?

Sorry, it would be 'changing' price. Increase or decrease would depend on the kind & level of competition.

Good. Can you suggest ways to increase the number of units sold?

Asked for a few more seconds and came up with 4 ways. First would be to increase the customer base by catering to different customer segments.

What all customer segments should be targeted?

Divided the customer segment into households and institutions. Households can be segmented income-wise to determine the size of houses and consequently their requirement for switchboards. Segmented institutional customers into industries and services. Accordingly, the shop could sell different types or different sizes of switchboards.

Interrupted and asked me to move to other suggestions.

Second way would be by establishing new stores in other localities.

What is this process called?

Market development/expansion. (It seemed that the interviewer wanted to know if I was covering the different blocks in Ansoff's matrix.)

Good. What are the other ways you can think of?

Another way would be to increase the kind of products sold, for example, customers buying switchboards could also buy lamps or other electrical appliances. The shop can also consider offering repair & servicing for electrical appliances to increase its revenue.

Good. And what is this process called?

Product diversification.

Good. Let's end it here, we've covered enough possible ways.

Note: Revenue can be increased by changing price, not necessarily by increasing the price. Increase or decrease would depend on the kind and level of competition.

Integrated Chip Manufacturer

Our Client is the CEO of an Integrated Chip company – which is used in the manufacturing of Laptop, and Mobile. Their flagship product is priced around $100 and the entire supply chain cost (ordering to transportation) is $5 – 5% of the price. They came up with a new IC – the lower end of the flagship product used in smart TV, IoT-enabled fans, and fridges. They have planned to price it around $25 and distribution/supply chain cost remains the same $5 – 20% of the price. This makes the product unviable. Find avenues for reducing costs in the supply chain.

Repeated the question to confirm that I understood the question correctly. I want to know more about the client business – How the supply chain works, and which geography does the client operate?

Do you have any idea about how the IC company supply chain works?

Generally, the organization would be in the R&D, manufacturing, and another part of the value chain would be outsourced. It is a B2B model and so the customers would be around the globe.

Well, Our client is only in the R&D segment and the rest everything is outsourced.

Okay. Do we have any quantified deliverable in terms of reduction of supply chain cost percentage?

No, You can analyze all costs and suggest ways.

I will analyze the entire value starting from Demand Forecasting, Procurement & Planning, Inbound logistics, Manufacturing, Outbound logistics, Storage, and Warehousing & After Sales Service.

Looks good! We will start from the Demand forecasting.

Since it is a new product in the market, we can use the Delphi method of forecasting or taking inferences from the high-end products – Time Series forecasting. We can use digital tools like predictive analytics and IoT tools to forecast at high accuracy once we get some amount of data.

Yeah, right. As you said it is a new product in the market, and there will be a lot of uncertainty regarding the demand. How will you decide the production strategy and procurement based on that?

Generally, the production strategy would be Made to Order or Made to Stock. What is the strategy our client follows for earlier products?

For the flagship product, they were following made to stock. What are the factors you will consider in choosing between these strategies?

Based on the customer concentration, ordering quantity, frequency, and demand uncertainty. Since it is a new product in the market I would suggest we should follow Made to Order to avoid wastage. We can piggyback these small products with the existing ones so that transportation costs can be reduced as we are following made-to-order. Can we negotiate with third-party logistics to reduce the cost of transportation as we have increased the volume now?

We can't negotiate further to reduce the cost. But, as you said, piggyback would help us to reduce the cost of transportation. Next, we can move to the manufacturing part.

I would analyze the manufacturing by dividing it into Man, material, method, and machine. Is there any chance of a reduction in the labor effort/ charge? Or any new process which will reduce the cost here?

The product concerning the human skill and machine remains the same and so there are no possibilities in the reduction of cost. What are the things you will consider in materials?

Materials can be classified as primary: which is the main component of the parts, secondary: additional parts needed in manufacturing

Aren't you missing one more thing?

Is it packaging and any possibility of reducing the cost in packaging?

Yeah, we have the possibility of reducing cost in the packaging. We can move to storage & warehousing?

The factors I would consider in storage and warehousing are Layouts, Human capital, and Information Technology. Are there any other factors I have to consider?

Can you link our production strategy to storage and warehousing analysis?

Since we are following Made to Order, customers would be waiting for the delivery and so we can use a cross-docking method for the new product, which would save storage, maintenance cost and also remove working capital which can be employed at some other places to generate internal rate return on that.

Good. Summarize the case within 30 seconds.

Our client should follow a made-to-order production strategy with different packaging materials and piggybacking on the old product using a cross docking model in the storage and warehousing.

Logistics Optimization

How would you reduce logistics costs by 10% in 2 years?

Could you tell me who the firm is, and which segment it operates in? Are we considering transport by air, rail or road?

FMCG firm based out of India, consider only transportation by trucks on road

Is there any specific product line whose logistics cost I need to focus on? I ask this question because certain products like meat, dairy, etc. require specialized cold storage trucks for facilitating transportation.

Consider only packaged goods transport which do not require specialized treatment

The logistics cost for an FMCG firm looks like this:
Factory -> Warehouse/Distribution Centre (DC) -> Supplier/Retailer.
Is my understanding correct? If yes, are we focusing on both the rungs?

Consider only the first rung: factory to the DC

I'd like to proceed by benchmarking the current practice of the company with the industry standard. Like how is our current system of logistics transportation- does our client own a dedicated fleet for transportation or do we have 3PL (Third Party Logistics) partners, what is the frequency of transportation to the DC currently, etc.?

Consider 2 3PL vendors but I just want you to give me recommendations for cost reduction.

(takes 2 minutes) Sir, since the biggest component of variance in the logical cost is the fuel cost, I'd like to start with it. Since we have a 3PL vendor handling our logistics, we can begin negotiating for a fixed-price contract and then settle for a semi-variable clause for fuel.

Point taken, next?

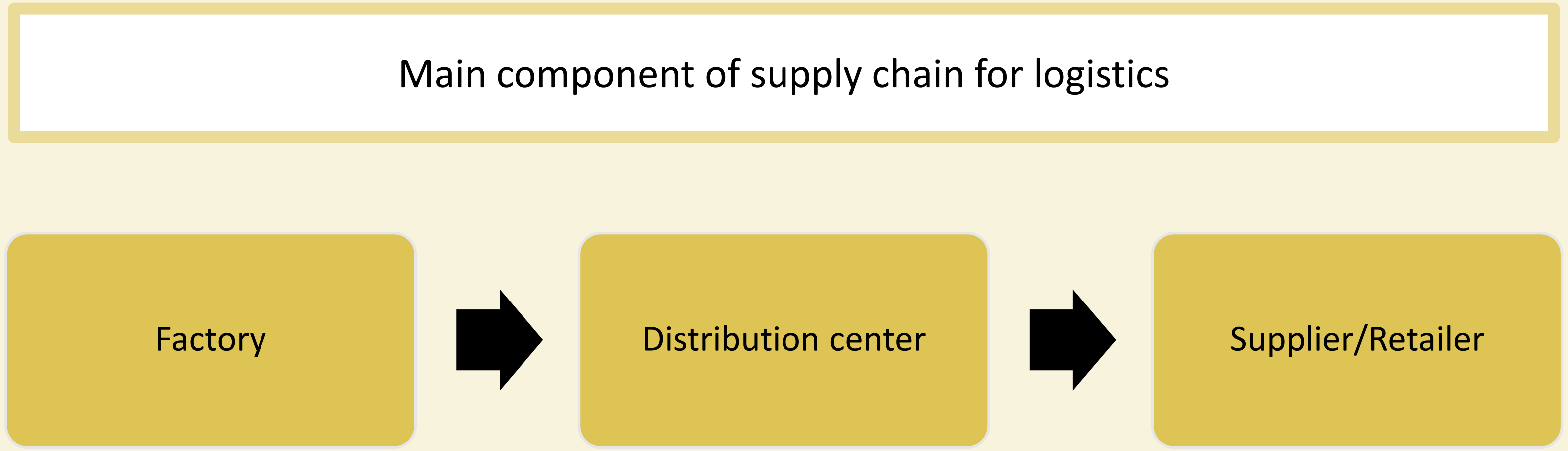
Sir, as I mentioned, some products are more volatile and require more care during transportation than others. But our product is packaged food, which is resilient, we can reduce the Service Level Agreements that the 3PL vendor needs to adhere to, thereby reducing our costs.

Alright, what else?

Sir, the billing for trucks is done based on cost/km/ton- based on which I'd recommend- load utilization (multiple orders in a truck) and route optimization (multiple drop points on the same route). For facilitating this, the client can use an MRP system to better the demand forecasts.

Okay. Is there anything else you want to add which is not based on on-route transit?

(Takes 2 minutes) Yes sir. 3PL vendors nowadays provide Value Added Services like GPS, Fastags, etc. which are complementary. If we are a big firm and have the bargaining power, we can persuade them to decouple their offerings and charge a lesser per unit rate of transit.



Office Supplies Distributor

An office supplies distributor was witnessing a decline in profitability (Profit/sales) for the last 2 years. Identify the reasons and come up with recommendations.

There can be 2 cases when the profitability gets decreased:
Case1: Profits declining
Case2: Profits increasing but not in proportion with the sales

The client is witnessing the later one.

What are the different products in their portfolio and the geography in which they are operating?

They are selling pens, notebooks, staplers etc. and they are operating only in Mumbai.

Can the issue with profitability can be attributed to a definite product or geography?

No

Can you please let me know about the other players in the market and if they are experiencing the same issue?

The are many players in the market and it is quite fragmented. The issue is specific to the client.

Can you please let me know to whom they are distributing and how has it changed over the years?

The customers-mix have been the same and they have been distributing to the corporate offices only.

So, Can I infer that the problem lies with costs as the sales have been increasing but the profits are not witnessing the same proportionate increase?

Yes, that's the issue. We can proceed with identifying the reasons.

Sir, I would like to evaluate the costs associated with the entire value chain and will try to compare it with the scenario 2 yrs. before identifying the buckets we need to analyze.

Yes, you can proceed.

The broad buckets can be the cost of procuring the materials (which includes the cost of raw materials and order-placing mechanism), inbound logistics, warehousing costs, order-generating costs, outbound logistics and reverse logistics (if any). So, should I like to evaluate the costs for each bucket?

So, the problem seems to be with outbound logistics. Can you come up with reasons for the same?

I think human resource costs, vehicle costs, and maintenance & repair costs are some of the crucial aspects of the outbound logistics. So, I would start with the comparison of the no. of delivery executives and also the no. of vehicles.

So, the problem is we had to hire a large no of personnel and also buy large some vehicles (mostly vans) during this period. Can you come up with some of the reasons for the same.

So, the issues can be divided into two main buckets i.e., the Efficiency of the delivery executives and then the external factors such as customers (no. of customers, their locations, and order cycles), traffic conditions of the city, and change in the rules & regulations regarding the delivery vans. So, I would like to understand how the performance of the executives has changed during this period. To be more specific i.e., no orders delivered per day, feedback regarding their service, and time taken for each delivery.

The no. of orders delivered in a day per delivery executive has decreased but the no of orders we are getting in a day has increased. Can you identify the reasons why this could be happening even though the client believes their delivery personnel are doing a good job?

I think analyzing their customers will help us understand the problem better. So, I would like to know about the locations of their customers and also their order cycles.

So, their customers are now located at very staggered locations and some of the customers are demanding same day deliveries while others are comfortable with 2–3-day deliveries.

So, I think these can be some of the reasons which would be responsible for that exorbitant increase in costs. Should I analyze the other buckets?

No, I think you can come up with recommendations.

I think we can attain a priority list of the customers (based on their CLV and CRV since it is a B2B scenario) and then, the client should offer same-day delivery only to those customers on the top of the list and for the rest of the customers. We can also look into the logistics planning and try to optimize it.

Starbucks in New Delhi

Estimate the revenue of a Starbucks operating in CP, Delhi. After this look at the cost side of their operations.

Okay, first I have to do a guesstimate on what are the revenues of a Starbucks operating at CP, Delhi.

Yes, let's start with a guesstimate and then we can go on to analyze the costs associated. Make suitable assumptions for the guesstimate.

Alright, so for estimating the revenue, I am considering that the establishment has 2 types of working loads. Peak hours are from 9 AM to 11 AM for morning office goers, 4 PM to 6 PM for high tea, and then a post-dinner session from 9 PM to 11 PM. During these peak hours, the establishment runs at 100% capacity and we calculate the coffee sold by analyzing the supply. During the non-peak hours, we can assume a percentage of total efficiency to be the hourly sales. We can keep the working hours to be from 9 AM to 11 PM with 2 hours of break in the afternoon.

I understood your approach, but could there be some other way to analyze the problem?

Yes, currently we are looking at the supply side of things, we can also look at the demand side of things and estimate how many people drink coffee at a particular time, factor them into how many would go into CP, Delhi for the same and get an estimate of the sales.

Correct. But we won't use it because getting these factors is tough. Let's move on the supply side analysis then.

Yes, so we can assume that there are 3 serving counters and each counter can deliver a coffee in 1 min. This one minute is the aggregate time to take an order. The customers can then wait in a separate line for their drinks but the step of placing an order is assumed to be the rate-determining step. Furthermore, we can assume the average price of a coffee to be around Rs. 250 and an average order size of around 1.5 cups of coffee. Given in-house sitters, big groups, and to-the-go customers. We can multiply this to get the revenues in peak hours. As for the non-peak hours, we can say that the sales directly drop down to 20% of the total peak per-hour sales. Adding these two would give us the answers.

Sounds fair, this will give us an estimate of the revenues. Now let's move on to the costs. List out as many cost heads as you can for the settlement and then we can dig deeper into them.

Okay, so the major cost heads would be costs for raw materials which would cover milk, sugar, coffee powder, cream, and cups. Employee costs, fixed costs which would include rent, electricity bills, taxes, ambiance, machine maintenance, and purchasing costs.

Alright, these seems okay. Now how would you compare these costs. Or explain how would you determine if these costs are low or high?

One way to do this is by benchmarking these costs with industry and competitors.

Correct. So, tell me how would you benchmark each of these costs. Start with raw materials.

In raw materials, there are two ways in which the costs may be different. The first one is that the procurement costs per unit are high. To rectify this, we will have to change the supplier or renegotiate the terms. Else there is a strategic decision on the material due to which the costs may be high. What I mean here is that the quality of the materials is different which the organization is doing on purpose.

That's fair. Let's move on to the other costs.

For the employee costs, there might be two considerations again. First could be the per-employee salary and the next is the efficiency. A decreased efficiency would increase the number of employees. For both these considerations work force rationalization, training or salary restructuring is a way to cost control.

Good, I want to know how would you compare the rents.

There are no set ways to compare the rents of the two firms directly. Rent depends on a lot of factors like location, area of the shop, usage, etc. If the two shops are in the same locality, per unit area rent may be compared but it comes with a complication of location. There might be some stores that are more accessible to the public. So, a value-based approach would have to be thought for this. Per area, rent of the place could be used with a factor given to accessibility of the store. We can create a scale of "poshness" of a shop. The better the overall accessibility the better the store's rank and the better the score of the store on the scale. This scale can later be used as a multiplicative factor to the per area costs of the shops for comparison.

Interesting. You are correct that the location of the store in the building would also play a role in the rent. But rather than comparing the store with its competitors for rent, we can also look at other shops. This would bypass the complications we are facing with your approach.

Yeah, that sounds like a nice idea. Then at last the ambiance costs, taxes, bills, and machine costs could be directly compared on a per year basis.

I am fairly aligned with your benchmarking of these costs. These are typically how profitability cases go. Just the industry changes. But you still have to compare the costs and find out what is high or low there.

Bank in the USA

Your client is in a reputed bank in the USA. They have a wide variety of products to offer to their clients such as Bank Deposit, Loans, Mutual Funds, Gold, Bonds, Credit, and Debit card. Clients want to expand their more profitable products and make major changes in the products which are not contributing to profit much or are in loss. You need to identify both the type of products and those products.

(Took a minute to think) Okay. So, our client is a bank in The USA that has different products for their customers ranging from Mutual Funds, Gold, Loans, FD, Bonds, and credit and debit cards. I need to identify which of these products are profitable and which are not so good. And accordingly need to suggest desired actions.

Right.

As we are looking into profitability, I will divide the problem into two segments. 1) Revenue & 2) Cost. First, I will deep dive into the revenue drivers and then the cost drivers of the Bank.

Sounds good.

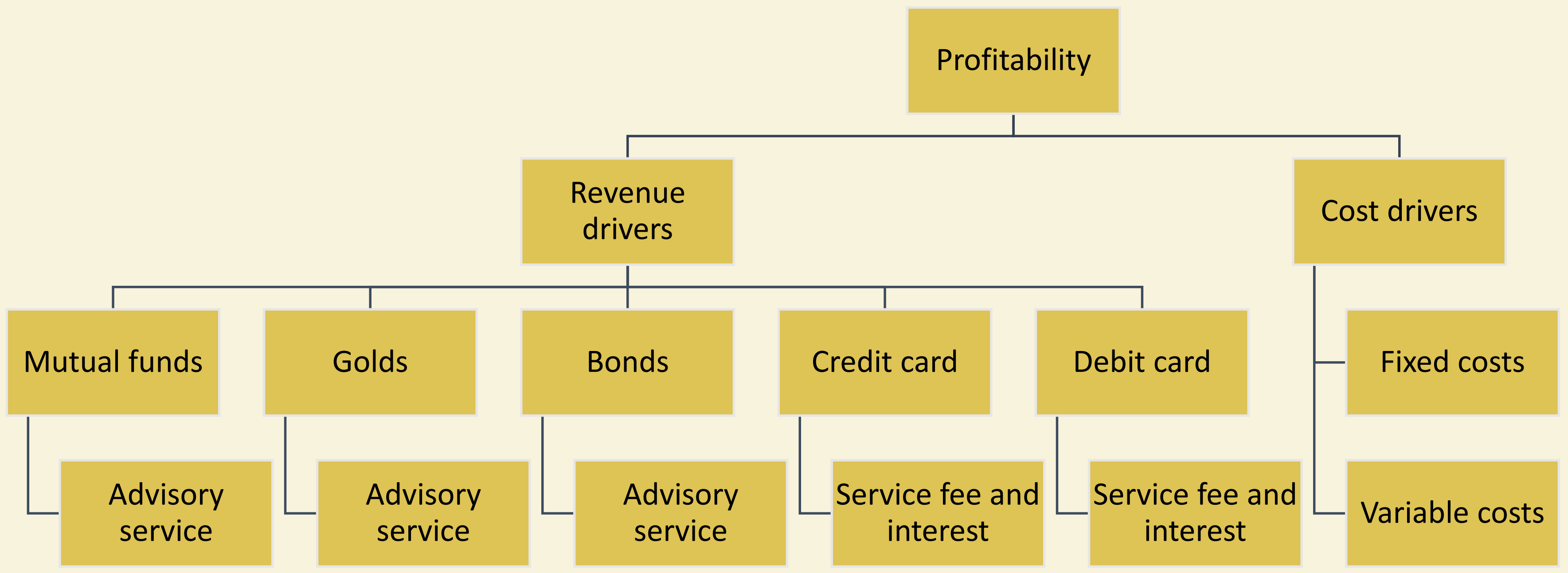
For the revenue driver of the bank, I will go product by product. For Loans, it will be the interest payment by the borrower, for Mutual Funds, Gold, and Bonds it will be the advisory fees they charge to the client and for credit and debit cards, it will be fees they charge to the client for providing the service plus the interest on late payment of credit card bill. For the cost driver, I will like to divide the costs into fixed and variable. Major Fixed costs will be rent (if applicable), utility charges, and employee salaries. The major variable costs for the bank will be interest on FD and marketing expenses. Now I will like to go into detail about each of the products for profitability analysis

Okay. I have some data for the same. (Gave the following type of data) Data of total revenue from loans, Cards, Investment, and total cost of employees' salaries, marketing expense, and customer center. (Assume there are no other expenses apart from this). "It was a problem based on activity-based costing covered in MAC. I needed to calculate the cost of employees' salaries, marketing expenses, and customer center individually for all 3 revenue sourcing products."

To calculate individual employees' salaries, I asked for the employees' data working on different products. For the calculation of individual marketing expenses, I asked if I take revenues to divide the cost proportionately. And for the last past, customer service center, I asked for no. of people employed in the customer center for a specific product. The data was provided to me and after the calculation, it turned out that the expense of the customer center was the reason for the loss in loans product. The rest of the two products were in profit.

That's correct. Can you please tell us why this cost can be high and what can be done to solve that?

One of the major reasons can be the communication strategy for our products, i.e. we are not able to communicate our services effectively to the customer. Because of this, there is a gap between what customers understand about the product and what the product is. There might be an issue with the positioning of our products. This might lead to a higher amount of time a customer spends in customer service centers and increase the cost of the center per customer. If this is the case then to solve that client have to do a market survey regarding what customer understand about their product. Based on that client can design its positioning and marketing strategy. The other reason can be we have excess capacity in terms of no. of employees seating on the bench.



Cement Company

Your client is the CEO of a company that has gained market share in the recent past, but its profits have tanked. Identify the problem and give your recommendations.

I would like to start by clarifying the problem statement so that we are on the same page. *Repeats the problem statement* Is there any other aim or objective apart from this?

None for now.

I would like to take a minute to frame my preliminary questions.

Sure

What do you mean by Market share? Is it in terms of revenue or volume?

Revenue

Since when our client has been facing this issue. Is it a company-specific issue or have we seen any of our competitors facing the same problem?

In the last three months. All our contemporaries have been facing this issue but it has impacted our client drastically.

To get a better understanding of the business, I would like to know more about the revenue model. What is the product mix?

Our client is a cement company. There's no product mix. It's a commodity product.

Where are we exactly in the value chain? As per my knowledge, it's an extensive process with different stakeholders responsible for clinker production, cement grinding, and packaging.

You can go with the assumption that it's a single unit. Cement is manufactured by the client & sold to customers.

What about the geographies that we operate in?

We have four facilities in east and south each.

Okay. Last point, I would like to gain some insight about our customers. As per my understanding, it's a B2B product, used in construction. Our major customers would be Infra Companies like L&T, RPS and small contractors and individual workmen. Am I good to go with this?

Well, 80% of our revenues are from infra companies and contractors; we can ignore the workman category.

Sure. I would take a moment to form a basic structure and decide how we should proceed with the case.

Sure.

Since our absolute profits are decreasing, our revenues have been increasing, we might me dealing with increasing costs. Is that so?

Yes.

I will come to it later. First, I would like to close the Revenue side. So, our revenues have been increasing. This can be attributed to a price rise or volume rise.

We have increased our prices.

Given cement is a commodity product, the price rise didn't affect volume sales?

Yes, our volumes did go down and that has been a major factor in the increasing costs. Can you look into the possible reasons for the decline apart from the price rise?

Well, it can either be a supply side issue or demand issue.

It's a demand side issue.

Okay. Assuming the customer preferences haven't changed altogether, the possible reasons could be A. Affordability We've already covered the price rise B. Accessibility of our product C. Any change in our Product Quality, Customer Service, or Brand Image D. Any change in the external environment?

Well, the problem is with our Customer Service. We have a poor connect with the contractors. What do you suggest that we do?

We can provide them with monetary and non-monetary incentives. Under monetary benefits, we can ensure an increased credit period and volume discounts. For non-monetary benefits, we can ensure availability at all times facilitating models like JIT, taking care of the logistics, provide storage for volume purchases.

Okay. I am not convinced on the solutions. Anyway, when you give these suggestions to the client, an investment is required. What are the factors you would look into before making one?

A. The Payback period, that is for how long the capital is going to be stuck in the project. B. The ROI or any other benchmark parameter C. Capital Budgeting, where are we going to get the required capital from, is it the bond market or the equity markets

This is fine. You missed some critical factors. Whenever we make an investment decision, the major factors considered are Quantity of Capital, Time, which is the investment horizon, Impact, which is how it's going to transform into cash flows, and then comes Capital Budgeting. We can close the interview now.

Retail Bank in the Middle East

Your client is a retail bank in Middle East Asia, which has seen a decline in its market share over the last 1⁄2 decades. Identify the reason and give measures to increase the market share.

I will reiterate the case to be sure that I have grasped everything correctly. Went on to repeat it.

Yes, it's right.

What exactly is the market share that we are referring to? Is it customer base or market share by value?

You can consider that the customer base has been declining for the client.

Okay. I would like to ask about the business which has witnessed the decline in market share. Is it the normal banking business or any particular channel like loans, credit card business, or anything else?

You can ignore the others for now and proceed with considering the normal banking business which has been impacted.

Okay. I would like to know more about the banking industry in Middle East Asia. How has the industry grown in recent decades?

MNC banks have created a presence in Middle East Asia in recent decades. You can consider Citi, Deutsche, and Standard Chartered as examples.

Great. This gives me a hint that these might have attracted our customer base to the MNCs.

Okay. Please Proceed.

Now I would like to take a minute to come up with the reasons why a customer chooses one bank over another. This will help me in understanding how the client is different from the competitor.

Sure

(Took a minute to jot down the points) Yeah, some of the reasons are Loan rates, Interest Rates, Offers on services like online shopping, branches (number of branches, presence in prime locations), and client relationships.

Your bank is at par with the competitors in all these aspects. You can consider that the client is having a better position because it has been presence since the last 100 years in that region with a very good reputation.

Okay. Is the decline from one particular region or all?

It is more from the big cities like Dubai for example.

Great. The decline is in the overall customer base or a new additional customer base?

The decline is in the addition of new customers. Less number of customers are choosing our bank.

Okay. I would like to take a minute to list down the reasons why new customers would not be choosing our bank. (After a minute) Some of the reasons can be like lack of awareness in the new customers, lack of accessibility to branches. Is there an issue with any of these?

No. There is no such issue

Okay. I'll take a minute more to think about what might be the issue as our client is at par with competitor in every aspect.

Okay. Let me help you think. What are the changes that have happened in Middle East Asia in the last 2 decades?

Okay. I know one change but am unsure if it will affect the banking industry. The oil prices have risen exponentially in the last 2 decades, but unsure if it will affect the banking industry.

Yes, oil prices will not affect the banking industry. So, I'll tell you that there have been a lot of immigrants coming to the Middle East in the last 2 decades, of which the white-collar customer base has seen a decline

Thanks for this information. This means that there has been a decrease from the number of immigrants belonging to the service sector. The reason for this again can be a lack of awareness about the client's bank

This is not an issue as our client has tie-ups with the companies in which they conduct an HR session with the new employees stating the benefits.

Okay.

What do these immigrants do?

Many immigrants send a part of their salary to their families in their native place.

Yes, so they are facing issues with international money transfers, which witness a high frequency of failures and reversals. This is the reason why the number of new customers are declining. Can you now give the measures for this?

Sure. I'll take a minute to come up with potential measures. (After a minute) I have arrived at 4 solutions that might help the client:

1) Tie up with other payment networks like Visa, Mastercard, and Amex which have their network set up. This will also transfer the operational liability to the 3rd party instead of the client
2) Improve our payment services
3) Innovating a new product or payment feature which will be better. For example, when there was no RTGS and only NEFT present, then RTGS was an innovation at that time
4) Collaborating at an international level with countries to set up a common integrated payment system. This can be done after analyzing our customer base if they come from any particular region/country. An example of this is the recent agreement between India and Singapore Government to create a common/integrated UPI payment system (September 2021) which will make transfers easy

Packaged Water Manufacturer

FMCG | Easy

Your client is a packaged water bottle manufacturer & it is facing a decline in market share. What are your suggestions?

May I know in what region the firm operates? Asked about the competitive landscape, product details, distribution channel, customer segment, quality issues, etc, one by one.

They have a manufacturing plant in the Northern region of India. The product is a small-sized water bottle (<=1 litre) with no quality issues. Currently, they supply to large retail chain stores.

As people generally don't go for purchasing water bottles alone, it largely comes as a side purchase from the stores. And provided the grocery & other FMCG demand is shifting online, more so due to COVID, is it one of the reasons that their ultimate sales are reducing?

Yes, it is. So, what are the option that the client has to increase the sales?

The two options that come to my mind are having an online presence, and/or expanding to other geographies, say southern region. For the first option, having an online presence for a small-sized, low-margin, non-differentiated product would not make much sense. Also, with the fact that people rarely buy water bottles online. Can we eliminate this option or am I missing something?

Yes, we can eliminate this one.

We can think of setting up a plant, let's say, in the southern region & capturing the market there, provided we are renowned in the northern region. Asked questions for the same from the perspective of market attractiveness & financial & operational capabilities.

It might be too risky & time-consuming. Do you have any other option in mind?

Can we think of industries having captive demands like hospitality, railways, etc?

Yes, it seems a better option. Let's take the airline industry as a target, how will you decide whether to enter, let's pick any one airport for now.

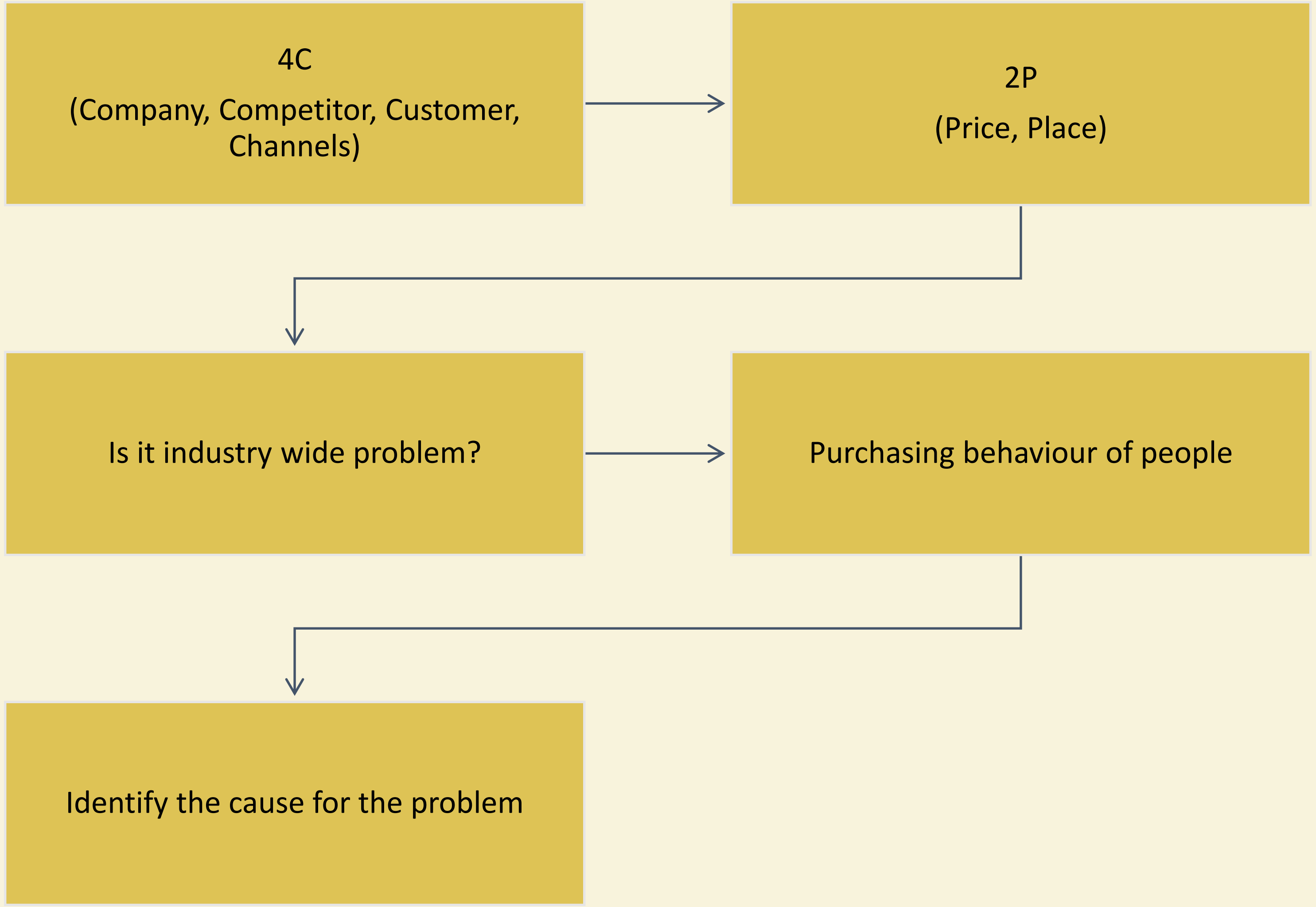
Chose Delhi Airport. Did market sizing for no. of planes taking off, no. of passengers & hence a number of water bottles sold on a day basis no. of runways, lead time for a flight & types of flight (size-wise).

Okay, so we have come to the estimated market potential, what next?

Asked about the cost & revenues numbers. Calculated the Break-Even Quantity.

What is your final recommendation?

As for us to break even, we need to capture about 1% of the market available. So, even if we get to strike a deal with any one of the flight operators (provided there are 5-6 major ones in total), we will be in profits.



IT Staff Leasing Company

HR Services | Easy

Your client is an IT staff leasing company. Their margins have been lower than their peers. We want to understand why?

Reiterated the problem statement. Before moving forward, I have a few preliminary questions. I want to understand the client – what exactly do we mean by IT staff leasing company?

The client is into people supplying business – they provide the required employees to other companies (who can do any kind of work for them). The client gets paid for the number of hours the leased employees work for other companies.

Alright, that is clear. I want to understand how long have the margins been lower. Is it a recent trend?

The margins have been lower forever.

Alright, I would like to break down the margins into revenue and cost aspects and explore each of these to identify the issue at hand.

Is there something you are missing here? Do you want to understand the magnitude of lower margins?

Yes, I would like to understand how much are the margins lower for our client as compared to our competitors.

The client has a 16% margin vs. 20% for our competitors. You can go ahead with your analysis now.

Right, as I mentioned I would like to explore both revenue and cost aspects to identify the issue. Is there any specific head you want me to focus on?

Our revenues have remained constant and the costs have been higher as compared to the industry standard.

Alright, so I would like to break down the cost heads as

- employee salary,
- IT equipment,
- Admin cost,
- Office rent,
- Utilities. Is there any specific aspect you want me to explore?

Yes, the employee cost for our client is 64% of revenue whereas it is 60% for our competitors.

Alright, so this explains the 4% lower margin for our client as compared to competitors. I would further like to break the employee cost as a number of employees x the average salary for each worker. Do we have a benchmark for either of the two parameters as compared to competitors?

The number of employees required for the same amount of output is higher for our client than for competitors.

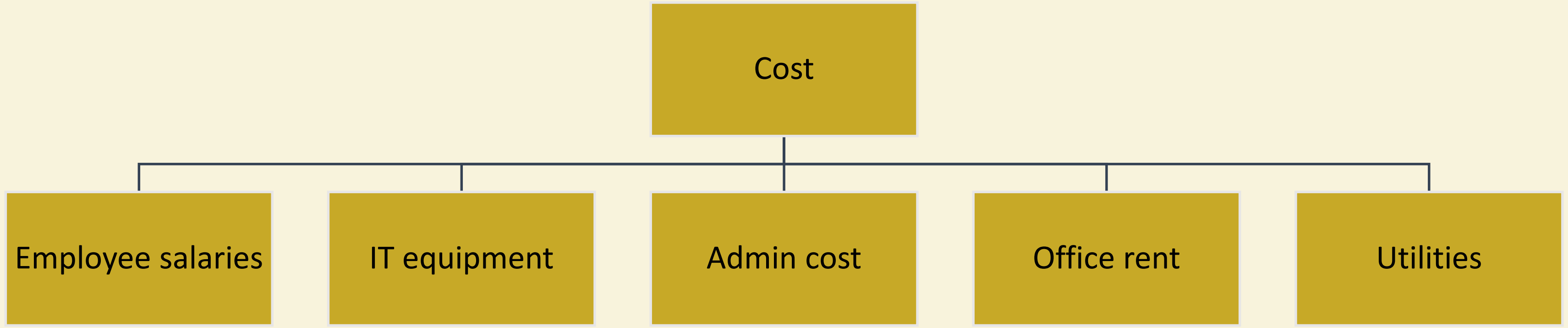
Okay, so it seems like an overstaffing issue. The primary reasons can be:

- Inefficiency of the worker,
- Low utilization of the workforce,
- Lack of proper training for the workforce

Alright, that's great. I want you to think of another situation wherein the number of employees is the same but the average cost per employee is higher. Can you think why?

Okay, I would like to understand the organizational structure of the company. How many top-level employees do we have?

You have identified the issue; we have a higher number of top-level management thus paying out a higher chunk of the salary as compared to industry standards. That will be all, thank you!



Domestic Airline Operator

The Client is Northeast Air. Domestic Airline based out of New York. They offer short duration (1 hour) flights. Passenger demand has dipped on account of the pandemic. Occupancy rates are currently 25% and some aircraft are non-operational. The client is on the verge of bankruptcy and has got a relief fund from the government to support their operations for the next 12 to 18 months. How to restore their profitability given that: 1) They claim to be a leader in safety, and 2) Overall market demand is unlikely to change in the next 12 months. What all lever would you look at to restore their profitability?

Reiterated all the information that was provided to me. Confirmed what all does being a leader in safety entails.

They keep a middle row of the planes empty, distribute hand sanitizers and masks etc.

Could I take a few minutes to structure my approach?

Sure.

So to increase profitability I would like to focus on the costs and revenues of the airline. On the revenue front, I would take a look at the ticket volumes of the airline and the price per ticket. Given that demand is suppressed and is unlikely to increase in the next 12 to 18 months, it is unlikely that volumes will increase during the pandemic. Maybe we can emphasize our leadership in safety to attract passengers. Given that health and safety are primary concerns during a pandemic, passengers who do fly during such times take flights out of either necessity or urgency. People won't be travelling for leisure or vacations. So, positioning ourselves as the safest means of transport might attract volumes as that would be a primary concern. Taking such a marketing approach might allow us to charge increased prices as well.

What can be some other ways to increase revenues?

Other avenues for revenue generation can be the services that are currently provided within the flights. Prices of foods/beverages sold on the planes can be increased. Additional items of leisure and comfort can be sold in flight. The airline can focus on ancillary services till the pandemic is in place to create additional sources of revenues. These could include leasing out the currently non-operational aircraft to other airlines or offering services such as airport logistics, baggage, and supply chain handling services with the existing staff. They could also leverage the current staff to offer technical and other airline-related knowledge services.

What do you think are the various costs associated with the airlines

I would break down the costs into fixed and variable costs. The major fixed costs would be fuel, airplane, and hangar costs. Fuel costs dipped around the time of the pandemic. Reducing the frequency of the flights in a day/week would reduce fuel costs. Assuming the aircraft are leased, reducing the fleet size of the airlines either by cancelling some of the leases or by renting out some aircrafts to other airlines could also inhibit the airline's costs. This would also reduce the hangar costs charged by the airport. Variable costs would include staff salaries, repair and maintenance charges of the airplanes, and costs related to food and other amenities inside the flights. Other costs would include advertising, sales, and marketing costs. Marketing costs can be reduced depending on the current marketing campaigns of the airline.

How would that work?

Assuming the airline has a national salesforce, sales efforts can be reduced given that demand is unlikely to change in the next year. Marketing efforts could be aligned towards stressing the safety features that we provide to increase sales.

Okay, you have considered both the revenue and cost aspects? Apart from marketing efforts, any other way to increase the number of passengers? Focus on the routes the airline offers and their route planning.

Yes, well New York was hit particularly hard during the pandemic. The city came to a standstill. So increased demand from NY and other metro cities is unlikely. Maybe we can offer more flights from less populous cities and cities that weren't affected as much by the pandemic.

Also, they can re-route their flights, so flights depart and arrive from cities not much affected by Covid.

Yes, that could increase passengers as well. People might be willing to take a flight to nearby cities and then maybe use rental private car or bus services to reach to the main cities.

So how many aircraft would need to be operational for the airline to break even? They have 40 aircraft in total, each has 200 seats, and 5 flights are operational in a day. Let the occupancy rate be 60%, the average price be $150 for a ticket, variable costs be $30 /day and fixed costs be $54,000/aircraft.

What is the time duration of these costs? Also do the variable and fixed costs cover everything?

Yes, they cover all the costs. All costs are daily costs.

Took the interviewer through the approach that I was using to calculate the breakeven. Took him to the final equation.

Okay, now calculate and given me the final number.

Total 30 flights or 75% of the fleet would have to be operational to breakeven.

Okay, do you think that this is achievable? What would you suggest these figures could be viable?

Given that demand is unlikely to increase in the next 12 to 18 months, achieving a 60 % occupancy rate and a 75% operational fleet is unlikely shortly. So, I don't think that this scenario is viable.

Okay. Thank you.

Power Plant in India

CONSULTING CLUB IIM INDORE

Your client is a power plant in India. They have been facing a decline in profits for the past two years. Help us understand why?

Before moving forward, I have a few preliminary questions. Where does our client lie in the value chain, what is the geography of the client, and who are the end customers for the client?

The client is a power plant in Rajasthan which is primarily involved in generating electricity. The client sells the electricity to distribution companies which in turn sell it to end customers such as government, households, private companies, etc.

Okay, that's clear. I also want to check if this profitability issue has been company-specific or industry-wide.

Other players are not facing such an issue, it is company-specific.

Okay, I have the required context to move ahead with the analysis. I would like to break down the profits into revenue and cost and explore each of these to understand where the issue lies. Is there any aspect you want me to explore specifically?

Let's explore both aspects one by one.

