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The Consulting Club
Faculty of Management Studies
University of Delhi

**Consulting Case Book
2020-21**

Foreword

This casebook documents the interview experiences of students across consulting firms to assist the students of FMS Delhi in their preparation for case interviews during placements. The aim of sharing these experiences is to inform students about the case interview experiences of past batches and to help them prepare for their placements accordingly. The experiences listed below are not necessarily the best way to handle case interviews. They only serve to give students an idea as to what to expect when they walk into a case interview. Every individual could have his / her unique way of tackling consulting interviews, each of which could be correct. This document has contributions from students who appeared for campus interviews conducted by consulting firms during the summer placement process over the past three years.

Casebook from the Consulting Club, FMS
Issue 2 – September 2020
Issue 1 – August 2019

Acknowledgement

We are grateful to all the people that have helped by sharing their cases and interview experiences, that has enabled us to put together a comprehensive preparation resource for the future batches.

We would like to thank senior team of consulting club 20-21 for leading the Case Book initiative and putting together this edition of the FMS Case Book. We would also like to acknowledge the efforts of the entire batch of 2018-20 and 2019-21 for the help the Club put together this case book. They have ensured breadth, and depth in the cases to give the reader a comprehensive view of the kind of cases they may be administered.

We are also grateful to the alumni of the Consulting Club, FMS Delhi for their feedback on the cases which has helped us further enhance the overall quality of the book. We would also like to extend a special acknowledgement to the contributors of the previous editions of the FMS Case Book.

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From the Desk of President

It gives me and the entire team of Consulting Club great pleasure to introduce the official FMS consulting casebook of the academic year 2020-21.

We strongly believe this casebook will be instrumental in not only aiding your preparation for consulting case interviews but also provide an approach for developing an analytical mindset and the universal applicability of the casebook will help individuals formulate and implement strategy in their professional functions.

This edition is updated with detailed sector overviews, cases from most recent interview processes and various other tools that will ensure an all round prep. All you need to do now is follow the book in the prescribed manner to reap its benefits.

We hope this casebook helps you realize not only your dream job in consulting but rather helps you build a long and successful career in the domain of management consulting. Good Luck!

Enjoy the process of preparation and let's crack the case!

Tushar Singhal

Contents

Item	Page No.	Item	Page No.
Part A – Basics about Consulting	1-4	• <u>Basic of Finance</u>	17
• <u>What is consulting</u>	2		
• <u>Roles in a Consulting Firm</u>	3	Part C – Basics of Guesstimates & Case Solving	18-29
• <u>How to get into consulting</u>	4	• <u>MECE Segmentation</u>	19-20
Part B – Basics Concepts	5-17	• <u>Pareto Principle</u>	21
• <u>3C's</u>	6	• <u>Basics of Guesstimates</u>	22-24
• <u>4P's and 7P's</u>	7	• <u>Basic of P2P Case Solving</u>	25-29
• <u>Porter's 5 Forces</u>	8		
• <u>BCG Matrix</u>	9	Part D-Basic Frameworks	30-36
• <u>Value Chain/Process Mapping</u>	10-11	• <u>Market Entry Strategy</u>	31
• <u>ANSOFF</u>	12-13	• <u>Growth Strategy</u>	32
• <u>Company Environment & PESTEL</u>	14-15	• <u>Pricing Strategies</u>	33
• <u>Basic of Economics</u>	16	• <u>GTM/New Product Launch</u>	34

Contents

Item	Page No.
• <u>Mergers & Acquisitions</u>	35
• <u>Case Cheat Sheet</u>	36
Part E – <u>Understanding Industries</u>	37-55
Part F – <u>Practice Guesstimates</u>	56-81
Part G – <u>Practice Cases</u>	82-157
Part H – <u>Behavioral Question Bank</u>	158-160
The Team	161

Part A - About Consulting

What is Consulting?

What is it?

In very crude terms,

"It is an outsourcing of business objectives, to people with huge accumulated expertise in relevant field who offer customized solutions to client's stated objectives."

How is it helpful?

Objectives could be of various types-

- Often it is problem within a business that client is unable to address or even identify, many a times due to lack of qualified personnel.
- It can be related to business expertise that a client doesn't have but requires for planned tasks in present and/or future.
- Also it could be targeted at improving business performance and/or profitability by exploring opportunities to improve, grow or divest.

Top Players

McKinsey & Company

Revenue = \$ 10+ billion

BCG

THE BOSTON CONSULTING GROUP

Revenue = \$ 8.5 billion

BAIN & COMPANY

Revenue = \$ 4.3 billion

KEARNEY

Revenue = \$ 1.3 billion

accenture strategy

Revenue = \$ 43.2 billion

EY
Building a better working world

Revenue = \$ 36.4 billion

GEP

Revenue = \$ 200 million

ALVAREZ & MARSAL

Revenue = \$ 400 million

OLIVER WYMAN

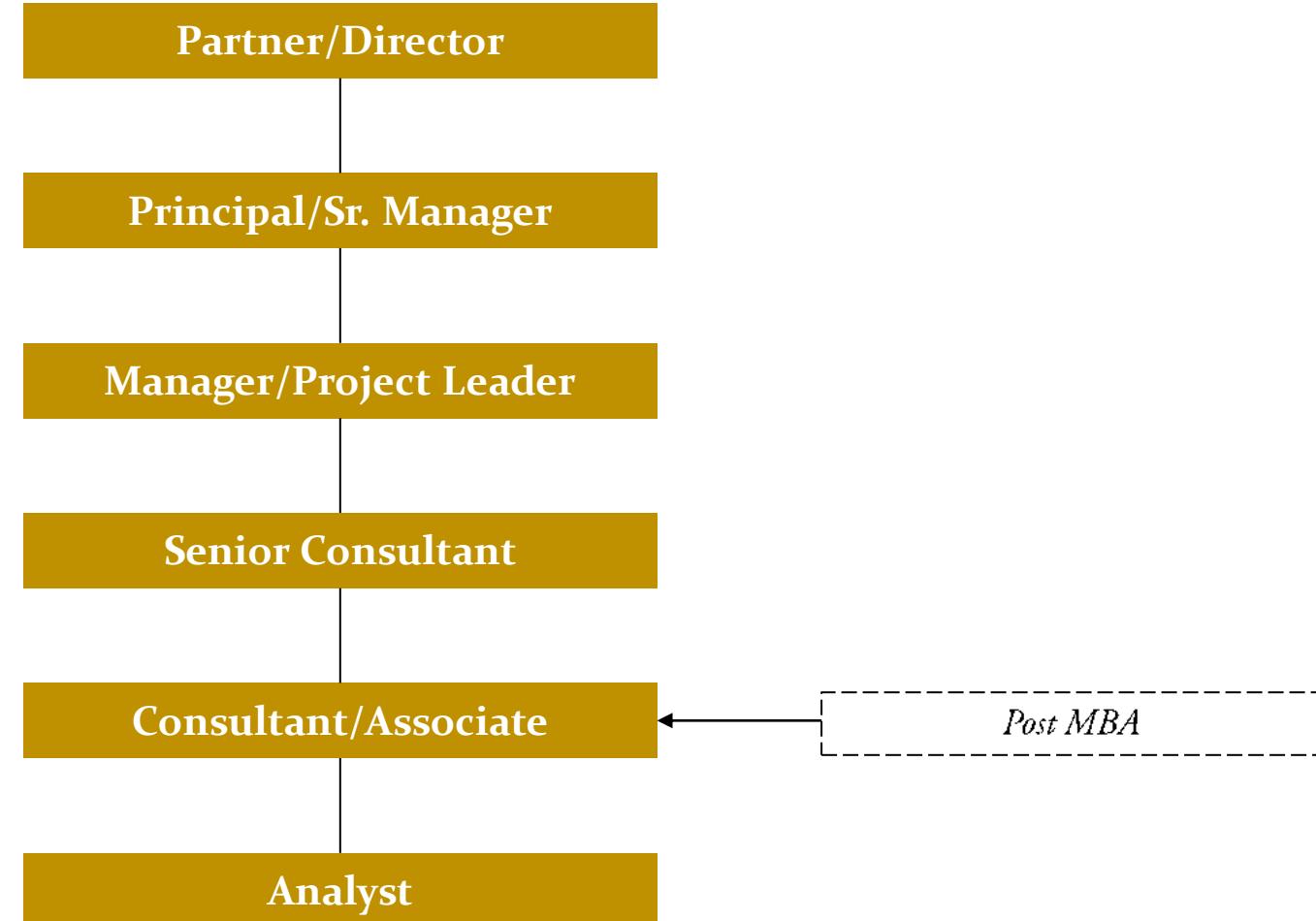
Revenue = \$ 2.1 billion

Why is it so sought after?

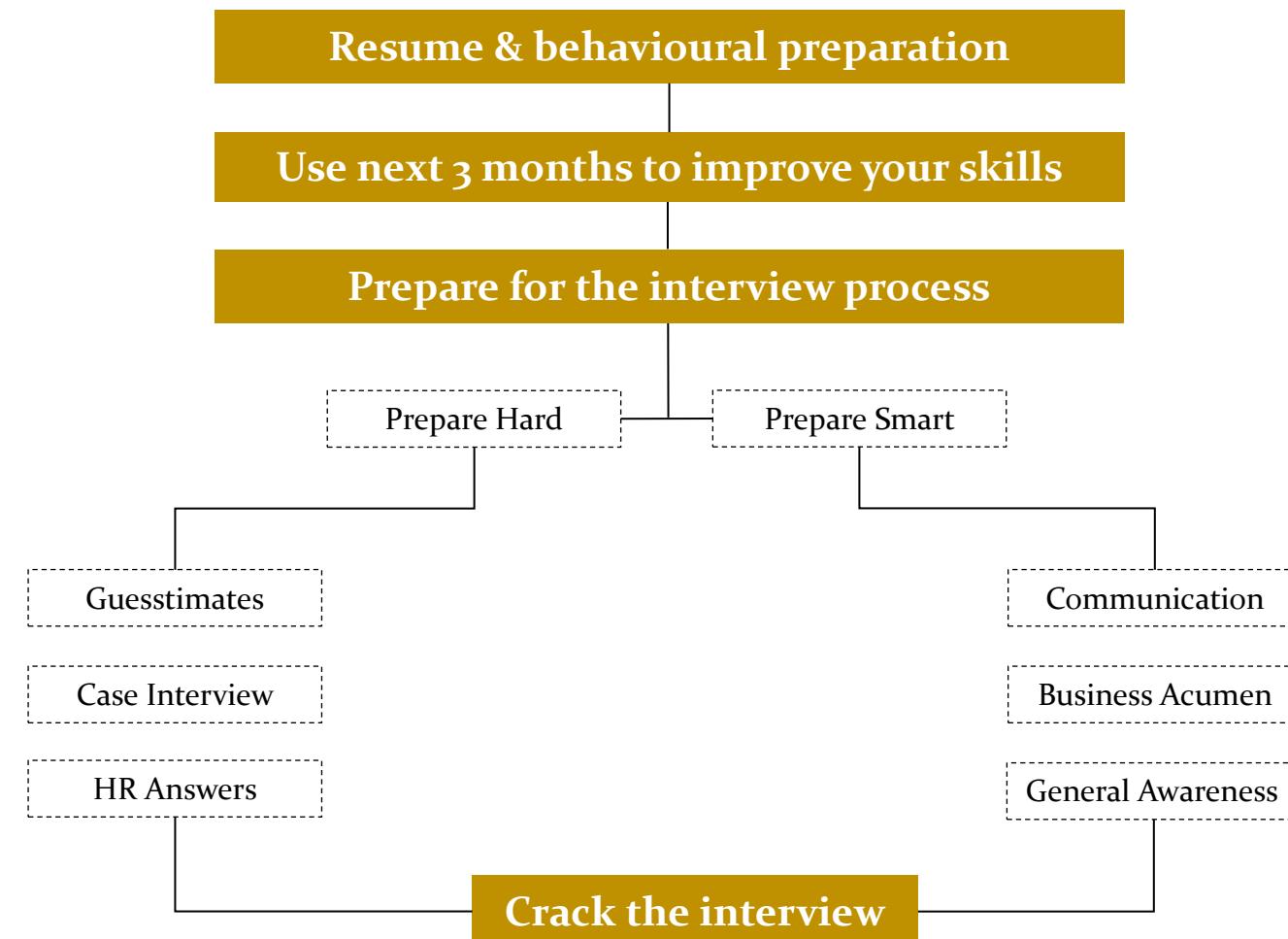
- With enormous amounts of subject knowledge of accumulated expertise that they possess, consultants can drastically transform a businesses in a relatively quick span of time.
- From turning around loss making businesses to managing highly important political election strategies, they offer customized solutions for every problem.
- Consultants can pinpoint the challenges that are being faced by their clients today or anticipate the ones that might be in future. This proves them effective in finding and implementing solutions that are concurrent with the client's definition of success.