Alright, I would like to start with the revenue aspect. Revenue for the client can be broken down into (number of units produced) x (price per unit of electricity). Has there been any change in the production capacity or the price quoted to the distribution companies?

There is no change in the manufacturing capacity and the annual contracts with the customers have remained fixed.

Alright, it seems the issue does not lie on the revenue side then. I would like to move ahead with the cost aspect. I would like to break down the costs across the value chain, starting with the cost of procurement of raw materials, production cost, distribution cost, and advertising/marketing cost. Is there any major cost head I am missing?

That sounds good. Please proceed by deep diving into each cost head one by one.

Okay, starting with the procurement of raw materials. The major cost heads here would be the cost of raw materials, the number of suppliers we are sourcing from, and the logistic cost involved in sourcing from this supplier. At this point, I would like to take a step back and check what is the raw material the client is using to generate electricity.

Good question, you missed asking this earlier. The client uses coal as the raw material in the power plant. Also, there has been no change in the number of suppliers. The contracts with suppliers have remained fixed i.e. price/kg is fixed and the fixed contract includes the logistics cost as well.

Alright, so I would like to move to the production aspect. I would like to explore the cost of owning/renting the power plant, the cost of machinery – whether it is technologically advanced and running efficiently, labor cost, utilities such as electricity, and other factory overheads.

The machine utilization for the client has gone up in the last 6 quarters.

Okay, can you elaborate on what we mean by machine utilization? Are we measuring in terms of the number of hours the machine is running

Yes, that understanding is correct.

Alright, as you mentioned earlier the production capacity has remained fixed. This means the production per hour has gone down for the client. I can think of 3 reasons for the same:

- Inefficient labor,
- Old machinery,
- Change in the process of producing electricity

Our labour is well-trained and the machinery is also up to date.

Alright, so I would like to explore the change in the process. Could you help me understand the entire process of producing electricity using coal, and the various stages involved?

The raw coal is used to produce steam which in turn is used to run the turbines and produce electricity.

Alright, so starting with putting coal inside the machinery – Is it that we are now inputting less amount of coal per hour thus increasing the machine utilization to keep the production constant?

No, in fact it is the opposite. We are inputting more amount of coal per hour. Can you think why?

It can be due to a change in the grade of the coal, are we using a lower grade coal now?

Yes, that is one of the issues identified. The suppliers have changed to a lower grade coal thus increasing machine utilization hours. The other issue client is facing is that the contracts with suppliers have remained fixed, but still, the price/kg incurred by the client has increased. Can you help me understand why?

So as per my understanding, there can be 3 reasons:

- commission to suppliers have gone up,
- logistics costs have gone up,
- external factors such as government regulations/taxes. As the contracts have remained fixed, the problem may arise due to external factors. Has the government introduced a new tax for cross-border transport?

That's correct – our suppliers are located outside India and the import duties have gone up in the past. That will be all, thank you.

Tire Manufacturer

Your client is a tire manufacturer in India. They have recently seen a decrease in profitability. Can you help them?

(Reiterates the problem) Could you please share more information on the company, the product line they have, and its presence in India, and the overall competition in the market? I would also like to understand if this problem is specific to any part of India/any product and since when have we observed this?

For your analysis, consider that there is only one type of product that they sell. It is a premium type of tire, and it is sold in multi-brand retail shops. We are only considering the replacement business and not the OEM segment. The problem has been since the past 2 years.

Sure. So, when we talk about profitability, we can look at the Revenue or the costs. The Revenue could be going down, or the costs could be going up.

The revenue has been decreasing. The cost is more or less the same.

Sure, so when we look at revenue, it is (no. of units) * (price).

The units sold have gone down.

Now that we know that the number of units has gone down, I want to look at the customer journey to see why this is happening. I would divide the customer journey into 5 - Awareness, Perception, Affordability, Accessibility, and Customer Service. (Goes on to explain all of them briefly)

Could you explain what you mean by Perception?

The Perception could include 2 different things: it could either be perception about us as a brand/our product or it could be the perception towards the industry itself.

You are on the right track. The customer does not perceive our product worth the extra 10% premium these days. They believe that the 8% premium is justified but other products would give similar performance without the premium. Could you suggest some potential solutions to tackle this?

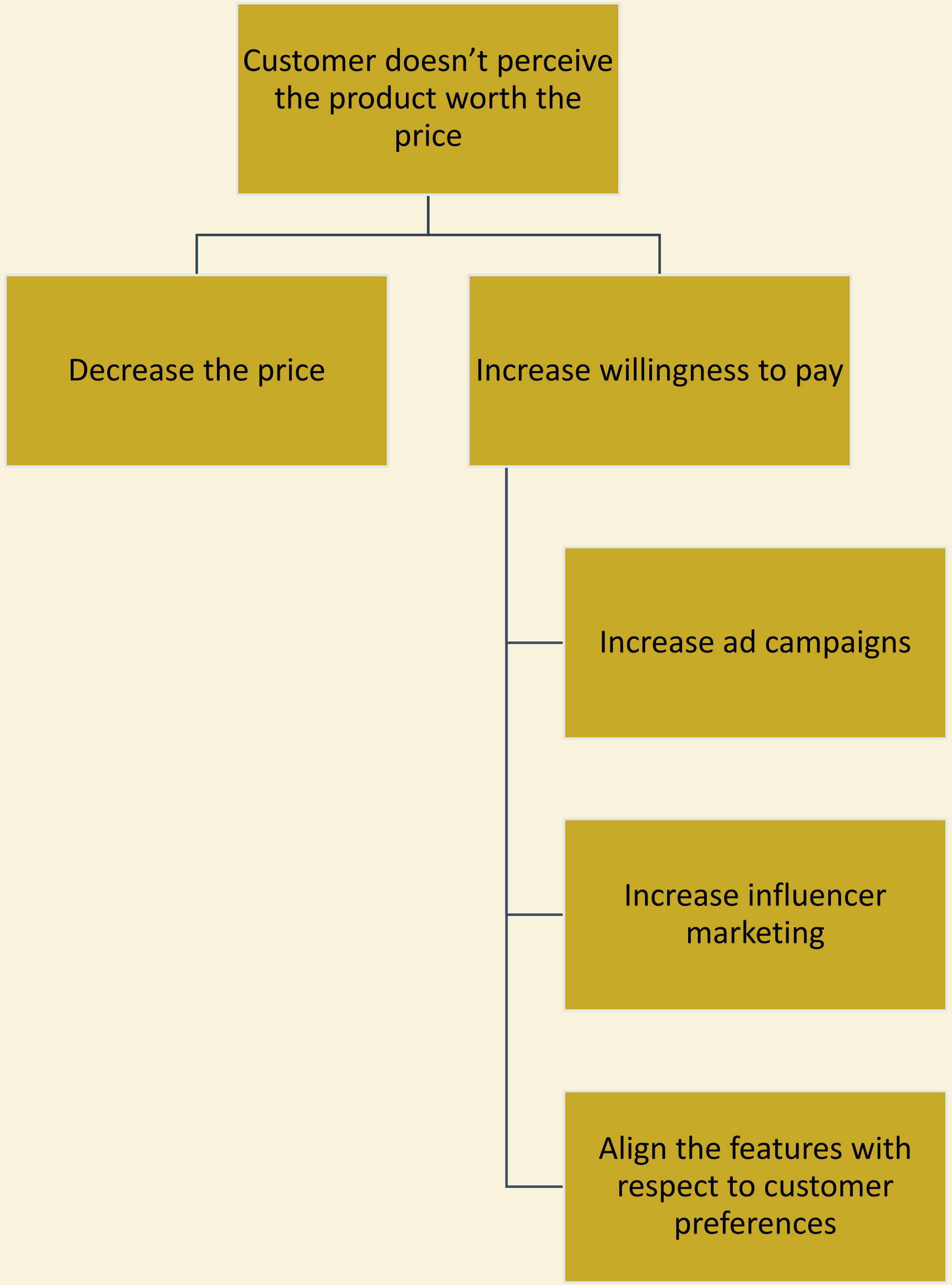
I want to suggest two broad themes and arrange my solutions within them-

1. Decreasing the price - Since the customers are willing to pay an 8% premium, we can look to change the price point. However, this might result in a price war situation and could decrease brand equity. So, we would need a detailed analysis to determine.

2. Increase Willingness to Pay - We can look to increase the willingness to pay of the customers by

- Increase marketing and ad campaigns
- Figure out the features that the customers want in their tires and pivot on them (for example, beyond looks, do the customers pay for safety?)
- Invest in influencer marketing

Thanks



The client is a chemical company which has a low market share for a few of its chemical products. The client wishes to reduce cost of taking the final product to the market, in order to be able to price the products competitively. Suggest ways for the client to reduce its costs.

I have some preliminary questions to set the context:
- Could you tell me a bit about the product profile?
- Do all products come from the same manufacturing process, or are the processes separate? *(Industry-specific question)*
- What geographies does the client operate in?
- Are the geographical distances from the manufacturing site to the customer sites significant?
- Does the client have a specific target (%) for cost reduction?
- Are competitor profiles or actions relevant?

Answers to preliminary questions:
- For simplicity, assume that there are three products A, B, C. Each product has a completely independent manufacturing plant, and they follow distinct processes. By-products or joint products are not relevant to this case. To further simplify our discussion, let us only focus on Product A.
- The client operates at a site, such that customers are also collocated around that site. *(Hint- Outbound logistics costs may not be relevant)*
- The client wants at least 30% cost reduction.
- Competitors are not relevant here; the client wants to look internally into reducing its operating costs.

Before I proceed, could you tell me a bit about the current cost structure of Product A?

Currently, Product A requires INR 100 per unit. This is split as INR 70 on raw material costs, and INR 30 on overheads. You could assume that these are the only costs, and other costs can be ignored.
(Hint: Fixed costs can be ignored, but I still confirmed this with the interviewer.)

(After taking a minute to structure my thoughts) I would like to split the product costs along the value chain to further identify opportunities for improvement.

Good. As you rightly pointed out, we should focus on sourcing costs and manufacturing costs only. Inbound logistics are also not significant, and the client does not see any scope for improvement here.

Okay. Could you please provide me information about how these costs are further broken down?

Here is some information that might help:
Relevant costs = Sourcing costs (INR 70) + Manufacturing overhead costs (INR 30)
Sourcing costs = RM A1 (INR 50) + RM A2 (INR 20)
Manufacturing overhead costs = Electricity (INR 20) + Labour (INR 10)

Okay. Could you help me benchmark these costs with those being incurred by our competitors, in order to identify opportunities for improvement?

That might be a good way to go, but let us set that aside. There are two possible processes for manufacturing product A:
Process 1: The process currently being followed
Process 2: Another process which is more efficient. It uses the same raw materials to generate a 20% higher yield. Can you calculate how much the cost per product will reduce, if this new process (Process 2) were used?

(Doing the calculations aloud) Since yield goes up by 20%, where 1 unit was being manufactured for INR 70 before, we can say that 1.2 units will be manufactured now. That would mean per unit cost would become 58.33(~INR 58 per unit; =70/1.2). This would mean an overall cost reduction of 12%. More needs to be done, since the target cost reduction is 30%.

Good. Let us abandon the cost reduction target for now. Suppose that Process 2 increases product yield but requires twice the time to manufacture the product. Considering the increased overheads due to the increased time, Process 2 turns out to be INR 5 cheaper than Process 1. Can you do the math to determine which process is more profitable to the client?

What is the profit that the client earns per unit, under the original process?

INR 8 per unit.

(Did several calculations to deal with the new ratios. However, the calculations started to become unclear).

Why don't you just consider the output for one month, and determine the cost? Assume 1 unit requires 1 day to be manufactured under the current process. Hence, it would require 2 days under the new process.

Okay. Under the current process, the client would manufacture 30 units in a month, making a profit of INR 240 (=30*8). Under the new process, the client would manufacture 15 units in a month, making a profit of INR 195 (=15* [8 + 5]). Hence, the client should continue with Process 1.

That's great. Thank you!

I am at my friend's shop of Luxury Watches. While we were chatting, a customer comes demanding a secondhand Rolex watch. Unwillingly, my friend had to tell the customer that he had nothing to offer. The customer further asks if my friend could redirect him to any shop where he will get the watch, to which he replied that it is not available anywhere across the city. After the customer leaves, while having lunch, my friend asks me as a consultant to advise him whether he should enter this market or not.

I will reiterate the case once to have a better understanding of the scenario. Went on to reiterate the case. Confirmed the objective of the case.

Yes. You have understood it correct

I will take a minute to structure my thoughts. (After a minute) I'll approach this case by analyzing if there is enough demand for the 2nd hand luxury watches in the city, and then analyze if it is an enterable market by analyzing it financially, operationally, etc.

Sure. Sounds good

I would like to ask some preliminary questions to know more about the market. As you said in the case, that there are no shops that offer 2nd hand luxury watches, is it a safe assumption to proceed with that there are no competitors and that we will be the first one to enter the market?

Yes, you can proceed with this understanding

I would like to know why the client wants to enter the 2nd-hand watch market. Is it currently not profitable?

No. He just wants to explore more profit options. As he saw a potential customer lead, he is thinking it of as an option. Also, you can treat me as your friend and we can proceed to solve it as a chat between two friends.

Sure. Does your current shop offer only luxury watches? Or are there any other revenue streams for your business?

I only sell genuine luxury watches. We are an authorized dealer in the city.

How many customers did you come across having a similar demand?

This is the first one.

Okay. Now I will analyze what will be required from your side to start this market. There needs to be demand in the market for the product. To meet the demand, there should be enough supply for the product that we will be able to sell it. We would be requiring workers/technicians that would repair the old watches and get them refurbished. It would be tough to find such workers. It would be similar to repairing of iPhone, not every shopkeeper repairs an iPhone, and only trained workers deal with them

Okay.

To gauge the demand, we can meet up with other shopkeepers in the city to find out if they have also come across such customers. We can also conduct surveys across the city in malls, and outside shops to see how many customers will be interested in buying these watches.

Okay. Why don't you find out the market size for the luxury watches and then proceed?

Okay. Sure. I'll assume the Indore population to be around 25% of Delhi/Mumbai, which brings me to 50L as the population of the Indore city. Now, I would like to find out how many people in Indore would be wearing a luxury watch. As an assumption, Indore is a tier 2 city, I'll take a lower penetration rate and I'll consider 5% of the population to wear a luxury watch. This brings me to people around 2.5L who wears the product.

Don't you think the numbers are too high for luxury watches?

Yes, I do think they are high. Shall I proceed with 2.5% then?

You can take 1% population & proceed for now. Though this number also looks high, we can proceed for now.

Sure. This means that at a time there are around 50k people in the city using luxury watches. Now I would bring in the factor of a lifetime of luxury watches and the frequency with which a high-end customer changes their watches.

Okay.

There would be those customers who would be buying the watches for the first time, those who would be replacing their old normal watches, and those who would be replacing their old luxury watches. Apart from this, there will be people switching from smart and Apple watches to luxury watches. This makes me think that people will be switching or buying watches quite frequently. Will it be safe to assume 2-3 years as the life of a luxury watch, as the rich people would be buying it lavishly? (With a smile) Though the watch I am wearing is since 6 years now.

Do you think life will be only 2-3 years? It goes on for generations. They have a lifetime warranty.

Okay. So this brings me to a new point. This lifelong warranty fact will lead that there will be no or very less customers willing to sell their old luxury watches. This will affect the supply that we would be having to operate in the market. We would not be having a continuous supply.

Yes. This is correct. So what will you suggest now?

I would suggest you refrain from entering the second-hand luxury watch market. The reason for this would be that there would be no continuous supply of old watches. There might be some customers who would be willing to sell their watches to get some liquid cash, but this is not enough to run a business. If we figure out this, we would require to find trained workers who could refurbish these watches, as we would be having the current staff trained only in sales and not in repair works. Also, there are substitute products available that will act as a threat to the second-hand luxury watch, as we can see nowadays, people are getting health conscious due to which they will switch or prefer a smartwatch instead of a luxury watch. These all facts suggest that it would be a bad idea to get into the business for now.

Yes, your recommendation seems sound. This is the reason you don't see any market for second-hand luxury watches in real life due to no reliable supply. Good Shikhar. Had a great interaction with you. Hope to see you ahead. All the best

Bank in trouble

Our client is a bank, and their revenue is decreasing. You have to help them.

Ok, sure. I would like to ask few preliminary questions to understand more about the bank.

Sure!

Does the bank operate under both the retail and commercial categories? Is it a Private bank or a Public bank? Which geography do they operate in? Do they serve both urban and rural segments?

Client is private bank in Middle East and provide retail loans to Urban segment.

Since when the client is facing revenue decline and what's the quantum of decline?

We do not have a quantum of decline, but the client is facing this issue for the last 2 years.

Are the other banks also facing revenue decline, or its just limited to our client? I would like to understand the position of our bank vis-à-vis others

Some of the banks are also facing this problem but it's prominent for our client. Our client was among the top 5 players, but now they are losing market share.

I think I have sufficient information now about the situation. I would like to take a minute to structure my thoughts.

Sure!

To understand the Revenue decline. I would like to segment revenue under 2 category – Interest Income and Non-Interest Income.

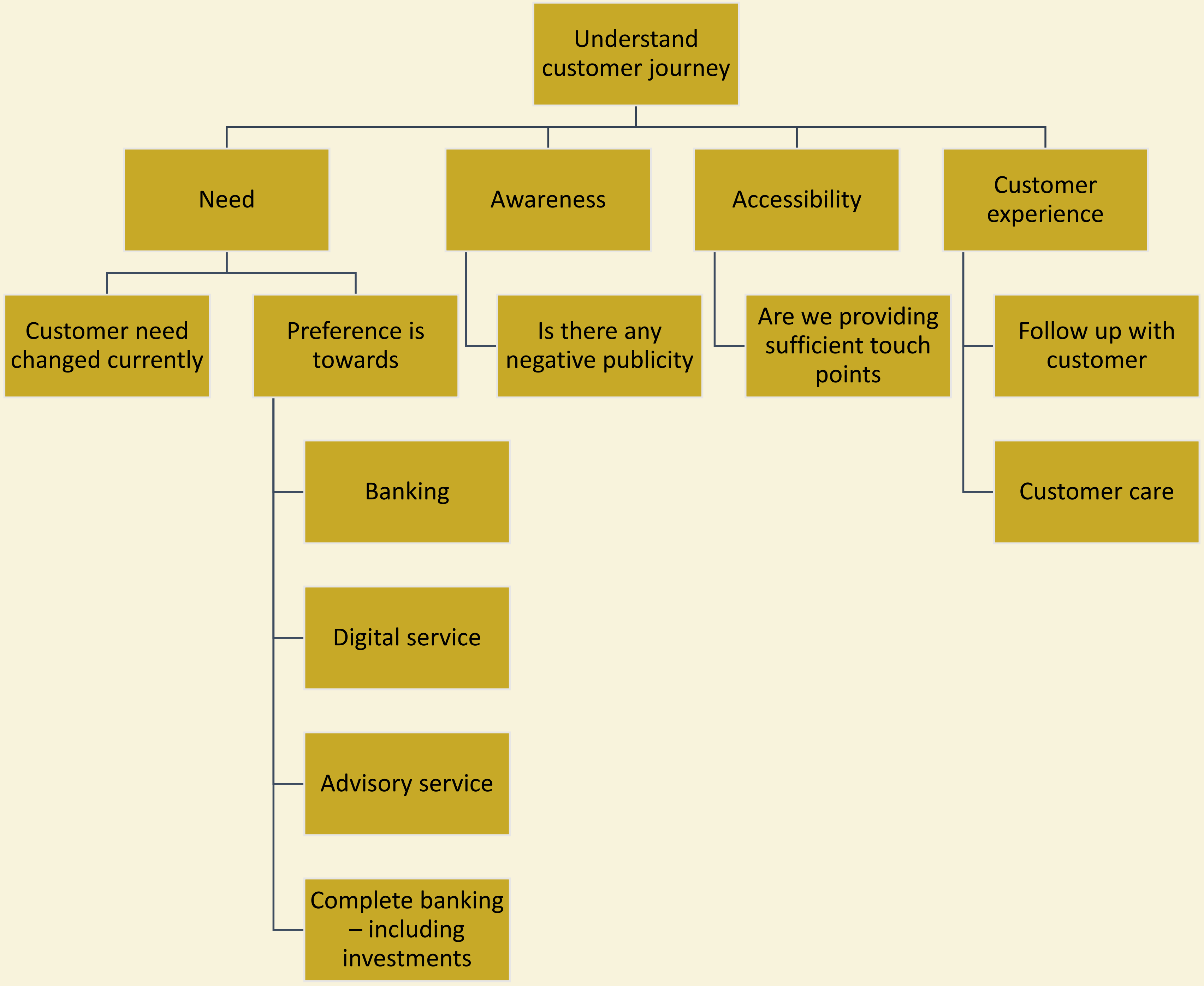
Focus just on Interest Revenue.

Interest Revenue can be broken down into (number of loan accounts) * (% average interest per loan account). And for loan accounts, we can categorize them into automobile loans, education loans, & other personal loans. Is there any change or reduction in a number of loan accounts or interest rates charged by our client across any categories?

Number of loan accounts has been reduced.

Ok, given that competitors have not seen such a reduction, interest rates have also not changed. I would like to follow the consumer journey to find out why the number of loan accounts has been reduced. I will start with the need, awareness, accessibility, and customer experience. In the need bucket, I would like to understand whether consumer need has changed currently, preference is towards online banking, digital service, advisory service, and complete banking- including investments. In Awareness, I would like to see whether there is any negative publicity around our bank in the market. Accessibility: Are we providing sufficient touchpoints for the consumers to interact in terms of ATMs, branches, etc? In the experience bucket, how are we following up with the consumers in terms of reminder calls, customer care, and such help?

I think we can close the case here.



Automobile Manufacturer

Your client is an Indian Automobile manufacturer and wants to improve their profitability

Repeated the case brief & asked a few preliminary questions. How is the profitability trend been for our client?

The margins have declined over the last 5 years. It was 12% 5 years ago and has dropped to 8% now.

How much the client target does to improve profitability?

They want to bring it back to what it was 5 years ago within the next 2-3 years.

Are declining margins an industry-wide trend or just witnessed by our client?

Many players in the industry have seen some decline, while a few players have also done well.

I would like to know more about the product mix and customer segments that our client caters to and if the decline was attributable to a particular segment. Also, how does it compare with our competitors?

Our client is in the 2-wheeler manufacturing industry and sells bikes and scooters. The decline in profitability has been in the bike segment. There are 3 types of bikes: high power (>200 cc), medium power (100-200 cc), and low power (100 cc) and the decline is across all three. Our competitors have a similar product mix and have done better than us.

Thanks for this. To improve profitability to 12%, our client needs to evaluate the reason for the decline, try turning it around, and explore other improvement options. Starting with analyzing the decline, it could be because of decreasing revenues or increasing costs. Has the client witnessed either of these or both?

The revenues have declined. Could you enlist possible reasons for that?

It could be because of a decrease in the average price, or the volume/quantity sold. Do we have any information regarding this?

Gave data and asked to give insights.

Made relevant computations to conclude that the average price had declined & the drop in average price was owing to the change in product mix. Suggested ways to revive the original product mix. Further discussed ways to improve volumes and reduce cost (by splitting into fixed, variable, and further subdivision)

Alright. That's all about the case. Now imagine you've been sent to a remote location to address and provide solutions to a client from an industry that you don't know much about, say metal and mining. The client is facing problems due to poor safety records in their plants and wants to improve that. How would you approach this?

Talked about - researching this client and the industry, how other metal and mining companies are tackling this, and leveraging insights from previous client works in a similar domain. On a broader level, talked about splitting the problem into 6 components (man, machine, method, material, environment, measurement – fishbone diagram).

Alright.

Your client is a private bank and is looking to enhance their profits from their personal lending business arm.

Reiterated problem statement, to ensure my understanding of the personal lending business, to the high-interest rate, no collateral, and short-term loans were correct. Then moved on to divide profits from increased revenues or reduced costs.

What would the costs involved be in the personal lending wing? Just give me the heads up.

Administrative, Rental, Processing & Recovery

Okay, let's not take this approach. Think of an alternative characterization.

Okay so, we can write the profits from this wing as a function of Target Market x Average Ticket Size = Book Value;
Cost of Capital = Interest Rates/Deposit Premiums, Default Rates,
Cost of Conversion = Advertising Costs/Salespersons costs/Processing charges.

That's better. So, let's start with increasing each one of these. How will you enhance the target market? Specifically in the youth segment.

We can either do it online or offline.

- For an online increase, we can look into partnerships with Amazon & other e-commerce platforms. The major push here would be to people who are visiting a specific item page like a consumer durable good repeatedly but not following through with the purchase.
- For an offline increase, we can start targeting the younger audience in colleges, especially when people go for foreign exchange—here personal loans can be positioned as a lucrative commodity that helps them cover their 2-4 month off-the-book expenses.
- Secondly, instead of a direct push strategy, positioning a part of our salesforce outside malls and big electronic stores or direct tie-ups with such stores can allow us to sort of implement a pull strategy whereby mere availability of the option of personal loan would sort of incentivize the customer to opt for it.
- Also, we can look into cross-selling opportunities. So, if a consumer has been consistently hitting their credit card limits every month or a consumer exceeds their limit, they would become an ideal candidate for a personal loan.

What do we do for cost of capital?

So as far as I understand we have a uniform rate of personal lending in the bank, right? Since we can get access to consumers' records and purchase data if they have an account with our bank, we can opt for a differential pricing strategy and charge rates on a spread. So, for riskier loans, we can compensate for higher risk with higher lending rates. For reduction in recovery costs, we can combine several such personal loans which have higher rates and sell-off as an asset class to ARCs or firms willing to take on more risk. The former would significantly reduce our recovery costs.

Okay and the last one, cost of conversion?

Here we need to reduce the cost required to ensure a wanting customer gets a loan. The first strategy here would be to use an app and make the option of availing personal loans on the bank app itself. In terms of marketing costs, investing in SEO, such that a person who searches for personal loans on Google gets our bank's result first would be much more cost-effective than say, giant hoardings.

What would be the biggest problem that you think would happen with the app approach?

So, one issue could be a low rate of completion, where-in consumers would start the application process but not follow through completely. This could be resolved by ensuring we require minimal document upload during the approval process. This wouldn't increase risk because since these people would already have bank accounts with us, we would already have access to all the requisite docs.

Just tell me one more reason and then put forward your synthesis. We'll close then.

Onboarding and ensuring that all customers get on the app could be problem.

Okay. Thank you.

Let us consider a case of an FMCG company with a simplified supply chain of 1 OEM, 1 wholesaler, and 10 retailers. They are facing profitability issues and would like to implement the Theory of Constraints. What can you do for them?

Repeated the problem statement and clarified the objective with the Interviewer. I would like to understand a bit more about the client: what is the product portfolio of the client? How big is the profit drop and when is it being observed? Are there any other complaints apart from a drop in profits such as quality or delays?

For the case consider a one-product business, a 20% drop in profit since last year, and consider that there might be other issues as well and how you would tackle them.

Alright, I think I have enough to proceed with the analysis, can I have a couple of minutes to structure my thought?

Sure

The way I would like to go ahead here is to lay out the value chain of the business and look for possible issues at each stage. This is in line with the TOC philosophy of finding the bottleneck/constraint in a particular process and elevating it so that overall efficiency and performance are improved.

Listed out the value chain as Manufacturing – Quality check – Packaging – Transport to Distributor – Transport to Retailer – Sales

Here, I understood that, unlike the typical case where there is a single issue to be found and resolved, my interviewer was looking for more breadth rather than depth with multiple possible problems and the corresponding solutions.

That would be a very time taking approach.

Yes, it would be but it would also be very thorough. However, when we do not have conclusive information this is a good alternative.

Point taken, let us focus on the drop in profits then.

Alright, the drop in profits is a symptom or in TOC terminology, a UDE (undesirable effect). To get at the root cause we can use a couple of tools such as the why-why analysis or the CRT (Current Reality Tree). Both these tools aim to uncover the hidden actual reason behind the observed UDE. We work backward from here to find the real reason and eliminate it. So, the drop in profits could be due to a drop in prices or drop in unit sales, which one is observed?

Prices are steady.

So, sales have dropped. Sales could have dropped due to a drop in demand, competitor action, or changing customer preferences. Is this a comprehensive list of reasons or am I missing out on something?

You can look for a few more.

Ok, retailers could be stocking less of our products due to multiple reasons: lower margins, delays in delivery, quality issues, etc.

That’s correct. You can proceed.

Now that we have uncovered the possible reasons for the drop in profits, we can build solutions for them. Would you like me to focus on any one of the issues first?

I think that’s enough, we can end the case here.

So, one issue could be a low rate of completion, where-in consumers would start the application process but not follow through completely. This could be resolved by ensuring we require minimal document upload during the approval process. This wouldn’t increase risk because since these people would already have bank accounts with us, we would already have access to all the requisite docs.

Just tell me one more reason and then put forward your synthesis. We’ll close then.

Onboarding and ensuring that all customers get on the app could be a problem.

Okay. Thank you.

Large Auto OEM

Your client is Maruti Suzuki, operating with a 50% market share in India. The market share in the age group 25-30 has been decreasing. Identify the cause and give recommendations.

Reiterated the question for confirmation. Since when is the client facing this problem, can you share some information regarding the competitive landscape?

For 4-5 years. You can assume the current scenario prevalent in the Indian automobile industry as a basis for this case.

Briefed about the current Indian automobile sector and the players prevalent. The dropping market share can happen because of a change in the price of the automobiles sold, their volume, or unfavorable product mix changes. Have there been any changes in any of these aspects?

The prices have remained fairly stable and in line with the competition and there is no change in product mix, but the volume sold has been decreasing lately.

Okay, so it can either be a supply-side issue where we are not able to produce enough, and we can look into the value chain, or it can be a demand side issue where we can look at it from a consumer journey approach.

There are no supply side constraints. You can explore the demand side of it.

Okay. I want to look at the customer journey to see why this is happening. I would divide the customer journey into 5: Need, Affordability, Awareness, Accessibility, and Consumer Experience. (Goes on to explain all of them briefly)

Let’s look at them one by one

Explained how Changes in Needs (Tastes and Preferences) can be an issue in the automobile industry. The company might be lacking in innovation in trending designs, sizes, and product features which the 25-30 years age segment might prefer.

Correct, one of the problems lies here. The age segment is more inclined towards Larger sized cars (SUVs) but the company does not have much to offer them.

Explained how changes in affordability can arise (lack of financing options, high EMI interest rates, lack of banking partners and complex finance structures)

Good observations but there is no issue with the affordability, awareness or Accessibility.

Okay so let’s move on to the consumer experience which I would like to analyze by further breaking it down into Pre, During, and Post sale experience. Goes on to explain all of them (Pre- products, high test drive lead time and low availability, availability of personnel; During- personnel hospitability, can look into in-dealership consumer journey; post: servicing, afterparts, repair/warranty claims)

You are right, the problem is with the Pre-sale experience. The lead time for the test drives has shot up and there is low predictability with regards to the Test drive scheduling and availability. Basis the problems identified, what is your plan of action?

I aim to address these concerns by implementing a comprehensive approach encompassing both short-term and long-term strategies. In the short term, I propose promoting existing compact SUVs in our Portfolio such as the Grand Vitara, Brezza, and S-Cross, as these models may better resonate with the preferences of our target segment. Additionally, I suggest increasing the availability of cars for test drives and developing an electronic platform for booking test drives, which would also provide estimated lead times for various dealerships. We can consider hiring additional personnel to cater to customers and offer test drives to enhance customer service. In the long term, we should focus on introducing cars with designs and sizes that cater to our target customers.

Great, we can close the case here. Thank you, It was nice talking to you

MARKET ENTRY

Hovercrafts in Mumbai

Your client is an entrepreneur in New York who has a fleet of hovercrafts. Since some of his hovercrafts are unused, he wants to deploy them in Mumbai & earn money. Help him find out how attractive the opportunity is.

Just to reiterate the problem statement, my client is an entrepreneur in New York who has a fleet of hovercrafts. Since some of his hovercrafts are unused, he wants to deploy them in Mumbai and earn money. I need to help him find out how attractive the opportunity is.

Right. That's correct.

Alright, thanks. Can you tell me what a hovercraft is? Also, I would want to know more about the main business of the client and understand his objective behind the investment.

A hovercraft is a ship-like vessel. You know something like a ferry. The client's core business is transportation and his objective behind the investment is to make money.

Got it. Can you tell me about the number of hovercrafts he wants to deploy, how many seats does one have?

He has a spare fleet of 20. Each has 50 seats.

Okay. Got it. Has he already identified where in Mumbai he wants to use these?

Well no. Can you suggest some possible uses of hovercrafts in the city that can help him make money, just very broadly?

Sure, I need a minute to structure my thoughts.

Please take it.

Alright, I have thought of 6 ways in which it can be used. First, we can simply sell them, second, we can rent these to private agencies for tourism, we can lease these for events like birthday parties, etc. in the ocean, we can rent these to ultra-rich people for personal use, we can use these for cargo, or maybe we can simply run them on alternate routes as a mode of transport.

Good, that's a comprehensive list. Let's say the client decides to run these on the Bandra-Worli route. What do you think will be the market size.

Sure. Since I am a Mumbaikar, I know that the Bandra-Worli route has two ways, one is a long way, other has a sea-link. Time-conscious people use the sea link to cross to the other side in 15 mins. They pay around Rs. 80 on one side. The people who follow the other route are unwilling to pay extra money to save time. Is it fair to assume that our market will only be the ones who use the sea link given that we will also charge the service?

That makes sense. Please go ahead

Okay, I would simply divide the day into peak hours and non-peak hours. In the peak hours, I would assume one car passes in 30 seconds. Is that fair?

No, you can take it as 30 cars in 60 Seconds.

Sure, so in 1 min, 30 cars pass. There are 8 lanes. So, in 60 seconds, 240 cars pass. In non-peak hours, can I assume 10 cars pass in 1 minute? Also, can you tell me the occupancy in peak and non-peak hours? I think since people are in a hurry in peak hour, it would be lesser then.

That makes sense. In peak hours occupancy is 1.5, in non-peak it is 3.

I would carry market size as: ((number of cars in 1 minute * 60 minutes * no. of peak hours * number of lanes * number of people in the car in peak hour) + (number of cars in 1 minute * 60 minutes * no of non-peak hours * number of lanes * number of people in the car in a non-peak hour)). Is that fair?

Yes, please go ahead.

Performs the calculation. I think a market size of 50400 looks good.

	Peak Hours	**Non-Peak Hours**
Hours	8	16
Cars per minute in all lanes	30	10
Cars per hour	1800	600
Cars per day	1800x8	600x16
Occupancy per hour	1.5	3
Number of people	1800x8x1.5	600x16x3
Total	**50400**	

Given that we have only a fleet of 20, and each has 50 seats, that means 1000 people at a time but the peak hour load is 2700 while in non-peak it is 1800, so any way we have a supply-side constraint. There is enough demand. Do you want me to find out anything else?

Your analysis is reasonable. Can you now help us price the service and suggest risks at the end?

Sure, Can you tell me how much time one trip take on the hovercraft? Also is there any information about the cost we bear for one trip?

Well, on the hovercraft it takes 10 mins. There is no information about the cost we bear, you can ignore that.

Okay, there are two ways in which we can price, first is competition based, second is value-based. In competition-based pricing, our price should not go above Rs. 80, given we are competing with the sea-link. In value-based, since we are saving 5 mins. for the customer, we can charge then 1.5x 80 i.e., Rs. 120 for the service. But my suggestion is that this is too expensive, so we go with something close to 80.

Continued…

Okay. Makes sense. Can you suggest any risks that you see.

Please allow me a minute to think of those.

Sure

I think that there are three major potential risks that I see:

1. It will be very difficult to run the service in rainy reason in Mumbai.
2. Municipal corporation permissions must be taken given security concerns in the waters.
3. Finally, and most importantly, I see a very big hurdle in front of us. Even if a person uses our service from point A to B, he will have to pay some money to come to point A using auto/bus, etc., and then to go to his office from point B. Over and above the money, it is too much inconvenience.

Hence, I feel that while the market is attractive, it might be a very risky idea to go ahead. I suggest the client considers these factors as well.

Okay. Thank you

Chemical Manufacturer

The client is an MNC chemicals producer in India. It is planning to launch a new product – a powder mix. It makes water drinkable. It has the WHO certification. It has no negative health effects. Should it enter the Indian market? One sachet of this powder mix can be sold for 6.2 US cents. 1 sachet is sufficient for treating 10 L of water.

I would like to first clarify the problem statement. The client wants to launch a powder mix that makes water drinkable. It wants to know whether it should enter the Indian market. Have I understood it correctly?

Yes, go on.

I would like to know whether our client has any competitors in the market.

No, there are no competitors

Okay. Are there any factors that make our product distinct or special?

No, there are none. Can you find the expected market size for me?

Okay. First converting the currency to INR, I assume 1 USD = 80 INR. We get the selling price of one sachet = 4.8 Rs. Assuming the price is 5 Rs. approximately. Then I would like to identify the target population for our product.
Assuming India's population is 140 cr.: 40 cr in urban areas and 100 cr in rural areas.
Further bifurcating into the high(H), middle(M), and lower(L) class populations based on their income levels. In the urban areas assume H, M, and L as 20%, 60%, and 20%. Rural areas assume 5%, 60%, and 35% respectively.
In urban areas, only the lower class would buy this product as they may not have a stable source of pure water. The higher & middle class would have municipal supply. Only the middle & lower-class populations would buy this product in rural areas. That makes our target population = 20%*40 + 60%*100 + 35%*100 = 8 + 60 + 35 = 103 cr.
Consider that an average human consumes 4 L of water per day.
So, we are looking at 103 cr * 4 = 412 cr L water. 1 sachet is required for 10 L water i.e., 41.2 cr sachets can be sold per day.
This makes our market size as 41.2 * 5 = 20 cr Rs/day.

Okay. Suppose 100 million USD is the fixed cost required to set up a plant. The material cost is 3.5 US cents/sachet. The overheads are 20% of the material cost. Can you calculate the breakeven point?

Yes. The formula would be break-even number of sachets = Fixed cost/(contribution per sachet) = 100 million*100/(6.2-3.5-0.2*3.5) = 500 cr sachets approximately

So, do you think the company should go ahead with this launch?

Considering the market size is 41.2 cr sachets per day and the break-even number of sachets per day to be 500 cr sachets. We can reach break-even very fast even with a modest market share. Hence, I would recommend that the company can go ahead with this product.

Ok. Thank you. We can end this case here

Economic feasibility

Calculate the potential market size

↓

Calculate the breakeven point

↓

Check if we can reach the breakeven point

OTT Platform in India

Walmart, which has a majority stake in Flipkart, is planning to enter the Indian entertainment industry. Suggest a strategy for them and try to support your strategy using data analytics.

Sir, could you brief more about which space of entertainment industry is Walmart planning to have a presence in?

They want to start an OTT platform for India. They also want to produce certain movies and stream them on their OTT platform.

Okay. Let me break this problem down into three aspects – Customers & Competition, Investment & Regulation, Leveraging existing capabilities. Let me start with understanding the customers first. Could you tell me if Walmart wants to tailor the platform for specific user groups in the country or is it targeting the complete audience?

They want it to cater to everyone across the country. You can speak about all the three aspects you mentioned.

India is a diversified country and is largely divided by language and demography. People of different regions and age groups prefer movies and shows of different types. Therefore, to stand out in the competition with existing players like Netflix and Amazon Prime, Walmart has to bring more customized services to its customers. Speaking of customized services, it is suggested to use a recommender system that suggests movies and TV shows correctly to people based on their profile and preferences. Coming to investment & regulation, the majority of the investment required for an OTT platform is IT systems and Walmart has enough free cash and technological capability to carry out this investment. In India, the OTT system is not completely regulated and hence Walmart wouldn't face any barriers from the government for now. Coming to existing capabilities, I see that Walmart has a majority stake in Flipkart and hence can obtain data from it for commercial use. Flipkart has an entertainment division where books and related merchandise are sold, and movies are watched. Walmart can obtain data from this to understand customer preferences and use these insights to develop an effective recommender system.

Can you elaborate more on what data you would be asking from Flipkart and how you would be using it?

From the entertainment division, the profile of the customer consisting of age, gender, region, and average spend (a proxy for income) is to be collected and mapped to the genre of the book bought and the genre, actor, and director of the movie watched. This is how customer preferences and related trends are understood. These insights can be used as the initial input for the recommender system which is later iteratively updated based on more data.

Okay, enough of the recommender system. Now tell me what the marketing strategy should be and how you would go about pricing.

Initially, the platform should be marketed to the entire country to communicate the initiation of the platform to the entire population. Then the marketing should slowly be imparted with regional preferences to allow for customization. Coming to the pricing, since there would be tough competition from Netflix and Amazon Prime, it is suggested to follow competitive pricing initially and attract customers. Later the pricing should be set according to customer spending potential. Again, the spending data from Flipkart can be used to correctly estimate the spending potential of customers on OTT platforms.

Okay, that should be it.

Personal Care Brand

Your client is a company that is looking to enter the FMCG sector. They want to launch a brand focusing on personal care. They need suggestions as to how to go about building a brand.

Before I proceed, I have a few preliminary questions. I would like to know more about our client. What is the company about? What products/services do we offer?

Our client is an Indian conglomerate that has many businesses viz., heavy industries, retail business, and IT services.

Okay. Is there a particular reason why we are looking to enter the FMCG sector? And are we launching the brand in India itself or we're looking for a bigger market?