Roles/Hierarchy of a Consulting Firm

Almost all consulting firms follow a flat hierarchy and up or out kind of career trajectory.



How to Get into Consulting From Here?



It's a rigorous selection process which requires structured preparation plan and serious efforts. Both the hard part and the smart preparation part is equally important and would require efforts at individual level.

Part B – Basic Concepts

3C's



Government

- What is the Business?
- Where is it present?
- Scale and Trends?



Industry



Company

- Who is the customer?
- Where are they present?
- How do they buy?
- Segmentation ?



Customer



Competition

- Major Players & Market Share
- Benchmarking with competitors
- How is the Industry doing?

Other C's: Collaborators

Channels

Costs

Competencies

Culture

Understanding the layer/level of business at which you are doing the analysis is very important and it sets the context of the case. Useful while opening a case to set context for problem at hand. Other C's could be useful in further analysis of case.

4P's and 7P's

- What are the product characteristics
- Product differentiation
- Product segments



Product



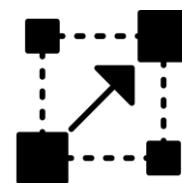
Price

- Price in the market
- Price Benchmarking
- Changes in Pricing



Promotion

- Marketing Activities
- Promotion Mediums
- Ad Strategies



Placement

- How is product distributed to customers
- Inventory-Transportation-Channels

Other 3 P's:

- **People:** Staff involved in entire value chain
- **Processes:** Processes involved in value chain
- **Physical Evidence:** Tangible component of product/service

Useful in the market entry and GTM category. E.g. revenue related problems, new product launch etc.

Porter's Five Forces

Bargaining Power of Buyers increases with:

- Concentration of buyers – lesser number of buyers
- Lower switching cost for buyer
- Buyer's ability to integrate backward
- Availability of substitutes
- High Price Elasticity
- Lower Product Differentiation
- Lower Impact on Buyer's product Quality

**Bargaining Power
of Buyers**

Industry Rivalry Increases with:

- Industry Growth & Number of Competitors
- High Fixed Costs and Barriers to Exit
- Lower product differentiation & brand recognition
- Highly Specialised Assets

Threat of substitutes increases with:

- Relative performance of Substitutes
- Lower Switching Costs
- Higher Buyer Propensity to Substitute

**Threat of New
Entrants (or
Barriers to Entry)**

**Industry
Rivalry**

**Threat of
Substitutes**

Barriers to Entry increase with:

- Economies of Scale
- Proprietary Product Differentiation
- Brand Recognition
- High Switching Costs for Customers
- Capital Requirements
- Hard to access distribution channels
- Regulatory constraints and restrictions

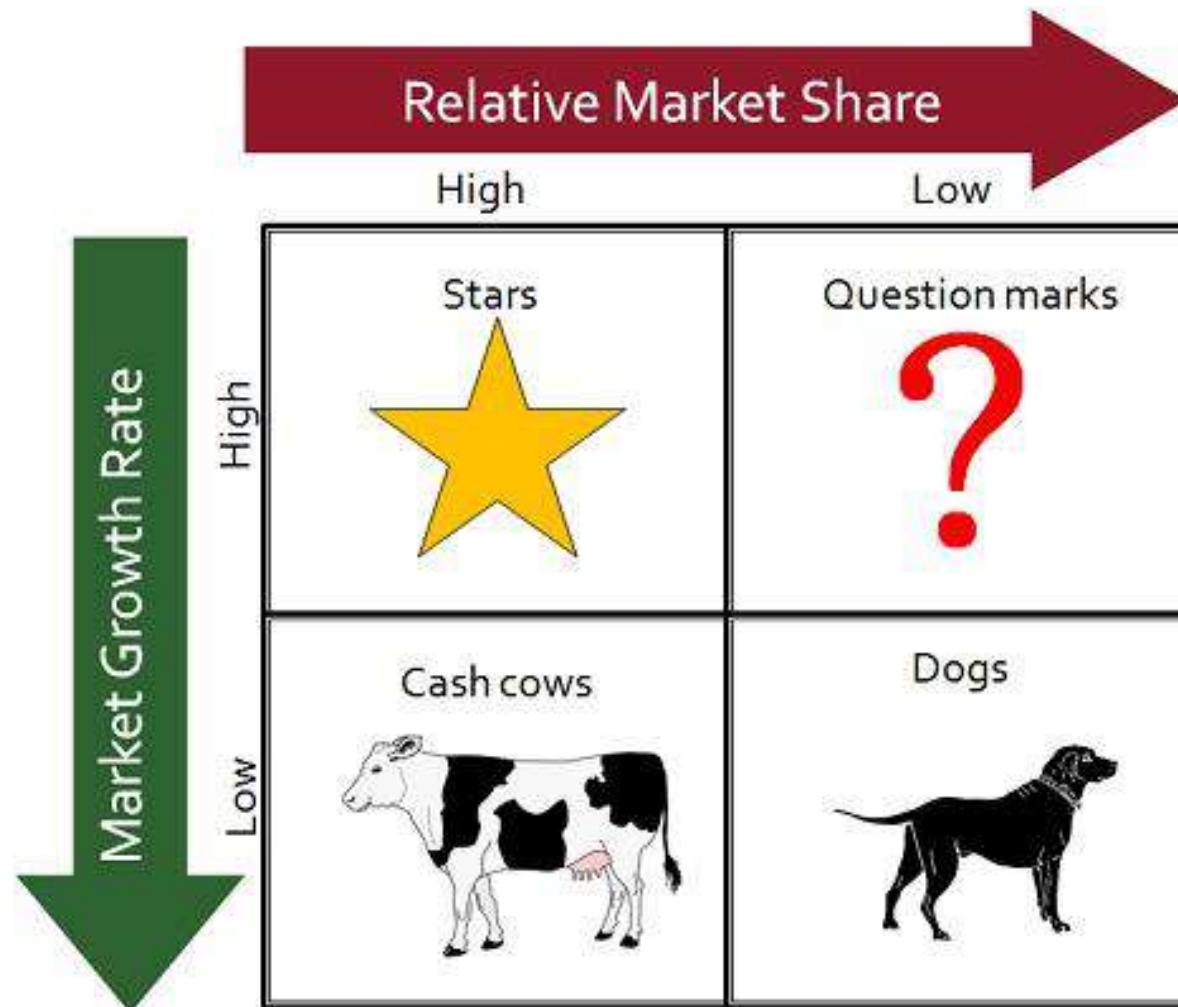
**Bargaining Power of
Suppliers**

Bargaining power of Suppliers increases with

- Input differentiation
- Degree of importance of supplier's product/service – Impact on cost or differentiation
- Lower switching cost for suppliers – lower importance of volume sold
- Lower number of substitutes available – less supplier concentration

Useful in various types of cases like market entry, growth strategies, new product launch.

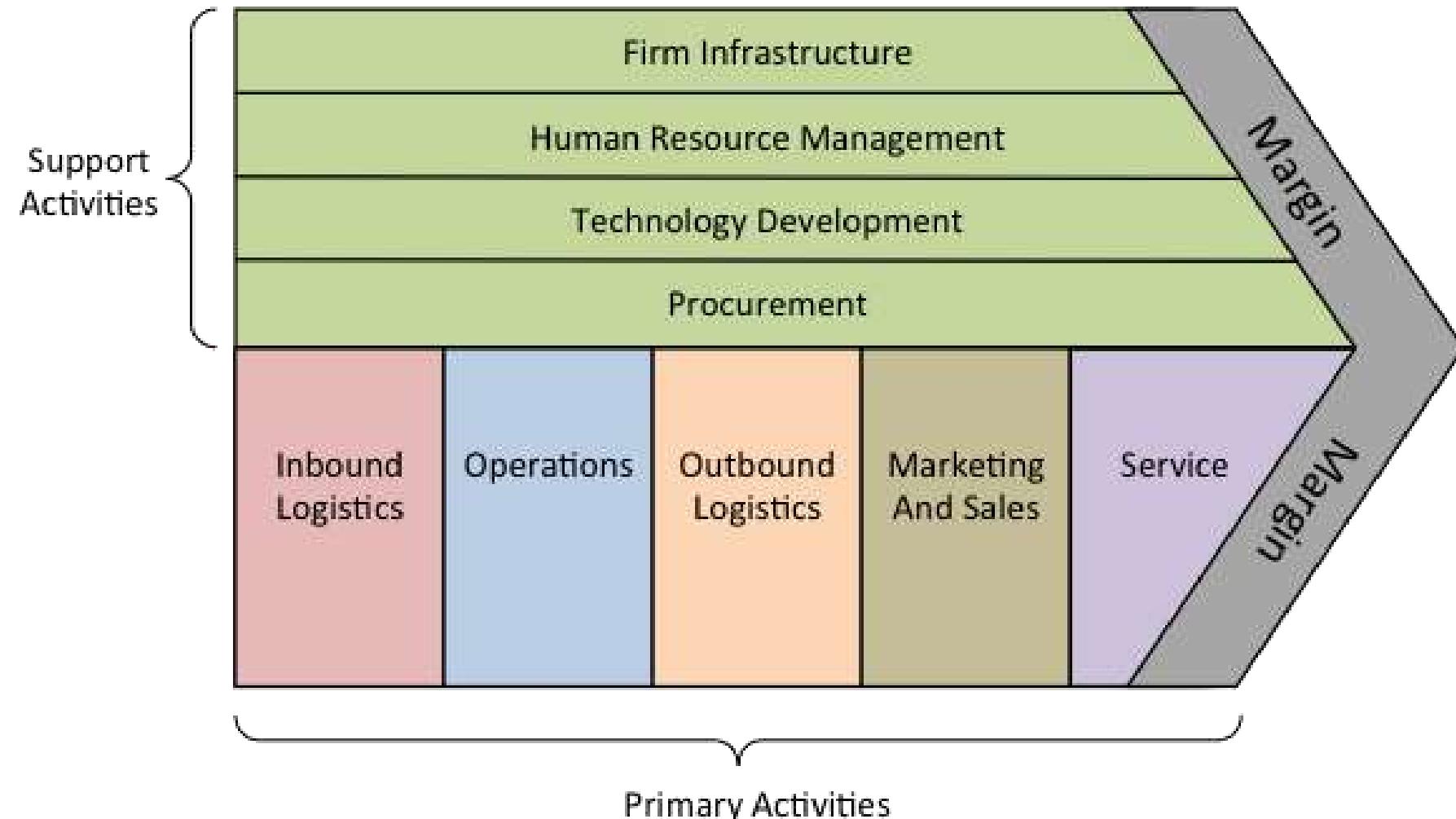
BCG Matrix



- Dogs:** They are weak in markets and difficult to make profits.
- Question marks or Problem Child:** Confused state as they are not clear about decisions on opportunities.
- Stars:** Monopolies and first-to-market products.
- Cash cows:** Doing well with no growth and limited opportunities.