We are just looking to diversify and the valuation is higher in FMCG. As of now, we'll be launching in India only.

Since we are looking to build a brand specifically in the FMCG sector, our first step should be going about identifying what people need and based on that we can go about deciding the product.

And how do we identify what people need?

We can conduct market research and/or look at existing data and trends.

Yeah, so suppose we do that and figure out that people need shampoos that are free of chemicals. How will we now go about building the brand?

Having identified the product, we can go ahead and figure out the price, the distribution channels for the same, and finally the marketing and promotion.

Let's go into each of these buckets.

We can price the shampoo in three ways: cost-plus pricing, competitor-based pricing, and value-based pricing. Do you want me to price the product?

No, we can skip that. Let's move on.

For distribution, we have to figure out which is the best way to reach our target segment. Our market research will help us identify this. We can look at third-party distributors and retailers. Moreover, since we already have retail stores, we can also make use of that.

That's a nice observation. Can you go about designing the product now? What all will you take into consideration there?

For the product design, we have to think of two aspects: the shampoo and its packaging. Since we are going for a chemical-free shampoo, we can go for organic or ayurvedic ingredients, or we can have two shampoo lines for each of these. These can further be divided based on Indian hair types or different functionalities.

Sounds fair. And what about the packaging?

Since we are looking for a chemical-free shampoo, a nice addition would be if we go for eco-friendly or sustainable packaging as well. We can use it for recycled plastic, glass, or metal bottles. So the entire product can be marketed as a shampoo that neither harms your hair nor the planet.

Good. We can end the case here. Thank you!

Credit Cards

There is a commercial bank that wants to launch a credit card for the first time. What are the aspects that it should consider?

Reiterated the problem statement & clarified objective

It is not a go-no-go decision. The bank has already decided to launch the credit card. You need to list the factors that should be considered. You can consider a metro city like Mumbai for the launch.

Okay. I would like to consider the following buckets:

- Demographic analysis for the customer base
- Targeting customers
- Competitive Analysis
- Risk-taking capacity of the bank. Is there something else that you would want me to consider?

For now, you can proceed with this. I will stop you later if I think you are missing anything.

For the launch of a credit card, I will first consider a demographic bifurcation of the population of Mumbai based on the following factors:

- Whether a person is a customer of the bank for other services
- If yes, what kind of profile does the customer have – based on the bank balance, investments, income, volume of transactions, etc?
- If no, I would like to segment such population by income, age, occupation, and urban/rural.

Based on this, I started to draw up a guesstimate; however, the interviewer cut me short.

Do not go into quantitative data. Stick to qualitative aspects only. I only want to know the broad headings and pointers that you will consider.

After segmentation, I will go for targeting & positioning of credit cards. I will have a separate strategy for existing bank customers for other services & others since converting existing customers for credit cards use is easier. Customers can be categorized as silver, gold, platinum, or any other terminology to bifurcate them based on income bracket/spending capacity. Rewards and benefits can be used to attract customers.

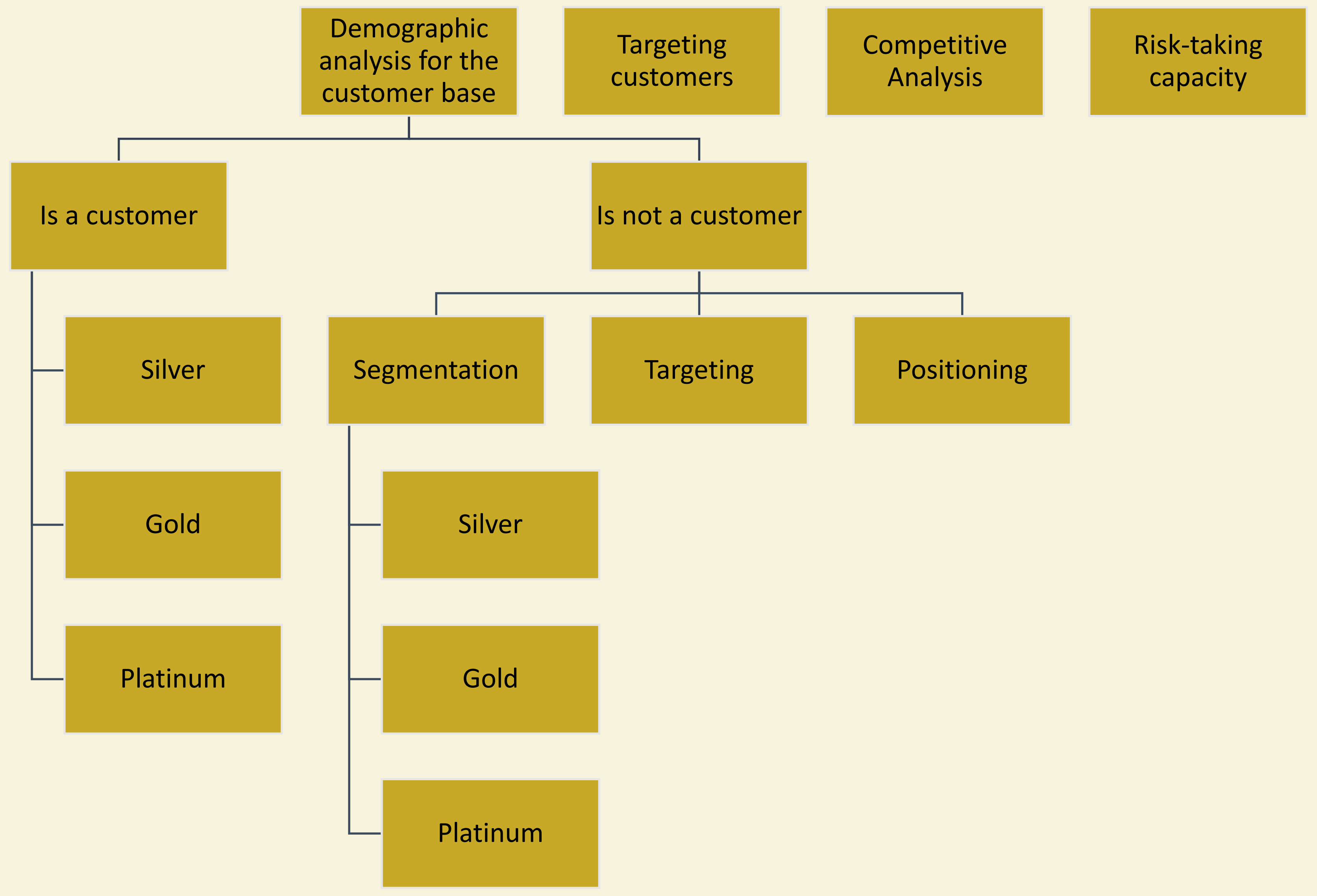
Okay. What next?

For people who aren't bank customers, the bank must evaluate how many of them are using a credit card facility from any other bank. And if not, what is the payment method they prefer? For this, the bank must perform a competitive analysis of other players in the market. Also, it should evaluate their existing features that can act as a competitive advantage for the bank. The bank must then leverage such competitive advantages to gain a new customer base.
One aspect is penetrating the customer base of competitors. Another aspect is that there is a large base of the population who still resorts to cash transactions. The bank must target this customer base by demonstrating the value addition & benefits of plastic money to these people.

Okay. What other factors will you check for?

While launching a credit card, the bank needs to evaluate its risk-taking capacity. To attract customers, the bank should not go overboard with its risk capacity as it might lead to bad debt losses & costs for recovery of debts for the bank.

Okay, that would be fine.



Automobile Company

Your client is a leading automobile company, already dealing with compact sport utility vehicles, compact pickup trucks, and subcompact cars. They have decided to enter into a new market and introduce Sedan as a new product. You are supposed to give them recommendations on what factors to consider while entering into a new market and how?

Went ahead and reiterated the statement to ensure I understood it right.

Yes, correct!

I have some preliminary questions. What is the objective of the company to enter into this market? Does the company want to increase its market share or its profit?

Money is not a problem; the company wants to capture a good market share.

Where are we operating right now, and where have we decided to enter geographically?

You can take an assumption for that.

What are the standings of our company in the industry in terms of revenue, profits, and market share?

We are a medium brand and have neither more nor less market share.

Who are our competitors?

There are three major competitors ahead of us in terms of market share.

Do they also have a sedan as one of their products?

Yes, they do!

Have our competitors already entered the market where we are planning to enter?

Yes, they are already there.

Are there any differentiating features in our product as compared to our competitors?

It is relatively bigger and has some extra leg space. Just give me an approach of how do you think we can go ahead with launching the product.

For launching the product, I think we will have to think about the operational efficiencies like the workforce availability and the distribution channels that we would want to go with. Since we are not a very strong brand, we need to decide on our marketing and promotional strategies too.

How would you suggest the client to go ahead?

Now the world is moving towards technology, and to sustain in the competitive market, we should include some technologically advanced features in our new product to differentiate our product from the competitors. For entering the new market, we can also try to identify and explore a joint venture with local companies to aid local manufacturing. Since our brand is a medium brand, we would need qualified talent to be able to explain the pros of buying this new model and convince the customers visiting the showroom to buy it. We should also tap into local supply chains to start building out our value chain, lower costs, and speed up production. We should also put some research into local workers, regulations, and infrastructure.

Thank you, I think I am done.

Beverage Market

A US-based beverage manufacturer, 3rd largest in the US, wants to enter the Energy drink market. What should be their GTM strategy?

Thank you. I'll repeat the problem statement to ensure we are aligned. Went on to repeat it.

Yes, that's correct, how would you go about making the decision?

I will take a couple of minutes to lay out my approach and structure my thoughts. (After a couple of minutes) I would like to approach this problem by evaluating the following 3 buckets - Market Attractiveness, Financial Viability, and Operational Feasibility of entering the market. I would assess the Market Attractiveness in terms of market size, attainable market share, growth rate, and existing competition. The Financial Viability aspect is to assess the profitability and return on investment. The Operational Feasibility would include factors like regulatory approvals, resource availability, and technological competencies, as these impact the scale and efficiency of operations. Is this approach fine?

Yes, that seems fine. Go ahead. Let's start with estimating the market size first.

Sure, I will start with segregating the US population into Urban-Rural, and focus on Urban. Is that a reasonable assumption?

Yes, let's focus on Urban population only. You can assume US population = 10 billion, and Urban-Rural divide as 40-60.

Sure, so basis that we get an Urban US population of 4 billion. Further, we can segregate it into Low income, Lower Middle, Upper Middle and High income. And since energy drinks are generally expensive, we can focus on the Upper Middle and High income. Within each, we can look at the target age group. So, the mathematical approach I am following is: US population x %Urban split x %(Upper Middle + High income) x %Age bracket (20-40 years) x %Athletic activities x %Energy drink preference x # Annual purchases x Price of energy drink in the US. Is the approach reasonable? If yes, then I might need data points to calculate the market size, as I am not privy to the US market. Else, I can make reasonable assumptions and discuss.

Yes, the approach sounds good. So, I have some data with me. Income divide you can take Low=35%, Lower Middle=40%, Upper Middle=25%, High income=5%. Age group (20-40 years) = 25%. %Athletic activities= 30%. Monthly purchases = 20 bottles for both income segments. Price per energy drink = US$ 5.

Sure, so based on the mathematical approach and data, we get a market size of US$ 108B. To compute the expected revenue, I will need the expected market share the client can capture in 1st year. For that, can you tell me about the competitive scenario of the Energy drinks market in the US?

So, the market size sounds good. Regarding the competitive scenario, 60% of the market is captured by 5 major players, and the rest 40% is shared by local small players.

So, since we are also an established player, we'll be competing for market share with the other organized players. Is it reasonable to assume that in the 1st year, the client will be able to attain a 5-10% market share as 6 big players will form 60% of the market?

So, for this case, assume a market share of 10% in the first year.

With a 10% market share in a US$ 108B market, we get US$ 11B as the 1st year revenue.

That's good. Now, let's move on to the Financial Viability bit. What is the expected profit?

So, profit will be computed by subtracting total costs from revenue. Can you tell me what are the costs involved – Fixed and Variable costs?

So, assume Setup cost of US$ 90M, COGS=US$ 3 and SG&A=US$ 1.

To calculate the total variable costs, I will calculate the number of bottles manufactured annually by dividing the revenue by price per bottle, to get ~2.2B bottles per year. Basis the data, we get Fixed cost = US$ 90M, Variable cost = US$ 8.8B, and hence Total cost = ~US$ 8.9B. Thus, the first year profit is 11-8.9B = ~US$ 2.1B. Since it's a profitable venture, it is financially viable to enter the market.

Okay, now how would you assess Operational viability.

For operational viability, I will look at the supply chain: R&D, Manufacturing, Distribution, Marketing, and After-sales. For manufacturing, we can see if it makes sense to establish our factory which will give us better control over the product, quality, introduction of new variants, etc. Or we can go for Contract manufacturing as well, which is a cheaper option as we can save on massive factory costs, licensing, etc. For distribution, we can look into tying up with private distributors/3PL.

Will also have to see what are the state-wise regulations, like in India, different states have different rules – Govt-owned distribution/Private distributors, Private or Private + Govt-owned retail stores, etc. We will have to assess whether the company can establish a full supply chain – capital, technological capabilities, etc.

So, that sounds comprehensive. How would you advise the client to attain a steep 10% market share? What are some ways the client can achieve this market share?

The client can look into the following ways: Competitive pricing, Diversified portfolio, Selling online – Tie-up with online retailers, or using the D2C route (COVID-induced boost online sales have been boosted). Marketing strategy – Bundle with other products, get athletes to endorse the energy drinks, promotions during sports tournaments like Super Bowl, NFL, football events, etc. SEO marketing will be helpful as well.

Thanks, that'll be all.

Electric Bikes

Suppose you are a 2-wheeler manufacturer, say TVS Motor Company. You want to release electric bikes into the market. How will you go about it?

Where do I have to enter? Is it all over India or any particular state?

Assume you have to enter into Karnataka's EV market.

Alright. The first thing I would look out for before launching the electric bikes would be the customer base in the potential market. Electric bikes would be used primarily by teenagers and the middle-aged population who are educated and aware of the benefits of EVs. Karnataka has a reasonably good number of resident youth because of the established IT industry and a good literacy rate. I would be conducting market research to find out how many people might be interested in purchasing the Electric bike there and then come to a conclusion. If demand is sufficient, that is a positive indication towards launching the bike. I would also consider whether there are enough charging infrastructure and favorable government policies, for example, benefits to owners of electric vehicles.

Okay. What else will you look for?

I would look into our product design. Since Ather Energy and Ola have already launched their Electric bikes in Bangalore and other cities, I won't have the first-mover advantage. So, it is necessary that the product which TVS is making is unique and has a better value proposition. Customized designs for different customer segments like men, women, racers, etc., reduced vehicle battery charging time. Also, lighter-weight models would appeal to customers. I will try to compare the features of TVS E-bikes with that of competitors and see if our bike would be accepted by the customers or not.

That sounds good. What else?

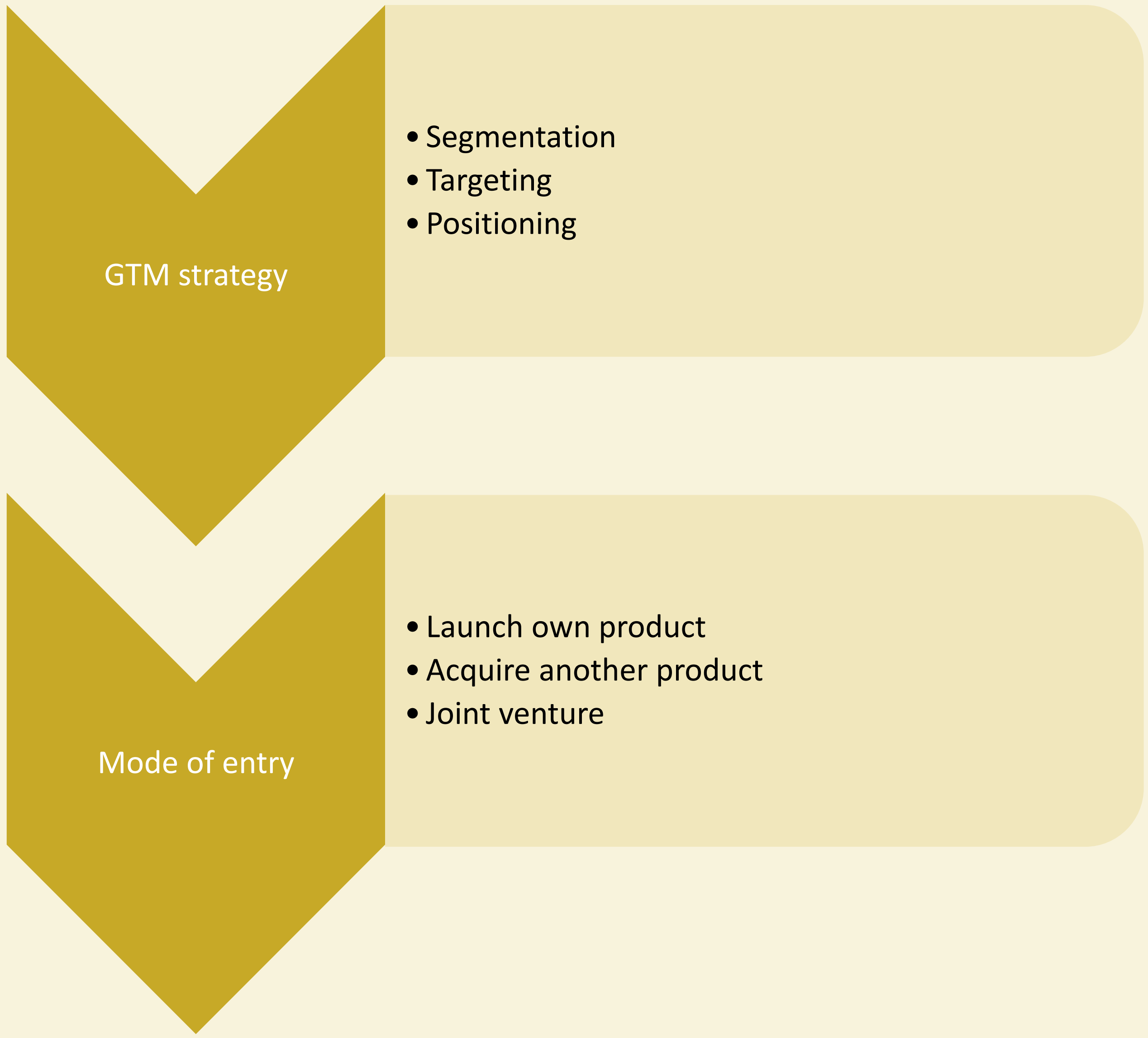
I will also look into the prices offered by my competitors and try to price TVS bikes at an affordable rate. While entering Karnataka's market, TVS can have three options -

a) Launch their own E-Bike b) Acquire another bike company c) Enter the market in a joint venture with another company. Since TVS has an excellent R&D division, manufacturing capacity, and good brand recall, it would be better to enter solo in the market.

How can you influence people to buy more TVS E-bikes?

TVS is already a well-established brand. We would need to make people aware of the benefits of EVs through TV commercials and advertising. We can adopt more channels to sell the bike, for example, e-commerce websites where customers can buy bikes in seconds with just a click. We can also tie up with banks and insurance companies, get the vehicles insured for the customers (at lower premiums), and help them get loans at lower interest rates for purchasing the bikes. An EMI option can also be given to them for making the purchase.

That sounds good. Thank you



Energy Drink Market

Your client is an FMCG company that wants to launch a new product, an energy drink into the market. Given the pandemic scenario, how would you go about it?

Clarified the objective and asked about the company

Established company, with a good hold over manufacturing and distribution network

I'd like to know a little bit more about the product we want to launch, USP, cost of manufacturing, pricing etc.

It's an energy drink that provides nutrition and supplements, will help boost immunity (pandemic scenario) manufacturing price is 30 (FC-25 VC-5), and Pricing at 45/bottle, will we break even?

Yes, we have a margin of 15/bottle, we will breakeven at this point, (given energy drinks sell for much higher too) (It was a random trick question in between) (Briefly discussed cost-based, value-based and competitor-based, but was nudged onwards). I would now like to look at the target customer segment. Middle-aged urban youth who are health conscious would be our customers. The market size is quite significant and with good marketing campaigns, we can convert more people too. We can identify the audience by doing some market research and surveys.

What would be the rough market size or bottles sold in a week?

With 140 Cr population, 30% urban, 42 Cr, 40% ages 18- 40 17 Cr. Let's say we capture half of this potential market 9Cr, these people might buy 1, 2, 3 bottles a week (40%, 40%, 20%) (confirmed all these numbers) 16.2 Cr in Urban

Let's say we position ourselves as Ayurvedic/Natural to capture rural segment, would that increase market share?

Proceeded to do a similar calculation but captured only 40% of the potential market. Gave a number of around 14.4 Cr bottles/week.

Now let us proceed with the launch strategy.

I would like to discuss competitors, and how we place ourselves amidst them, how can we differentiate ourselves? And then we can proceed to the product-specific launch. We can differentiate our product in terms of quality, positioning, perception, or based on pricing.

So, you didn't ask about the SKU, we sell 200 ml bottle @ Rs. 45 with sophisticated packaging

My bad, that places us in a premium segment. So the target audience would be high-income people

So where would you sell this product?

For premium product distribution, we'd want to target places where high-income people frequently go, such as high-end stores, clubs, airports, restaurants, and lounges make sense. We can also target the athletic segment and try to collaboration with gyms, fitness centers etc.

That'll be all, thank you.

EV Charging Stations

An EV company wants to establish charging stations across highways and gain the first-mover advantage in India. Estimate their total capital expenditure in a limited distance stretch across any national highway of your choice.

Clarified the problem statement. Asked if I can consider NH 5 for the case, between Cuttack and Bhubaneswar. Also asked about the time frame being looked at to set up the investment.

How much is the distance between the two cities? Time frame is 3 years.

30 kms.

Okay, consider the distance as 300 kms between any two other cities.

Considered Kolkata and Bhubaneswar. Said that to estimate the total capital expenditure, we need to first figure out how many stations they needed. And for that, we need to understand the market size for EVs that are going to travel in that route. Asked if that made sense, and the type of EVs that we were looking at – two-wheelers/ four wheelers?

Yup let's do that first. Consider only passenger cars.

Started by considering the total population along the route as 2 crores, thus approx. 50 lakh households. Divided it among rural/suburban and urban areas and considered only urban areas for the case.

Right. Go on. Take your time to figure out the market size first and then walk me through it.

Segregated the urban population among low, medium, and high-income groups. Considered only medium and high-income groups to own cars now and took different shares for them. Just checked if the assumptions were okay.

Yes

Based on that, I arrived at the total number of cars that are owned along the route considered (4.5 Lakhs). Asked if I should take the product life for a car to be 5 years to estimate the number of EVs to be sold during the next 3 years?

Consider EVs to capture 20% of the market share by then.

Roughly the number I had was 90k EV cars. Asked how many of these cars would be using the route on any given day.

Consider that figure to be 30%.

To estimate the number of charging stations, we need to consider the average mileage (km/ full charge) per car. I talked about the mileage modes EVs could come up with, and what the mileage could be on a highway.

Take the mileage as 100 kms per charge.

To arrive at the number of charging points, I considered that 10 vehicles can use a single point which should be placed at a distance less than 100 km apart.

Take your time and think about the factors that you'll consider on how to place the charging stations.

Mentioned three factors - identification of high-traffic density areas along the route, setting up stations with even spacing across both sides of the highway, and the number of charging points that a station can have.

Okay! That should do for now to close the case.

Your client is a leading FMCG company in India. They're thinking about launching a new product in the market which can make a bucket full of water fit for drinking. Can you help them decide whether to go ahead with the product or not?

So just to make sure I got the problem right, Our client who is a leading FMCG company is looking to launch a new product that can cleanse a bucket full of water and make it fit for drinking.

Yes

Also, as the company is already a leading company in the sector, would it be safe to assume that they're launching the product for profit-making purposes?

Yes look at it from a profit making purpose.

Alright, then I'd like to know more about the competitive landscape in the market for this specific product.

The product doesn't require heavy R&D so it's not much of a competitive advantage but we're the first major company to launch the product.

Could you provide me with the specifics of our product? As in how long does it take to cleanse X liters of water?

It can make around 20 liters of water fit for drinking in 10 minutes.

Now deciding whether to launch the product or not, we can look at it from 2 perspectives, the economic feasibility of the product and the operational feasibility.

Sure, start with economic feasibility for now.

To consider economic feasibility we need to check whether we can make a profit on the product or not. We can find that by using the formula

What would the market size be?

For that we can do a simple guesstimate or can wait for some data.

I guess we can use a guesstimate at this stage.

Okay, I'd like to take a few seconds to structure my thoughts, if you don't mind.

Sure, take your time.

Started with the guesstimate, divided the Indian population based on rural and urban and then further on the basis of Income. Now assigned percentages to all sub-parts after listing a number of factors like 20 liters water bottle substitutes, availability of ROs, dependency on hand wells and tube wells in rural areas and people being averse to adding a commercial product in their drinking water. Further asked her if I should continue with the calculations.

I guess these numbers will do, there's no need to do the calculation. Can you tell me what the economic feasibility of the product is now?

Yes as I mentioned before, we now have a rough idea of market size and as our guesstimate considered external factors affecting customer choice and due to the absence of a market competitor our market share in the formula is simply 100%. Now coming to Price and Variable and Fixed Costs. Once we have these numbers we can find out whether the product will be profitable or not.

Yes, now do you have any suggestions about the pricing of the product?

Sure, we can price the product according to three strategies, a) gauge the value it provides to our customers, b) consider the competitive pricing (tube well bills, bottled water, etc.), c) price it to cover our fixed cost over a specific period, if you have a number in mind.

Okay, now what about the operational feasibility you mentioned earlier.

For that we can consider how beneficial it would be for us to launch this product meanwhile leveraging our existing business features.

Can you elaborate on that?

Sure, as you mentioned we're a leading FMCG company, so we can leverage our existing distribution channels to launch this product, we also have storage and transport facilities, and an existing skilled workforce and supply chain that can be used to decrease our costs of launching this product.

Alright now should we launch this product or not?

That, it is certainly beneficial for us to launch this product from an operational feasibility POV. However, about the economic feasibility, being a first-of-its-kind product is certainly helpful for us, but for me to make a quantitative statement I'd need to access more concrete numbers about the Fixed and Variable costs of the product and the launch price of the product and put it in the formula I mentioned earlier to get a number.

Alright, that makes the launch decision easy for us. Thanks.

Integrated Gas Company

Your client is an integrated gas company in Turkey. They want to enter the Indian market. What would be the factors you would consider while making this decision?

Reiterated the problem statement.

Yes, that is correct.

I wish to better understand the company, its presence in terms of geography and the value chain, its main aim behind entering the Indian market, and the current global situation of the Gas business.

The company is the Gas monopoly of Turkey. They have discovered extra sources in their region and wish to explore them and sell extra Gas to India. Currently, they are present across the value chain and have a presence only in Turkey. They want to become more profitable and are thinking of the long-term strategy. India is moving towards Gas and they want to be a prominent supplier.

Now that I have the initial understanding, could I please have half a minute to think about the structure I would need to access the problem better? I want to divide my analysis into 3 major heads.

Market Attractiveness (Size, growth, competition), Feasibility (Financial and Operational), and Risks and Regulations (PESTEL)

That is already a well-laid-out structure. However, what I want you to now do is a bit different. Let's say that the client wants to explore gas in Turkey and sell it to houses in Gurgaon. Open an Excel sheet and draw out the entire value chain to the best of your knowledge.

(Opens Excel, Shares screen) The value chain has 3 parts Upstream, Midstream and Downstream).

Yes, go ahead.

The broad value chain that I would want, and we would get into the details as we keep talking about various parts, would be Turkey -> Transportation -> India. Now let us talk about Turkey. Here we are in the Upstream and the Midstream business. We would extract gas and transport it to the port. So either we would have a pipeline from the site or we can do so by using containers.

Transportation - Before we use ships to transport gas, we need to liquefy it. So we will have to set up a Liquefaction plant at the port. Then we can have collaborations with shipping companies that can be used to transport this liquefied gas to Indian ports.

India – Here, we first need to perform reverse liquefaction and then either send the Gas through a pipeline or through trucks/containers on railways (Midstream of gas). Finally, we would have a centre right outside Gurgaon wherein we can store our Gas for the last mile delivery. This place would be connected to housing societies through meters.

Do you think that the risk you currently have is justified? The shipping industry faces delays these days. The truck companies could also give us problems. The tie-ups required for reverse liquefaction in India could also fall through.

That indeed makes sense. We would need to analyze the cost associated and the risk avoided for various investments that we can make. For example, we could partly own our fleet of ships/make investments in Liquefaction capacity in India, so that we do not entirely depend on 3rd party players.

You have a meeting with the client in 30 minutes, you need to ask only 3 questions that can further help your analysis. What would these questions be?

Could I please have a few seconds to think about this? (Post thinking)

- What all parts of the value chain do you wish to be a part of in India?
- What is the overall size of the investment you want to make?
- What is the risk appetite that you have?

Great

Pharmaceutical R&D Center

Your client is a pharmaceutical firm that wants to establish an R&D center and has chosen India as its target country. Select which city they should build the R&D center in.

I want to know more about the firm. Are they planning to outsource the R&D center or do they want an in-house R&D center? Also, are there any specific reasons for selecting India as their preferred reason?

The company had an option for outsourcing, but due to security reasons and patenting of medical drugs, the company chose to have an inhouse R&D center. The management had the option to go with Vietnam but they have chosen India, so let's go ahead and focus on India for now.

Sure. Do we have any profit expectations from the R&D center or will it be just a cost center? Also, are there any preferred cities, if any in particular?

Yes, it will only be a cost center. We have options among 2 tier 1 cities and 2 tier 2 cities in particular.

What type of growth are we expecting in terms of employees in the center and for how long are we planning to utilize the R&D center?

We are looking to establish the R&D center for a period of 10 years for now and later we might extend the contract in the country if the results are up to the mark. Secondly, we are looking for 3000 employees in the next 3 years.

Okay. I would consider the following factors for my analysis:

1. Fixed & variable costs involved - Cost of building, machinery, testing, labor, licensing, and regulatory compliance
2. Risks involved - Competitor products & IP filing, Regulatory clearances (time required & costs involved), etc
3. Employment/labor-related issues – Wage structure, skill set, etc
4. Regulations – Any special compliance requirement (certification, testing, etc), taxation norms, etc
5. Supporting infrastructure – Supply of electricity, water, transportation, etc

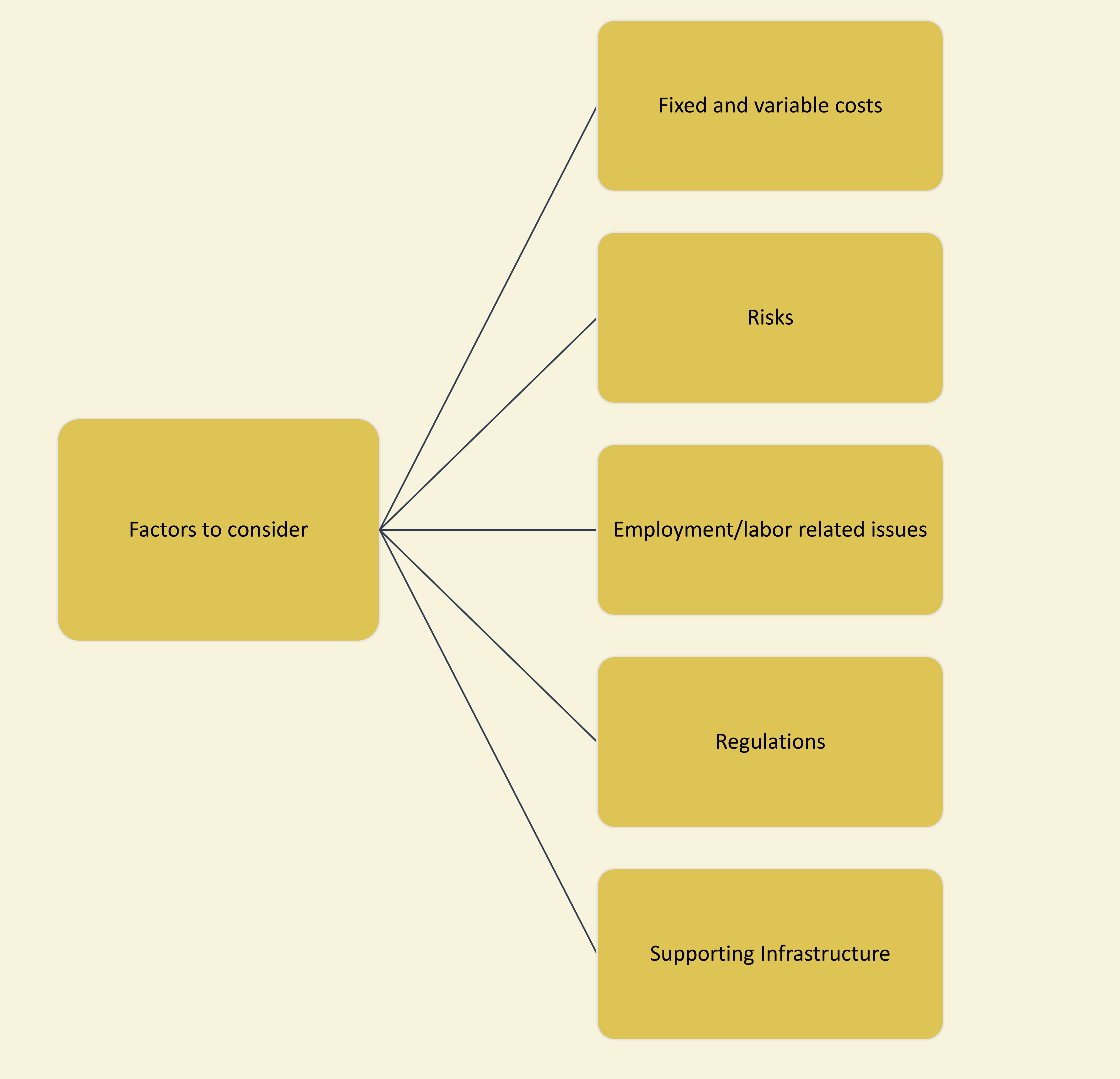
Okay, that seems fine. Can you tell me more about the recruitment planning?

Concerning recruitment planning, I would consider the following aspects:
1. Talent/skill availability – Locally or Outsourced
2. Compensation structure – Fixed vs variable pay
3. Aspects to be taken care of – Ensure a high retention rate
4. Where to recruit from – Lateral hiring, campus recruitment, job fairs, etc
5. Training programs

Okay. How do you think competitors would be impacted in this scenario?

Talked about competitive pay structure and additional benefits to not only retain the talent but also recruit good talent from other companies

We can close the case for now



Medical Devices

Your client is an automotive parts manufacturer from South Korea and Vietnam region and is looking to enter the medical device market. Assess the situation.

Okay, I have a few prelim questions regarding the client, what exactly does the client do?

The client manufacture plastic and metal parts for automobiles. Parts like steering, gear knobs, plastic covers, dashboards etc. It is a manufacturer and supplier of the same.

Alright, and what segment of the medical market are we targeting to enter?

I want you to assess this as well. What would be, if at all, profitable?

Oh, Alright, let's do one thing then, let us take a structured approach of the case and analyze everything one by one. We can assess the lucrativeness of the market by analyzing the financial, operational, regulatory, and strategic feasibility. Under the financial feasibility, we would see how big the market is, what share of the market we can capture, and/or how profitable the venture would be. We can also look at the market's growth.

Let's skip the market share part and the profitable part. Tell me what is your hypothesis on the market overall. Is it growing? And if yes, would it be feasible to invest in it?

As our client wants to invest in the Southeastern markets only, I hypothesize that the market is growing. This is because lately a lot of people have started purchasing portable medical devices like the oximeter.

But this a very small part of the market.

Correct, but after COVID-19, most of the Southeastern countries like India, Philippines, Sri Lanka, Bangladesh, etc have invested heavily in medical infrastructure. When they are upgrading the infrastructure, they would naturally require all kinds of devices for operationalizing these facilities. So, the market seems very feasible hypothetically to me when it comes to sizing.

Alright, now let's skip over the operational part, and move on to the strategic parts. What do you mean by this?

So strategic feasibility is the ease of capturing the market, part of the value chain we would be operating in, etc.

So how easy is it to capture the market?

Do we have any data on how fragmented the market is when it comes to competitors?

Who are the competitors?

Ideally the companies which are manufacturing these devices.

Name a few

Sir, I am not very familiar with these companies.

Companies like Siemens, Philips, GE etc own the patents, and then the outsource the manufacturing entirely

Then it's not so organized. We can directly target getting into partnerships with these companies and aim for manufacturing the devices for them.

So, you say we should manufacture the entire thing?

We have a couple of options here. We can either manufacture the entire thing but these instruments are very sensitive and require proper expertise for manufacturing. We would have to set up such factories which are a little difficult to do. Another option is to manufacture the parts of these machines and supply them to other manufacturers.

Can we not get into assembly of these machines?

Yes, even that's possible.

Juice Company

Your client is a small canteen running inside a government school in Shimla. They have been running their canteen in college premises for the last 50 years and are popular for their fresh juice across Shimla. Now they want to expand their business across Shimla. Formulate a go-to-market strategy for the client.

Thank you. I'll repeat the problem statement to be sure that we are on the same page. Went on to repeat it.

That sounds right.

Started with some preliminary questions like –

1. What is the growth objective of our client (Revenue/profit)?
2. What period does the client want to achieve the targets?
3. Are there any constraints in terms of Capital requirements, capacity to meet customer requirements, etc?

The initial objective of the company is to acquire new customers and increase their revenue. They are looking to achieve their target in a one-year time frame. They don't have any capital constraint. Asked me to proceed with my analysis.

Sure. We should analyze this issue by looking into the following aspects –

1. Market attractiveness (market size, growth opportunity)
2. Break Even analysis and ROI
3. Macro & micro economic factors

Asked me to estimate the market size (considering the region of Himachal Pradesh) for the client.

I mentioned my assumptions as follows

1. They expand their business as a canteen service provider
2. Considering only college-going students as their major customers. Divided the total population into rural and urban. Further classified the population based on age group. Considered relevant multiplying factors (College going students) for both the population segments.

Your approach seems fine. Can you explore other channels of expanding their business?

Sure. Our client can explore the following methods too –

1. Organic expansion
2. Franchise model and → The client should consider various factors before extending their franchise to someone as experience, Location, Competitors, Brand equity, cost & revenue synergies, etc
3. Acquisition of other canteen chains
4. Hybrid model

Consider tourists as their major customers, can you devise a marketing strategy for the client?

I started with a customer (Tourist) journey approach and analyzed each of its aspects. In addition to that, the client should consider finding a suitable advertising partner and advertisement locations Visit Blogs/Vlogs (given examples of a few YouTube channels and how they promote local brands)/ Trip planner to Plan Journey >>>> Book ticket >>>> Travel >>>> Railway station/Airport /Bus station >>>> Check-in/ Check-out at Hotel/Homestays >>>> Visit Tourist places. They can partner with the above stakeholders and choose advertisement locations & vehicles accordingly.

Pleased with the approach and asked to summarize the case.

Summarized it well

Do the STP analysis for a new fashion magazine product of a magazine company.

Repeated Question to make sure I have understood question correct

Yes, Go Ahead.

I explained what STP is and asked for time to structure my thoughts.

(Gives time) What is the difference between Segmentation and Targeting?

Explained it with an example.

Correct. Please tell me on what factors you will do segmentation.

It can be done based on demographic, geographic, and psychographic factors. For this case, I would mainly segment according to geography, age, income, and occupation just to get a broader view.

Sure

(Took some time and did thorough analysis) Gave reason for segmentation based on these factors and put forward significant segments which can be potential targets.

Okay! Which segment would you target, why?

I would start with the 20-30 age group who had an annual income of INR 5 lakh+, are from tier 1 cities, and have worked in fashion-related fields or shown interest in fashion. (Gave the reason for the same, why I am targeting)

Ok, how would you position our product? First, explain what positioning is.

Initially explained positioning with an example. I would position our product in the premium category and keep it information-focused, thus, giving customers insights about trends in the fashion industry.

Ok, looks good. How would you go about CRM activities?

I would divide CRM into 3 activities. Customer Acquisition, Customer Retention, and Customer Development. Further explained how I would go with each activity and the various new trends I would include in each activity.

Ok. How would you do this new magazine's digital and social media marketing?