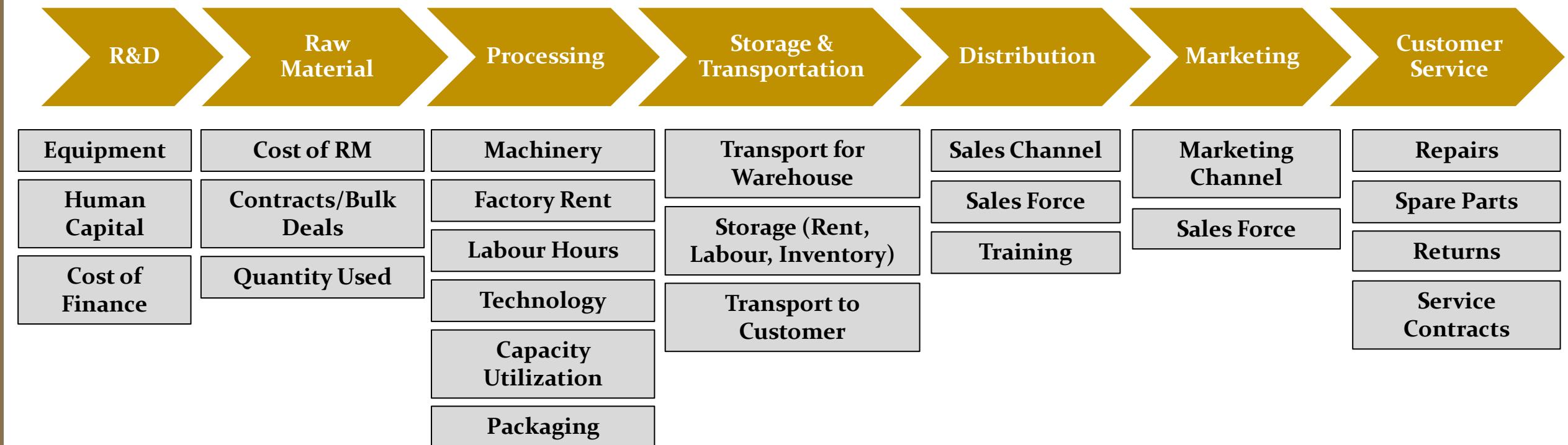
Useful while analyzing costs related problems, also in new business setup.

Value Chain/Process Mapping



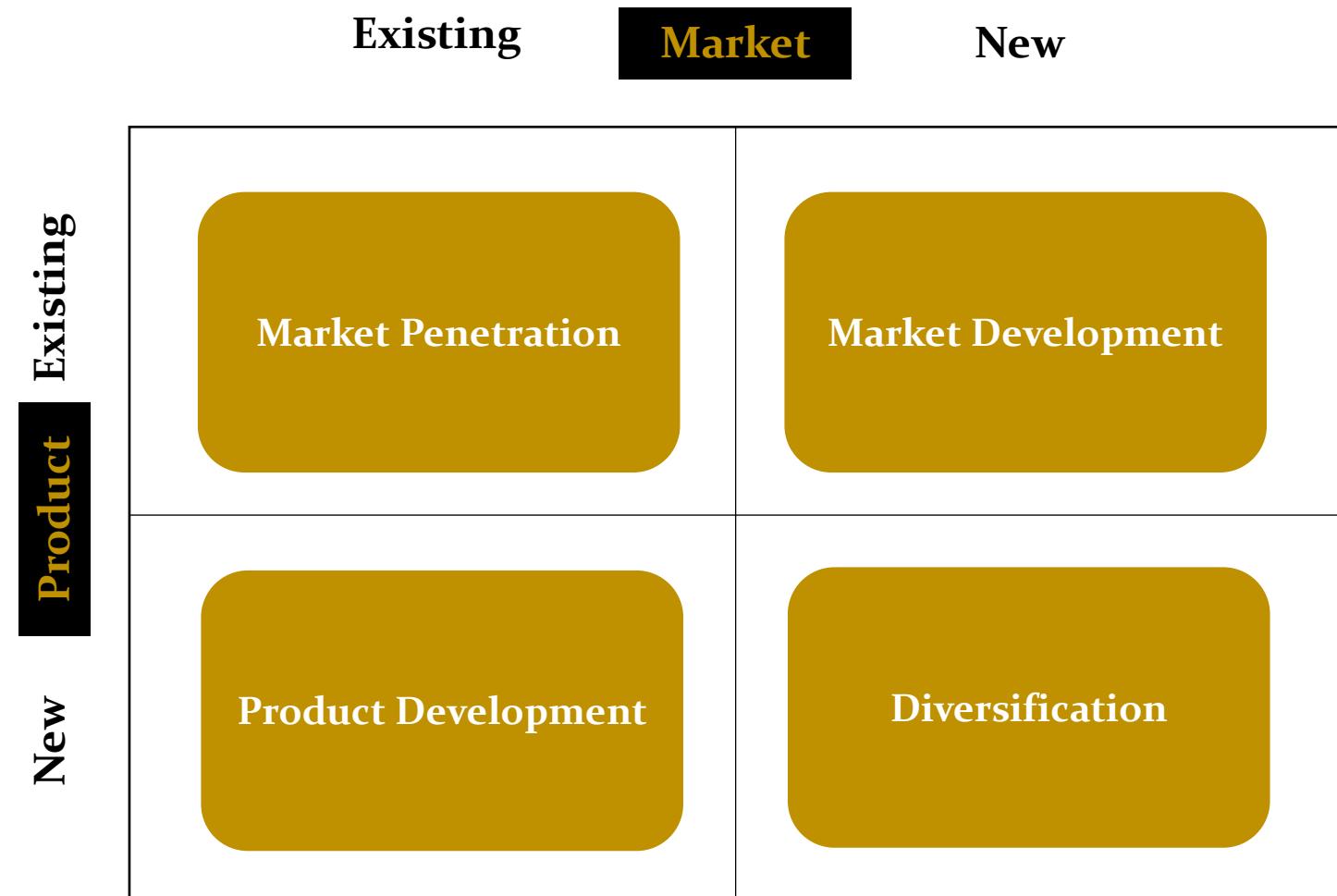
Useful for portfolio analysis, investment decisions, growth strategies.

Value Chain/Process Mapping



Useful for cost analysis.

Ansoff Matrix



Best suitable for Growth Strategy cases, also handy for Market Entry, Revenue Expansion etc.

Ansoff Matrix Example: Coca Cola



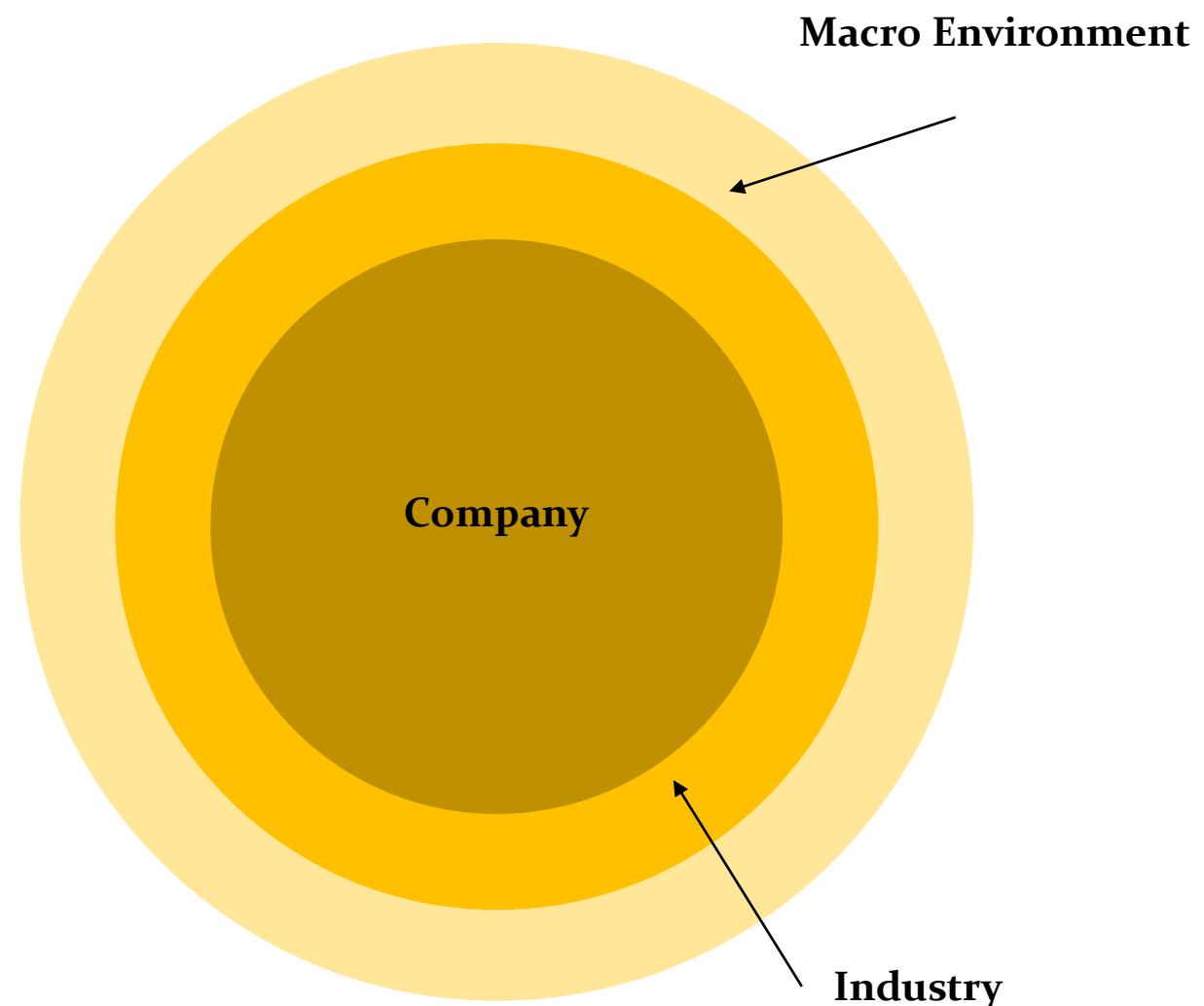
The Company Environment

A good strategy aligns a business' internal attributes, things like its mission, vision, capabilities in organization with its external environment.

Every company operates within a matrix of natural, social, and institutional structures. It acts on these external structures and entities and they in turn have an effect on the company.

A useful way to think about the relationship between a company and its environment is that it is nested in multiple layers.

1. In the outermost layer, furthest from the company itself, is the macro environment, consisting of societal institutions and trends in the broadest sense which businesses need to take into account.
2. The middle layer is the entire industry to which a company belongs to.
3. The inner most layer is the company.



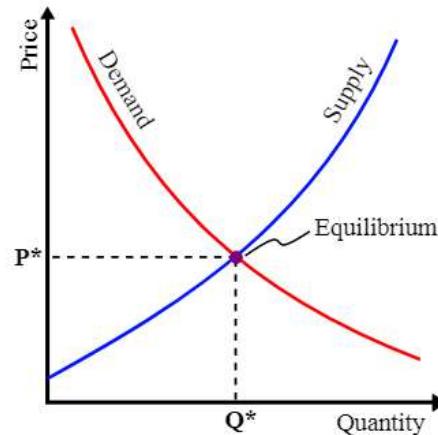
PESTEL



Best suitable for market entry cases for macro analysis etc.

Basic of Economics

Supply-Demand



Price Elasticities

Sensitivity of demand to price changes

$$e = -\frac{dQ/Q}{dp/P}$$

Price Discrimination

First Degree

With first-degree discrimination, the company charges the maximum possible price for each unit consumed.

Second Degree

Second-degree discrimination involves discounts for products or services bought in bulk.

Third Degree

Third-degree discrimination reflects different prices for different consumer groups

Market Characteristics

4 Types of Market Structure

Perfect Competition

Monopolistic Competition

Oligopoly

Monopoly

Most Competitive

Less Competitive

Basics of Finance

Essential

Useful

Optional

Profit & Loss Statement

Balance Sheet Terms

Ratios

Time Value of Money

Capital Budgeting

Annuity

Perpetuity

Discounted Cash Flow

Trading Multiples

Transaction Multiples

$$\frac{\text{Cash Flow}}{\text{Discount Rate}}$$

Part C – Basic of Guesstimates and Case Solving

MECE Segmentation

MECE = Mutually Exclusive Collectively Exhaustive



Mutually Exclusive

Contents of the segments does not overlap.