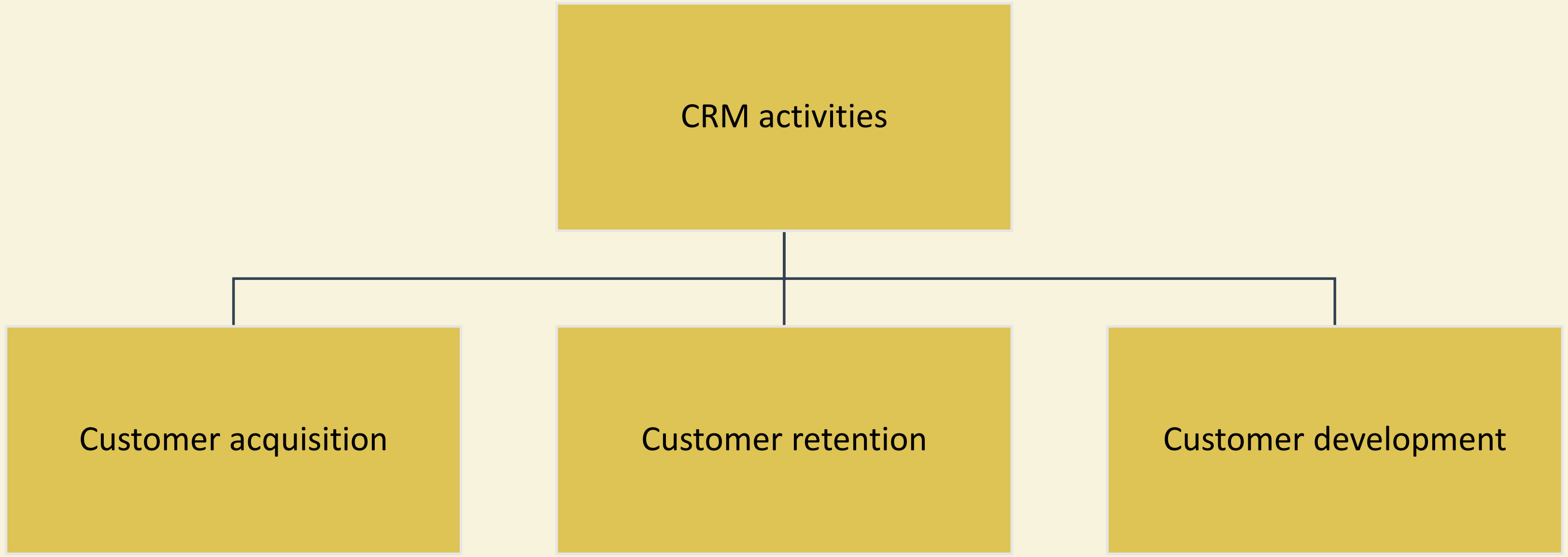
Explained with a marketing framework.

How will you ensure that only the targeted segment gets exposed to the promotional activities and which social media channel will you prefer?

I would prefer Instagram as many of our targeted customers would be present on Instagram more than any other social media platform. I also explained the different types of advertisements available on Instagram and how to analyze the collected data for future use. I also touched upon how influencer marketing, in a covert manner, can help.

Now tell me - What according to you is the main difference between traditional and current marketing?

Explained the same.



Flooring Industry

An established textile manufacturer wants to venture into the flooring business. Plan their product portfolio. How do we price those tiles?

What exactly do you mean by flooring business? Do you mean flooring solutions for spaces like veneer flooring?

No, the client wants to venture into tile manufacturing business and decide what kind of tiles to manufacture.

What is the objective of this established textile manufacturer to venture into tile manufacturing?

The client wants to become one of the Top 2 in tile business in the next 10 years and the owner has always been passionate about the flooring business

Do we have any details on our client, for example, where are their business operations located, their reputation in the textile market, where they have the funding for this new business, etc.?

The textile manufacturer is a major market player and is located Pan-India. They have all the funding needed

What do we know about the competition in the tile manufacturing business that we are entering?

There are 2 types of players-organised & unorganised. There are 2 big players which enjoy 70-80% of market share.

Which is the segment of customer that the client wishes to target?

Premium customers

What are the different kinds of options available to build our product portfolio?

There are three features on which tiles are classified and we need to determine the best combination of features for our tiles.

The three features are – Hardness, Breakability, and Thickness. Hardness determines whether the tiles have a slight cushion or not. Withing breakability we have hard and soft tiles and the customers have a perception that the hard tiles are durable. Within thickness, we have 3mm, 4mm, and 5mm thick tiles

Do you want me to focus on the financial feasibility of manufacturing the different kinds of tiles like the investment needed, revenue or break even?

No. For now, we are only looking at the type of tile to be manufactured without considering the financial feasibility.

Alright then. I would like to assess each feature one by one and decide the best mix of features

Sounds fair. Go ahead

Do we have any data on the preference for hardness among premium segment of customers that we are targeting? Do our target customers prefer cushioned or non-cushioned tiles

Cushioned

Alright. Now moving to the breakability. As you mentioned earlier that customers have a perception that the hard tiles are more durable so is that trend consistence with our target customers are well?

The premium customer segment has no preference in breakability

So as for breakability, we are free to choose hard or soft from the customer preference side. I'd like to look at the cost of manufacturing the hard and soft tiles. Do we have any data regarding that?

The hard tiles have lower cost of manufacturing than the soft tiles

Okay then for breakability we should go ahead with hard tiles. Moving on to the thickness, is there any particular thickness preferred by our TG?

5mm and 3mm are seen as the most popular variants.

Alright. So, can we manufacture both variants of thickness or should I narrow it down to one thickness based on the costs incurred?

We have the demand and the capability for both the variants so we can go ahead with both. Now can you summarize the product portfolio?

Sure. Based on customer preferences and costs incurred the features in our product will be cushioned, hard, and thickness variants of 3mm and 5mm

Fair. Now can you tell me how do we decide a price for our tiles. I don't need numbers, just approach

We can employ three ways to determine the price- value-based pricing, cost-based pricing, and competitor-based pricing. We cannot employ competitor-based pricing because we have no competition in this exact product portfolio. My suggestion is that we use cost-based pricing to determine the base pricing and then mark up the cost by employing value-based pricing because our client is a reputed name in the textile business and because we are targeting premium customers who have a high willingness to pay. The factors we need to consider in value-based pricing are the willingness to pay for our TG, the next best alternative available to our TG, demand, and supply, and the price elasticity of TG.

Fair. We can stop here now. Thank you

COVID Drug Launch

The client is an international drug maker. They have created a new drug that cures COVID. They want to launch this product in India. What should they look at for this launch?

I would like some more information on the nature of the product. Is it equivalent to a vaccine?

It is a cure for Covid.

Is it like an immunity booster? Because I was under the impression that these products decrease the likelihood of death from Covid instead of directly treating it completely.

No, it is a direct cure for Covid, whoever may take it. (Gave examples of a few drugs similar to it that were operational in Europe). It recovers those suffering from Covid.

Which stage of the product development cycle is the drug currently in?

The product has been completely developed.

In which stage of the pandemic in India are we looking to have this product launch?

Right after the start of the first wave in India.

In which stage of the supply chain does the client lie? Do they do the research and development of themselves, or do they just distribute these drugs?

They are involved in the end-to-end processes of all of their drugs. They do the entire R&D, filing for patents, packaging of the drugs as well as distribution to local retailers.

And what is the fundamental objective of this firm behind this project launch? Is this a profit-seeking capitalistic venture or is the firm coming to India for humanitarian purposes? I mean would they be content even if they broke even after the product launch or are they in it to generate profits?

They are in it to generate profits.

Okay. Could I take a few minutes to structure my approach?

Yes sure.

So since I have some idea about the product, I would like to focus on the Company itself, the competition, and the customer base. On the company front, I would look at what the cost structure is. How much would be the initial investment required? Does the company have any current operations in India? What is the organizational structure like? Are there any major legal or regulatory challenges? Is the company looking to just sell the drug here and produce it in the US? Or is it looking to move the entire end-to-end operations here? On the competitive front, I would look at what are the current direct and indirect competition for our drug. How many vaccines are being worked on or are present in the market? How many immunity boosters and cures similar to our drug are present on the market? What are the market shares and growth rates of each of these substitute drugs? What is the supplier concentration like in the market? What are the barriers to entry?

And is there anything on the customer front?

On the customer front, I would look at what is the demand for our drug. How many people require our drug? How many people are currently infected with covid and what is the growth rate like? What is the price sensitivity of the different patient segments that would require this drug? Would our primary customers be individuals, hospitals, NGOs, other private institutions, or the government itself?

Okay, you have mentioned some of the factors you would look at. I want you to look at the customer aspect of it. How would you project demand for this drug? Which factors or metrics would you look at if you were modeling demand for such a drug over the next few months?

To project demand, I would look at the historical and current metrics related to Covid 19 statistics and then try and extrapolate them in the future. These would include the percentage of the population that is currently infected. What are the major hotspots for covid transmission? Is it primarily an urban phenomenon or are rural populations getting infected rapidly too? I would look at the transmission rates in each city or hotspot. I would also look at what percentage of the population has currently been vaccinated. How many have taken 1 dose, and how many have taken both doses? What is the civilian mobility status in covid hit areas? How many lockdowns have been imposed and since when?

Think about what other factors you would consider to project demand. You are missing two very important factors.

I would also look at the number of new cases per day to project demand in the future. I would look at the new cases per day in each age segment. I would look at how many people are getting cured or recovering daily and what is the trend. I would consider how many people have self-isolated or are in quarantine to try and gauge how many would require our drug. Further, I would also look at the news to try and identify if any new symptoms have developed recently and are being reported or not. I would also be on the lookout for any scientific research reports identifying any new variants of the virus. It might be the case that the existing variant might have mutated which would require further changes in our drug and which would also considerably impact demand. I would consider how the existing vaccines interact with the different variants of the virus. To try and project demand I would also look at what are the existing capacity of the hospital infrastructure in the country. I would also consider what are the herd immunity rates and in which locations.

Okay, so whatever factors you have listed are spot on. There is one important factor which you didn’t ask me about. You didn’t ask who would need our cure. Would everyone require it? Would people who have asymptomatic covid also require it? Or can they recover even without drugs? But you mentioned the herd immunity bit in the end, so I was happy about that. Ok, so I think we can end the case here.

Specialized Clothing Market

Your firm is a yarn manufacturer, entering the specialized clothing market, is it a viable market? If yes, how should they go about it?

Prelim questions about what's specialized clothing, their geographies, the current scale of business, any KPIs in mind, competitive scenario

Serves the whole world from the US, with competition from the US, Japan, and China, specialized clothing has two categories, protective and medical we are going into protective that is bulletproof jackets, and fire, and water-resistant clothing (Think military equipment). KPI is selling 10,000 tonnes till the fifth year.

To understand our KPI better I would like to understand the market size and what is our current production capacity. Do you want me to go ahead with the market sizing?

Not necessary, we know it is an attractive market. Our current business is very different, we manufacture 150000 tonnes, and it is high volume, low margin while here we are looking at low volume high margin.

Okay, so then I would like to look at operational feasibility and synergies that we can develop between the two businesses.

Okay

So, I will sketch out the current value chain and the new business's value chain, then try to exploit economic benefits on parts that overlap.

Current Value Chain - RM-Processing - Finished Good (Yarn) - Distribution-Sales

Protective Gear Value Chain - RM (different) - Processing (Different-makes the bulletproof yarn) - make the actual jacket - smaller distribution channel, more personal selling effort

We have the same raw material, but in the processing stage we add new capabilities to the yarn, and a new machine to make the jackets is needed.

Okay, so we need to increase our raw material supply. I believe that won't be an issue, as we are such a huge company?

No, it is not a fair assumption

Okay so factors hindering our suppliers to supply more raw materials might be – fixed amount contracts, reduced production, and increased demand from other competitors, so they are losing interest in supplying to us.

So, the players in US and Japan are running partner programs where the suppliers get benefits, if they exclusively supply to them. We are not covered under this partner program.

This still leaves China? Can we look at sourcing directly from there?

We can, but it is a low-cost, low-quality product as compared to US and Japan

Okay, and as we are dealing with protective equipment, I believe quality is a highly rated attribute for our customers.

Correct

So, that leaves China out of the picture. Next, we can look for a way to join the partner program then. Do they have any specific requirements, or is there a reason why we haven't joined it yet?

We never saw the need to join it and they have no requirements. But think of it as a cartel dominating the market.

Okay. So, if they are a cartel, they don't want to share benefits with others, especially competitors. Are all players in the cartel venturing into the protective gear segment?

No, but they will soon. Basically, they don't want you to steal their market share. It is always better to have lesser people in the cartel.

Okay, so if they are not willing to share the same market, and we can only source from these two geographies, we have no other option but to look at new use cases of the protective gear apart from the bulletproof jackets and fire equipment.

Yes, we can indeed look at increasing the size of the pie, instead of taking from it.

Okay so I'll take it under three headers, geographies, product categories, product lines.

Ignore geographies we cover everything

Okay, so starting with product categories we can look at exploring the more corporate side of things, as we are currently dealing with governments. We can look at healthcare, Oil and Gas, Mining & Metalworks. A metric to decide industries can be currently paying capacity vs current product quality. As if current health damages are high, the company might be willing to pay for a better military-grade product. Do you want me to size any industry to check whether we'll meet our KPI or not?

Yes, choose one industry

I would say healthcare here because it is an industry with many private players and a high willingness to pay, we can develop & deploy our water-resistant clothing here because water-resistant items are known to be bacteria-resistant as well. Okay so sizing the need of the healthcare industry next.

No, we will stop here.

Okay.

Your client is Meta, the largest social media platform that owns Facebook, Instagram, and WhatsApp; intends to enter the e-commerce space, what model it should adopt, and estimate the market size.

Reiterates problem statement

Correct

Okay, are we looking to enter the Indian e-commerce space?

Yes

So, before we zero down on the models that we have, I'll try to understand what spaces exist in our current social media platforms, where an e-commerce integration might be feasible.

Facebook- Carousel Ads, Shoppable links

Instagram- Short Video format, IG Shoppable

WhatsApp- Reselling, O2O

Great

We can look at three models:

D2C (web/app based), Reselling (C2C), O2O (Online to Offline)

Here the overall advantage that we'll have is hyper-targeting, well developed customer personas, we know the T&P of each social media user and the targeting strategy of our competitors who use our platform

Yes, we'll take O2O model for further analysis.

I believe WhatsApp will be primary player in this arena.

Yes, do a market sizing.

Doing a rural-urban split, I'll start with the rural space, because the urban is heavily competitive with little or no PoD. Did a TAM, SAM, and SOM calculation here, Considering direct and indirect customers. Indirect platforms like Jio Mart use our services and direct are our customers (Did a calculation for all these).

Can you do a revenue estimate? Approach only.

No of customers * frequency of purchase * ticket size.

Okay let us look at no of customers. Can you think of use cases which will increase this number?

Small Businesses of Instagram CRM software, B2B relationship mgmt., people offering professional services (CA for eg.).

Any other scenario where you can see yourself using such a chat-commerce platform.

Maybe when dealing with customer care (but they usually have their chat platform) or for faster communication in hyperlocal delivery like Dunzo (I chat directly with the store owner). Number privacy will have to be maintained.

Anything else.

Sorry, I can't think of anything

So, repeat orders were something we were looking at, like ordering sugar every month you just reply yes, get added to the shopping list or even ordered directly, think milk basket. But your recommendations were also fair. That'll be all.

Thanks.

Financial Services Company

Your client is a traditional financial services company mainly involved in foreign exchange remittances. They want to now venture into a digital payments system(something like a P2P wallet system). What factors should be considered while evaluating the potential geographies to enter into?

Okay, this sounds interesting! But just to ensure that I have understood the problem well and that we are on the same page, I will reiterate the problem statement (Clarify the statement)

Yes right, go ahead

Okay, I will take a minute to structure my thoughts (Took some time to form the buckets and a broad approach)

Yeah sure

Okay so, first I would like to know some things about the company like the geography where it operates, what all are its products, whether is there any particular customer segment that it targets, and information regarding the competitors (number of competitors, their market share, etc)

Gave the required information

So, I would like to evaluate the situation by segregating it into 3 major buckets –

- Market attractiveness,
- Operational feasibility and
- Financial feasibility and after that we can look at the major risks involved (if any)

That sounds great! We can leave the financial feasibility as of now. Can you tell me what major factors will you consider in market attractiveness?

Yeah, so we can divide it into two major parts – Quantitative & Qualitative factors. In quantitative we will have a look at the growth of the industry in the respective geography, the market size, and the market share that the company will be able to capture (based on past experiences in a similar demography or the last entrant). In the qualitative factors, we will look at the competitors and their positioning, whether the market is dominated by few players or is fragmented, and the existing regulation/barriers to entry in the respective geography.

That's a nice approach. Okay lets now move to the operational feasibility. What all will you consider?

For that I will first lay out the value chain (Interviewer cuts me in between)

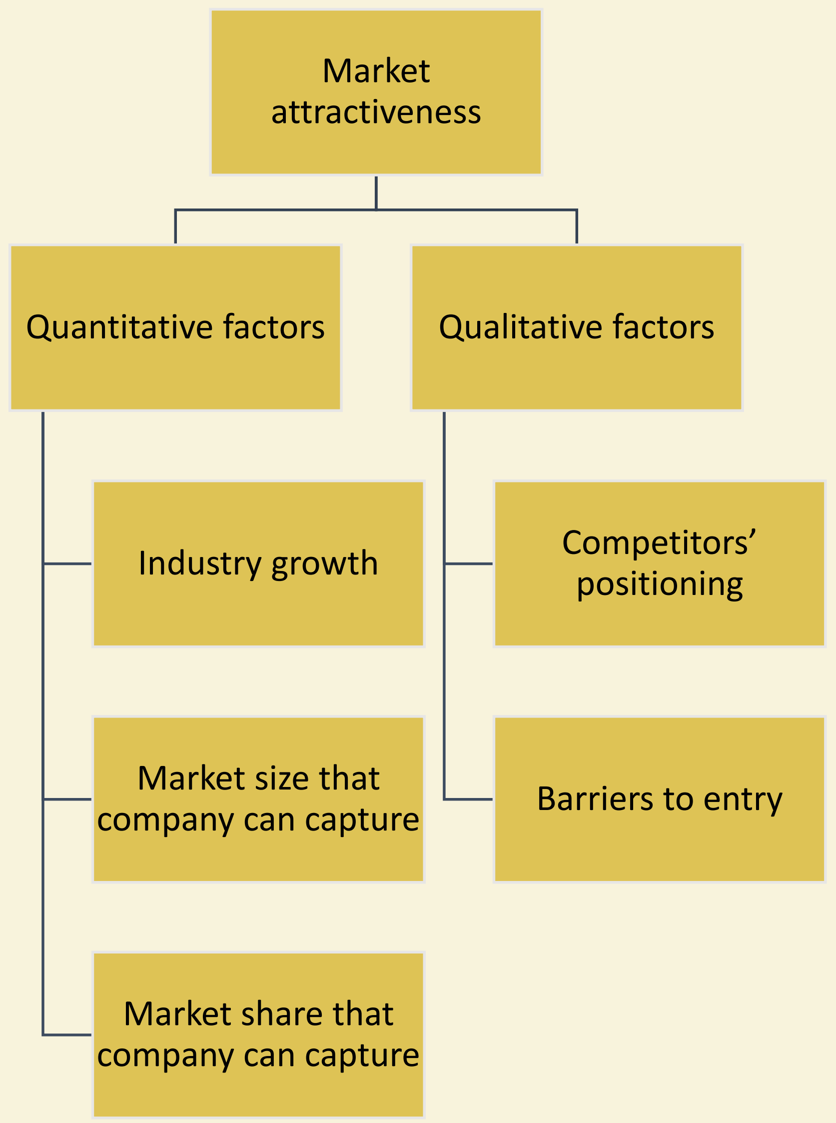
That is right but just tell me the major factors to be considered

Okay so since the client is entering a foreign country, we need to consider whether they have the know-how of the country (smartphone and internet penetration), its social setup, and the people. This is crucial as both the customers and the employees for the client will be from that country itself. Expertise or capability to enter is also crucial in terms of having a reliable IT vendor, skilled workforce, and related processes. Any barriers to entry in terms of any government regulations should also be taken into account

Sounds great. Let's now get into some numbers. (Shared her screen which had a data sheet containing data like market size, growth of the industry, potential market share, revenue per customer, and some qualitative information regarding the competitive scenario of 3 potential countries). Take some time and tell me what will be the descending order of preference to enter these countries

(Jotted down the numbers and started calculating the total potential revenue for one year in the 3 countries and took 5 minutes to come up with the final numbers). So the order in just in terms of revenue should be X, Y, Z. However, after factoring in the growth which is negative for country Y (which means the market is shrinking) and other qualitative factors regarding the competitors, the order should be Y, X, Z.

That's right, we can now close the case. Thankyou.



Fast Food Restaurant Chain

Hospitality | Easy

Your client is a fast-food restaurant chain in the United States. The revenue earned has been stagnant for the past year. They want to introduce a promotional offer where customers get a movie ticket when they spend $50. Should they launch this offer?

Before discussing whether to launch the offer or not, I would like to get more information about our client's business and the industry. Can you tell me the area of operation of our client and has the trend of revenue same everywhere?

They operate over the entire US. The exact locations are not relevant here. Revenue trends have been the same everywhere.

Okay. What about the performance of competitors and the overall industry?

Some competitors are doing better than them while others lag. Overall industry growth is not very high but higher than our client's growth. Can you tell me what can be the reasons that might lead to stagnancy in the client's revenue growth?

There can be two types of reasons – internal and external. Internal reasons include more waiting times, worsened quality of service, unavailability of items on the menu, location of stores, etc. External reasons can be changes in consumer preferences where consumers are shifting from fast-food to healthier food options, price hikes due to government regulations, the introduction of new competitors with more options on the menu or lesser prices, etc.

Right. Why don't you start analysing the offer that your client is thinking of?

Okay. So, to analyze the effectiveness of this promotional offer, we need to do a cost-benefit analysis of this scheme.

Can you tell me what are all costs involved here?

Various costs include marketing costs like advertising on TV, social media and the internet, cost of movie tickets, cost of raw materials if there is an increase in sales, employee costs etc.

Okay. From these costs, which are one-time costs and which are recurring costs?

We would want to start our campaign with a bang so that there will be awareness. Hence, the majority of advertising expenses will incur one-time. However, there will be a recurring component in advertising expenses too. Also, we will incur some administrative costs to onboard the movie theatre chain to our program. Other costs like raw materials, employee expenses, and movie ticket purchasing costs will be recurring expenses.

Okay.

Before rolling out the offer, we must conduct market research to understand consumers' perceptions of this offer. We can talk to or survey three types of individuals – Our present customers, past customers who used to eat at our restaurant but currently do not eat, and non-customers who have never eaten at our restaurants.

Okay. What next?

The next step would be to estimate the benefits of this scheme through this survey and then compare costs and benefits to suggest whether to launch the scheme or not. Do we have any data regarding an estimated increase in sales from this scheme?

Yes, we have some data. There are a total of 1 million yearly customers of our client, out of which 60% are regular customers while 40% are one-time customers. The average spend by a customer in one purchase is $10. Any other information you want?

When we say, regular customers, what is their purchase frequency?

Regular customers purchase five times a year while one-time customers purchase only once a year. Can you calculate the total current revenue of our client?

It will be $ 30 million from regular customers and $ 4 million from one-time customers, hence a total of $ 34 million per year.

According to our market research, after introducing this scheme next year, there will be a 20% increase in the total number of customers. Then, what will be the increase in profits for our client?

Do we know the breakup of this increase of 200,000 customers – regular vs one-time?

Entire increase is in the regular customer's category. Any other information you need?

Yes, what is the profit margin currently? Is it going to change due to the introduction of the new scheme?

Current profit margin is 40%. You can assume that margins will remain the same. But these new margins do not account for the cost of movie tickets.

Can I take a min to calculate? (Took a min to calculate. Told wrong answer)

Can you go through your calculation again?

(Explained the calculation. Noticed the mistake. Recalculated.) The total increase in profit will be $ 4 million as per margins. To calculate net increase in profits, we need cost of a movie ticket.

A movie ticket costs us $ 4.

We will give away 800,000 movie tickets worth $ 3.2 million. So, the net profit increase will be $800,000. But the benefit obtained from this scheme will be higher than this figure. Since we need to consider customer lifetime value while calculating the total benefit. Here, we have calculated the incremental profits during the scheme period of 1 year but some portion of these new customers will continue to visit our restaurant even after the scheme is over. Hence, CLV will be more.

Okay. That's all from our side.

Netflix Gaming

Netflix is considering entering the gaming market and launching 'Netflix games.' This idea has been put forth by the strategy team, but the management is skeptical about the idea. Evaluate the idea and tell whether they should go ahead with it or not

(Repeated the problem to make sure I clearly understand what the interviewer expects). What is the objective of launching this service?

To have more skin in the game.

Am I correct to assume that the target audience for the gaming service will be the same as the streaming service?

Yes. How would you define that bracket?

I believe that majority of OTT users lie within age group of 18-40 years.

Correct, go on.

What features would the gaming service exactly offer? What distinguishes them from existing gaming players.

The services would allow them to convert their TVs into gaming like Xbox and PS, wherein their remote control becomes the gaming remote. Multiplayer games can be played from the convenience of their home.

Will these services be available on the mobile as well or will there be some limitations?

No, they can be easily accessed through the mobile as well.

Has any other OTT platform already offered this service?

No

Whether the gaming business has been tested or any pilot project launched in any area?

Yes, the games have been tested amongst 100 users, who have loved this additional service. However, these are the loyal customer base of Netflix, who would buy anything Netflix offers.

What sort of investment has been done in this study.

Millions have been spent. But for now, I would like you to focus on the non-financial parameters

Alright. How is service going to be priced?

First 2 months, it will be free. Post that, 3 options will be made available - only games @ Rs. 700, games & movies @ Rs.1100, and the movies/web series as per the prevailing price.

I went on to ask clarifying questions as how Netflix plans to operate in this model-Whether they would design their own games or partner with existing players

They would launch their own games as well as enter into an exclusive agreement with the existing players for 100 games. (Post this the interviewer asked me to conclude and make recommendations based on the data already gathered)

Based on the information, I believe that Netflix should go ahead with launching the gaming service as the target audience for both the gaming service and OTT is overlapping. The option of multiplayer gaming, without having to pay for additional PS and Xbox would make it lucrative amongst the target market. Since no other competitor is in this market, Netflix can avail the first mover advantage. The pricing model also makes it enticing for the target market to try the gaming business. Furthermore, Netflix has signed a deal for exclusive 100 games with the dominant players. Their customers would also come on the Netflix platform to access the exclusive games launched and might end up availing of the OTT services as well. This also builds the case for cross-fertilization.

Are you sure you will side with the Strategy team? Your cheque will be cleared by the Management

Yes. I believe in the long run this will be beneficial for Netflix and even the management will see the merit in this option

Pharmaceutical Company

The client is a pharmaceutical company that sells both prescription and OTC drugs. They have come up with an innovative new product that allows people to sleep for just 4 hours rather than the usual 8 hours. This is a long-term pill, and 1 pill needs to be taken each day. There are no side effects.

I have the following preliminary questions:

- Is the client the first one to develop this product? Are there any other competitors?
- Are there any specific objectives or targets that the client wants to achieve with the t of this product?
- What products does the client currently sell?
- Which geographies does the client operate in? Where does the client intend to launch this product?
- Are there any key regulations that require consideration?

Answers to preliminary questions:

- This is an innovative product, and there are no competitor products.
- The objective is to increase revenue. The client is top-line focused.
- The client sells a wide range of OTC and prescription drugs.
- The client is based in India and sells both in India and overseas. For this product, the client wants to start with a pan-India launch and evaluate exports later.

We can ignore regulations for now.

Can I take a minute to think? (After a minute) We can consider pricing this new product as follows:
The cost-plus price would serve as the minimum price that the client must charge, whereas the value-based pricing is the maximum price that the customer will be willing to pay. Together, they will provide us with a price range within which we can work. To start with, could you tell me what the product costs the client to make?

The fully loaded cost of each pill is INR 10. The client currently earns a 30% margin. However, as I said before, the focus is the top line, and hence the client can even do with a 5% margin

Alright. That would amount to a cost of INR 11-13. We could consider INR 11 as the base price. Moving on to value-based pricing, we would need to determine how much price customers are willing to pay. This would depend on the value that this pill is creating by reducing sleep time to 4 hours. Additionally, this product could also be creating value for patients who are unable to sleep for long durations. These values do seem a bit difficult to quantify.

Why don't you start by thinking of what kind of customers would want to use this product?

I could think of the following customers who might benefit from this product:

- Persons having issues with full sleep for health reasons
- People in high intensity jobs who are unable to get proper sleep
- Long shifts medical professionals
- Persons who are unable to sleep due to some emergencies
- Night shift workers
- Parents to newly-born children
- Elderly people with health issues such as bed sores

Okay. Can you now try to quantify the value to these customers?

We can split the aforementioned customers into two major segments: Working professionals seeking time value for the additional 4 hours during the day, and Patients seeking reduced sleep for health reasons. For working professionals, I would then determine the extra income that they could earn with that saved time, to arrive at the value created by this pill. For patients, the same value could be determined by estimating the medical expenses saved due to this pill. Do we have any information regarding these factors?

Sure. Let us assume the following:

- 10% of the working-age population will use this pill. This population earns INR 5000/hour.
- 20% of the total population consists of patients who would want to use this pill for various reasons.

They will save INR 12,000 per month in medical and other expenses as a result.

Okay. Given that 1 pill is required per day, the following are the values derived by each segment per pill:

- Working professionals: INR 20,000 per pill (INR 5000 per hour x 4 hours)
- Patients: INR 400 per pill (INR 12,000 / 30 days per month)

Of course, these values are very widely spread

Right. Which segment would you then end up choosing, and which one will you drop?

For this, we would have to calculate revenue earned per day from each segment, assuming total population as X for simplicity. I am also assuming that customers are willing to pay this value, temporarily ignoring the perception of INR 20,000 per pill being too high a price. Does this sound fine?

Yes, go ahead.

This is the calculation:

Working professionals: 20,000 x 60% x 10% = 1200X
Patients: 400 x 20% = 80X

Hence, I would choose to target working professionals and drop the patient's segment

That sounds good, we can end the case here

GROWTH

Insurance Company Digitization

BFSI | Moderate

Your client is an Insurance company. It wants to accelerate its digital sales to 100 crores per year over the next 2-3 years

Thank you. I'll reiterate the problem statement to be sure that we are on the same page.

Sounds right.

Before I start with my analysis, I have a few preliminary questions. Could you provide details about the Company – The type of insurance products offered.

The Client is one of the top players. It provides only Auto insurance limited to passenger vehicles.

Okay, could you provide me details about how digital sales are carried out?

Currently, there are 2 channels. The first is Search Engine Marketing (SEM) and second is Organic route. SEM is when search engines like Google place our advertisements and direct traffic to our website. In contrast, the organic route is when customers visit the website independently without any push.

Okay, are there any details about the traffic generated on both these channels? Also, what is the lead conversion rate?

The organic route generates traffic of 1 Lac monthly visitors, of which 2,500 leads are generated, and there is a 10% conversion rate. While SEM generates 1 Lac annual visitors, of which 10,000 leads are generated, and there is a 5% conversion rate.

Okay, it prima facie appears that organic traffic customers are significantly higher at 3,000 versus 500 of SEM. However, I want to analyze the cost & benefits of both these methods. Is there data available on the costs and revenues earned from the sale of policies

Organic traffic has negligible costs, while SEM has an annual fee of INR 65 Lacs. The client charges INR 12,000 for each policy.

On doing a cost-benefit analysis. The SEM model of traffic generation doesn't seem financially viable as the per policy cost is INR 13,000 (65,00,000/500) versus a policy revenue of INR 12,000. Hence, I think we should not look at this mode of growing our revenue. Moving ahead, I want to consider the feasibility of the revenue target now. Since our target is INR 100 crores, we would need to sell approx. 83,000 policies (100,00,00,000/12,000). If we assume the same traffic, i.e., 12,00,000 unique visitors in a year, our leads generated would be increased to approx. 70%, i.e., 8,30,000 leads, of which 10% would be converted into customers. However, this seems highly improbable as the current lead generation rate is 2.5%. Thus, we would require almost a 30X increase. (Figures rounded off for ease of calculations)

That seems like a fair analysis; however, is there anything else you might want to consider before concluding?

(Thinking for 30 seconds) I am sorry I can't think of anything now.

What are your recommendations?

The Client can boost its revenue by increasing the traffic, leads, or conversion rate. This could be done through several modes, such as:

1. Tie-ups with auto companies to make Insurance registration compulsory through online channels.
2. Incentivizing online policy purchases by offering discounts, cash-backs, or extra benefits.
3. Overhauling the design of the website and making it easier to navigate.
4. Entering a strategic partnership with Fintech players such as ET Money, Paytm, Policy Bazar, etc.
5. Providing higher commissions to insurance agents to register customers through online channels rather than the physical medium.
6. Boost our online presence through social media campaigns using Instagram, Twitter, and Facebook

Great, we can end the case here.

Second-Hand Cars Marketplace

Your client is a startup in automobile industry like Cars24. They want to understand how to increase margin and value of company.

It would be great if you could take me through a typical process followed

Sure. We buy used cars, auction it on website where the customers are majorly retail customers and second-hand garages. So, our customers are both buyers and sellers of cars. We are already growing how can we increase value.

As I understand the company wants to increase the value that it gains per transaction. The company has the following options to charge a higher premium- Selling cars after refurbishing them so the cars can be priced higher, Selling premium cars as well, and Bundling car products with cars. Do these seem to meet the requirements?

Yes, the options are good. Let's evaluate the first option.

Sure, so as I can see we have 2 options, either we set up our garages or we outsource to 3rd party vendors. Setting up our shops can be problematic as we won't have economies of scale in terms of spare parts and other inventories like the third-party garages who have this as their primary work. Moreover, it would call for a huge amount of fixed cost. Which of the 2 options would the company prefer?

Yes, so we already have started this business. We have shops in 7 locations. But the problem we are facing is on the same lines as you have mentioned. All spare parts for all car models are not available in the market. Procuring spare parts is difficult and we have invoices for 1500-2000 unique parts for different cars and variety and the suppliers

Understood. Can you please explain more as to how are we operating now?

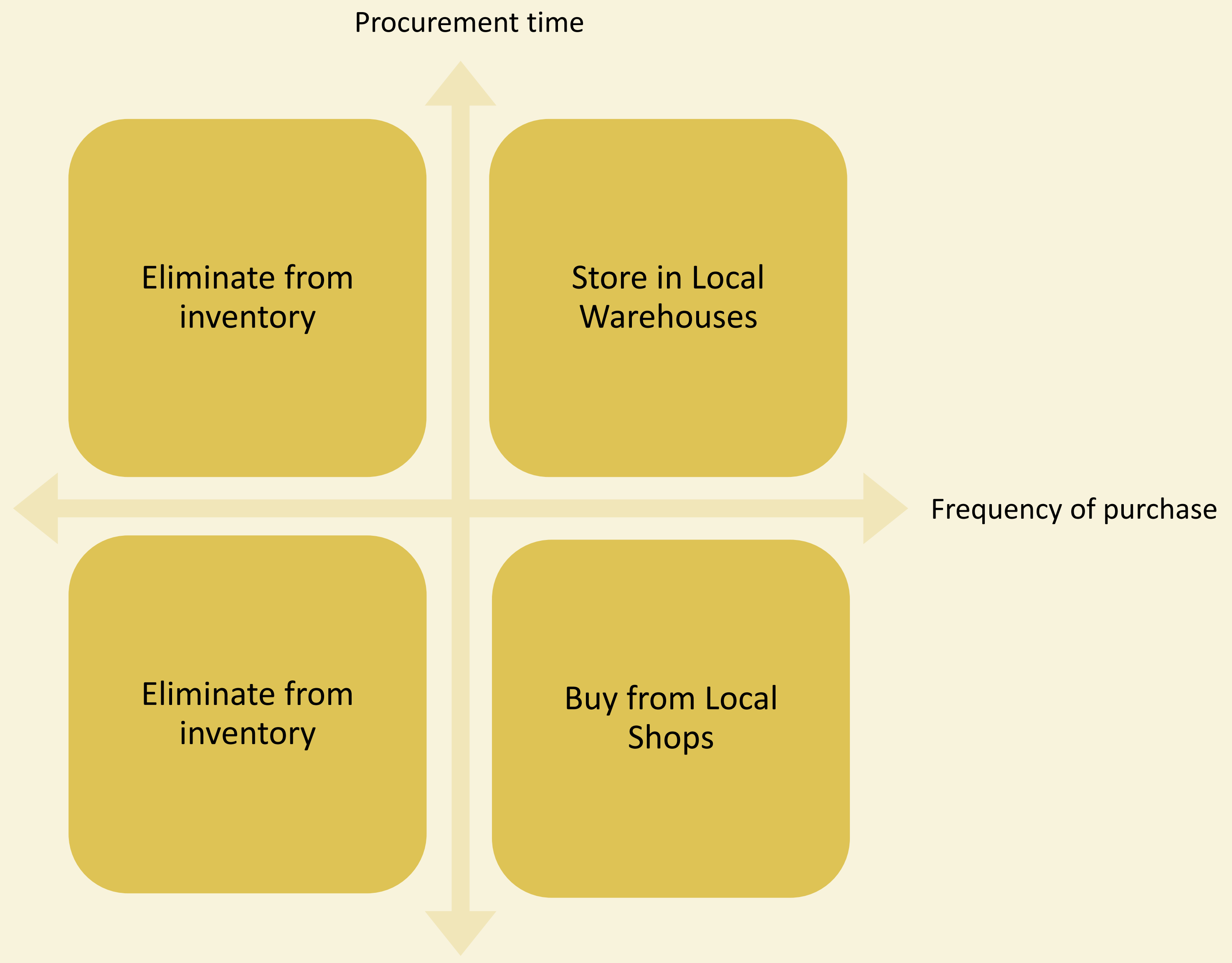
Yeah! So, we have 2 components the central hub in the city of our head office and the local shops in the 7 locations we operate. The parts can be shared across these hubs to refurbish the cars collected there.

(tried 2 frameworks which he appreciated but were too technical and he wanted a simple solution so he gave hints on what possible decision variables can any part be placed in either the central hub or local location and/or should even be a part of the inventory)

Explains the parameters

Given that frequency of use and procurement lead time are the 2 features defining each inventory product a 2x2 matrix between low and high values of the 2 features. Parts with high frequency and high procurement time can be kept in local warehouses. Parts with low frequency and high procurement time and low frequency and low procurement time can be eliminated from the inventory. Parts with high frequency and low procurement time can be bought from local shops.

Great! We can end the case here



Healthcare App

Your client is a healthcare company setting up a digital engagement app and they want recommendations from you to increase their engagement levels.

I would like to start by clarifying the objectives of the company to understand the metric we need to evaluate when they mention engagement level. I would also like to understand the current level of engagement and shortfalls that the company might have gained as feedback.

The app already has 10000 downloads but not all are active users. Currently, the app has 1500 active monthly users. The average per-user engagement level is estimated to be 50 mins of app time per month. The company would want its active per month users to rise to a level of 5000 users using the app for 200 mins per month.

Okay so, I would first like to understand the app from a user's point of view to understand the interface and unique features that the app provides.

It has 3 major heads – a section for awareness of latest clinical advancements with interactive summary, which is the USP of the app; a section having courses for doctors with national medical association assigned certificates; and lastly a doctor connect interface where doctors/other active users can discuss cases or share information.

That sounds interesting! I would also like to understand that how is the competitive situation for our app and how our app rank stand against them in terms of quality and pricing.

Yeah! So other apps are more or less web-based apps that can offer only 1 of the three propositions that our app offers. The other apps are also operated on a freemium model like ours with similar pricing rates. Our app is superior as it provides more value at the same cost as it integrates the three needs into one platform.

Okay. So, with the current data available I can see that our target customer seems to be the young adults associated with medicine, is this a fair assumption? If yes, can I understand what the current user base of our app looks like?

Yeah! That's a fair assumption, it is what we would want for our app. The current downloads however are mid-aged doctors.

Great! So, to begin I would like to divide the growth options into organic and inorganic strategies, is that fine and which header would you want me to focus on?

Yeah, that seems correct. I would like to hear about organic growth aspects, but I would want you to skip the framework and suggest recommendations that you can think of based on the information thus far and we can discuss those recommendations if they deem fit.

So, I can think of the following steps for the app in the following order –

- Dedicate a team to review the shortfalls of the app from the uninstall feedback, and comments on Appstore/Play Store, or wherever the app is posted and then figure out objective areas to work on, like app loading time, UI, etc.
- Secondly, the company can look into increasing outreach to youngsters via setting camps at medical colleges especially because their USP is a great resource for college students, and they might invest in it
- Thirdly, they can associate with national medical conferences and talks to promote their app and have testing booths at such locations.

Stops in between. These seem like fair ideas which might work, and they might increase the downloads, but now I would like you to provide recommendations that increase the engagement of people downloading the app, moreover, can you tell me where can we find data on customer needs and our shortfalls given that the app has not collected any data so far.

Got it! Given that we have sufficient downloads:

- We can activate comments sections on the latest research section to generate discussion
- Latest development section, chat forums, and certifications can have a recommendation feature that highlights the areas of your interest based on your previous searches
- The doctor connect section can be linked to social media platforms so that live discussions can take place
- Customized notifications might draw the users back to the app daily, in case they lose connection with the app. A major reason for less engagement can be that the current downloads are mid-age people who use all their apps in general and hence our app's
- engagement comes out to be low. Hence, once the outreach program is initiated and new users are added, the second review might show better results.

For the data sources:

- Competitor apps' comment/review section and feedback areas might help develop our app.
- We can make a pre-uninstall feedback section in addition to adding repeated in-app notifications for submitting reviews.
- Live stalls can be set up at medical colleges, hospitals, and medical conferences, where demos can be provided to gather live data and feedback

These are the ideas I could think of so far should I suggest more options

The case is still alive, and we have thought of similar options, but this does not solve our client's problem. But good attempt, let's stop the case here.

Premium Credit Card

Your client is a premium credit card company in India. They have the lowest market share among the 5 players in the premium credit card segment. They want to double their market share. How would you go about it?

How long has this company been in India, is it a new player or old?

It's not exactly a new entrant and has been around for some years.

How many types of credit card they offer?