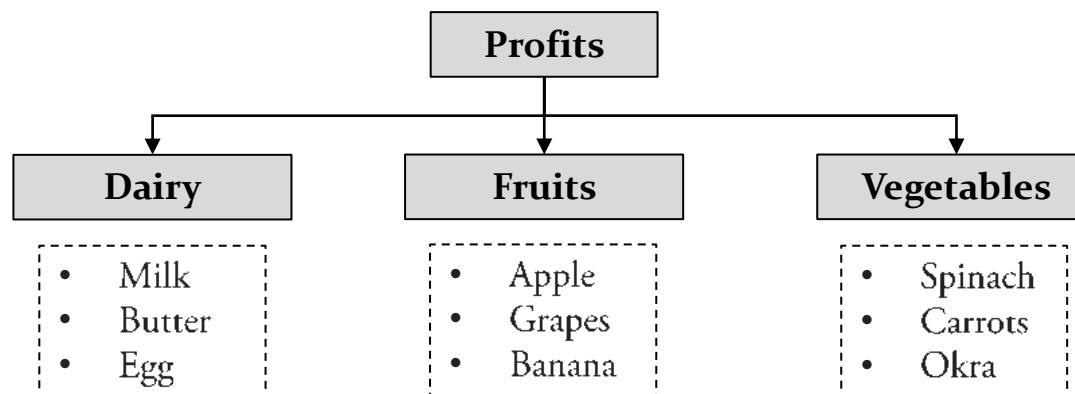


Collectively Exhaustive

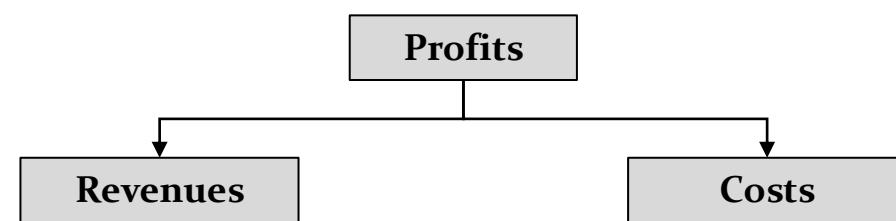
Together, the statements answer the question or fully describe the overall idea.

Using MECE segmentation is extremely effective in structuring one's analysis, in a case interview, guesstimate or otherwise.

Example 1: Unstructured grocery list: apples, milk, bananas, spinach, carrots, grapes, butter, okra, eggs becomes:



Example 2: Profit Structure

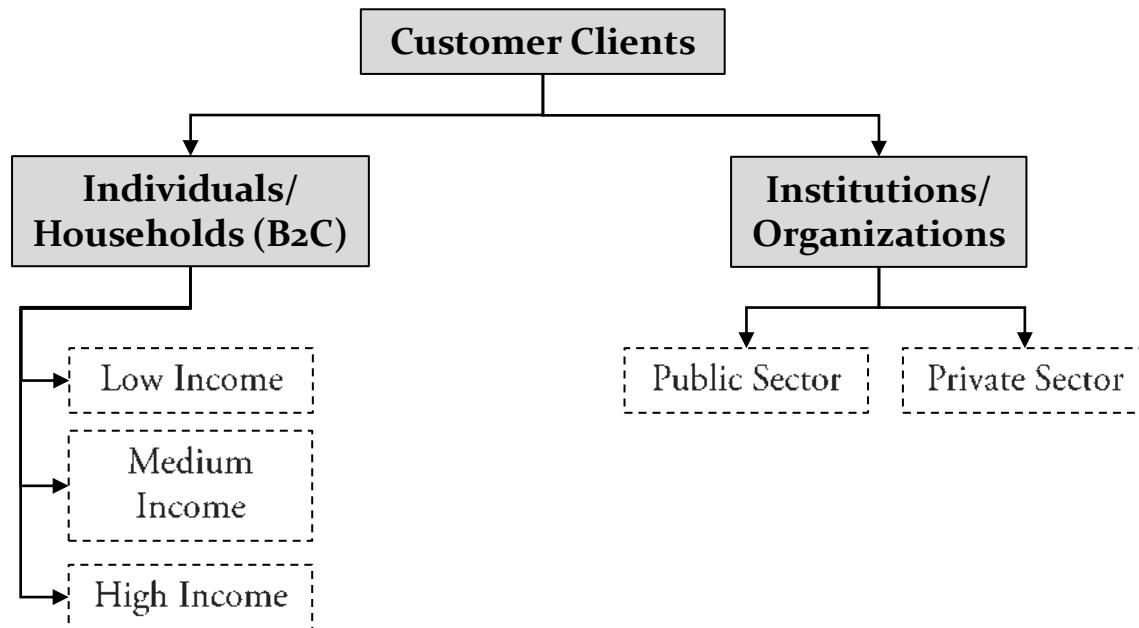


- Can be further segmented based on:
- Geography (Regional/Country Wise)
 - Customer Segments (Income/B2B/B2C)
 - Revenue Streams (Ads/Distribution)
 - Distribution Channel (Online/Retail)