One type of credit card only.

How does the market share of our competitors look like? Also, the industry overall is growing, right?

It is not relevant for this instance. And yes, the industry overall is growing.

How do we acquire customers? (distribution channels)

We have our salespeople placed at locations such as airports, starred hotels, etc. where we expect our target segment to be frequenting.

Give me a minute to think about the approach.

Sure.

Firstly, I would want to compare our credit card with the competitors on factors of price, benefits, and customer service. So, can you tell me how are ours and theirs priced?

Ours is priced at Rs. 10,000 while our competitors have prices ranging from Rs. 2000 and Rs. 10000 and they also offer varieties at different price points. The benefits they offer are proportional to the price they charge. Our customer service is the best as we have the highest loyalty among players.

So, I see that they have varieties at different price points unlike our single variety. Is there any reason why we don't offer varieties or charge less?

We don't offer variety as we want to maintain the premium image and we cannot reduce the price as we offer proportional benefits. You did not ask about the industry growth rate and ours. The industry is growing at 12% while we are growing at just 5%. We are unable to attract new customers entering the market

Oh, I see. So, we are unable to attract new customers entering into the market. This could be because of our unavailability of lower-priced varieties. If someone new is entering the market, they would want to try a relatively cheaper credit card variety to have an experience with the company. They would not want to shell out so high for ours without even knowing the experience. So, we should introduce relatively cheaper varieties of our premium card so that we can get them onboard first and like you said, we have the highest loyalty, we can expect them to stay with us and also upgrade. Secondly, we can look at reducing the price of premium cards. The reason is, we should customize the card according to Indian taste. We can look at removing the benefits not valued by Indian customers and price them less accordingly as I don't feel there is the point of having benefits not valued by people.

Any other recommendation you can think of?

We could offer incentives for in-family word of mouth. Let's say, the working dad has bought our premium card. We could have a scheme where if his son, daughter, wife or any other member takes up our cards too, there would be a discount being offered to them.

Leading US Hospital Chain

Healthworks is a US leading hospital, Healthworks, that operates in 5 markets in the US. In the past few years, the hospital has noticed a slowdown in growth. The CEO of Healthworks has reached out to you to identify the cause and suggest recommendations.

Okay. I would like to reiterate the question once. My client is a US-leading hospital named Healthworks. It operates in 5 markets in the US and is facing a slowdown in growth. I have to identify the cause & suggest some recommendations.

Yes.

I would like to ask a few questions first. I would like to know more about the client

As I already told you, the client operates in 5 markets in the US. It provides in-patient & outpatient treatments. It has 6000 doctors. It's a non-profit organization with facilities like emergency care, cardiology, gastroenterology, etc.

Now, I would like to know about the competitors in the market, both for-profit market & non-profit markets. Are they also facing any slowdown? Is there any new competition in the area?

Only HealthWorks is facing the decline. We do not have any other information.

All right. (In my mind As the competitors are doing fine, it is not an industry-wide issue) Now, I would like to know more about the customers. The type of customers they serve. It can be a children-only hospital, old age-only, any specific disease care, etc.

As you mentioned the various type of care provided, we have some data on the same lines. Please refer to table 1 and 2

I would take a few seconds to examine the data. I understand Table 2. Patient Payment is the revenue collected from the patients & Point of Sales Collection is the revenue collected from the extra items sold like medicines, etc. But I am not able to understand the difference between the last 2 columns in Table 1. Can you explain to me the difference between the last two columns in Table 1?

The interviewer explained something, of which I understood nothing.

I'm really sorry. I'm still not able to understand anything.

So, basically, the first column is the expected amount that should be collected & the last column is the actual amount that got collected.

Ah!! Now, I get it. It's the expected & the actual amounts. Makes sense. So, from Table 1, we can see that the % collection from Iowa is the least. Hence, Iowa will the first focus. Looking at Table 2, we see that the total collection from Cardiology is very low. Also, POS collection isn't very significant. I would need the market numbers to decide whether the numbers are low or not.

We only have this much data only. You have to make a decision from this data only.

Alright then. We need to focus on the Cardiology Department in all hospitals, especially in Iowa. We should increase the POS vs Patient Payment Percentage first and then target on the other departments in Iowa only.

Very Good. We are done with the interview. You can leave now.

Okay. Thank You So Much. It was an enriching experience for me.

Oh wait!! We directly moved onto the data part in the case and made recommendations. Would you like to have a look from the qualitative aspect?

Sure. So, we are facing a decrease in collections. The possible causes can be some issues in Supply, Distribution & Demand. In Demand, we will have the type of healthcare demanded. Any specific disease, online care, insurance requirements, etc. In Supply, we have the Time Taken for a customer to complete his/her check-up. Do we have the new developments (new care methods) that have arrived on the market? How is the overall customer experience? In Distribution, we have distribution centers for the prescribed medicines by our doctors. Are those medicines easily available in the market or only available in our stores only? We can look at the time taken for our emergency service to reach the site of the accident and get back to the hospital. We can also have a look at the type of insurance providers we have tied up with. Are they looking and working efficiently in the market bringing on new customers into our ecosystem?

That's a very detailed approach. I like it. Thank You for the extra time. You can leave now.

Table 1

Location	Revenue from patients (in mm)	Collections (in mm)
Nebraska	50	7.5
Kentucky	75	25
Iowa	90	9

Table 2

Department	Patient payment (in mm)	Point of sales collection (in mm)
Outpatients	1.5	0.75
Emergency	0.6	0.15
Surgery	1.0	0.18
Gastroenterology	0.5	0.2
Cardiology	0.4	0.12

Fire Extinguisher Manufacturer

Your client is a fire-can extinguisher manufacturer. You need to identify the top 3 customer segments for them. Also, they are looking to grow by 3x in topline, how can they do so?

Reiterated the problem statement to make sure I had heard it right. I had a few clarifying questions for the case.

Yes, please ask.

What exactly is their product? What is the competitive landscape in this industry in terms of their relative market share? Which geography is the client operating in and where are they looking at these top 3 segments? Where do they lie in the value chain?

So, the client makes the can and fills and sells them, they operate in the entire value chain. They're based in India and looking for top segments here. There are predominantly 2 main players with 50% and 25% market share each and the rest of the industry is fragmented. Their main mode of business right now is through government contracts.

Alright, please allow me a minute to structure my approach.

(Interviewer was in a hurry, so gave them only 10-20 secs to think) why don't you just give out the top 3 customer segments on your mind right now?

Well, I could think of corporate buildings and parks, major steel, oil, and heavy industry plants, and oil and gas petrol pumps based on their size, the possibility of occurrence of a fire, and the due diligence they'd have to follow for the number of fire extinguishers.

Don't you think you're missing a major component?

Yes, households would also be the major chunk based on size. But generally, no due diligence is done there and people don't replace it so often.

Can you think of some other alternate use of the can by the company?

Well, they're into can-making business, so all other places where cans are used for example by soft drink companies, or even by pharma companies or labs to store gases could be some alternate use cases.

Okay, let's move on to the growth part now?

For that, is there any specific number that we have in mind and also the time lines?

Yes, we want to grow from 10Cr to 30Cr in 2 years. Can you calculate the yearly growth needed for this?

So, this is 200% growth. Quickly calculated the Compounded Annual Growth Rate. We are looking at 73% yearly growth.

Do you think it is feasible?

In our case, since we're looking at 73% yearly growth, I'd like to know at what rate is the industry growing and then take a call as to whether to grow organically or inorganically.

Let's quickly discuss both kinds of growth.

So, for organic growth, we could look at either increasing revenue/user or number of users or both. To increase revenue, we can either hike the prices or upsell the product by bundling yearly maintenance and inspection services with the product, we can also look at cross-selling it with the glass covering that comes with it. For the number of users part, we can look at getting into newer geographies or look at increasing the customer base based on alternate uses. For inorganic, we can look at Joint Ventures with major players or Acquisitions of the smaller players since it is a fragmented industry.

That'd be all, thank you!

Tractor Manufacturer

A Business Group with 30Cr+ yearly revenue is also a tractor manufacturer. They manufacture only small tractors as they are scaled out easily. The top-line revenue from the tractor business is 10Cr. The industry is growing at a rate of 8-10% whereas the client is growing in sales at only 5% YOY. Find out: Whether it is a product issue or overall strategy issue with the client. Devise a growth strategy to attain a 7-8% target in 6 months and 10% in 1 year.

I will reiterate the case to be sure that I have grasped everything correctly. Went on to repeat it. Clarified the numerical numbers given

Yes, it's right.

I would like to know more about the company, the types of products manufactured.

The Company has a diversified business ranging from tractor manufacturing to NBFC etc. You need to focus on the tractor manufacturing unit only. The tractor is a commoditized product and does not vary from the product that the competitors produce.

Does the sale comes from any particular region?

80% - 90% of the sales comes from North-west regions.

Okay. This gives me a scope for expansion. Can you tell me more about the product segmentation as per the industry trends and the clients?

The total market for the tractor industry is 50k Crore in India. Tractors can be classified into 3 types, Heavy tractors (> 5-tonne capacity) having a 15% market share, Medium Tractors (2-5T capacity) having a 35% market share and Small or light tractors (<2T capacity) having 50% market share. For the client, the production is of the following trend: Heavy – 40%, Medium – 30%, Light – 20% of the total production.

Great! This shows me that we are not producing as per the requirement by the industry. There is a mismatch in the production of the client and the demand by the customers

True. Can you let me know the reason why such a distribution would be the requirement by the tractor industry?

Yeah Sure. I'll take a minute to jot down my points. (After 45 seconds) In India, farmers form 50- 60% of the employment, but only 20-30% of the economy and is from the Agriculture sector. This shows that the majority of the farmers do not have high incomes. This supports the fact that the majority of the farmers look for smaller tractors due to the lesser investment required. Also, they do not have much cultivable land under them, due to which big tractors are not required for their land

Good. So where do you think the problem was?

I can conclude that the problem with the client was not with the product, but the manufacturing segmentation, where they are not manufacturing the product as per the demand. The demand is of smaller tractors, but the client manufactures high volume of large size tractors.

Okay

Can I now look into the recommendations for the client?

Yes, please proceed!

Sure. I'll take a minute to come up with the recommendations. After a minute. I have come up with 4 recommendations for the clients:

1. The client can look to expand its reach and sales in other regions apart from North and West India
2. The client needs to change its manufacturing setup such that they produce smaller tractors which is the current demand.
3. The client can make tie-ups with agents like banks that provide loans to farmers for tractors. This will attract the customers to the client
4. The client can provide complimentary products to the farmers upon purchasing from them.
5. The products can be like seeds, fertilizers, or also some fuel incentive like 50L of diesel for the tractors

Why would the client go for helping the farmers in financing them as it will be an additional cost to them?

I would like to bring the concept of elasticity into the picture. This means that, if the number of farmers turning up to the client increase by a higher proportion giving a higher increase in the sales revenue as compared to the financing cost occurred by the client in the tie-up, it will be a beneficial deal for both the farmers as well as the client. Do you want me to get into the numerical calculations by assuming some factor of elasticity?

No. It is not required for now. So, let's end the case here. You are correct with the recommendations. When I worked on this case 5-6 years before, we gave 2 same recommendations to the client. The provision of incentives was also one of them.

PRICING

Paint Manufacturer

Your client is a paint manufacturer who has developed a new paint that lasts three times longer than other paints available in the market. You have to help them price it.

(Repeated the questions. Asked clarifying questions to understand the client's geography, position concerning the competitors, and other paints that the company sells currently). Since this is a new product, I would like to know how is this different from other paints that the company manufactures in terms of pricing, longevity, shades, etc.

It is 3 times more durable and has all shades available. It is an innovative product and currently no substitutes are available in the market. The old paints are sold at 400 Rs/litre.

Ok, it seems like a great product for someone who is looking for long-lasting paints and saves the trouble of repainting frequently. May I know which customers we are targeting?

Currently we are looking to sell for painting residential apartments.

Since this is a new product that is superior to other existing options, I would like to use Value-based pricing.

Sure.

Considering a typical house to be around 3000 sq. ft area and 1 litre of paint can cover an area of 100 sq. ft...

Can you first list down the value it adds for the customers?

Sure, so every time someone has to paint their house, there are extra charges involved other than the price of paint like painters, overheads, etc.

That seems fair, you can proceed with the pricing now.

So, assuming 1 litre can paint 100 sq. ft, 30 litres of paint is required. There will also be wages of painters, if one painter paints 100 sq. ft in 1 day and charges 500/day, it will cost 15000/day. Do these numbers seem fair?

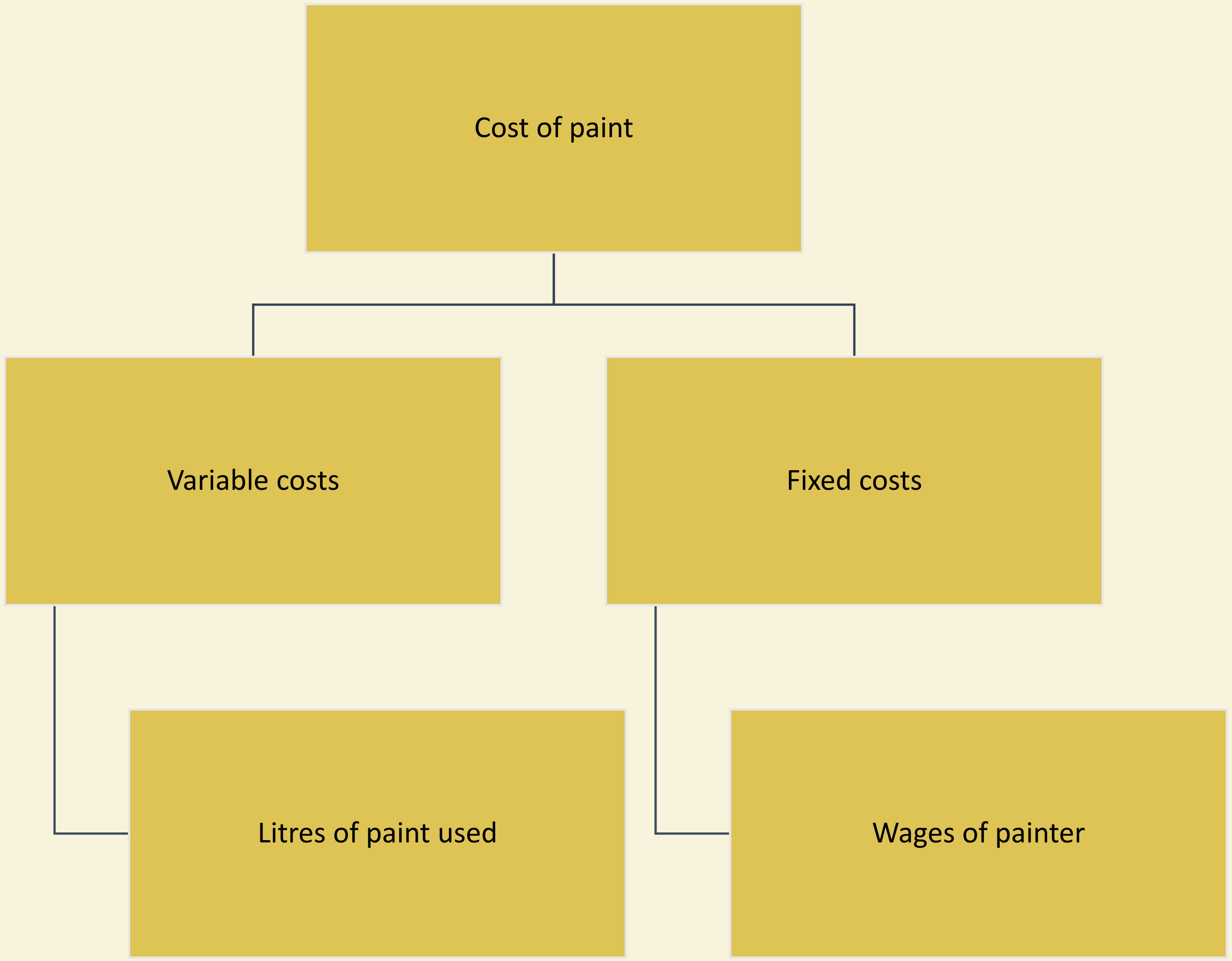
Yes, go ahead

Typically, a paint lasts for around 3 years, and since this product lasts 3 times longer, I will calculate the price customer would pay for 9 years.
Total cost of paint – 3*30*400 = 36,000
Wages of painters – 3*15000 = 45,000
Total cost = 81,000. If we price the new paint at x per litre, then 81,000 = x*30 + 15,000 => x = 2,200 per litre.

It seems like a fair price. But here is the catch, suppose the new paint requires thrice as much volume as that of existing paints. Then would you keep the price the same?

The price would be changed accordingly, but still we can price more than the existing paints available as it saves the inconvenience caused by repainting as we have to move things around and the house cannot be used until the painting is done. Do you want me to recalculate?

No, that would be all. Thank you for your analysis.



Ayurvedic Cough Syrup

A company that is into the pharmaceutical business has decided to enter the Ayurvedic Cough Syrup segment. The company commands the second largest market share in the allopathic cough syrup segment but is venturing into the Ayurvedic Cough Syrup segment for the first time. The company wants your consultation on how they should price the Ayurvedic Cough syrup.

Thank you! I would begin by reiterating the problem statement to make sure I have understood it properly or not. Went ahead and repeated the problem statement.

That's correct, you can move ahead now.

So firstly I would like to draw a context of the entire scenario.

I would like to begin by understanding who would be our customer?

The Ayurvedic Cough syrup would be meant majorly for kids and would be targeted at parents who want to avoid the side effects of traditional cough syrups and are looking for something natural.

Alright, next I would like to get some insights into the competition. Is there a similar product which is already being offered by a competitor? If yes, how do they price it?

Yes, the market leader in Ayurvedic Cough Syrups for children is Dabur which commands close to 70% market share. They price their cough syrup at Rs.120/SKU. 1SKU measures 100 ml.

There is no other major competitor.

Great. Next I would like to know about our company's capabilities. Do we have enough capacity to support the production of the new product?

Yes, production capacity should not be a problem.

So now I wish to do a market sizing so that I can do the cost analysis and break-even analysis post that to come up with a proper price for the product.

Does the approach sound fair to you?

Yes go ahead please.

I will begin with the market sizing. Did a guesstimate based on the number of children who would be needing cough syrup to arrive at market size and then the target number of customers for the company. The number was approximately 20 lacs.

Seems fair, move ahead.

Next, I would like to do a Value-Chain Analysis to understand the costs involved in producing an SKU of the product. Can you please help me with the costs incurred at different stages of the Value Chain?

Sure. Let's begin with the value-chain analysis.

Worked with the interviewer to get the following costs.

Raw Material and Production Cost = Rs. 40/SKU, Labor Costs = Rs. 10/SKU, Transportation, and Logistics = Rs. 10/SKU, Overheads = Rs. 15/SKU, Commission to retailers = 10%

Initial Fixed Cost = Rs. 5 Crores

During the Value-Chain Analysis, I was asked to identify all costs that I could think of and then eliminate certain costs based on the industry and situational context. For example, I eliminated costs incurred in marketing the syrup to physicians, which is a common strategy employed in the pharma industry, by enquiring and learning that the syrup would not be sold based on prescriptions and will it be available over the counter. Now that I have all the major costs incurred with me, I would want to go ahead and do a Break-Even Analysis to gauge that how much the product should be priced at to cover the costs incurred.

Sounds fair, go ahead.

Formed a basic equation to determine the break-even price.

Equation - (Variable Cost/SKU)*(No. of Target Customers) + Total Fixed Cost = (Break-Even Price of an SKU)* (No. of Target Customers)

For the given case, Variable Cost/SKU = Rs. 75/SKU + 10% Retailer Commission/SKU = approx. Rs. 80/SKU

No. of target customers = 20 lacs

So, I arrived at a Break-Even Price of Rs. 105.

So would you price the product at Rs.105?

No sir. I think that to gain initial market share and compete with a major competitor like Dabur, we should price our product significantly lower than Dabur's price of Rs.120/SKU. Though Rs.105 is lower than Dabur's price, I still feel we can leverage the benefits of psychological pricing by pricing our product at Rs.99. This will lead to initial losses but would have a huge impact in chipping away from Dabur's market share. Also, going forward production and procurement stabilize and we can focus on cost reduction to turn profitable.

Fair enough! Give me a final recommendation on how we can move towards profitability?

I feel the reduction of costs can play a huge role in moving towards profitability. As we can see that a major chunk of variable cost is spent on Raw Materials, strategic sourcing, and employing other innovative procurement techniques like reverse auctions can significantly reduce raw material procurement costs. Once we can reduce our cost to below the Rs.99/SKU mark, we should be on our way to profitability.

Thank you! That's it.

Plywood Manufacturer

There is a firm that manufactures and sells plywood. They have a factory in the western part of India, and they sell across the country. They have two products, ordinary plywood, and premium plywood. How do we go about pricing them?

Could you please tell the market share and the differences in the plywood. Also, what is the cost of manufacturing the plywood?

4 major players are controlling 20% market share each and the rest is by fragmented players. The plywood costs say INR 50 per kg.

Asked about the distribution of market share across geographies by our client

Our client is a market leader in the western zone but has a small share in the eastern zone.

OK. The primary consumers would be individual customers (home dwellers) and builders. So basically, there are three major approaches to pricing the plywood. We can price it at a premium over the cost price and the premium would be larger for the premium-grade plywood. Alternatively, we could price it competitively against our competitor's pricing or we could price it considering the value it offers to the customer.

Let's build a matrix which will allow us to decide the cost of plywood. Talk about the factors which would influence the pricing.

The factors I can think of are the distance of the market from the site of manufacturing (West India), the grade of plywood, and other features like durability and aesthetics which would decide the perceived value by the customer.

This you talked about B2C pricing. How would you market it to B2B consumers? Say a B2B customer in Assam?

As we know that the B2B approach is more intricate with multiple stages involving pre-approach, approach, technical qualifications, bidding, etc., to market it in Assam, given we have a lower market share, I'd offer a trade promotion to the distributors so that we can gain market share and form better relationships with B2B customers which will help us secure larger orders.

So, you are saying that the logistics costs are higher, and you are also offering a discount, so my profitability would take a double hit.

Yes, sir, we would have to do that to gain market share in a far-off place. Moreover, we would want to value the relationship with the B2B customers more than the short-term profitability.

What other factors can be considered to price the premium profitability?

I think we can also tie up with interior designers who can influence the buying process of consumers and even builders. Given the fact that interior décor is a long-term investment and people will value the aesthetics, it would typically save a lot of trouble for them if an interior designer could recommend the right plywood and other accessories. We could offer a higher value and extract a premium if we could tie up with interior designers.

Yes, exactly. That is exactly what plywood manufacturers are doing. They are launching interior design courses and tying up with them.

MERGER & ACQUISITION

IT Human Resource Leasing company

Our client is an IT Human Resource Leasing company. They have recently merged with a similar-sized firm but aren't able to see any cost synergies post-merger. What could have happened? Look from a margins perspective.

Have other firms been facing this problem too? How long has this been happening? What is the service that we provide? What's the market like—are we in a position of leadership?

The merged company is facing a problem, ever since the merger. We send people to our clients based on the competency required, across all levels. The market is fragmented with many players.

Okay so I would like to assume because of its fragmented nature, the market is competitive, and the price is by the market, so that can't be an issue if it is only our firm facing the issue. I would like to break our margins into revenues and costs. Revenues would be constituted by several clients, % of our workforce hired by clients, the tier of operations at which people are hired, and the length of hiring contracts. On the cost front, there would be

- FC: Physical Rental, Administrative, IT Infrastructure
- VC: People Costs—Hiring, Training, Processing, Firing, Payroll, and Refunds/Lack of Payments from clients

Would people costs be variable or fixed? Is that correct?

Conventionally people costs would be fixed but in this, we can assume that our client would temper their workforce as per market demand and they would constantly be changing the size of their workforce. Hence a variable cost.

Okay. Interesting. Let's drop this. Just give me the biggest cost overhead you would be having?

People costs would be the biggest overhead.

Correct. Let's dive deeper into that.

Okay so do we have data on our margins in just the people costs?

Our margin is 16%, and the industry's is 20%. People costs for us are 64%, and for competitors is 60%. Other costs are about 20% for all.

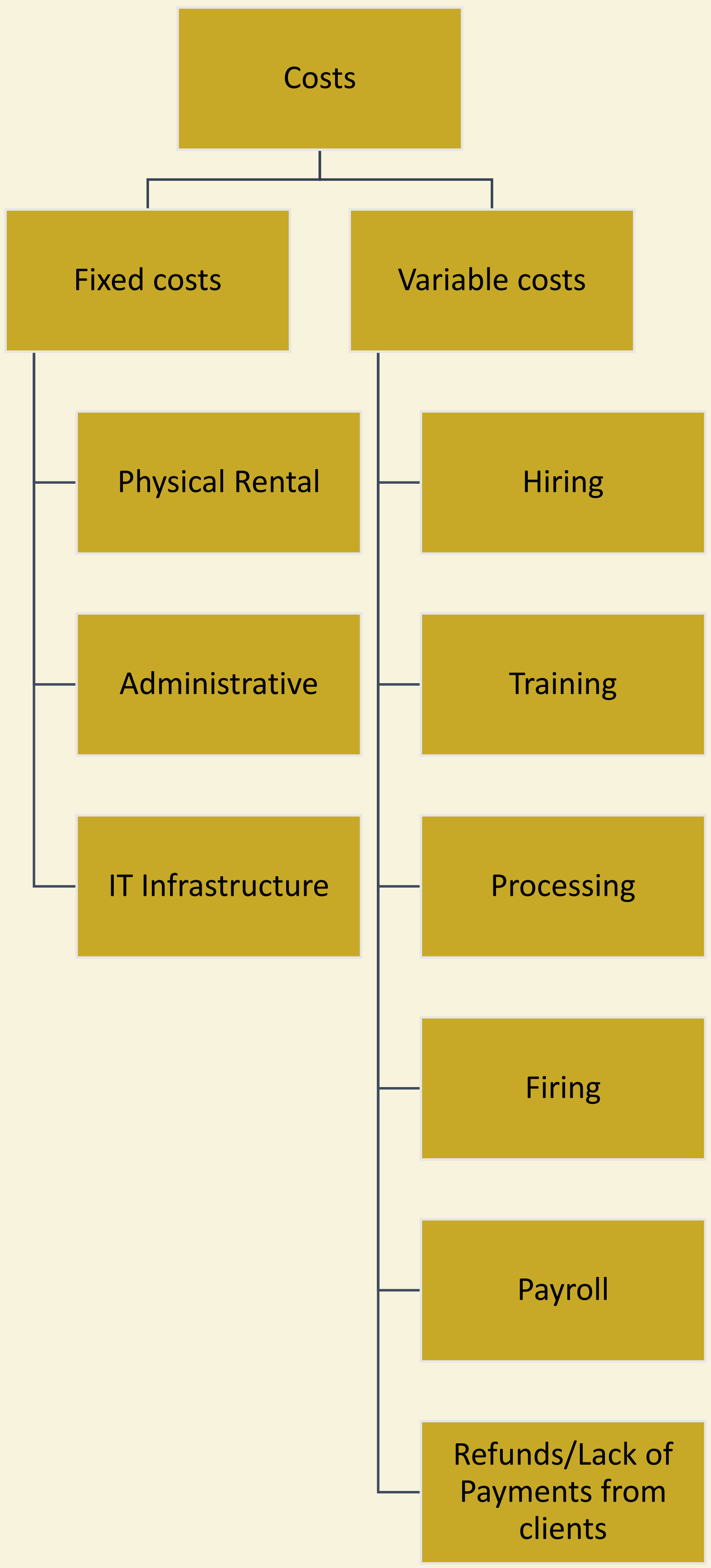
Under the different aspects of people costs, we will have Upper Management/Bureaucratic personnel, leased personnel, and management staff based on projects.

We are very low on time for the case, and I do want to answer any questions you might have so can you just tell me reasons why this could be high, given the merger has happened?

Okay so it could be that -

- Since firms would not be operating in exclusive markets, it can be that post-merger there hasn't been a major increase in client base, hence synergies haven't been high.
- High upper management costs could be another cause, where-in post-merger the top echelons of company management were not fired, and their payments are now putting pressure on margins.
- No layoffs after merger. Basically, the merged firm would be treating the people costs as fixed costs instead of my initially argued variable costs. So basically, we are employing more people than required by market demand.

Yep. It's the last one. Our workforce is larger than firms of comparable size. We can close here.



PepsiCo wants to acquire Paper Boat; how should they go ahead?

I will reiterate the problem statement; let me know if my understanding is correct. PepsiCo, which is into multiple businesses, including the business of beverages, is the client. It wants to acquire an Indian company Paper Boat which is also in the business of beverages.

Correct. You can analyze the case.

Before analyzing the case, I would like to know the motive behind this acquisition. Is there anything specific that PepsiCo has in mind?

Our client has idle cash and is always acquiring new brands. Paper Boat seems to be doing good business and can be a valuable addition to its portfolio.

Okay. I want to ask a few questions about the target company. What is the geographical area in which Paper Boat currently operates?

They operate pan India. But their maximum business comes from Tier 1 and Tier 2 cities.

In which part of the value chain, does Paper Boat operate currently? I mean, are they into manufacturing, marketing, sales & distribution, or all?

They currently operate in all parts of the value chain that you mentioned.

As I understand, Paper boat offers non-carbonated drinks in various Indian flavors. Do they have any other products?

Also, does PepsiCo have any products in this category?

Yes, Paper boat offers non-carbonated drinks in various Indian flavours and PepsiCo does not have any product in this category.

Thank you for this information. I would like to divide my analysis into three parts.

First, I would like to understand operational feasibility by evaluating different synergies that can be achieved through this deal.

Second, I will check for economic feasibility and

Lastly, I will check for the financial viability of the deal. Based on this discussion, we will suggest whether to go ahead with the deal or not. Can we proceed with this approach?

That is a good approach. I have a question for you. You said that you will evaluate the synergies. What do you mean by the term synergy?

If I have to explain in simple words, one plus one equals two but with synergy, one plus one equals more than two. Synergy is the difference in the benefits derived from the combined firm operation after the deal between a target and acquirer and the total benefits obtained if both firms operate individually.

That's correct. What type of synergies can we expect from this deal?

There are two types of synergies. Cost synergies and Revenue synergies. These cost synergies can be obtained by reducing the expenditure on redundant manufacturing units, support functions like IT & HR, and marketing expenditure. While revenue synergies can be obtained through the expansion of products and markets. Since Paper Boat is a newer company and has lesser geographical distribution than PepsiCo products, they can utilize the existing distribution network of PepsiCo to make their product available in other markets. Also, since such type of product is not present in PepsiCo's portfolio, there will not be cannibalization in sales. Instead, there will be additional sales that earlier used to go to the competitor.

Okay. What Next?

Our next step would be to carry out the due diligence before finalizing the deal.

What type of due diligence you will do?

There are different types of due diligence. For example, Commercial due diligence, Financial due diligence, legal due diligence, Cultural due diligence, etc.

Any more types?

Yes, there will be Environmental due diligence, Information Systems due diligence, Intellectual Property due diligence etc.

Okay. What will be your next step?

From the due diligence step, if we establish the operational feasibility of the deal, the next step would be to understand the economic feasibility of the deal. We would need financial projections of the profit margins and net profit that will be earned through this deal. Do we have any data on that?

No, currently, we don't have any data.

Assuming that we have data on the financial projections, we will compare the incremental profits with the deal cost to check whether the deal is profitable.

Okay, next?

The last step would be to check for financial viability. But as we initially discussed, PepsiCo has idle cash. So, there should not be a problem with financing. If they don't have enough cash, the company can look for other financing ways like debt or think of going ahead with a stock swap deal instead of a cash deal.

I think this is a good analysis.

Football Team

Your client is the owner of a US-based conglomerate & wants to acquire a London-based football team. The Client has a list of 3 teams with high fan bases and wants to buy only one. You, are a consultant, and have to recommend whether to go for the acquisition or not.

Alright!! So, our client is a US-based conglomerate & wants to acquire a London-based football team. We have a list of 3 teams & have to select one from them. We need to suggest whether to go for the acquisition or not?

Yes. That's correct. You can proceed now.

I want to know a bit more about the Client, it's business, customers, past experience with M&As, etc.

The Client owns a big cricket team and has acquired a lot of companies. It has a diverse business.

Okay. I would like to look at the factors now.

1. Objective - Any financial perspective, profit or anything else, any strategic alliance, etc.
2. Team Performance – the way all 3 teams are performing, their past records, new players, etc.
3. Competition in market – who else is funding the team, any other firm/person looking to acquire these teams, etc
4. Future Outcomes of the acquisition – we can use the team for advertisements, etc.
5. Legal Aspect – Are there any legal regulations that can prevent the acquisition?
6. Substitute – We can also look at the other options like acquiring a team in another sports like Basketball, or we can look at some other team in US only, etc. I would like to proceed with the Objective as a factor. Will that be fine?

The client is passionate about football and thus, wants the acquisition. Making profits goes indirectly without saying. You have summed up the factors very well. You mentioned substitutes, right? Suppose the client decided to let go of the football teams but is now interested in sponsoring a famous player. The client is also thinking of launching a branded t-shirt in that player's name. The client now wants you to calculate the amount of revenue that can be generated from the t-shirt in a year in the US Market.

Population of US = 30 Cr

Urban (50%) & Rural (50%) Classification

Income Segregation - Urban [Rich (10%), Middle (50%), Poor (40%)], Rural [Rich (5%), Middle (40%), Poor (55%)] => Ignoring the poor population in both cases, as the t-shirt is branded.

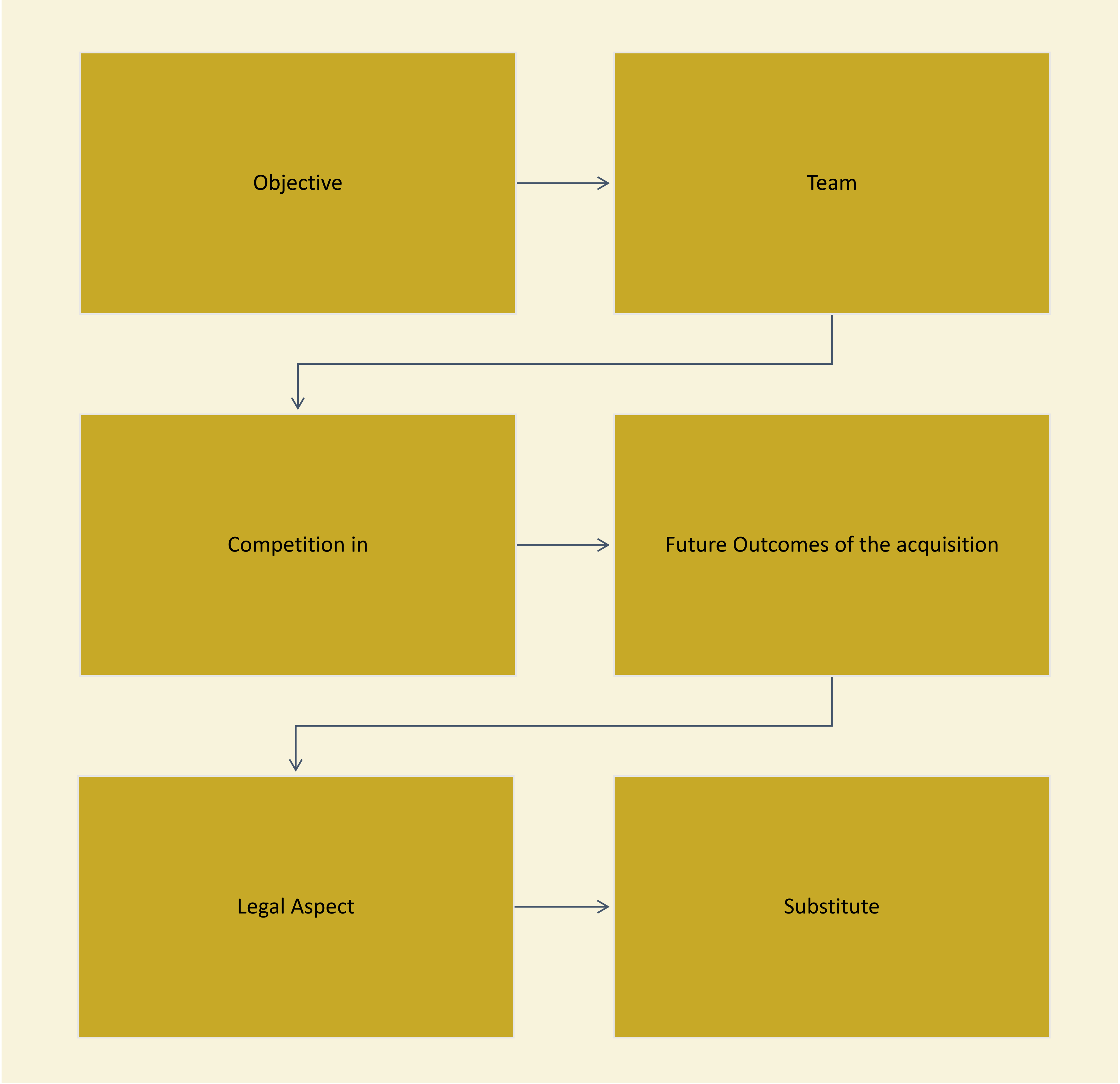
Age Group => Considering 50% of the relevant US population belong to this age group

Interest in Sports => Urban [Rich (30%) interested, Middle (50%) interested]

Interest in Football => Urban Rich (50%), Urban Middle (30%)

Interest in Buying Merchandise => Urban Rich (50%), Urban Middle (50%)

For the sake of the calculation, I ignored the rural part of the calculation. While calculating the final revenue, I needed T-shirt's price. The interviewer gave me the price as $40. And then I calculated the final number in millions.



You client is FundFast, a financial services firm. The firm is planning to buy LongLife, a firm in the health insurance services. Suggest factors to look out for before planning the acquisition.

Can you give the detail about FundFast & LongLife? What is their product mix? In which market are they operating?

FundFast provides all kinds of financial services like loans, mortgages, credit cards, etc. It is currently operating in the US Market and has a decent market share. Its revenue is $80 million. LongLife provides all types of health insurance services like Medical Insurance, Family Health Insurance, etc. It is also operating in the US Market and has a revenue of $25 million.

What are the objectives of the client?

The client is looking to reduce its operating cost.

That can be done by other means too. Is there any other objective?

What do you think?

Does the client provide any health insurance services as of now?

No.

Then, the primary objective of the client might be to enter the healthcare market. I would look at the following broad factors in order to suggest to FundFast whether to go for the acquisition or not.

1. Financial Aspect:
Financials of Client Firm (FundFast), Financials of Target Firm (LongLife) – We will find the current valuation of firm
2. Strategic Aspects:
Revenue Synergy – Extra revenue generated after the acquisition (new product portfolio, cross-selling)
Cost Synergy – Reduction in the expenses due to the acquisition
3. Commercial Aspects:
Understand the current suppliers and buyers of the firm, and look at possible synergies by reducing the supplier base and increasing the customer base
4. Legal Aspects:
Risks involved: regulatory risks, other substitutes for the product
Intellectual property risk
5. Informational Technology Aspects:
Try to integrate the technological infrastructure of the firms and look at possible risks involved in adapting to the existing softwares/technologies
6. Human Resource Aspects:
Look at the organizational structure of the firms
7. Cultural Aspects:
Cultural fit among employees of both the firms

Fair enough. Let's do some quantitative analysis now.

Sure. We can do the revenue synergy first. I would need some data like the number of customers for each firm, average revenue per customer, etc.

FundFast has 100,000 customers and LongLife has 50,000 customers. Also, they have 20,000 overlapping customers in-between them.

Alright!
The existing customer base for the joined entity will be (100 + 50 - 20) = 130,000 customers.
Revenue per customer for FundFast = 80 million/100k = $800 per customer
Revenue per customer for LongLife = 25 million/ 50k = $500 per customer

New Revenue for the joined entity = (80+25) = $105 million
Moreover, there will be cross-selling and upselling of the products too. Revenue synergy can be achieved by analysing:
What to buy? New product offerings will be included in the existing portfolio, thus increasing the core offerings of the firm and targeting a larger customer base
How to buy? Salesforce efficiency can be achieved by adapting to improved methods, cross-training of salesforce, and removing redundant processes
Where to buy? Product offerings can be sold across distribution channels, leveraging the depth of distribution in both firms and cross-selling products in these existing channels
This extra revenue will only be from the non-overlapping customers. Is it okay to assume 15% increase in revenue due to cross-selling and upselling?

Yes, go ahead!

Alright, so assuming 15% increased revenue due to cross-selling and upselling.
Revenue from cross-selling and upselling = $105 million * 15% = $15.75 million
Total Revenue = $(105+15.75) million = $120 million (approx.)

Okay. Let's look at the cost synergy.

Sure. Cost can be saved in various processes:
Operational synergies: Leveraging economies of scope, economies of scale, evaluate the value-chain for both the firms and remove redundant resources
Financial synergies: Tax benefits and lower cost of capital
Organizational synergies: Reducing the employee cost by removing redundant resources
Other cost synergies: Lesser audit fees, License fees of software, Lower infrastructure and operating costs
I would like to evaluate each of these buckets to further understand the feasibility of the acquisition.

That is great! However, I would like you to focus on the organizational structure for now only.

I would need the organizational structure as well as the data regarding salary for both the firms.

Fundfast

Continued…

Please look at the following table. Also we hired an HR consulting firm last year. As per their research and analysis, a typical company with $50 million in revenue should have 12 managers, 20 senior analysts and 70 salespeople. As per the HR consultancy, the salesperson is optimal for now so we can leave that out for calculations.

Alright! Looking at the data, there are 2 CFOs now. Is the client willing to let go of employees, if needed?

Yes, the company is willing to reduce employees.

Let's calculate the previous cost first.

For FundFast:
CFO - $900,000 per year = $0.9 million per year
Manager - $200,000 * 20 = $4,000,000 per year = $4 million per year
Analyst - $100,000 * 40 = $4,000,000 per year = $4 million per year
Total = (0.9 + 4 + 4) = $8.9 million per year

For LongLife,
CFO - $750,000 per year = $0.75 million per year
Manager - $190,000 * 50 = $9,500,000 per year = $9.5 million per year
Analyst - $90,000 * 20 = $1,800,000 per year = $1.8 million per year
Total = (0.75 + 9.5 + 1.8) = $12.05 million per year
Final Total Salary Cost = (12.05 + 8.9) = $20.95 million per year or $21 million per year

After acquisition, new revenue is approximately $115 million.
CFO Required = 1
Managers Required = (12/50) *115 = 27.6 managers or 28 managers
Analyst Required = (20/50) *115 = 46 analysts

Considering everyone is paid as per the FundFast Cost Structure
CFO - $900,000 per year = $0.9 million per year
Manager - $200,000 * 28 = $5,600,000 per year = $5.6 million per year
Analyst - $100,000 * 46 = $4,600,000 per year = $4.6 million per year
Total = (0.9 + 5.6 + 4.6) = $11.1 million per year
Salary Cost Savings = (21 – 11.1) = $9.9 million or $10 million

However, there will be other extra costs involved like resignation bonus, one-time bonus, HR consulting cost, etc. I have ignored them for simplicity.

Very Well. Suppose FundFast has decided to acquire LongLife. What are the parameters you would look at?

- Financial Valuation & Negotiation - evaluate competitive landscape
- Post-Merger Integration
  - Evaluate the hindrances involved in the process and any existing cultural difference and communicate the same at the earliest
  - Setting up processes, technological architecture & organizational structure
  - Developing plans for leveraging synergies (growth drivers)

We are done. Thank You!

FundFast		
Level	No. of employees	Salary per employee per year (in $)
CFO	1	900k
Manager	20	200k
Analyst	40	100k
Salesperson	100	60k

LongLife		
Level	No. of employees	Salary per employee per year (in $)
CFO	1	750k
Manager	50	190k
Analyst	20	90k
Salesperson	60	60k

Table

UNCONVENTIONAL

Given that you have an interest in music, there are clients related to the music industry (mostly artists) facing challenges with revenue generation due to the COVID-19 situation. What would be your recommendations to them?

Is our client a set of different artists or we are specifically talking about artists associated with a music company which is facing this challenge?

No these are different artists, maybe you can categorize them into high, medium, and low popular.

Okay, so highly popular artists have larger fan bases across the world and better fan following on social media. Medium popular would be mostly regional artists and might have a limited fan following and small artists with a very limited fan base. According to me, there will be a larger impact on these small and medium artists due to this lockdown situation. They will face challenges in terms of revenue generation as offline events like concerts would mostly contribute to it in the past

Why do you think so? Could you explain?

Yes, large artists usually have multiple sources of revenue like social media advertising so it would be a different case for these artists. While small and medium artists, they are highly dependent on offline events.

So what are your suggestions for these artists?

Small & medium artists can collaborate and conduct an event online together. Since the online events have ticket prices lower than offline events but at the same time there are no restrictions on the number of attendees, comparable revenue generation would be possible. Through collaboration, artists will have the advantage of attracting large crowds. Also as in lockdown, people started learning new things and music is one of them, so they could also conduct tutorials online, and arrange 1:1 sessions for the people.

This sounds good, how would you make sure that people have similar experiences in online concerts?

As it would be an online event, it would be difficult to create the same experience as a concert however we can ensure that everyone will have a similar experience and there would not be any differences in terms of sound quality and audio. We could provide an option of buying branded Headphones at discounted rates along with online tickets. This bundle would be sold at a lower price than the market price of individual items.

That's great, do you have any other solution?

We could also reach out to local interest groups of each city and ask them to provide set up for the online concert. Since small gatherings of people are allowed, these groups will be providing sound and visual setups in their area. As they have better speakers than each participant, the concert experience will improve.

Make sense, I am done.

Biotech Company

A biotech Company, Bloodworks, supplies a vial to hospitals. It is in liquid form and used in operations theater to stop bleeding. Another company, Gelman, supplies sponges to the hospital. A vial and Sponge are used together. Gelman has a proposal to provide sponges embedded with vials to the Hospitals. The final product will be developed, produced, and marketed by Gelman. You need to decide a reasonable compensation that should be acceptable to Bloodworks and whether they should accept the deal.

Can you let me know a bit more about the 2 products?

As already mentioned, they are used together in the OT. Usage is only in Hospitals. Currently, hospitals buy vials and sponges separately.

Okay. Can I have a minute to jot down my thoughts?

Sure

I would like to know a bit more about the companies, competitors, Regulatory aspects, and pricing. We can start with the companies. How big are both companies?

Both the firms are mid-size in their respective markets.

Okay. And is there any reason why Gelman approached us for this deal?

We use human protein to make the Vial which means it's a more effective product. Other companies use animal protein which isn't as effective

That helps. As you mentioned about human vs Animal protein, I would like to know if there are any regulatory aspects that we need to consider during the deal.

No, we have all the necessary regulatory clearances. You can ignore the same

Great. I would now like to know if there are any competitors in this combined product market.

Currently no firm provides such a product. Our deal would be the first of its kind.

That would probably help us charge a premium. I would like to know about current pricing model of the 2 products

The vial retails for $85 and the sponge retails for $10.

Okay. Can I take a minute to structure my thoughts?

Sure

To evaluate whether we should go forward with the deal, I would like to consider the following aspects - the market size, deal specifics including the profit margins of both companies, product convenience to hospitals & operational feasibility such as logistics, the capacity mismatch between the 2 firms and Supply Chain Management.

You can ignore the operational aspects. It should not be a problem. The market size is good enough and there will be no additional market for the combined product. What do you want to know about the product's convenience?

Considering that the hospital will receive a finished product without the need to mix the vial and the sponge. Further, it will only have to deal with one vendor so it will be convenient for them, and we can probably charge a premium. Do we have any data about the same?

What we know is that hospitals will be ready to pay a 10% markup on the combined product.

Just to confirm, the 10% would include all the non-monetary considerations as well, right?

That is correct.

I would now like to look at the deal specifics. I want to start by knowing the costing of both companies to understand their profit margins.

Why do you want to know the cost structure of Gelman.

It would help me to understand the current profit margin of Gelman and their expectations from the deal.

That is fair. But we can ignore that during the case. Bloodworks makes the product for $3.5 variable and $1.5 packaging.

So currently, Bloodworks earns 80$ (85-5)/unit. Total proposed price of product is a markup of 10% on $95(85 + 10)

You are assuming that the hospitals use one sponge for one vial. However, the companies use 1.5 sponge per vial.

Okay, so in that case the proposed price would be $110. We need to decide how to split the added $10 profit margin between the firms. Considering that Bloodworks will not incur the packaging cost now, it would mean that their selling price to earn the previous profit margin is essential $83.5.

That is a fair calculation, why do you think Gelman will agree to pay $88.5 per vial

Gelman would be procuring a finished product. Although it will incur the additional costs of marketing the product and the $1.5 of packaging, it will also be earning an extra $5 in the margin. The value added by Gelman is relatively lower in the product and thus Bloodworks should not agree to a deal below $88.5.

That is good. Are there any other risks you want to consider from the perspective of Bloodworks?

Because Bloodworks will now be supplying to Gelman, it will have a concentrated revenue base. This can be risky for the company since they will be fully dependent on Gelman for their sales. Further, they will lose their brand in the market as Gelman will market the product as their own. This will hamper their future aspirations of selling newer products

Great, we can end the case here

Mobility Service Provider

The client is a shared mobility service provider. They are facing a lot of consumer complaints recently. We need to find out the reason for the same and give recommendations.

As I understand our client is like an Uber/Ola who is facing a lot of consumer complaints. Is that a fair understanding of the problem?

Yes, you can go ahead.

I have a few preliminary questions. I would like to know about the exact model of our client, the geography they operate in, and the type of customers we cater to.

Client is a ride sharing app & provide cab to all type of customers. We do not cater to any specific customer group.

I would also like to know how long are we operating and how recent is the problem. Further, if there is a similar trend in the industry that we have observed.

The client has been in the business for 10 years now. However, the issue is only happening for the last 1 year. We do not have any information on the industry.

I would like to take a minute to structure a framework.

Sure

I would like to analyze the type of complaints that we are getting. To arrive at the complaints, I would like to split the complaints into 3 categories that are, before the trip, during the trip, and after the trip. Is this a fair approach and do you want me to start with something particular?

Yes, that is fair. You can look at the complaints received before the trip.

Okay, so that means that the customers are essentially facing issues in booking. I can look at 3 issues in this case which would be, cabs not available, cabs taking too long to arrive or there are excess cancellations by the drivers.

You can look at the non-availability of cabs as an issue.

Sure. Can I have a minute to think of the possible reasons?

Sure

The possible reasons for the non-availability of cabs seem to be an increase in customers, a reduction in cabs on the road, decreased occupancy rate, increased average ride times, or insufficient routes being covered. Do we know if one of them is the possible reason?

How do you define the ride time?

It would be the time from when the ride is booked, and the driver arrives at the passenger till the passenger is dropped off.

Okay, that is correct. We noted that cabs are taking additional time to reach the passenger. Can you analyze why is that happening?

Have we noted this in all locations? As per my understanding, it is a possibility in high-traffic areas such as offices, stations, and airports.

That is correct we have noted that the cabs are not reaching office people in Gurgaon. The wait times are too high. Do you have any recommendations for the same?

As we are already in the shared mobility space, we can look to promote more shared services rather than single cabs. This will essentially reduce the traffic. Further, we can look at other services such as shuttles which will help transport the concentrated public from office areas to one common spot. The cabs can then be taken from this relatively lower-traffic area. Further, we can look at incentives for drivers for long wait times and also introduce passes to attract customers for a longer time horizon.

That will be all, thank you

Pharma Company Defense Strategy

Our client is a pharma company which sells a suit of products. They also sell breast cancer medicine which is one of a kind in the market. They have a patent for medicine everywhere in the world except India. A competitor is coming up with a copy of the product. You need to come up with a defense strategy for our client.

That interesting. Do we know why the pharma co. has not filed for the patent it is generally the first thing a pharma company does when coming up with a new formula.

It is a difficult and cumbersome process in India, so they ignored it.

Okay, and is there a possibility of filing for a patent now before the competitor comes up with the product

It won't be possible. The competitor is coming up with the product in the next 3 months

Okay, so that is a short horizon we are looking at. I just want to know a bit more about the company. How much % of the product sales are from India?

It only contributes to 2-3% of the product sales but it is still a significant amount value wise

That is fair. Further, I would like to know a bit more about the competitor. The product that is being launched, is that a replica? Do we know about the effectiveness of the drug?

As far as we know the drug is an exact replica.

Okay. Is the drug an over-the-counter drug of a prescribed drug?

It is a prescribed drug. A doctor's prescription is compulsory to get the medicine.

Okay. I would also like to know whether the competitor is big enough and how much can it cater to the demand. Further, do we know about its pricing policy?

The competitor is a big player and shall be capable to cater to the whole demand. Further, it is going to launch the drug at a 30% discount from our current retail prices.

Okay, that is a huge penetrative pricing. Can I take a minute to structure my thoughts?

Sure

I would like to look at the branding of our product vs competitors' products, side effects if any, the distribution network, and the pricing.

Fair, you can continue.

Firstly, from what I understand branding plays a huge role in the pharma industry.
So, I want to understand something about if there is any brand differentiation that we offer

Since these drugs are prescribed by oncologists, brand differentiation is not that apparent.

Okay. I also want to understand the motive of the oncologist to select a particular drug. From my understanding, Oncologists prescribe drugs from companies from which they receive added benefits. Is it true in this market as well?

The oncologist wants to provide cheap products to the patients for the benefit of the patient. They are not looking to earn the drug prescription.

Okay, that helps to understand the market. As you already mentioned that the drug is a replica of our product can I assume that there are no added side effects in the same.

That is correct.

Now I would like to look at the network that our client holds. Do we have any other cancer products and what is the scenario for the competitor?

We have around 7-8 oncology drugs and the competitor also has some. We do have a bigger distribution network though.

That is good, this can be leveraged to supply the products at a larger scale. However, since the competitor provides the goods at a lower rate, it will eventually catch up with us. I want to look at the pricing now. To understand it first, I want to consider the effects of dropping our prices to match our competitors. What will be the impact on our profit margin of this move?

A 30% reduction will reduce the profit margin but won't be significant as we have huge markups.

Okay, in that case I think an eventual reduction in price is a tactic that we can look at.

Why do you want to reduce the prices so drastically?

Considering that the company has done the mistake of not patenting the product, an eventual reduction in price is inevitable if the competitor does not raise prices.

That is fair. What other recommendations do you have?

As this market is driven by oncologists, we can look to market our product by leveraging our distribution network. We can also look at a differentiated pricing strategy, wherein we provide different rates in different stores. This is a common tactic used in the pharma strategy.

Okay, do you have more suggestions?

I want to understand if we are supplying the medicines to hospitals/clinics or pharmacies in this case.

Continued…

We are supplying them to hospitals.

Great. So, in that case, we can look at contracts in the case of private hospitals and tenders in the case of government hospitals. Generally, these contracts are for a long duration and include a minimum demand clause. We can enter into such contracts within the next 3 months and safeguard our sales for the short term. Over time we can look to enter into agreements with the competitor to collude and price the product at a rate acceptable to both companies. However, if the same is not possible, over time we will have to reduce the rates to the competitor's levels.

That will be all, thank you!

Laminate Manufacturing Company

Manufacturing | High

Your client is a Laminate manufacturing company. It is one of the largest players in the organized segment. It is facing an issue of loss of revenue. Please help the client identify the root cause of this problem.

Thank you. I'll reiterate the problem statement to be on the same page. (*Went on to repeat it.)*

Sounds right.

Before I start with my analysis, I have a few preliminary questions. Could you provide details about whether the issue of loss of sales is client-specific or industry-specific? Also, is this problem of loss of revenue fairly recent?

The problem is client-specific, and it is not a recent issue.

Okay, could you provide me details about the client, such as its position versus its competitors, and where does it operate across the value chain?

Our Client is one of the largest in the organized market with revenues ranging from INR 1,500-2,000 crores. It manufactures laminates and sells them. For this purpose, it has 12 distribution centers across the country.

Could you provide a product-wise and region-wise break-up of the revenue.

The region-wise revenue is as follows – North – 20%, West – 35%, South- 30%, and East -15%.
The client has 2 brands that contribute 80% of the revenue, and 4 other brands contribute the remaining 20%.

Could you elaborate a bit on how the sales are carried out?

The Client has 3 departments: Sales & Marketing (S&M), Supply Chain Management (SCM), and Manufacturing. The S&M team forecasts sales. Based on this forecast, the Manufacturing team produces the goods, and the SCM team is responsible for the transportation, storage, and delivery of the goods.

Are all 3 teams well integrated? How often do they meet?

Currently, the S&M team forecasts the demand for the next month on the 15th of the current month. This forecast is then communicated to the SCM and Manufacturing team on the 20th of the month. While there is formal integration, each team blames the other. The manufacturing team states that the forecast provided by the S&M team is inaccurate; the SCM team says that the manufacturing team is not able to produce the required goods. In contrast, the S&M team states that SCM is not able to deliver the products.

That's interesting. Could you provide me details about the Customers?

The Company is a B2C business with a revenue break up as follows, retail customers- 30% and Architects – 70%. Further, the industry is a low patience industry, i.e., customers aren't specific about brands; instead, the product's availability takes priority.

Is there data on the competitors available, e.g., sales, stock availability, type of customers, etc.?

While our competitors are similar to us on most parameters. In terms of stock, we carry 70 days of stock versus 30-40 days of inventory held by our competitors.

Okay, thank you. Could I get 2 minutes to structure my thoughts?

Sure.

To analyze the entire situation, I want to look at the internal and external factors.
Internal Factors: S&M Team, SCM Team, Manufacturing team, Product
External Factors: Consumers, Location
To begin with, the S&M team – Could you clarify the method the forecasting?

There is no issue with their forecasting method as they are frequently in touch with the distributors, and based on the leads received, their forecast is developed.

Concerning the SCM team, are there any transportation issues faced? If delivery to specific locations is not possible, then can we look at outsourcing?

No, there are no specific issues concerning transportation. However, is there else you want to analyze?

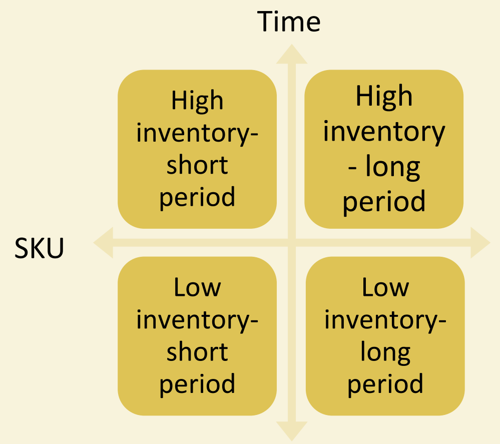
Sorry, I can't think of anything related to SCM at the moment. Do we see any manufacturing issues like machine breakdown or labor issues?

No

Okay, then I want to move over to the external factors

There is no issue there too. I think we can end it here. I liked your structure & thought process. However, I wanted you to analyze it using a 2*2 matrix. Using the matrix, we could identify which SKUs have a high inventory over a long period. The SKUs in the top-right quadrant are the pain point for the client. The SCM team could use this input to improve their processes. This would enable the stock to reach the stores, & as a result, the sales would increase.

Thanks for this valuable insight.



Public Sector Bank Call Center

A PSB (Public Sector Bank) in Sri Lanka wants to track the performance of its call center. Which metrics should it consider in evaluating the performance of the bank's call center?

How many workers are there? Are there any particular divisions in the type of calls they address?

Yes. There are 20 inbound workers and 10 outbound workers. Inbound workers address the queries of customers via telephone. Outbound workers sell products/schemes to various customers by calling them. For now, you may consider evaluating the efficiency of inbound workers.

Okay. So, I would like to dive a little deep into the user journey when he makes a query call to the call center and try to identify the points at which there is a scope for measuring the efficiency of the process.

Yes, go ahead.

When a user calls, he has to wait for some time for call to be directed to particular personnel who could address his query. Then he tells his inquiries from call centre worker. After that he give certain feedback. Does this sound good?

Yes, sounds fair. How can you evaluate the efficiency of these processes?

I would measure the worker's idle time. The scheduling and redirecting of calls should be done in a way that there is equitable distribution of load among workers, nobody sits idle, and nobody has excess calls to address. This way we can improve workers' efficiency and reduce any overtime they might be doing. This would require cross-training of workers to address all kinds of problems/queries.

Okay what else could you consider?

We must try to reduce waiting time per customer. Also, we can calculate the calls addressed per worker for a day. That should be approximately the same for each worker & must be high. Another parameter to consider might be the call duration for which the call centre employees are talking with customer & will not be extremely long. We can look at customer feedback - star rating to evaluate how well the query was addressed by the call centre employee.

That sounds fine. Suppose the traffic at a call center is 2000 calls/day. Each worker can address no more than 150 calls/per day. Are we efficient?

2000 calls/ day shall be addressed by 20 outbound workers, so, a worker must ideally address 100 calls per day. Since the capacity of call addressed by 1 worker is 150 calls per day, the potential of workers is underutilized. We must consider firing some workers or sending them to some other department.

How many shall we fire?

For addressing 2000 calls per day by workers who have a capacity of addressing 150 calls/day, no. of workers required would be 2000/150=14 workers. So, we must fire 6 workers.

Suppose instead of firing 6 workers, I fired 10 workers? How would this affect customers?

The workers would be overloaded with work. So, the waiting time per customer will increase. Also, the workers will be in a hurry to address the large number of calls, so they might be in a hurry to address the customers and proper resolution of problems might not happen.

Equal distribution of load among workers

Reduce waiting time per customer

Call duration for which the call centre employees are talking with customer

Customer feedback

Calls addressed per worker for a day

Telecommunication Services Provider

Telecommunication | Moderate

Your client is a telecommunications services provider. They've been experiencing customer retention problems. What do you think can be the drivers of such a problem?

How long has it been since our client is facing these problems, and is this problem being faced by the competition as well?

About 9-11 months. The competition is not facing this problem

How many competitors are there, and what's the market share of each competitor like?

Our client = 50%, Firm A = 30%, Firm B = 20%

How does pricing vary across these firms?

Our client's voice services are more expensive than the other providers

Spoke about the value chain of the customer, based on which I listed down the possible factors that may have contributed to a decrease in retention.

- Technology – compatibility with handsets
- Economics of the call – activation fee, plan subscription charges, per-minute charges
- Quality – coverage, call quality, customer service
- Social – image, friends, family
- Convenience – internet operations, self-service, retail channels, # of stores

Factors that relate to the customer:

- Finances
- Life changes – a lot of them moved to a new location where coverage is poor
- Frauds
- Non-payment

A recessionary environment is expected next year, and the churn rate is expected to increase in favor of the cheaper providers. To maintain the current number of subscribers, how many customers should the firm steal from the competition?

I'll need the following details to calculate that.

- Market size
- Market growth rate
- Market shares (already provided above)
- Current churn rate
- Increase in churn rate due to recession She gave these numbers and asked me to give her the final answer.

What can the client do to decrease the churn rate?

Recommendations:

- New price plans
- Referral programs
- Loyalty programs
- Predict defection
- Sell them other products
- Improve coverage
- Send customized product and service offerings

Okay. Thank you.

Financial Review of a Company

You are performing the financial review of a company. What are the areas in the Financial Statements of any company that you would look at while performing a statutory audit?

If I have to perform the statutory audit of a company, the final deliverable is the Audit Report. To ensure that the Audit Report shows a true & correct view, I will review the financials from the risk point of view. I will check the following items in detail:

1. Item having inherent risk – Cash balance
2. Items that have a high probability of misrepresentation
   - Sales cutoff at the yearend
   - Purchase cutoff at the yearend
3. Provisioning required
   - Inventory provisions for write-off and aging
   - Gratuity, leave encashment
4. Completeness of transactions and recording on an accrual basis (e.g., Other Income from Investments, Interest expenses, operating expense & Consumption

Okay. Now I will give you another scenario. The working capital of the company is deteriorating. What are the steps that you would do to improve the working capital of the company?

Working Capital = Current Assets – Current Liabilities

To improve the working capital, I would like to review individual balance sheet line items in current assets & current liabilities. Current Assets primarily comprise - Inventories, Trade Receivables & other prepaid assets, while Current Liabilities will include Trade Payables & other outstanding liabilities. I would like to evaluate each of these items individually.

Yes, go ahead.

For inventories, I would like to classify inventories and break them down into different buckets.

Classification as per category: Raw Material, WIP, Finished Goods, Tooling, Spares & Packing Material, Classification as per aging: Below 30 days, 30 to 90 days, 90 to 180 days, 180 to 365 days, More than 365. Classification as per value: Use of ABC Analysis. Do we have any data related to inventories?

No, do not go for data. I want you to just identify the factors and possible actions to improve working capital.

Okay. To reduce inventory levels, the following actions can be done:

- Liquidation of Inventory: Identify the customer schedules available for inventory held and try to push & convert the inventory. In case of slow-moving items, we need to discuss with the customers for liquidation of inventory available in stock.
- Lead Time: Re-order levels of inventory need to be reviewed periodically. Optimization possibilities also need to be explored, specifically for inventory required for items with lower schedules, imported material, etc.

That is sufficient. Please move to the next bucket.

Trade Receivables are a function of credit days from the customer. Trade Receivables will be classified as follows

- Customer–wise outstanding balance
- Ageing Report for overdue balances: Below 30 days, 30 to 90 days, 90 to 180 days, 180 to 365 days, More than 365
- Invoice-wise outstanding report

To improve receivable days, the following actions can be done:

- Special efforts for recovery of long-pending invoices, short payments by a customer, etc.
- Plan/adjust payables according to receivables

Okay. Please proceed with Trade Payables.

For trade payables, the analysis will be similar to trade receivables – mainly vendor-wise, invoice-wise, etc. However, the strategy followed for payment might be slightly different. Payment for critical purchases/vendors will have to be prioritized in case of a cashflow crunch. Back-to-back payments lined up according to the customer receipts will help optimize cash flow. Payment terms for vendors should always be more than that of customers.

Thank You. That was helpful.

Client X is an e-commerce platform, people are visiting the website but are not buying the products. Find out the reasons and make some suggestions.

Just to reiterate the statement to make sure that I have got it right, Client X is an e-commerce platform with a high bounce rate and low conversion rate. Is that correct?

Yes

I'd like to ask further clarifying questions. Where is Client X based?

India

And is the problem pan-India or is it specific to some part of the country?

Pan-India

And what do they actually sell on the platform?

So, in general, they sell everything, like a wide range of products, you can compare it to Amazon, and Flipkart, not in monetary terms but in terms of the availability of products. They just started 2 years ago.

And is the problem consistent from the start of the inception of the company or did it happen later?

It has been there since the inception of the company.

I'd now like to look at the customer buying journey process, as in how a customer thinks when he realizes that he has to buy a product. The steps involved in the process are Need - Awareness - Accessibility - Affordability - Customer Experience. I'd look at them one by one, is that fine?

Yes, that works.

So, in the first step, people are realizing the need and they are aware of the website, also the website is accessible as people are reaching the website. Is that a fine assumption?

Yes, that's safe to assume.

Looking at the affordability section, the affordability for different products is different and people will be looking for products that are affordable to them, but to bring in a different angle, the competitor pricing can be a reason why people are visiting their website, just to check the price and compare it with other websites and as we are a relatively new entrant it would be tough for us to provide products at a competitive pricing of Flipkart, amazon.

Yes, that is a problem that we are facing.

I'd now like to look at the next step, Customer Experience, to find out more problems, if any. In the customer experience, there are further three stages, pre-purchase, during-purchase, and post-purchase experience. In the pre-purchase stage do we have the important features like add to Wishlist etc., I mean is the platform up to the competitive benchmark?

Yes, we do lack certain features when compared to competition.

In the purchase process, do we have tie-ups with a sufficient number of banks so that we can carry out payments efficiently and provide offers across banks? Also, do we have features like cash on delivery available, in a country like India, trust is really important for a new player to build and people are generally skeptical about online payments on a non-trusted platform or a relatively new platform.

Yes, we are also facing some of those issues.

In the post-purchase experience, we might be facing technical issues while returning the products or getting assistance from the help center. There might also be issues with the delivery service that the client provides.

I think you have given enough points, we can end the case here.

Alright.

Your client is a headmistress of a Non-Profit organization (NPO) school, she wants to conduct a trip for students. Although she doesn't have a special budget, suggest some ways to do so.

Where is her school located and where is she plaining to go for trip?

School is in Delhi. She is planning to go on a trip to the outskirts of Shimla.

For what duration and month she is planning for this camp.

She is planning to go in May 2023

What kind of experience she is expecting to give the students.

She is expecting to give the best possible experience as if a DPS School is planning the trip.

Since we are talking about NPO, so I assume the economic status of students is not so good?

Yes, these are underprivileged students. Also, there is no govt. fund available for these activities.

With how many students and teachers she is planning the trip?

There are a total of 90 students and 5 teachers with them.

Is there any NPO in Shimla?

Yes

To plan out any trip, I want to go by basic planning as if I am going out. I'll mention all those things which needed to be included in a trip. Also, since there is a budget constraint so I'll consider the most economical ways of planning.

Go ahead

For planning a trip, the first important aspect is accommodation. Since there is an NPO in Shimla, she can collaborate with them for our stay and food arrangements. The next aspect is traveling, since there are 95 personnel so the most economical way is to go by bus. She can arrange a total of 2 buses. Since she wanted to enrich the experience of students then she can plan out some recreational activities among the students during the trip (which will require no additional cost).

Can you tell how they will explore Shimla while camping?

Yes, She can have a local guide, but it can be costly. So, either she can ask someone from the NPO of Shimla or if she has any teacher in her school who has explored Shimla previously, they can also take him.

Any other factors you want to consider?

Yes, she must consider the risk factors like weather conditions also. She can look out for forecasts and then decide the dates accordingly.

Can you prioritize the aspects which you have mentioned.

Yes, according to me I'll prioritize the weather conditions and fix the schedule. Then I'll look forward to accommodation as I must request the NPO of Shimla for that. Then I'll plan for travelling as I have to book the bus. Then I'll plan for recreational activities, which will require the least time.

Thank you.

The client is a large public-sector bank. The management wants to implement a new performance measurement system based on a scientific target-setting methodology for performance. The current system is highly subjective and based primarily on manager reviews, due to which all employees get a high rating. The management has hired you to come up with an objective performance measurement system that is scientific and objective, where good performance will be rewarded.

I have some initial questions to better understand the case:

- What kind of products does the public sector bank offer?
- What geographies does the client operate in?
- What kind of metrics is performance measurement currently based on?
- Does the bank have a specific objective apart from what we discussed before?
- Is competitor benchmarking relevant here?

- For simplicity, let us focus on the home loans division only.
- Again, for simplicity consider 4 different regions which have 4 regional heads. We want to develop a performance appraisal system for these 4 regional heads only.
- Considering this is the home loans division, the number and amount of loans sanctioned are the metrics that are measured
- The objective is to arrive at a scientific way to objectively measure performance, which is currently very subjective. There must be adequate justification for how these employees are rated.
- You can ignore competitors for now

Okay. Considering that loans sanctioned is the KPI, I have some further questions:
Are the scores measured by the new system required to be on a normal curve? In a situation where all managers perform well, should they be rated relatively or absolutely?
Are we required to consider only external benchmarks or internal benchmarks as well?

We need to ensure that our performance measurement system rewards all employees fairly based on their performance, independently of the performance of their peers. We can consider any benchmarks you want.

I can think of the following metrics to consider: (Fig. 1)

Let us simplify this even more. Let us focus only on the # of loans sanctioned

Okay. Next, I would develop the performance measurement process as the following steps: (Fig. 2)

Correct. I want you to focus on coming up with the right goal-setting technique. How would you build that?

I would set targets based on the overall growth expected by the bank, and adjust it for regional factors

What regional factors are you talking about? Why not have same targets for each region head?

The bank's penetration and presence in each region could be different. Further, income and economic activity within each region could determine how many loans are availed in that region. Hence, it would not be fair to have the same target for all regional managers.

Okay, so how would you set a target? Give me a formula.

I would build the target as PY loans sanctioned x Regional growth forecast (uncontrollable) x Initiative- based growth

Would that be enough? In a given region, if this target is set but competitors are doing much better, would the regional manager have performed well?

Any growth that the competitor sees over and above this formula would be on account of specific initiatives undertaken by the competitor, which the client's manager did not. Hence, he should be penalized for this

So how are you building this into your formula? I don't see it getting considered

In that case, I would add another target as regional market share, where growth in market share would be a second target that the regional head should meet in addition to the above-calculated target. Since this will be dynamic, we cannot build it into the formula to arrive at a fixed number at the beginning.

Are you sure there is nothing more you can consider?

I cannot think of anything more at this point.

Okay, thank you

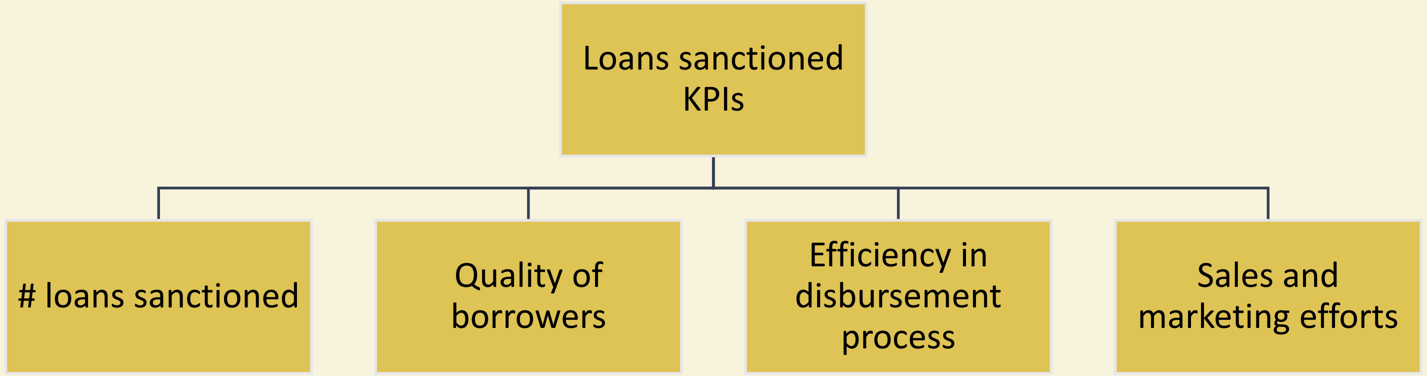


Fig. 1: Loan sanctioning KPIs

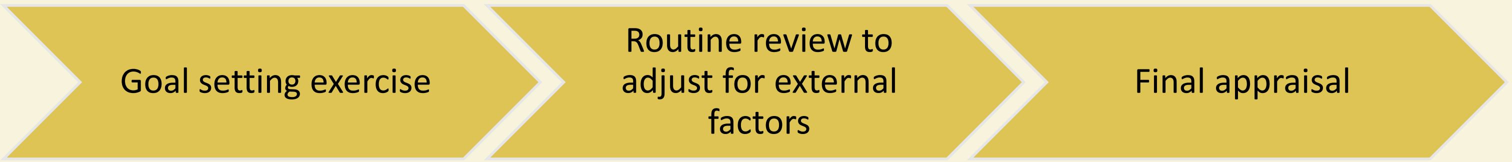


Fig. 2: Review Process

Food Delivery App

Suppose you were an investor in Zomato and would like to value the food delivery app business as a whole. Which metrics and/or other qualitative factors would you consider to value the business?

I would broadly categorize them into business and financial factors. Within the business factors, I would look at how many monthly active users Zomato currently has. How many locations does it currently operate in and if it is looking to expand overseas or not? How many delivery partners does it have and what is the average order size? I would also look at the existing direct and indirect competition facing Zomato.

Who are current competitors?

Swiggy is the closest competitor in India, but it does not have a direct competitor who has gone public

Okay. Go ahead.

Now on the financial factors, I would look at the revenue and revenue trends of Zomato. What are the major costs involved, what is the cost to acquire a new customer, and the various components of it? I would also look at the major cash flows it has, its net profit levels, its gross margins, EBITDA, and the current debt structure of the company.

Right. So how would you calculate what revenue Zomato generates from a single customer. How would you calculate the Lifetime Value of a customer on Zomato.

That would include how many times the customer orders from Zomato in a given period and what is the average order size for that customer. Average order values can be taken as more than let's say 300 Rs for customers aged below 25 and less than Rs 300 for customers older than that. The former can be expected to order more let's say 3-4 times a week while the rest can be expected to order 1-2 times a week.

So if you were to make it into an equation, what would the different components be if you were to calculate the lifetime value for 2 years?

I would write it as the (average order size * No. of orders in a month * 24 months)

How would you account for the customer not using Zomato for some time in between and switching to Swiggy? Most people don't use Zomato that frequently and may uninstall Zomato for brief periods. Would this affect the second component in your equation?

So I think it usually costs a customer nothing to have both apps – Swiggy and Zomato – on their phone at the same time. Customers usually go with the option which gives them the lowest costs. So I think it's unlikely they would stop using the app abruptly, uninstall it and switch to some other food delivery app.

I agree. So, you are saying that would not affect the second component of the equation. What about the third component?

I have assumed the monthly value of a customer and multiplying it by 24 months to get customer value in two years.

No but how would your account for churn of customers? Not all customers would place orders in all 24 months, right? So how would you account for that?

Oh yes right, that number would be different for different customers.

So Assume that initially, you have 100 customers, who have a churn rate of 10% every quarter. Let each customer place one order every month and let the average order size be Rs 250 for all customers. Now calculate the lifetime value for me.

So if initially, I have 100 customers, are we saying that we would have 90 by the end of 3 months, 81 by the end of 6 months, and so on?

Yes

Ok could I take a few minutes to calculate this?

Yes sure.

Struggling with the numbers

It's okay to use Excel. You won't be expected to perform such calculations manually anyway so feel free to use Excel if you like.

Okay. *After 4-5 minutes*. So I do have some figures. I have calculated the time each customer has been onboard, and the number of orders they have placed in that time multiplied by the average order size to get the total value of each, and have then taken a time-weighted average of all values to get the final lifetime value figure.

So, what would be the maximum lifetime value assuming no churn rate?

Assuming no customer leaves they would place 250 Rs worth of orders every month for 24 months giving 6000 in total.

What would be the lowest value if all customers left after a quarter.

It would be Rs 250 * 3 = Rs. 750 for each customer.

So, don't you think the average lifetime value of 100 customers that you have calculated should lie in this range? Your answer seems to be below the lowest mark.

Yes, I think there might be some calculation or formula error that I must have made in excel.

Yes, that's ok. Getting to the correct answer is not the issue. But I like how you broke down the analysis into its various subcomponents. I think we can close it here. Hope you had fun!

New technology in age-old Industry

You are servicing an age-old industry like steel. Pick any industry and any client. They want to kickstart their journey in the domain of AI, ML, IoT and all these fancy new-age terms that you hear. They want to phase out initial investments for these new avenues. How to establish a blueprint?

Reiterated the problem. Asked again if I could pick any industry player according to my understanding or not. Clarified why they want to venture into AT/ML/IoT.

They want to use these new-age terms to increase their capabilities, and update their processes. How should they go about it? Give me a blueprint. You can choose any age-old industry you like.

So I am considering the power industry. I am assuming the client is a power distributor. It has been operational for around 70 years has it has its corporate headquarters in Delhi. It gets a supply of power from the national grid and then it supplies power to state distributors. I'm further assuming that the power distributor has operations across India and its objective is to use AI/ML/IoT to increase its profitability. Is this model fine, can I go ahead with it?

What does the distributor do exactly?

So, the customers of our clients are state power providers. The client generates revenue by directly charging the state power providers per unit of power that they provide. The client also stores the excess supply of power it receives in case the demand at the state level is lower than the power received on average. I am assuming the client sells this excess capacity to local third-party private power suppliers/distributors. The client generates revenue from these two sources in the proportion of 80/20. On the cost side, there are fixed costs of property, plant, and equipment. These are the primary costs and include costs of transmission lines, transformers, storage and processing equipment, and plant costs. Variable costs include personnel salary and training costs.

How would they use the new age technologies? Give me a blueprint of business. In which area would they use it?

I would like to break down their operations into three phases. One is when they receive the power from the national producer This step is pretty straightforward and only involves receiving the power and using transformers to step down its voltage for further transmission. Similarly, the last phase would be transmitting the power to state distributors. This also involves stepping up power voltages via transformers and sending power to meet the required demand. The middle phase includes storing of power and routing it within the plant to the various power feeders. This phase also includes the monitoring of all the plant processes and all the metrics related to the power present in the storage and transmission units

So, in which area would they use these technologies?

I think the middle phase has the most scope for the implementation of these technologies. AI/ML/IoT can be used to revamp the control processes of the plant. This would include better monitoring of the power flow across the plant and removing inefficiencies in the processes. The major source of costs for such plants is the excesses and gaps that are created due to a mismatch of the supply and demand sides of the plant. This leads to inefficiencies in the system which drives up store, maintenance, monitoring, and transmission costs. So, I think AI/ML can be used to forecast power demand with greater precision. That would help the plant plan to reduce its costs and improve revenues from the excess power that is sold to third-party power distributors.

Ok I think that's it.

Retail Brokerage Firm

The client is a retail brokerage firm, which is a wholly-owned subsidiary of a parent bank. It currently has a large physical salesforce model. The client receives most of its leads from the parent bank which are passed on to the RMs for conversion. The client wants to make a big shift to digital account opening, and de-risk its sales functions by driving leads from sources other than the parent bank. What strategy would you form for this, and how would you go about implementing it?

I have a few preliminary questions:

- Is there a specific (numerical) objective or target set for this?
- How does the competition currently handle their sales and account opening processes?
- Are geographical factors relevant to this case? (This is a useful way to frame a preliminary question when you don't think it is relevant but you just want to be sure)
- Apart from market participant services, does the client offer any other products or services?
- Are there any regulatory constraints that you would like me to consider?

Answers to preliminary questions:

- There is no specific objective other than what I mentioned before.
- Our competitors are providing zero brokerage services and have entirely digital onboarding processes. This is leading to their acquiring 2-3 lakh customers per month, some of which are also from our client.
- No
- No other products or services
- This is a highly regulated sector; hence regulations are always relevant. However, for now, you can ignore them.

Okay. Could you tell me about the client's revenue model?

What is your understanding of a retail brokerage firm?

My understanding is that this firm would enable clients (being investors) to buy and sell various financial securities on the stock exchanges, and on other platforms. For this service, the client would be earning an Annual Management Charge (AMC) and a commission as a % of each transaction.

That's right. You can proceed.

I would like to split the given case into two parts: Digitization of account opening, and Sourcing leads from outside the parent bank. Starting with the digitization of account opening, I have the following thoughts: (Fig. 1)

That sounds right. How about sourcing leads?

For sourcing leads, I would suggest the following approach: (Fig. 2)

Alright. Let's now talk about the market opportunity. How would you go about estimating the market size for the client's services?

Just to clarify- are we considering new customers acquired out of the above experts only or the entire market's size? *(In hindsight, this was not a smart question. The interviewer meant the entire market)*

Let's look at the entire market.

May I take a minute to think this through? (After taking a minute) Here, I believe the market size would be split into two parts for each revenue stream. For AMCs, it would be the number of customers with accounts. For brokerage, it would be the number of transactions during the year

Tell me the formula that you would use to arrive at the market size based on what you just said.

I would arrive at the market size as follows-

- AMCs- # of accounts x AMC
- Brokerage- # of active customers x Avg. INR value of transactions per customer x % brokerage per transaction. This would further be subject to a minimum fixed brokerage for low-value transactions.

Okay. How will you estimate the number of customers?

I would consider two dimensions- age and income level. Based on various age groups and income levels, I would arrive at the number of customers for each combination, using data already available with the client, and other external information such as stock exchange filings and market research reports

Okay. How will you determine how much investment would be made by each of these combinations?

Number of accounts x average annual income x % savings x % asset allocation

Okay, we can end the case here.

Figures in next page

Retail Brokerage Firm

- Digitization of account opening
  - Development of apps for various platforms
  - Enabling e-KYC using central KYC database provided by Govt.
  - Digital signature provided for executing account related contracts

Fig. 1

- External sourcing of leads
  - Direct marketing
    - Digital marketing - aimed to target new and young customers
      - LinkedIn
      - Instagram
      - Facebook
  - Other channels
    - Collaborations
      - Client could collaborate with organizations offering complimentary services (UPI, FinTech players, online marketplaces, wealth advisors etc.), which could recommend client's platform for investments
    - Acquisitions
      - Client could acquire one of the new players in the same market, which would bring in their clients as well as new customers, resulting from their growth

Fig. 2

Sanitaryware Company

The client is a company that manufactures bath products and sanitary ware like faucets, commodes, basins, etc. It is the oldest manufacturer in the market. The client was once the market leader but has been losing market share since. The specific issue that they have identified is that they don't engage with the influencers- the plumbers and architects. The client wants us to design a strategy to make these influencers recommenders of the client's products. Recommend a strategy to meet this objective.

(First clarified the problem statement). I have some preliminary questions-

- Does the client have a defined target in terms of a number of plumbers or time duration?
- Are the client's products differentiated in their features, or are the products fairly commoditized?
- What distribution channels does the client currently use? How are they engaging with the plumbers and architects currently? How are the competitors handling this?
- What geography does the client operate in?

Answers to preliminary questions-

- The client aims to make 10,000 plumbers its recommenders in a duration of 6 months.
- There isn't much differentiation in terms of the products, they are commoditized. However, innovations are coming up, which have been adopted by both the client and the competition.
- The client sells its products to distributors, who further sell to other retail outlets which are showrooms for these products. The plumbers, architects, and other customers purchase from these retail outlets. The client engages with plumbers through an annual meet-and-greet. The competitors, on the other hand, are regularly engaging with plumbers and architects through pamphlets, trade shows, and word of mouth.
- The client operates pan-India.

(After taking a minute to structure my thoughts) I believe the following approach would be appropriate to meet the defined objective. (Explained the initial structure set out below). Does this strategy sound good to go ahead with?

This sounds good, but do you think this will be enough to attract plumbers? Don't you think the competitors would already be doing the same thing?

While competitors might be doing the same thing, this might be a good start for the client. However, I agree that it will not be enough, and hence I think I need to dig a little deeper. Can I take a few seconds to think about this?

Yes. However, let us focus on the loyalty program that you mentioned, for now. Could you set out what this loyalty program would entail? Also, how would you implement this loyalty program?

(Taking some time to think) This is how I think the client should go about setting up and implementing a loyalty program

I understand discounts. However, how would the plumbers monitor volume-based incentives? Some of them may not have mobile phones or computers to access apps. Some of them may not even be literate.

Plumbers can check their volume status at the retail outlet from where they purchase. Retail dealers could have access to our portal to provide this incentive.

Why would dealers be incentivized to do this? Once a plumber has joined the program, the dealer has no incentive to do this for us. Further, why are you assuming plumbers would purchase only from a particular network of retailers whom we are connected with? What about secondary sales?

That is a good point, this system may not be very practical. We need a way to control the entire process right from signing plumbers into this scheme to monitoring sales and incentives provided to them. I can think of the following 3 ways to go about this

- Dealer-site onboarding as suggested before
- Mobile app, to manage the entire process remotely
- Own outlets at specific locations which are plumber hotspots (although this might require a significant investment in infrastructure, which may not be practical)

Okay. Can you not think of any other way to manage the process remotely, that does not require smartphones?

We could probably use SMS or call-centre based services to do the same.

Okay, we can stop here. Were there any other points you wanted to bring up?

I also wanted to discuss a query resolution portal, weekly agent visits to retail outlets to interact with plumbers and architects, and regular collection of feedback.

That is fine. Thank you.

Figures in next page

Sanitaryware Company

- Connect with plumbers and architects
  - Step 1: Connect
    - Trade shows
    - Advertisements
    - Word of mouth
  - Step 2: Convince
    - Awareness about features, specially about new products
    - Ease of installation
    - Low repairs
    - Convince about customer demand
  - Step 3: Incentivize and retain
    - Direct contracting to ensure routine business
    - Improved margins
    - Loyalty program

Fig. 1

- Loyalty Program
  - Setting up a loyalty program
    - Cost benefits and discounts
    - Direct volume-based incentives
  - Communication of the program
    - Setup kiosks at all retail outlets to engage with plumbers
    - Plumber sign-on incentives to dealer
    - Multilingual promotion material

Fig. 2

Consulting Firm

You are a partner in a Consulting firm, your firm is facing issues with hiring and is incurring increased costs. Analyze and make suitable recommendations.

Asked some prelim questions initially. I started by breaking down the recruitment process into various segments as:

1. Job openings & outreach
2. Application process
3. Nature of recruitment - Lateral hiring, campus recruitment, job fairs etc
4. Selection procedure - GD, technical examinations, number of interviews, pre-processes etc
5. Onboarding process Do we have any specific issues relating to any of these segments?

I would like you to focus on the Selection procedure & Onboarding process.

Sure. With regards to the selection procedure, the following can be the issues –

1. Logistics cost In terms of booking examination centers, travel & accommodation expenses of recruitment team, etc → This might increase due to frequent rescheduling of interviews/ examinations
2. Reimbursement cost to the applicants for their travel expenses etc
3. 3rd party costs If we have involved 3rd parties for background verification etc

Concerning the onboarding process, we can look into the following aspects

1. Delay in joining of selected candidates

This can be due to the following reasons

- Poor operational efficiency of recruitment team & 3rd parties involved in background verification
- Delay in decision making
- Unavailability of documents required to be submitted

2. Complex onboarding procedure Due to a multiplicity of documents required to be submitted etc

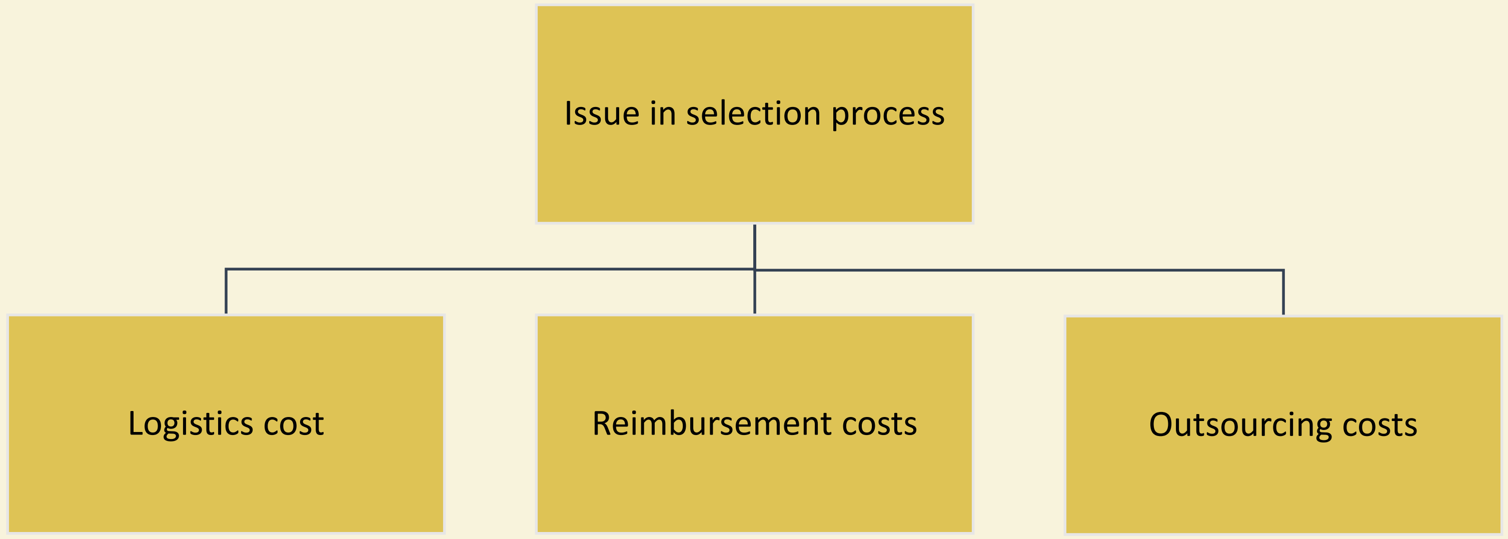
Great! The company is facing problems, primarily due to frequent rescheduling of interviews, subject to the availability of the recruitment team and delay in joining of selected candidates. Very in-depth analysis on this front. But do you think we can look into the problem concerning some more aspects?

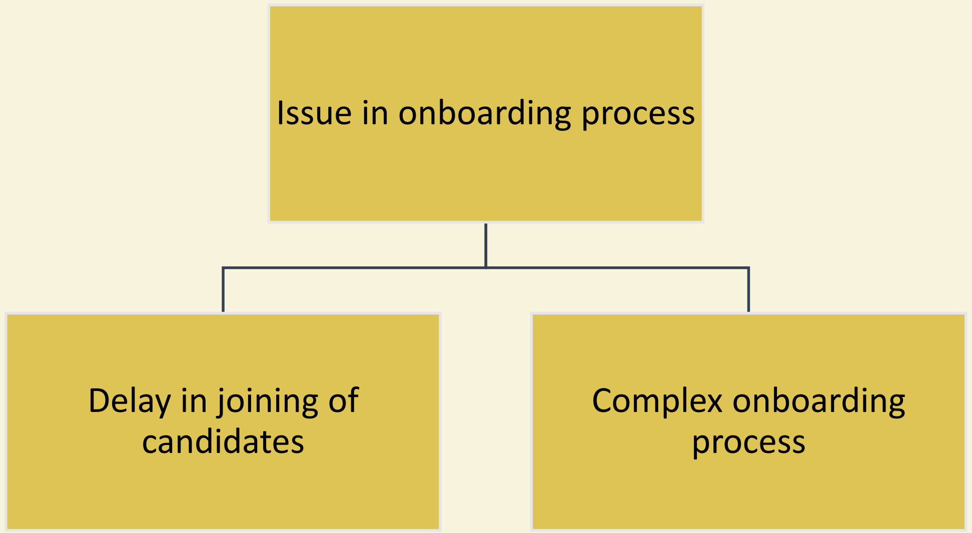
Sure. Since we have identified all the internal problems, we can look into the external problems as well. These can be:

1. Sudden increase in the number of applications received - leading to delay in the conclusion of the recruitment process & increased operational costs

2. Lack of availability of suitable candidates in terms of the skill-set required - Which might also contribute to increased hiring costs

Great, I think we have covered all the possible angles to the case. Thank you!





The Dark Knight

Your client is DC Movies. 'The Dark Knight' has just been released in 2008 and DC is wondering whether they should continue with the franchise that is continuing with the production of another movie. Also, the client wants to know the brand value of the character 'Batman' from the movie.

Reiterated the problem statement and asked for a few seconds to structure my approach. I have a few questions, to begin with. Firstly, how do you quantify the brand value of a franchise or a character, and secondly, on what basis will the client decide whether they should continue or not? I am assuming it has to do with the current profitability and future potential.

That is correct, the brand value can be quantified in terms of Revenue/Profits generated and the decision will also be based on that.

Do we have data on the production budget of the movie and its box office collection globally?

Yes. The movie production (and marketing/distribution) cost was $185mn. and the global box office collection was $1bn.

Ok so to analyze the first question, whether they should continue or not, I would investigate the financial feasibility, operational feasibility, and risks involved. In the financial part, I will try to look into the market size that can be addressed, and thereby look into projected revenues, profits, and ROI. In the operational aspect, I will delve into the value chain of producing and distributing the movie and try and see if there will be any complications or not. Finally, we can see if there are any external risks involved if the client decides to continue. (Like the global recession of 2008, decreasing the purchasing power of customers). For the brand value aspect, I would run some numbers in the financial part of my analysis to see the revenue/profits generated.

That seems fair enough. Let's start with the financial feasibility and brand value estimation. How would you approach that?

Ok so I would like to estimate the market size but before that, I would like to understand the different revenue streams that the client can monetize. Of course, the first is revenue from ticket sales in movie theatres. Secondly, revenue from license distribution for DVD sellers. Thirdly, licenses for merchandise manufacturers/sellers. Since OTTs were not prevalent in the 2008s, I am not considering it. Is there something I have missed?

Although OTTs were not popular then, there were TV channels, right? Even today we also have both in place, so there will be revenues from that as well.

Yes, sorry I missed that. So majorly four revenue streams- movie tickets, DVDs, merchandise, and TV channels. Now for the first item, the revenue is $1bn and costs are $185mn, thus generating a profit of $815 Mn. Do we have some revenue and cost numbers for the other income streams as well?

Yes, we do have those numbers. Profits from DVDs is $135mn, that from the merchandise is $25mn and from TV/OTTs is $25 Mn. This is for the year 2008.

So, adding all these up, we have a profit of $1bn for the year from this movie franchise, which seems a good number in absolute terms. However, to decide whether they should continue or not, we must evaluate alternatives as well. Like let's say they decide to go for another character movie, so what kind of revenue/profits can potentially generate?

Why don't you go ahead estimating the brand value of the character?

If we consider profits as a measure of brand value then the character stands at a current valuation of $1bn. That would be the brand value.

Would that be it? Do you invest in the stock market? How do you kind of understand the market value of a company? Do you just see the current profits that it generates?

Although I do not invest actively in the equity market, I understand that finding the true worth of a company is quite complex. We need to look into relevant financial ratios, cash flows, qualitative aspects like market sentiment, etc.

Let's just narrow on profits generated as a measure of brand value. Would you only look at the current profits?

Ok, so I think we do need to factor in potential cash flows of the future that the franchise/character will continue generating after 2008. Then we can discount these future cash flows and find out the Net present value for the character. So, do we have any numbers for the income streams stated above for the next few years after 2008?

Sitting in 2008, we do not have numbers for the future. Why don't you help us projecting the numbers?

So ideally, the numbers would decline by some factor as the recency of the movie will decrease. Although I am not sure what that factor might be.

Maybe you can look into historical trends for getting that factor. Also, the revenue from movie tickets sale will be nil for consecutive years (as the movie will not be up in theatres)

Thank you for that input. So, the first movie of the Batman Nolan franchise was Batman Begins released in 2005. So, we can look into the numbers from 2005-2008 for the different line items and project the decline factor in the revenues accordingly after factoring in the increase in popularity of the character after the second movie. Do we have numbers for 2005 and 2006?

Indeed, we do. For 2005, Profits from Movie ticket sales were $250mn, Profits from DVDs is $100mn, that from the merchandise is $15mn, and from TV/OTTs is $15 Mn. In 2006, movie ticket profit was $0, DVDs profits increased to $125mn, merchandise profits decreased to $5mn, and TV/OTTs profits increased by 10%.

So, DVD profits increased by 25%, merchandise profits declined by 67%, and TV profits increased by 10%. We can take similar trends for the years after 2008 as projected profits and apply discounted cash flow techniques to calculate the NPV of the future cash flows (profits). That will be the current brand value of the franchise/character. Should I run the numbers?

No, that would not be necessary. We can close the case here.

Find the valuation of your favorite movie character.

I would like to pick Shah Rukh Khan and do his valuation. (Made a mistake of thinking we are finding the net worth of an actor. Hence, I thought finding SRK's net worth would be the easiest here)

But didn't his character die at the end of the movie? It would be difficult to get the valuation because of that.

Oh yes, you are right. (*Realized he wanted* me to find the valuation of the movie characters instead of the real actors) How about we pick Ranbir's character from Yeh Jawaani Hai Deewani then?

Yes, that works. It was called Bunty or Bunny, right? (Said laughingly)

Yes, it was Bunny.

Now, can you tell me if you have to sell this character to someone, what would be your approach?

(*Took a 30-sec pause*) How I think of it is, there can be 2 approaches here. First, you could sell the entire rights of the character to someone in Lumpsum, here you won't have any ownership of the character anymore. Or second, you can sell the rights in pieces to different individuals for their specific requirements.

Okay, so what would be better according to you?

Before I answer that, I would like to know how well the movie did. Should I assume its performance to be the actual performance of YJHD?

Yes, we are in 2022, you know how the movie did.

Oh, so I know that the movie was a big hit and Bunny's character has a high recall even today. So, I would like to go with the second approach of selling to different people for different things.

Can you tell me where or to whom would you sell the rights of Bunny to?

(*After a 1-minute pause*) I can think of 4 places where we can sell this.'

1. The character rights of Bunny to someone who wants to create a sequel of JYHD
2. Rights for creating a spinoff TV show where Bunny's character can be used
3. Rights for using his character in a TV advertisement
4. Rights for using his character in a novel

Okay, is there some other place we can sell this?

I can think of more places where we can sell a movie character but my thoughts are getting a little restricted here since we are not talking about a superhero character like The Hulk or Spiderman

So, forget about Bunny for a minute, and imagine we are talking of a character like Harry Potter, where else do you think you can sell this?

Sure, 2 more options are coming to my mind

1. Merchandise such as toys, stationery, or clothes
2. A theme park like a Harry Potter World in London

How would you price the character? Imagine that some production house comes to you to buy the character rights of Bunny.

Do we have any numbers that I can use? I think we can use a Discounted Cash Flow Method to estimate the money the character will make over some time in the future and get its present value.

No, just take a hypothetical scenario in mind and you can make assumptions.

(*Took a 30-second pause*) Okay, so I will be taking a lot of assumptions, but here is how I would go about it. Let's take the average budget of a Hindi movie to be about Rs. 50 crores. Let's assume that ~20% of the budget will be utilized for buying rights of the story or characters, so that gives us Rs 10 crores. Since, Bunny would be a lead character in a movie, a significant budget would be used for his rights. Hence, let's say about 80% or Rs 8 crores would be the selling price for Bunny's character.

There are many assumptions here, can you list all the assumptions here for me and tell me why they are wrong? (*Smilingly*)

I assumed the budget of the movie, the budget for the rights and how much would the budget be for the character as well.

Yes, but the biggest assumption you took was that the person buying the rights will just make 1 movie with it. What if he makes a 3-part movie series? That would change your numbers here. Creativity becomes key in these kinds of problems, where all the buyers can use the rights. Someone must have first thought, let's create an entire theme park based on Harry Potter. Similarly, for Bunny.. what is his character like in the movie? He is a womanizer, what if someone thinks to create Bunny-themed restaurants and cafes across India?

Yes, that's very interesting, did not think of that.

When there are such problems, there are a lot of creative answers that one can come up with. If you and I sit together, let's say we come up with 5 things, but as soon as someone else joins, there will be 5 new things that this person would come up with. Lastly, can you tell me what is the difference between valuing a character and an actor?

(Took a 1-minute pause) There are 2 fundamental differences. Firstly, for an actor, I need the actor to be physically present for the event, movie, etc. that I purchased his time. But a character is abstract, I can use it anytime, anywhere. Secondly, there is a limit on the life of an actor. For example, the number of movies Ranbir Kapoor can do in his lifetime. Maybe 50-100? But a character can be timeless, for example, Cinderella.

Okay, let's end the discussion here.

VC Firm

Your friend is an MD at a US-based VC firm and is contemplating picking up a stake in a fire extinguisher manufacturer based in India. He wants you to evaluate the market size of fire extinguishers in India and needs advice if he should invest or not.

Thank you for the prompt. So, I believe it would be more structured if I first go about estimating the market size and then bring in additional factors such as financials, entry barriers, operational feasibility, and risks/exit strategies in the latter part of the recommendation.

Sure, go ahead!

Firstly, I would like to know the segments of the market that our target caters to.

Good question. The target caters to residential, industrial, and commercial segment customers. For our analysis, today, let's only consider the residential segment.

Sure, I will keep that in mind. What does the competitive landscape look like for the market?

So, we have four competitors each occupying an equal share of the market.

Noted. Do we have any data on the growth rate for the industry.

20% Y-o-Y.

Great! Do we have any regulations in place, maybe something along the lines of FDI norms, which can have policy implications on our investment decisions?

Nothing as such for this industry.

Perfect, just one last question as I move ahead, should I be sizing the market based on revenue or several units consumed? If by revenue, can I get the average price of a fire extinguisher that our target company sells?

Great question, the average price can be taken to be INR 3000.

Sure, thank you. Give me a moment to formulate a structure to size the residential market by revenue for fire extinguishers in India (after 30 seconds). I'll walk you through what I have thought.

Yeah, let's start.

Sure, thank you. Give me a moment to formulate a structure to size the residential market by revenue for fire extinguishers in India (after 30 seconds). Let me walk you through my approach to the same. Considering the population of India as 140 crores and an average household size of 4, we get 28 crores households in the country. Now, I would segment these households based on their income and assume a penetration factor for the adoption of fire extinguishers for each segment.

Sure, go ahead with the calculation.

Assuming 50% of households in the low-income segment with 0% penetration factor for fire extinguishers. 40% households in the middle-income segment with a penetration percentage of 50% and 10% high-income households with a penetration factor of 80%. So that gives me 5.6 crore plus 2.24 crore fire extinguishers for the middle and high-income segments respectively. The assumption lies that we have only one fire extinguisher per household.

That should be fine, what next?

So, multiplying 7.84 crore extinguishers by the price of each unit gives a total market value of INR 39,200 crores for the segment.

Umm, does this number look sound to you?

I feel that I might have slightly overestimated the penetration factors that adopt the fire extinguishers into their household, which might have inflated the number.

That could be a plausible reason. How would you tweak your approach to account for that?

I feel a good way would be to ignore the adoption of fire extinguishers by semi-kutcha households, I should also be not counting the availability of extinguishers in each household that is a part of an apartment complex. So, I could drop the current figure by a factor to account for these anomalies.

I think that's a good way to go about it for now. You can assume it to be half of what you have calculated.

Sure, thank you. So that gets me at the market size of around INR 20,000 crores.

So, you got me the current market value of fire extinguishers in residential India. What would be the revenue for the financial year?

I'd divide the current figure by the average life of a fire extinguisher to get that. I think that will work

That sounds pretty good to me! You were talking about some other factors also about which you wanted to throw light as a part of your recommendation.

Right, so now we have worked out the demand-side for our consideration, which I would ask my stakeholder if it's attractive to him or not. Moving on to the financial considerations.

Just tell me a few KPIs he should be looking at from a financial perspective.

Here, we should be looking at the RoI of the investment, the payback period, and the hurdle rate of the VC fund primarily. On the operational side of the business….

That's alright, we don't need to consider that for the sake of this case.

Got it. You mentioned there were no entry barriers for investing in this company so what I will consider next are the Risks associated and the Exit Strategy.

Continued…

What could be the possible exits that you think we can have in this case?

We can sell our stake to a VC/PE fund moving forward. If the company goes on the path of a public offering, we can have our exit there as well. It can also be possible that the promoters of the company buy out the stake from us going into the future.

That sounds good to me! Thank you.

SaaS Enterprises

As a PE firm, what are the factors you would see while investing in any SaaS enterprise? Only state qualitative factors. How you would analyze it?

Can I take a few minutes to think

Yes, sure!

I would like to analyze under 4 buckets- Market opportunity, Company, Customers, and PE firm.

1. Under market bucket I would like to analyze the size of the market, growth, trend of growth, and competitors.

2. Under company I would like to analyze the financials of the company – Revenue, EBITDA margin, Market share, and the top Management of the company.

3. Under Customers- I would like to understand the number of customers, retention period, years of the client relationship, the acquisition cost of each customer, and whether acquisition cost per customer is reducing.

4. Under PE firm- I would like to see what the PE firm's objective is in terms of Investment Horizon, Return on Investment, companies existing in their portfolio, and the expertise of PE firm if they can look after SaaS company.

Ok, let say you must select only two factors which would be very critical as per you

Two factors would be Acquisition cost and the Retention period of customers. Acquisition Cost per customer must reduce with the addition of each customer for the viability of the SaaS business. Given that SaaS is subscription-based – The retention period would be a good indicator to predict the popularity & potential of SaaS business.

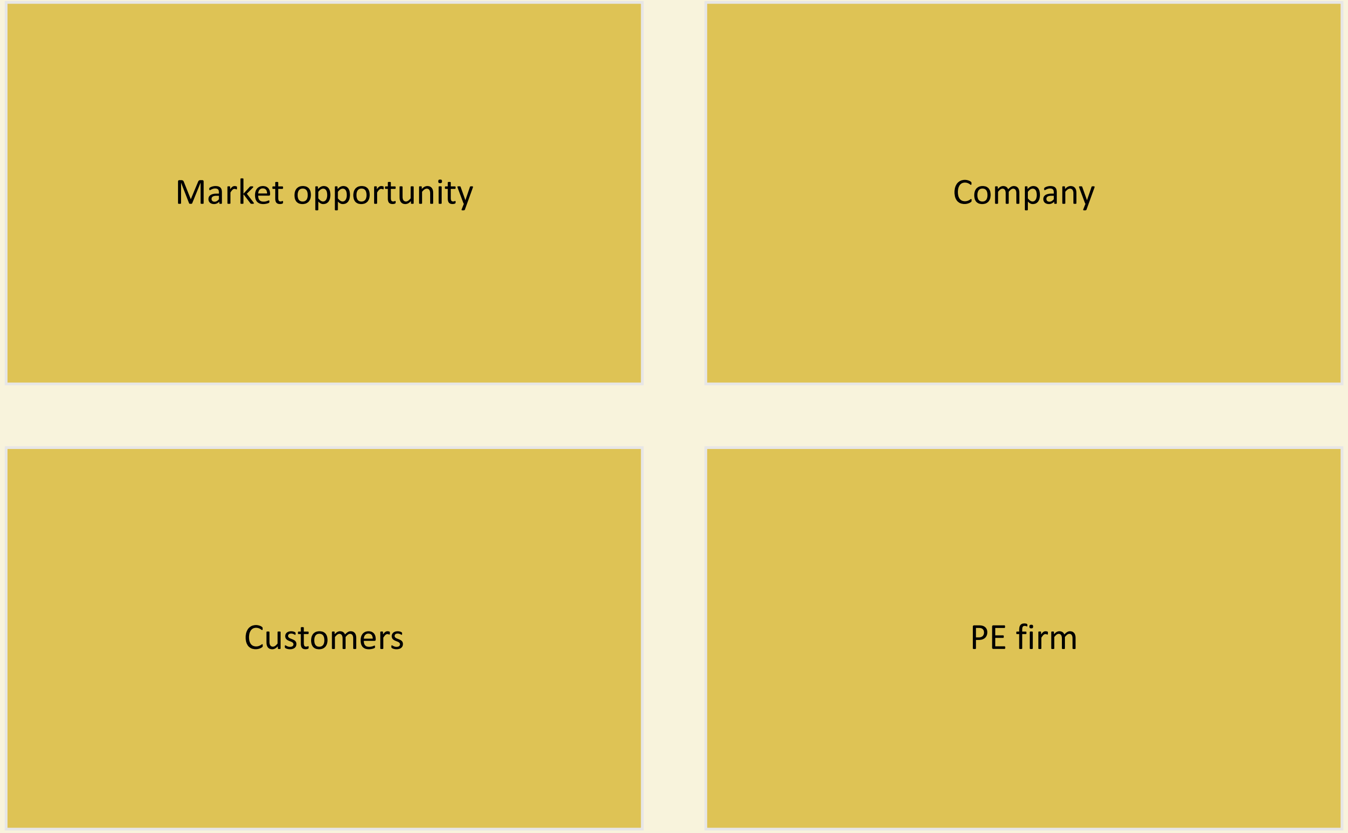
Ok, great. Let Say Entrepreneur himself says that both these factors for his SaaS business are performing well - Acquisition cost is reducing day by day and Retention is also 80%. His Business is currently 4-year-old and they have shown you 2 years of data as they do not have previous year data. How would you validate the claims of the Entrepreneur?

Ok. Understood. I would like to take a minute to think. I am thinking that we can verify it by looking into two types of data, Internal and External.

1. Under Internal- Along with the two years furnished data that the Entrepreneur has already provided, we can see the raw data like the invoices and receipts and marketing spends to verify the customer acquisition cost is reducing.

2. Under External- We can do 360-degree due diligence by talking to the stakeholders. The two kinds of stakeholders which I would like to analyze would be Clients and Competitors. We can verify the actual number of clients and talk to those clients to verify what're their actual responses and feedback towards the product. Are they willing to stay with this product? Will they help the firm with positive word of mouth and thus contribute to bringing new leads? We can look into the competitor's performance to understand the average industry performance vis-à-vis the firm.

Yes, Great. As PE firm we can verify by asking whether these numbers are possible and are achievable and the above factors will help us to verify these.



EVs in India

A leading two-wheeler manufacturer in India wants to enter the EV business. Your client is a business head and wants to present the idea to the CEO in a 2 slides presentation. What would you suggest your client add?

Thank you. I'll repeat the problem statement to be sure that we are on the same page.

That sounds right.

May I know the main purpose of the presentation, is it a pitch or funding Ask, paving the way-forward presentation, or just an informational one?

You can assume it's a sort of exploratory presentation where the business head charts out the Impact-Investment needed MAP step by step for the entire value chain of the business

Thanks. To begin the analysis – I would like to look at the value chain of our client, As per my understanding our client also does the R&D in-house, So the Value Chain becomes

RND -->Raw Material Procurement --> Manufacturing --> Distribution and After-sales Services

Yes, you are correct

Sure. I want to break down the value chain to find out impact-investment MAP. Does it sound fine.

Yes, go ahead.

Beginning with the R&D, I think since our client is operating in India, where the EV market is quite new and unconventional technology that goes inside EV, it becomes very important for our client to put great effort into the design stage to build the trust factor in customers. So R&D is having high Impact- High Investment.

That's great. Nice start, go ahead.

Coming to the raw material procurement, For the EV, the BMS (Battery management system) is the core raw material. Apart from this mostly all the other parts can be procured through an existing developed vendor network. So, this becomes a medium Impact-High Investment area since the battery is core to the EV and there are not many Indian suppliers present which adds up to the overseas import costs.

Okay, Sounds fine to me. Let's analyze the manufacturing, do you think there will be much changes in this ?

Will our client be continuing the 2-wheeler business? Will there be any volume shrink that our client has planned or will there be any demand reduction due to EV business?

The client wants to add EV to its portfolio, continuing the existing businesses as they are. Demand reduction might be a factor but not soon.

Okay, since it's an addition to the portfolio and the demand for existing products is more or less the same shortly, we will need to develop our fresh manufacturing capacity for the EV. Since the EVs are having a different design, it will be better to develop separate manufacturing lines in the same facility if possible utilizing the plant inside plant concept, Considering all these factors, this is also a High Impact-High Investment area

Interesting

Coming towards the distribution

I would like to give the information available for distribution. The client is having showrooms mostly in tier 2 cities.

For EV demand, the driving factor is the charging infrastructure. For tier 2 cities that would be a big issue. We can either go ahead and open a showroom in tier 1 cities having good charging infra or else tie up with a third party infrastructure provider to build the charging structure in those cities, Either way, It is a high investment -High Impact (Crucial to demand generation) area

That's a nice analysis. I think we have enough content for our 2 slides. Can you summarize now?

Sure. Our client wants to enter the EV Business and wants to present an exploratory Presentation to the CEO where my client charts down the impact investment matrix for the entire value, Where R&D Is a high impact-high investment area on the matrix, raw material procurement is a medium impact-high investment, manufacturing being a high investment - high impact and distribution also being high impact-high investment area.

A lot of tech companies such as Amazon, Google, etc. are looking at cloud solutions and are moving from product model to SaaS model. Seeing this, companies such as Cisco, HP, Lenovo, etc. are also evaluating the option to move from product to service/subscription model. What are some of the key challenges that they would face in this migration?

Thank you. I'll repeat the problem statement to be sure that we are on the same page. (Went on to repeat it.)

That sounds right.

Could you please help me understand a few things before we proceed further?

Sure.

Thanks. I would like to know if the companies are moving only their offerings to the cloud or if their internal functions are also being moved to the cloud.

Only their business offerings are moving to the cloud. Internal functions are not.

All right. One of the major challenges for any company considering this migration would be the infrastructure investment and development required. The cloud infrastructure would be quite different from what the company has currently. Thus, a heavy investment would be required to support this migration.

Okay. That's a fair point. What are some other challenges that the company could face?

Another possible challenge could be that employees may lack the skills needed to migrate to cloud infrastructure. The technology could be quite different from what the company is using currently and therefore, there might be a need to upskill the employees.

Alright. Can you list the different functions such a company might have?

Sure. *Thinks for 30 seconds* Some of the functions at these companies are – HR, Finance, Development team, IT & Maintenance, and Sales and I'm considering the Senior Leadership to be a different function.

Okay, fair enough. Which of these functions would be impacted by the cloud migration?

Sure. Since we know that only the business offerings are being migrated to the cloud hence, internal functions such as HR and Finance won't be affected by this migration. The development team would be impacted by this migration as they'd be required to upskill themselves. Moreover, new candidates who are more experienced in Cloud would have to be onboarded. Next, if we talk about the Sales team then, I believe it'll be impacted by the migration. The sales team is the interface between the company and its clients. Therefore, the sales team would have to be upskilled so that it can effectively communicate the company's offerings to prospective clients and customers.

Fair enough. Could you also talk about the level of impact on these functions– low / medium / high?

Sure. The internal functions – HR, Finance would have a low impact. The Development team would have a high impact. The sales team would also have a high impact. If we talk about the Leadership team then, I believe that would also require some change. Senior leaders who are SMEs in Cloud would be recruited to lead this organization-wide initiative. Therefore, the impact would be somewhere between Medium and High.

Thank you, I think I'm done.

Dashboard for the CFO

Design a Financial Health dashboard for the CFO of an Automobile company. Also, include indicators to understand the long-term and short-term aspects.

Shall I take a few seconds to note down my thoughts?

Yeah sure, let me know whenever you're ready

I'd like to divide this into three aspects-the revenues, costs, and a set of indicators.

Ok. Go ahead

Under the revenues, I will look at the various product segments that they work with and the different variants involved. I would look at how these products have been performing and also the trends for the past few years and the price/quantity values.

Ok.

Coming to the costs, I would look at the various parts of the value chain such as the components sourcing, logistics costs, warehousing cost, capacity utilization, etc, the R&D costs for any new products or technologies, and other fixed and variable costs including salaries, etc. Here we would also provide the cost trends over the past few years.

Ok.

Coming to the various indicators, I would look at long-term and short-term indicators such as liquidity ratios, solvency ratios, etc. I would provide a filter regarding the location which would change the data as per the location. We would look at our capital structure, like the debt and equity, and how our company is performing in the market in terms of value and market price. We could also add economic indicators and a news segment to display major headlines that affect our company.

Ok, it was very comprehensive. I think you've covered everything. Let's say that he looks at the ratios and finds that they have a lot of money on hand. What should they do?

For the short term, they can invest in the following-

- Additional services/repairs/replacement parts etc for existing customers
- New stores in new locations and different channels
- Work on new products and variants (more colour options, accessories, etc.)

For the long term, they can go for inorganic options (M&As)

Ok. That would be it.

Increasing Complaints

Our client is an automotive manufacturer from Europe receiving increased complaints about delivery and spare parts lately. Identify the reasons why this might be happening.

Reiterated the problem once to confirm. Also, asked what automobiles does the company manufacture?

Sounds right. The company manufactures premium cars, you can call it one of the upmarket brands, but it does not fall in the luxury category.

Okay! In what geographies does the company have its presence and is the problem about any landscape? Also, are the other players in the premium segment facing similar issues?

The company has a global presence with manufacturing facilities in Europe, but it is specific to its Indian market. No, these issues are only faced by the client right now.

Okay, let's try to understand the problem related to delivery first and then the spare parts. There might be multiple reasons for customers' dissatisfaction with the delivery. It could be due to delays in delivery like long waiting times due to overbooking or underproduction or quality issues at the time of delivery.

That's right. Our deliveries are taking 1-2 months longer than the industry average. Could you think of the possible reasons for the same?

I think that the problem might arise due to issues related to manufacturing, shipping, or customs on import/export. Let's investigate manufacturing first. Either our demand could be higher than the production capacity, or we are not able to produce to our total capacity.

Demand hasn't changed much.

Okay, so definitely, we are underproducing. Have we faced equipment failure or shortage of labour, or anything of that sort recently?

No

Do the company source automobile components like batteries, engines, tires, etc., from suppliers or produce them in-house? Are they facing a shortage of any such components lately?

That's right. Our client is facing a shortage of chipsets used in the car's electronic systems.

Okay, so that explains the reason for the delay in manufacturing. As far as I know, these chipsets are made of rare materials mined in a select few countries, which gives the suppliers higher bargaining power. The shortage could be due to instability in the region where they are mined. The client can look for other suppliers or options where government instability is low, and a steady supply of chips can be ensured. The dependency on a particular supplier must be reduced.

Makes sense.

Should I discuss issues in shipping and customs now?

Okay, but first, tell me, how do you think the cars would be shipped to India?

If it were luxury cars, perhaps shipping by air could be considered, but since high volume demand is there, they must be transported in large numbers and at less price. So, oceanic transport seems to be the most suitable option for shipping.

Correct.

So, the reasons for delay could be a lower supply of ships at the shores, or the shipping costs could be too high that make it unfeasible to transport, or some incident in the regular routes like the ever-given incident at Suez Canal, or political instability on the routes like in the port of Hormuz between Iran and Saudi Arabia. These could affect the shipping and cause delays.

Good, let's move on.

Okay, so another possible problem could be a delay in customs clearance while importing the cars from Europe to India. Have there been any recent changes in policies and regulations related to the automotive industry by the Indian government?

Yes, The government has mandated all new vehicles to conform to the BS-6 norms and strict fines would be levied on the vehicles found not conforming to it. The announcement came less than 6 months ago.

Interesting! So are the production facilities of our client equipped to produce cars as per the new norms?

Yes, they are, but the transition hasn't been smooth, and many vehicles have failed to meet the new requirements. The company has had to pay enormous fines for the same. Okay, good! This makes sense.

Now, talking about spare parts, the reason for dissatisfaction could be due to the non-availability of parts, poor customer service, or high price as compared to peers. Since you said that they have struggled to transition as per the government's new norms, likely, the employees haven't been trained to serve customers of these new vehicles. The shortage of spare parts and high prices could also be due to the same reasons. All these factors might be leading to increased complaints from customers.

Okay, I think I am good with the case.

GUESSTIMATES

Pension Investment

Your client is the Government. They are promoting investments in pension schemes, especially for youngsters facilitated through UPI. The current value is roughly 10% of GDP and they have approached us to estimate how much the value can reach at the end of the next five years

Clarified the objective and the clear definition of pension schemes that are being discussed. Can I take a minute?

Sure, no specific external factors are to be considered, estimate based on the current market situation and other relevant factors you think are important. Let me know how you'd like to proceed.

I would like to look at the potential areas of growth, by analyzing the four major buckets of the customer journey as they evaluate and invest in pension schemes – Awareness, Accessibility, Experience, and Feedback.

Sure, also keep in mind we need to quickly move on to the numbers as well.

Alright. Quickly discussed various subjective ideas in each of these buckets, which could potentially increase the investments- largely revolved around increasing internet penetration, UPI access, and financial literacy through online platforms. (Gave personal references based on my experience to make it relatable and practical)

These are some interesting ideas, can we estimate the numbers?

Solved this as a guesstimate. Starting from the population of the country is divided into urban & rural and further into income groups to estimate the number of potential members who would invest. Considered reasonable percentages for factors like internet penetration, financial literacy, and amount of investment as a proportion of their income. This gave the total value of current investment which is 10% of GDP. To evaluate the future value, relating to the qualitative points discussed, estimated reasonable percentages for an increase in the considered factors (like 1.2x/ 1.5x) to arrive at the new value of a total investment and also calculated the increase in GDP over 5 years. The final value was approximately 20%.

So we are estimating that the value can be expected to double, can you summarize the case by mentioning the main factors that were key to this increase?

Sure, the key factors would be

- increase in digital platforms for investment,
- access to the internet
- improving financial literacy
- Increase in disposable income and
- tax benefits

can be a factor that can be key in increasing investments in long-term instruments like pension schemes

Thank you, we can end it here.

Fiction Books

Estimate the market size of fiction books in India.

Sure, will take a few moments to come up with a strategy. I used the top-down approach first and tried to divide the sales segments into the following –

1. Stores like Crosswords (For the time-rich and money rich)

2. E-Commerce platforms like Amazon and Flipkart (For money rich)

3. Local stores – Stationery shops, vendors

4. Black Market (First and second copy books sold on street / local markets)

Went on to explain the approach in the same order as above.

Interesting, can you think of any other approach for this?

Sure, so what we can do is that we identify the majority user persona that reads a fiction book and then try to multiply that by a plausible frequency to come up with a number.

Great so this is a bottom-up approach. Let us go back to the first approach. You mentioned the black market, what do you mean by that? (The interviewer was sitting in his car while taking the interview)

Sir, for instance at the next red light, there will be someone knocking on your window and bringing to you the top 15-20 books that are grossing in the market. Those are mostly second copies and can be purchased at a price much lower than that of an original copy. Similar vendors can be found near major railway stations, bus stations, and local markets in cities.

This sounds interesting, why don't you neglect the other three and proceed with estimating the market size for the black-market segment?

(Started solving it out loud) So, I'll divide this into mobile and stationary points of sales. Mobile is the one that'd come to your car for sales and stationery would be the vendors that have a cart near the bus station, railway stations, and local markets.

How would you estimate the mobile part?

I would assume that the majority 80% here would include people who travel on a work day for their jobs and among those, the majority would be those who have a car. So, I'll break it down based on the working population age (22-40) and a salary parameter assuming that those with 15L+ annual salary are the ones that will be traveling with their vehicles. (I was focusing only on the majority segment here, multiple assumptions could have been used here but given the pace with which the interviewer was driving it, I was just thinking on the spot)

But I have also seen old-aged people buying books on airports, which is not getting covered here.

So that'd be covered in the first bucket of the segmentation where I talked about stores like Crosswords for Time Rich and Money Rich People. Here we would include only hard copy sales and ignore any digital sales on platforms like Kindle.

Makes sense. How would you quantify the mobile approach now?

I started with the population data for the cities (told my assumption that I'll be looking at metro cities for the example). Broke it down into the working population based on age demographic data and further broke it down into salary classes. The interviewer stopped me in between.

This looks fine, we can close this part here.

Estimate the Market size of fitness bands in India.

Sure. So, I was thinking that first I would share my approach to this problem with you and if that would be fine with you, I will go ahead with numbers. Is that okay?

Sure

(Took a minute & came up with the structure). I initially segmented the population into rural-urban, then income divide, and then age divide. I will use a penetration percentage per age group under all income levels. And then sum up to come up the demand and then multiply it by the average price of fitness bands to finally come up with the market size. Is that fine or do you want me to consider something else as well?

No, this is fine.

Okay. I will start with the numbers now. Do you want me to do the numbers with you only or should I do it first and then explain that to you?

You can do the numbers by yourself and then we can discuss.

Sure. (took may be around 3-4 min to calculate) Explained the numbers, percent divide, penetration level, etc.

Don’t you think that the penetration number for rural India you assumed is on the higher side?

I don’t think so. The major targets for fitness bands are sports persons, health-conscious people, etc. I am a national-level player. And based on whatever interactions I had with other teams (from different states) what I observed is that most of the chunk belongs to rural areas only. So I believe that this is not on the higher side. (Interviewer smiled very positively and convincingly after this)

Okay. What do you think that the number you came up with is on a low side, high side, or is fine?

I think the number is on the lower side which may be because of the penetration level that I took. I was on the conservative side which might have led it to this.

Okay, so can you think of some other approach to cross-check your answer?

Sure. (took a couple of minutes). I can’t think of any concrete approach but currently, I can think that we can try to compute the number of gym goers and sports persons to get the guesstimate.

Okay. That is fine with the case.

Estimate the market size (by number of potential customers) for the plant-based meat in India

That sounds interesting to work out. How about I walk you through an approach and then figure out the numbers to drive the estimate?

Sure, go ahead!

So, I would start by dividing the population of India into vegetarians and non-vegetarians, Assuming the population of the country is 140 crores, I would assume around 100 crore Indians consume non-vegetarian food items. This is not taking into account the frequency of the consumption by an individual. So, for estimating for a potential market purpose, I would like to go forward with a 100-40 split in favor of nonvegetarians. Does that sound good?

Your rationale sounds okay for the split, but do you think using the current eating habit will determine exhaustively the inclination to consume plant-based meat?

I agree that there will be a percentage of non-vegetarians as well as vegetarians who would consume plant-based meat, but determining those percentages will involve numerous assumptions, some of which may be unqualified.

So, you have successfully identified how your approach falls a little short of arriving at the final number easily. Let me help you with an analogy that might help you tweak your approach. I want to buy a Rolex. I like Rolex. So, there is a willingness to purchase, but it is not backed by my ability to pay for it. Hope this should help.

Thank you so much for the analogy. I'd like to use the income level of the Indian population as a segmenting variable to calculate the market size. I guess that would work sufficiently.

Perfect, go ahead.

At current price levels and industry nascency, plant-based meat is expensive and I would like to consider a price of Rs. 500/meal for 4 people. 4 people to account for the average household size estimate for the country. Assuming that a plant-based meal is consumed 10 times a month, that would indicate an expenditure of Rs. 5000/month on plant-based meat.

That sounds good to me! What next?

Yeah, so a household would consume a total of 90 meals a month. So, the total food expenditure would comprise plant-based meat expenditure for 10 meals and an average expenditure of Rs. 250/meal for the remaining 80 meals. So that would bring the total monthly food expenditure to Rs. 25000.

That sounds great. You can skip the quantitative part, I'm in a bit of hurry. Just walk me through what you would do next to arrive at the final estimate.

Sure, I would assume a certain percentage of monthly expenditure is spent on food by an average Indian household in a weighted manner for different income segments. Those households having monthly incomes which can support these figures will be the potential market. Having arrived at the number of households this way, I can also estimate market size by revenue.

That sounds pretty good to me! Thank you.

Flights in Air

Estimate the number of Flights In the air in India in a day.

Is it good to assume it to be a normal day because during special occasions Air carriers will increase the flight to meet the demand?

Yeah, It is a good assumption.

When we say flights, there are many use cases for it – Passenger Carriers, Cargo carriers, Private jets, Government Officials, military jets, and Training academies.

Good. Let’s stick only to the passenger carrier.

I will start by dividing cities into metro and non-metro. There are four metro cities with an average runway of 2 each and there are 29 states with an average of 4 nonmetro cities with airports and 1 runway in each state which gives us 120 runways approximately. The runway is the bottleneck and so we are following this method.

Aren't 4 airports in each state on average too high? Let’s take Maharashtra & check how many airports are available

Pune, Nagpur, Mumbai (covered in metro). I have read that sometimes there are around 150 -160 airports in India and that’s why I have taken an average of 4 airports.

Okay. Now, let's assume 3 airports on average in each state.

Sure. Then, we will round up to 100 airports in non-metro cities. Now, we will have divided the day into peak and non-peak hours. And we assume for take-off/ landing it takes 15 minutes on average and during peak hours, the runway will be at 100% occupancy level in metro and 75% occupancy in non-metro. During non-peak hours, 75% occupancy in metro and 50% occupancy in non-metro cities.

Sounds good. Please proceed.

Calculated the number of flights landing or taking off.

Is it the final number?

No, we have to divide this by 2 because the same flight will take off and land and so we would have calculated twice. We can split x% to be domestic flight and 1-x% as international flight so that only the domestic flight count will be divided by 2 and not the international flight.

Good. You are missing something really important in this guesstimate.

I was thinking and gave a lot of answers, but could not find it.

It was an international flight that took off and landed in other countries but flew above India. (Example)

Yeah.

We can close.

Annual Paper Demand

Estimate the number of trees shed for meeting the annual demand for paper.

Is there a target geography we have in mind?

Mumbai

Sir, I see that the problem statement has 2 parts – an estimation of the annual demand for paper in Mumbai and the number of trees shed to meet the same. The latter part is a simple conversion, we can find the number of trees shed to make one sheet and multiply it by the number of sheets required.

Are you sure that the number of sheets is the best approach?

A better approach may be tonnage. So, the equation will be the number of trees shed for making 1 ton of paper * annual demand for paper (in tons)

Yes, continue

I'd like to bucket the annual paper demand in terms of functionality. Paper is used in various forms- in schools and universities, as paperwork in corporates, as paper bags in Mumbai since there is a state ban on the use of plastics.

Sounds okay

Sir, I also have a slightly unconventional bucket which I believe would be significant. Cigarettes use paper as rolling paper and for packaging purposes. A few years back, ITC had recognized the paper as the highest cost incurred for making cigarettes and decided to invest in manufacturing their own paper. This same paper is what is scaled multi-fold and is now known to us as the brand Classmate. Shall I use this also as one of my buckets?

Hadn't thought of this, you can use it. How will you go about calculating each of these buckets?

Each bucket is a mini guesstimate. For the first bucket-> Schools and colleges- estimate the number of educational institutions in Mumbai * an average number of students per institute * an average number of books used by each student in a year * conversion factor (to tons) Does this approach look okay?

Yes, continue

For the second bucket-> Corporates - I'll consider a project-based approach and mark up the miscellaneous paper usage as 20% since every stage of the project requires very extensive paperwork, with certain wastages. So, (number of corporates in Mumbai * average number of projects taken up in a year * average requirement of paper per project * conversion factor (to tons)) * Markup. Do you want me to delve into more details?

No this looks okay, next?

For the third bucket-> Paper bags - The ban on plastic in Mumbai is very stringent. People usually need bags when they for shopping. Indians are usually price sensitive and there is an ingrained mentality to reuse bags. So, for this guesstimate, I'll only consider the paper bags given at retail stores and assume that the bags used for grocery shopping are just reused retail store bags. So the equation would be, number of retail stores in Mumbai * number of bags/order * average orders/day * 300 days * paper required for 1 bag * conversion factor (to tons)

Footfall of Food Store

Estimate the footfall of food store at IIM Indore

Are we talking about packaged food?

Yes.

Also, are we talking about weekday or weekend?

It is a Wednesday that we are talking about.

I will like to divide the day into peak and non-peak hours. Peak hour is from 5 PM to 9 PM. I will ignore the non-peak hours since all of us are busy with classes and other things, and we do not move out. Also, I will like to calculate the number of students who move out for a purpose during peak hours.

Go on.

We have different courses running here, the Majority of them are PGP & IPM. So, I will divide the student hostels into PGP1, PGP2, and IPM. PGP 1 and 2 have ~500 students each and IPM has ~300 students. PGP1 - There are 2 boys' hostels. Each hostel has 4 floors of around 35 rooms each. Since the hostel is on the lower side of the hill and the shop is far away. Also, the work pressure does not allow us to move out. We do not go out, rather we ask someone else to bring the stuff for us. So, when I look in the evening, I see only 7-8 rooms locked. So, I assume that 20% of people from each floor go out on a purpose.

PGP1 (Boys)
People from each floor = 7, No. of floors = 4, No. of hostels = 2, Total no. of PGP1 guys moving out = 56
PGP1 (Girls)
There are 33% of girls on campus. Benchmarking it with the boys, since the work pressure is same. Total no. of girls moving out = 56/2 = 28
Total PGP1 = 84
IPM
IPM hostels are also nearby PGP1. And they face similar constraints. So, I will like to benchmark it with the PGP1 since I do not have any idea about their floor plans.

Yes, Go on.

Total IPM Students moving out = (2/3) * 84 = 54.
PGP2
The PGP2 students live nearby the stores. Mostly move out for some or other purposes. I will assume that 30% of them move out.
Total PGP2 students moving out = 0.3 * 600 = 180
Total Number of students = 180 + 54 + 84 = 320

Do you think these many people visit the shop?

No, this is because there is a hospital, barber shop, Mars, and other shops there, So the crowd disperses there. So, suppose 120 people go to other shops. So, around 200 people visit the shop, and since two shops keep packaged food items. Footfall is around 100 per shop.

Okay, that looks good.

Two-wheelers in India

Calculate the number of two-wheelers sold in India in a year.

Repeated the guesstimate statement to get it clarified. Asked if it was okay.

Sounds correct.

Started with clarifying questions like new / old two-wheelers, personal or business (Zomato and other delivery), etc.

New Two Wheelers for personal use sold in a year.

I want to take the demand-side approach, starting with demographics (Age, Region, and finally income level) and then dividing the estimated number by the average life of a two-wheeler. Does this approach sound appropriate?

Yes

So, considering the population between the age of 18-60 who would frequently use two-wheelers and hence demand two-wheelers. Using the recent Covid vaccination data available we can find the population in this age group. Gave some numbers. Does this seem fair?

Yes, move ahead.

Okay so now dividing the population into urban and rural (40/60 split for convenience of calculations) and then into income levels (Low, Middle, High) (40/40/20 urban) (50/40/10 rural region). Does this number seem fair?

Yes.

Now since the poor cannot afford owning two-wheelers and rich would not want to own two wheelers, we can discount them. Focusing on the middle-income segment, we can assign proportions of how many people would want to own a two-wheeler vehicle.

Okay now?

Now dividing by the average life of a two-wheeler vehicle which from my personal experience is easily around 8 years. Arriving at a final figure, however, I think this is a bit higher than what I had in mind.

Can you tell reasons why this number would be a bit higher? You can take a few minutes to think about out it.

I feel I included second-hand vehicles as well as some vehicles which might be used for private as well as business purposes. For the hygiene check, I would like to multiply this number by a factor of 0.7 (excluding all other factors, listed the reasons for this assumption).

Yes, this seems like a better figure. Can you just enumerate some reasons why two-wheeler use is growing in India?

The convenience of parking and gender neutrality, Ease of availability of finance, Increasing traffic in metro cities etc.

Okay I think we can close the case now.

Masks used in Delhi

Please size the number of masks used in Delhi between the months of October 2019 and September 2020.

Clarified the problem statement. First, I can see that this would be divided into two periods. COVID hit India around March-April.

Right so let's divide it into 6-month periods of non-COVID and COVID.

Let me attempt the non-COVID period first. Let me start with the population of Delhi, I am assuming that is around 1 crore. Does that sound fair?

The correct population is around 2 crore but let's go ahead with 1 crore for this calculation.

Alright, so you're taking all of NCR, either way, I can double the number at the end if I need. Let me take a minute to structure my approach. (Takes 1 min) Right, so we can divide the mask utilization into domestic and commercial. Let me size the commercial side first. Commercial will be hospitals and industrial. Since Delhi is not famous for any major chemical manufacturing or hazardous work like tanneries or steel plants, I shall assume only hospitals to be the commercial requirement. Does that sound reasonable?

Yes, please go ahead.

Great, so Delhi is a large city, around 1,500 square km. I will divide that into localities of X square km to give me Y localities. I will assume every locality is serviced by one hospital with an average bed size of Z. Given this I would like to assume there are Several doctors per hospital and B number of nurses and ward staff, etc. For simplicity, I will assume that every one of them uses 1 mask per day on average. Now, that I have my per-day requirement, I need it to be for 180 (6x30) days. (Calculates) Here, is my final number for the commercial side.

This seems okay, now how would you like to proceed?

On the domestic side, we'll need to include a small population segment who is using it for respiratory disorders and another small segment like bikers who use it for basic protection or aesthetic reasons. (Takes percentage ratio assumptions of the population for each segment) Further, I would assume that the bikers use cloth masks, which should easily last an entire 6 months, and the health patients would use N96 masks. The health patients I assume will need 1 mask per week. Alright so domestic and commercial together gets me to this number.

Alright, this is a very small number, don't you think we can ignore this?

That's true, but I wasn't sure about the size prior, so I went ahead and calculated it.

That's alright, never hurts to be extensive. Is there any segment you are missing out on? (hints me towards saying its Delhi specific, finally I am unable to reach the idea) Its people wearing masks to avoid pollution. Would you like to consider that too?

Right, Delhi is famous for its smog levels. I don't see the point of considering it. The number of people who will be using masks will be small and restricted to the richer segments, most other people will either not use a mask at all, or fashion a handkerchief as a mask. The number will be insignificant compared to the commercial demand.

Right, that makes sense. Please go ahead with the COVID period.

Right, let me sip water. Great so the method I'll take is similar to adding together the commercial and domestic requirements. Let me get into the commercial side first. A large part of this period was a very rigid lockdown so industrial activity was anyways shut. Things opened towards the second half of this period, and the second wave also hit us which was very intense. This makes me think. Would you like me to further divide this period into two, three months periods?

Go ahead with assuming common assumptions for both periods. You can take figures that will average out effects.

Alright then, so the number of hospitals that were there before will remain. There was some capacity addition, but I'll ignore that and after this take a sub-segment of new hospitals and Covid care centers added by the government. (Asks for her approval and gets it) Alright so the number of doctors won't change suddenly but they might have had to change masks every 6 hours and doctors worked longer shifts, I'll assume 12 hours each. That brings me to 2 masks per doctor. The nurse's capacity was expanded, and I will assume to 1.25X, further the number of masks used by them will be the same as those by doctors. Furthermore, the government expanded beds with temporary facilities and covid care centers. I will assume 100 such facilities were set up with 100 beds per facility. Does that sound reasonable? (Nods in approval) In that case, I will have another X number of doctors and Y number of nurses. That brings me to N number of masks used for medical purposes. Now let me get to the domestic side. With a population of 1 crore. 10% are from the richer segment who shall buy branded cloth masks. One of these masks shall easily last for the entire 6 months period. These shall be 10L masks. Another 10-20% of the population will not wear masks at all. Let me assume 20% for a city-like Delhi, I would have taken lesser for a city like Chennai or Kochi with higher education levels. Does that sound fair? That leaves me with 70% of the population. I will assume that every mask will last 1 day (as it is a single-use disposable and then I have it for 180 days).

Does that sound like a fair number to you?

No, this seems like a very large number, and I don't think this much demand could be satisfied. This number I have calculated assumes perfect demand.

What changes would you like to do?

I think the medical side is fine, what I would like to change is the number of days a mask is used and the number of days a mask is needed. Even though every mask is disposable, I believe people stretch each mask for 2-3 days. Secondly, masks will not be needed for all 180 days. There was a strict lockdown for most of the days. Let me take that down to 25 assuming 1 will be needed per week.

That sounds like better numbers. What is the final reasonable number you would suggest for Delhi?

Around 25-30 crore masks.

That sounds reasonable. Thank you!

Estimate the market size of online fantasy gaming players of football in India for the first 2 years of entering in Indian Market.

The factors I would consider are - Smartphone penetration in India, Income available for Investing/Spending in the application, Time available, Legality/Barriers from the Government, People's general interest in sports and particularly in football, Awareness of online fantasy sports, Competitors…

Ok, could you now estimate the market size for the first 2 years?

Sure, I would divide India's population broadly in two segments – Tier 1 (30%) & Tier 2/3 cities (70%). I will first estimate the market size for Tier-1 cities and then extrapolate the number obtained to Tier 2/3 cities. Would that be alright?

Sure, Go ahead

Now for Tier 1 cities, I would assume 80% of the population would be equipped with smartphones. I would further segment the population age-wise. I will divide the Tier-1 population (who own smartphones) into four age groups – 0-18, 18-30, 30-50, and finally 50-70 age. Now, for each age group – I will list factors to arrive at a realistic percentage of actual people interested in online football fantasy sports. I will allocate a percentage to each factor for each age group (I made a matrix that has the factors listed in rows and the age groups in columns – and populated % in the matrix). The factors I will consider for each age group would be - people interested in sports, people interested in football, people aware of fantasy sports, income factors, and time availability. Now, I will neglect the age group of 0-18 years, as my understanding of Fantasy Sports Apps is that they require users to make payments to participate in tournaments. Since they do not earn and may end up spending too much, they are not allowed to participate. Does this approach seem fine? If it does, I shall start assigning numbers to each segment.

Sure, this seems quite exhaustive, can you give me a final number now?

Yes, I will now assign percentages for each segment and arrive at a final number of Tier 1. (Performed all calculations) – arrived at 3 million for Tier 1 (2 million for 18-30 and 1 million for 30-50). Now to extrapolate the number to Tier 2/3 cities, the percentage age for various factors for each age group will differ. The income availability would reduce & time availability increase. I would take 70% of the Tier-1 estimate, therefore 2.1 million for Tier-2. The total market size for online fantasy football sports would be 5.1 million.

Sounds good, can you tell me how would you convince real football fans, who love playing football, to start using the online fantasy football app?

We can convince real football fans in the following ways:

- The online fantasy football app follows real-world tournaments. Hence, they would get a chance to form their teams to display their skills in the game. The app follows all major leagues and tournaments
- A medium to connect and compete with friends and create an online community

Great, I think we are mostly done with the interview.

Cash withdrawal from ATM

Estimate the total amount of cash withdrawn from ATMs in Bhubaneswar in a year.

Repeated the guesstimate statement to get it clarified. Asked if it was okay.

Sounds correct.

Asked him if it is okay to take the supply-side approach to the problem. He asked me to elaborate on what I meant. I explained that considering the supply side meant estimating the average amount of cash withdrawn from a single ATM by considering the cycle time of cash withdrawal per person as the bottleneck process time.

Okay do that!

Considered the average cycle time is 5 mins per person, thus 12 withdrawals per hour in an ATM during full occupancy. Asked him if the ATM is open 24*7.

Yes!

Ok. Let’s take 8 hours as peak hours and 16 hours as non-peak hours.

How can you classify 8 hours as peak hours? And what do you mean by peak and non-peak?

Told him that we can consider morning 7-10 am and then evening 5-10 pm as peak hours which operate at full occupancy. The other hours are considered to be non-peak for which we can take an average of 30% occupancy.

Okay go on!

Asked him if we could consider the average cash withdrawal per person as ₹ 1000.

Can you arrive at a number for average withdrawal by thinking about a few factors?

Okay. Considered the income levels of people who use the ATM. Excluded super-rich and low-income groups and arrived at a weighted average of around 1300 for medium and rich-income groups. Thus, roughly ₹ 15,000 per hour during full occupancy and ₹ 5,000 during other hours. Arrived at the number for a day. Considered a downtime of 10% in a year to arrive at the amount for a year.

Would the amount of cash withdrawn be the same across all days in a year, for example, during festive periods?

Told him that I have taken it similarly for the sake of simplicity. But of course, it would change during festivals in two ways: peak hour time would increase, and the average withdrawal amount would rise too.

Okay. So now how do you arrive at the total cash withdrawn in the whole city?

Started with the total population of the town, and considered 1 ATM per 200 people which gave us the number of ATMs in the town (did a calculation mistake), and multiplied the amount per ATM

Okay. Thank you.

Estimate the number of iPhone users in India right now.

Thank you. I would like to reiterate the problem statement to ensure that we are on the same page. You want me to estimate the total number of people using iPhones in India at the moment. Is that correct?

Yes, that is correct.

Okay, let me start by segmenting the population of India based on whether they belong to the rural or urban sections of the country. To do this I'm taking the population of India to be around 140 crores out of which I'm assuming that 60% of the total population belongs to the rural sector and the remaining 40% belongs to the urban sector. Can I go ahead with these numbers?

Your assumptions sound good but we are more interested in understanding your thought process and the way you are structuring your solution. So, you can always round off the numbers involved which will make your calculations simpler and your life easier. For instance, you can even consider the population of India to be 100 crores instead of 140 crores as suggested earlier.

Alright. Now I am assuming the population of India to be 100 crores and using the assumptions stated earlier, 60 crores will belong to the rural sector and 40 crores will belong to the urban sector. Further, I would like to segment the population based on their income criteria into 3 categories: Rich, Middle class, and Poor. Is that okay?

Yes, that sounds okay.

Okay, so now I'm assuming that out of the 60 crores comprising the rural population, 10% belong to the rich segment, 30% belong to the middle class and the remaining 60% belong to the poor segment of the society. Similarly, we can break down the 40 crores comprising the urban population into 20% rich, 40% middle class, and 40% poor people. Can I proceed with these assumptions?

Yes, you can carry on with these assumptions.

For the rural segments, we get 6 crores for the rich class, 18 crores for the middle class and the remaining 36 crores for the poorer sections. If we calculate for the urban segments, we arrive at 8 crores for the rich, 16 crores for the middle class, and 16 crores for the poor. Among the rural segments, I'm assuming that only the richer sections of the population will be able to afford an iPhone, and among the urban segments, I'm assuming that the rich and roughly half of the middle class population will be able to afford an iPhone. Can I go ahead with these assumptions?

Yes, these assumptions are fair enough. Please proceed with your analysis.

This implies that 6 crores (rich) from the rural segment and 8+8 (rich + middle class) that is 16 crores from the urban segment would be able to buy an iPhone. This sums up to 22 crore potential buyers. But not every member of this stratum needs to prefer an iPhone. Instead, they may opt for other smartphone brands. Let us assume that only 40% of the 22 crore population use an iPhone and the rest go for the other brands in the market. This means that there are about 8.8 crore iPhone users currently in India. Is this estimate good enough?

Yes, this will suffice. Thanks.

Planes in the Sky

Estimate the number of planes in the sky at any moment

To reiterate the case, I need to estimate the number of planes in the sky at the moment

Yes

Understood, let me start by setting some assumptions. We would have commercial passenger planes, commercial cargo planes and non-commercial planes, for the sake of this discussion, we can ignore the non- commercial planes. Moreover, I shall further divide the approach based on domestic and international planes. Does that sound like a fair approach?

Sounds good so far.

Right. So, in this problem I can use a concept I learnt in operations management, called little's law. Essentially, I can consider take-offs and landing frequency as the cycle time, the duration the plane spends in the air as the MLT and therefore the work in progress will be equal to the number of flights in the air.

Yes, that is the right approach and exactly what I wanted to hear, proceed with your assumptions

Ok, so I shall start with the domestic commercial passenger flights. We can assume that we have 36 domestic airports in India and for the sake of simplicity, I can assume that the average take-off time is 15 mins. This is only a simplifying assumption as in reality; the frequency would vary based on the airport and the time of the day. Is this assumption, ok?

Yes, that works.

Alright, let us further assume that the avg. duration of a domestic flight is 3 hrs. Therefore, in my calculations, the number of flights in the air = number of airports * (avg. time in the air/Take-off frequency)/2

Why are you dividing it by 2, that is not clear

Oh my bad, I was adjusting for the take-off and landing, however that won't be necessary given that it is already factored in.

Yes, exactly.

So essentially, my estimate would be around 432 planes for domestic commercial planes. This seems on the higher end, should I adjust my assumptions?

That won't be necessary. Do you want to proceed and do the same calculations for the cargo and international flights?

Took a MECE approach. Tried to dive into each and every bucket. Gave all possible areas of improvement.

Ok. That's all

Uber Driver

Estimate the monthly earnings of an Uber driver in Mumbai

For the revenues, should I only consider the amount received through Uber?

What other revenues could he have?

Sometimes when I have a flight late at night or early morning, I contact a driver that I personally know instead of Uber as I am unsure of availability and sometimes due to safety concerns. So, any other rides that he receives from known customers.

Let's only consider the revenue from Uber.

Should I be assuming that the driver owns the vehicle? (Also mentioned the possibility of renting a vehicle and whether he has taken a loan for the vehicle)

Yes, he owns the vehicle and there is no loan on him.

I would like to divide this into three parts. First, I'll look at the revenue generated in a day and the costs involved. Then I will calculate the monthly earnings based on the number of working days.

Looks good.

I am assuming that the driver works for 12 hrs a day, of which I'll remove 2 hours for lunch and breaks. A ride on average would last for 30 minutes, so the rider would have 20 rides in a day.

Ok.

Calculated total revenue in a day by assuming the average price for a 30 min ride based on my experience and mentioned the same. (I quickly calculated using two different prices for a ride to see which one was giving a realistic figure for salary and mentioned that while speaking)

Don't you think that there would be higher demand during some time of the day?

Yes, I will consider that two hours of the day - one hour during the morning office hours and one hour in the evening when everyone's getting back after work, would be busy. I would consider surge pricing of 20% for those two hours.

Ok

Now I would like to look at the costs. Here I listed down and mentioned the costs - commission to uber, fuel based on average trip length and mileage (wasn't sure of the mileage so confirmed with the interviewer), the car is owned so no rent, monthly maintenance, no fines paid assuming that he is a good driver. Calculated the monthly earnings from the daily earnings by assuming that the person works 25 days a month. Came up with a figure of 70,000 INR.

This seems a bit high. But we can end here.

EV charging stations

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Estimate the number of EV charging stations in Maharashtra in 2030

I'll reiterate the problem statement. (told the problem statement)

Yeah. That's correct.

I'll follow a 5-step approach to calculate the answer. Firstly, I'll discuss the scope of the problem. In the 2nd step, I'll define the approach that I'm going to follow. Next, I'll apply some filters or variables which are important to our problem. In the 4th step, I'll state my assumptions and assign values to these variables & finally, I'll do numerical calculations to get the final answer.

Okay. That sounds good. Go ahead.

Okay. So, for this guesstimate, I'm going to consider both individual and commercial EVs which are sold in Maharashtra. Also, I'll consider only 4-wheeler cars. And for the approach, I'm going to follow a hybrid approach wherein I'll combine both demand and supply-side approaches.

Exactly how are you planning to go about it?

I'll calculate the number of EVs in Maharashtra by 2030 and then state the assumption that there will be 1 EV charging station within the span of say 10 or 100 sq. Km (depending on the no. of EVs that need to be charged) there will be 1 EV charging station, I'll calculate no. of EV charging stations. I'll make use of Maharashtra's geographical area for this.

That's a good approach. Go ahead.

Okay. To calculate the number of personal EVs I think important factors are the number of households, rural and urban households, affordability, accessibility of both EVs and after-sales services, know-how about the usage of EV & governmental push. Do you want me to consider any other factor?

No. You have covered the factors.

Okay. As per my understanding, Maharashtra's population is above 100 million. For the sake of simple calculations, I'll use 100 million. Also, I'm going to apply a 70/30 rural-urban breakup in our case similar to a nationwide breakup. Also, I'm assuming avg. household size to be 4 for both rural and urban segments. Is it fine?

Yeah. Sounds good.

Next, I'm dividing the population into 3 segments based on their income levels- Poor and BPL, middle-income group, and upper-middle & rich group. (Gave percentage breakup for these groups for rural and urban segments. Calculated the absolute figures as well). Now, let's assume the average price of an EV to be Rs. 15 lakhs. Based on this now I'll calculate how many households can afford an EV. (Gave separate % breakup for income groups in both rural and urban segments) I think we can consider only the upper-middle and rich segments from both urban and rural segments. (Explained why to exclude other income groups). Shall I move ahead with these assumptions?

Sounds reasonable. Go ahead.

(Explained my thought process about the filters of accessibility, technological know-how & government interference, and push to further narrow down the number. Finally reached the number of 7500) Now, as we are calculating for the year 2030 we need to consider the annual growth rate of EVs as well.

So, are you saying there are 7500 EVs sold to date or 7500 EVs sold in 1 year?

(Got confused for a bit. But took a few seconds to think about it) Currently, EV penetration is negligible even in a developed state like Maharashtra. There are multiple reasons like lack of infrastructure and accessibility. But our government is encouraging EV usage through schemes like FAME, and NEMPP2020 which are currently way behind their targets. So we can assume the penetration of a total of 7500 Evs in Maharashtra by the year 2025 & then move ahead with a CAGR of 10 or 20% to calculate no. of EVs by 2030.

Okay. I'll give you some information. Indian Govt. is aiming to have EV sales accounting for 30% of total passenger vehicles.

Okay. The target is to have 30% of EVs among total annual vehicle sales or 30% of EVs amongst total vehicles on road?

It's the 1st one. EV sales contributing to 30% of annual private vehicles sales.

Okay. So, shall I assume CAGR of 30% then?

I agree. So, you are saying that would not affect the second component of the equation. What about the third component?

I have assumed monthly value of customer and multiplying it by 24 months to get customer value in two years.

PRACTICE PROBLEMS

Problems for Practice

1	A US conglomerate wants to acquire a team in the English Premier League because it sounds cool to them. Should they go ahead or not?
2	Your client is a yarn manufacturer in India. The industry is growing at 45%, but the client has grown only by 10%. It wants you to analyze why and give recommendations
3	Formulate a release strategy for a new big-budget movie by a leading Bollywood studio.
4	So should our client, a VC invest in the largest fire extinguisher player in India?
5	Your client is a foreign bank who wants to enter the credit card industry in India. Help them understand the market and devise a GTM strategy
6	A well-established processed food company in the US is willing to start its operations in India. Help them in setting up the Manufacturing plants and warehouse network planning
7	Your client is a Space Research Organization. The Government of the country has mandated it to generate its revenues and they are seeking your help in exploring the ways in which it can do it
8	Your client is an Indian Steel Company that has excess cash with them. They want your input on how to make the best use of it
9	Our client is a telecom equipment manufacturer, and it wants to improve its ROCE. Provide suggestions.
10	There are 2 warehouse companies, one in Automobiles and the other in E-Commerce with a presence all over India. Should the two companies merge or not? What are the synergies?
11	Our client is a petrol engine manufacturing company and wants to start manufacturing diesel engines. They have funds for it but lack skilled labor. Suggest some solutions
12	A PE firm is looking to acquire the South India wing of an FMCG company. What are some IT-related factors that the firm should be looking at before making the decision?
13	Our client is a CPG manufacturer firm in the USA. Their employees travel regularly, and the firm hired you to give a strategy to reduce the cost of traveling for employees.
14	You have to develop a mobile application for medicine delivery, what all costs do you think you will have? What are the investments you need to make? How will you ensure the success of the mobile app?
15	Your client has hired you to ensure equitable vaccine access to developing countries. How would you make sure it happens, focusing on the poorest African countries?
16	Your client is a small insurance provider firm. They have heard a lot of uses of data analytics. They want to incorporate data analytics into their value chain but are unsure whether they should build the capability in-house or outsource it. What would be your recommendations?
17	Our client is a Retail Giant similar to Reliance Trends. They face a decline in loyalty card members. Diagnose and suggest ways to increase membership.
18	Estimate the number of badminton courts in Pune.
19	Estimate the market size of Agri-chemical products (e.g. Fertilizers and pesticides) in India.
20	Estimate the number of Debit Card/Credit Card holders in India.
21	Estimate the market size for mid-ranged wireless headsets like Air pod.
22	Estimate the Market Size of baby diapers in India.

Problems for Practice

23	The client is a company engaged in the IT service sector, which leases skilled IT staff to other companies for projects. The client is facing margin pressure, earning lower margins than the competitors. The client earns fees on an hourly basis for the outsourced staff. We have been engaged to figure out how to bring their margins up.
24	Your client is a fashion retailer, facing declining revenues. Can you help us identify why and recommend solutions? Also, think about how you will measure the success of those solutions.
25	A huge conglomerate in Mumbai hired an internal consultant to produce a new idea in the Transport industry. He came up with the idea of building a Hovercraft business. Would this business be viable?
26	Your client is a label manufacturer. They’ve come up with a new product and want to decide which market they should enter first.
27	Estimate the market size (by number of potential customers) for the plant-based meat in India .
28	Estimate the market size of fiction books in India.
29	Estimate the Market size of fitness bands in India.
30	A new OTT platform wants to enter the Indian market. What factors will you consider for making a recommendation?
31	Estimate the Customer Lifetime Value of any Fitness Center.
32	Estimate the daily revenue for a Starbucks outlet in New Delhi.
33	FMCG company based out of Mumbai is facing decline in profit since last 2 years.
34	A mobile manufacturing firm is facing a decline in profitability in last 6 months. Identify the reasons.
35	Your client is a low-cost airline and wants to decrease their operational costs of serving meals on flights. The food is currently made by a 3rd party and is transported to the Airplane by us. Devise a strategy for the same.
36	How can restaurant chains like McDonald’s and Burger King reduce cost in the COVID scenario?
37	Our client is an automobile component manufacturing company and its profits have declined. Identify the reason.
38	XYZ is a Telecom company is the USA. They are planning to move their customer care center to Asia to take advantage of lower costs there. What are the factors they need to consider for selecting a specific company?
39	Reliance wants to enter into the fertilizer manufacturing space in India and they have approached you to evaluate the business opportunity and recommend a plan of action. How would you do it?
40	Find out the number of pizzas sold in India in a day.
41	Our client operates a retail store and its sales per area of space have been significantly less compared to competitors.
42	Total No. of subscriptions of Big Basket Mobile App in India in a span of 5 years.
43	Estimate the monthly revenue of a Starbucks if it opens in IIM Indore food court.
44	Estimate the annual consumption of Bandages in India.

Problems for Practice

45	The client is a steel company and is facing a decline in profits. They have approached you to help identify the issue.
46	The client is an Indian pharmaceutical company and has developed a new eye drops that solves eye related issues. You are asked to help price the product.
47	An entrepreneurial venture helps unemployed women cook home-made food and deliver to students and working professionals throughout Chandigarh. Devise a growth strategy for the venture in Delhi.
48	Estimate the market size for the Pink cricket ball.
49	Your client is in Personal Care. They sell through digital channels. Now they want your help in evaluating whether they should enter into the color cosmetic category, specifically nail paints, or not.
50	There is a company that plans to enter green energy production. As a consultant guide them to start with the initial factors you would consider before entering this business.?
51	So should our client, a VC invest in the largest fire extinguisher player of India?
52	There is a big tech services player like WIPRO, which has 20 offices in India and wants to open 50 more, where should he do that?
53	It is early 2010s. Your client, a telco provider providing data & calling plans. They want to increase data consumption in terms of MBs for their average customer.
54	We are the market leader in organized retail in East India. Our market share has reduced by 12% in the last 2 years. How to reclaim lost market share?
55	My daughter has started selling cupcakes in our apartment. Can you help her increase the revenue and please ensure that the client (which in this case, a 10 yrs. old girl) can understand your recommendations? So, you can consider necessary assumptions also
56	Your client is an automotive manufacturer. They are looking to enhance the spare parts revenue. Help them go about it
57	A sports retail chain in the US has been witnessing a decline in its market share. What parameters would you consider to solve the case?
58	Your client is a Pharma company, manufacturing generic medicines. They wish to increase their Asset Turnover ratio. There is no scope for any further questions. You can directly move on to analyze the problem statement.
59	You are the manager of a mattress company EZ Rest and advertise via a mailing service provider. There are two options- 1) Premium mailing which is more of a precision mail with a 100% delivery rate but the cost is 1.2 times the regular mail and 2) Regular mail which is more basic with a 90% delivery rate costing Rs 3/piece. Your customers can't differentiate between the two types of mail and there is a 5% chance that they respond for which you receive a profit of Rs 200/ response.
60	Estimate the monthly ticket sales from Nagpur to Mumbai of bus.
61	Client is a global financial services company who wants to launch an app in the Indian market for digital distribution of mutual funds which will work on similar lines of Zerodha, Groww and you need to find out what is the actual number of customers who will be willing to get onboarded on such a platform.
62	Your client is Fruit Ninja, they produce juices that have zero added sugar in them. They own a temperature-controlled warehouse that is within 5km of the processing facility. The warehouse has a 55% average annual utilization. A similar large-scale warehouse can be rented in the district. What factors would you consider to decide owning or leasing?
63	Your client is an investment bank. They have global operations, a diversified portfolio, and offer other financial services as well. They are planning to have an aggregate cost-cutting initiative. The CIO wants to reduce IT operations expenses by 10-20% in the next 2-3 years. You are a product manager and the CIO wants to know your input on how this can be done. What are the key parameters you will consider also suggest various initiatives that can be taken to achieve this.

ADDITIONAL RESOURCES

Useful Links

Industry reports	
Indian Brand Equity Foundation (IBEF)	CRISIL Research
Link	Link
CMIE	MarketLine Industry Reports
Link	Link

Case interview preparation resources	
Case in point -11th Ed.	Case Interview Marathon Workshop
Link	Link
Market-sizing & Guesstimate Questions: How to Nail Them!	Case Interview playlist- Victor Cheng
Link	Link

List of Industries				
List of Industries	• Oil and gas • Iron and steel • Cement • Pharmaceuticals	• Logistics • Airlines • Retail • E-commerce	• Banking and financial services • Telecommunication • IT/ITES • FMCG • Media and Entertainment	• Tourism • Healthcare • Automotive • Power • Education

Useful Terminologies

Customer Lifetime Value: It measures the total worth of business that is generated from a single customer for its entire relationship with the customer.

CLV = Customer Avg Purchase Value * Avg frequency purchase * Avg customer lifetime

Customer Acquisition Cost (CAC): It measures how much an organization spends on acquiring new customers

A/B testing: A method of testing two versions of content.

Affiliate marketing: A strategy to reward people outside the organization for bringing new customers.

Impression: It is a measure of number of views on a digital content like ads, posts.

Return on investment: It measures the amount of profit that is generated on the investment made.

Breakeven point: It is the point which measures the number of quantity that needs to be sold in order to met the cost linked to that product. It is the point at which total revenue and total costs are equal.

Bottleneck: It is a point of congestion in the operation process that stops or slows down the process.

Cycle Time: Time taken to finish a specific task from start to finish, Average time taken to finish a single unit.

Lead Time: Time taken to fulfil the order, i.e., From the time order placed till time that has been delivered.

Takt Time: Time taken between beginnings of two successive units, Useful to determine how much time to dedicate after each unit to meet targets in given time.

EOQ: Economic Order Quantity, quantity of goods that needs to be ordered to minimize logistics & inventory costs.

This casebook is compiled and designed by the members of Consulting Club, IIM Indore. Feel free to drop in your inputs to make the initiative beneficial for all stakeholders.

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Thank You

and wish you

All the Best