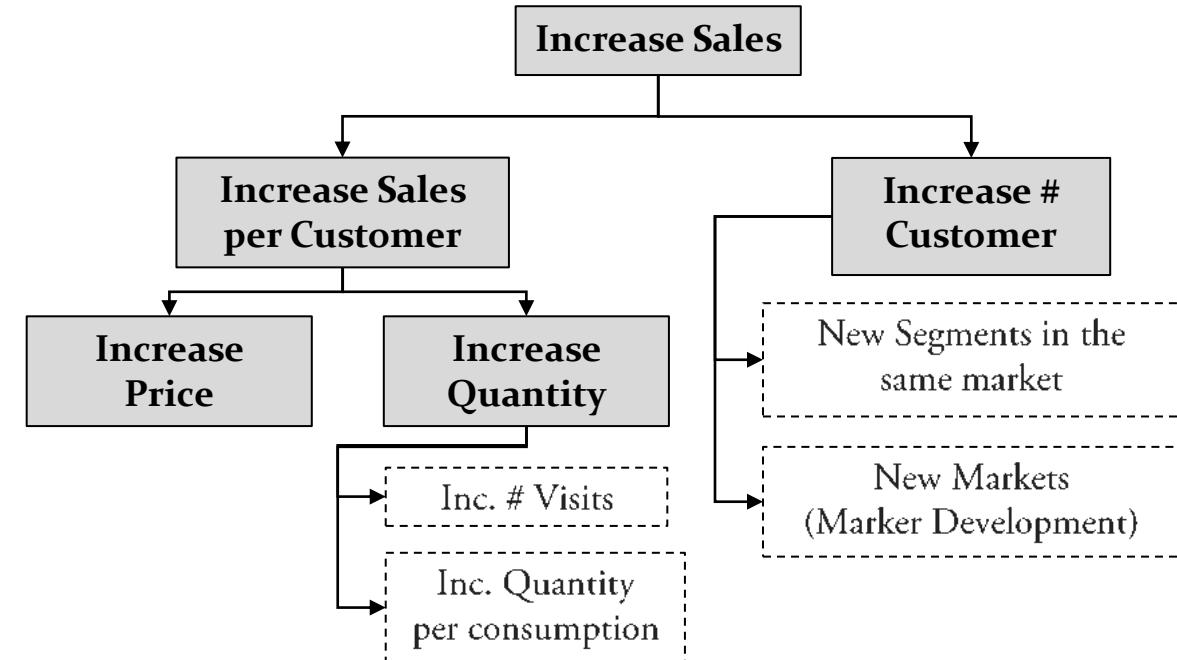
- Can be further segmented based on:
- Fixed Costs/Variable Costs
 - Costs across the Value Chain

MECE Segmentation

Example 3: Customer Segmentation



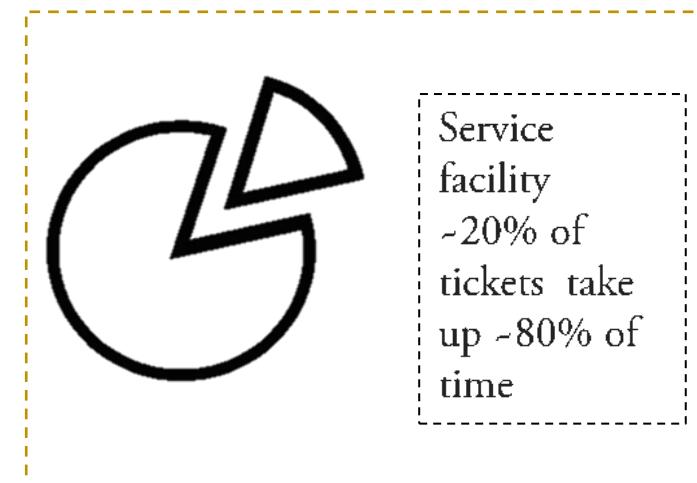
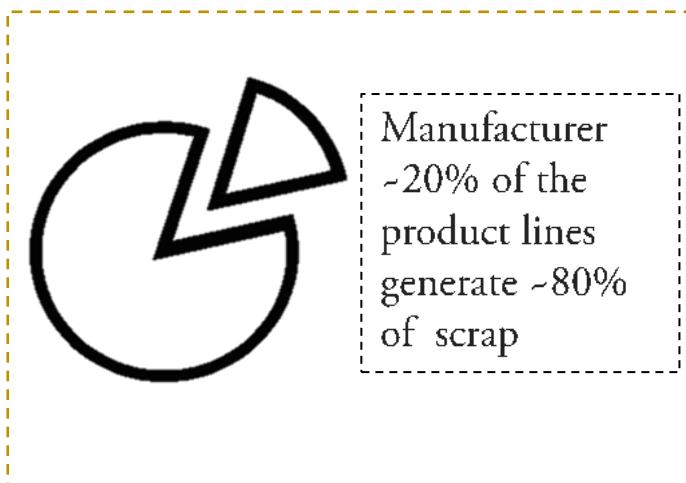
Example 4: Increasing Sales



The MECE principle suggests that to understand and fix any large problem, you need to understand your options by sorting them into categories. Doing so will help you avoid dependencies between different branches of the tree and thus sub-problems can be properly isolated.

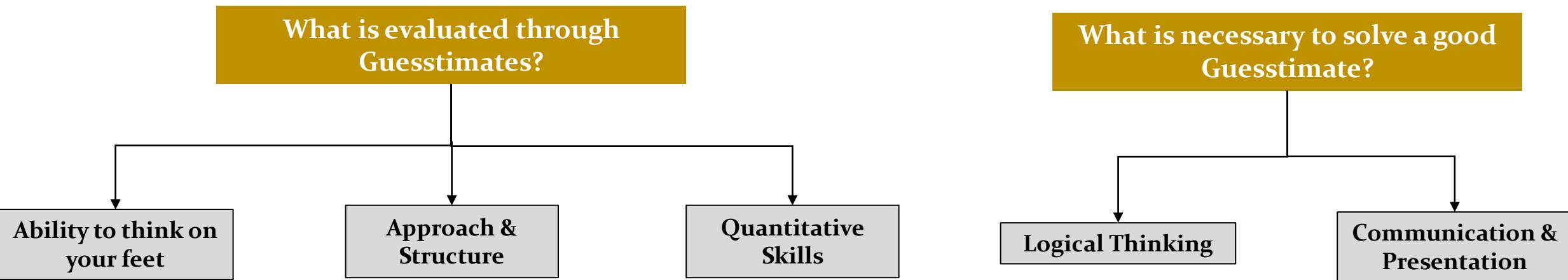
Pareto Principle (80/20 Principle)

- As per the 80/20 Rule (aka Pareto Principle) a small number of causes (the "vital" or "critical" few) drive the vast majority of the results, with roughly 20% of the causes driving 80% of the results.
- It is a ubiquitous phenomenon with examples across multiple industries:



- The primary implication of this concept is that you can realize a lot of impact by investing your effort in addressing a relatively small number of issues and hence, prioritizing of issues is important.
- The key takeaway from this principle in the context of interviews is that while constructing an issue tree or making recommendations (using the pyramid principle) one must prioritize the bigger issues by stating them first.

Introduction to Guesstimates



*Guesstimates: Short, number-intensive estimation Cases
Ideal Time Limit: 15-20 minutes*

Top Down and Bottom Up Approach

Supply Side and Demand Side Approach

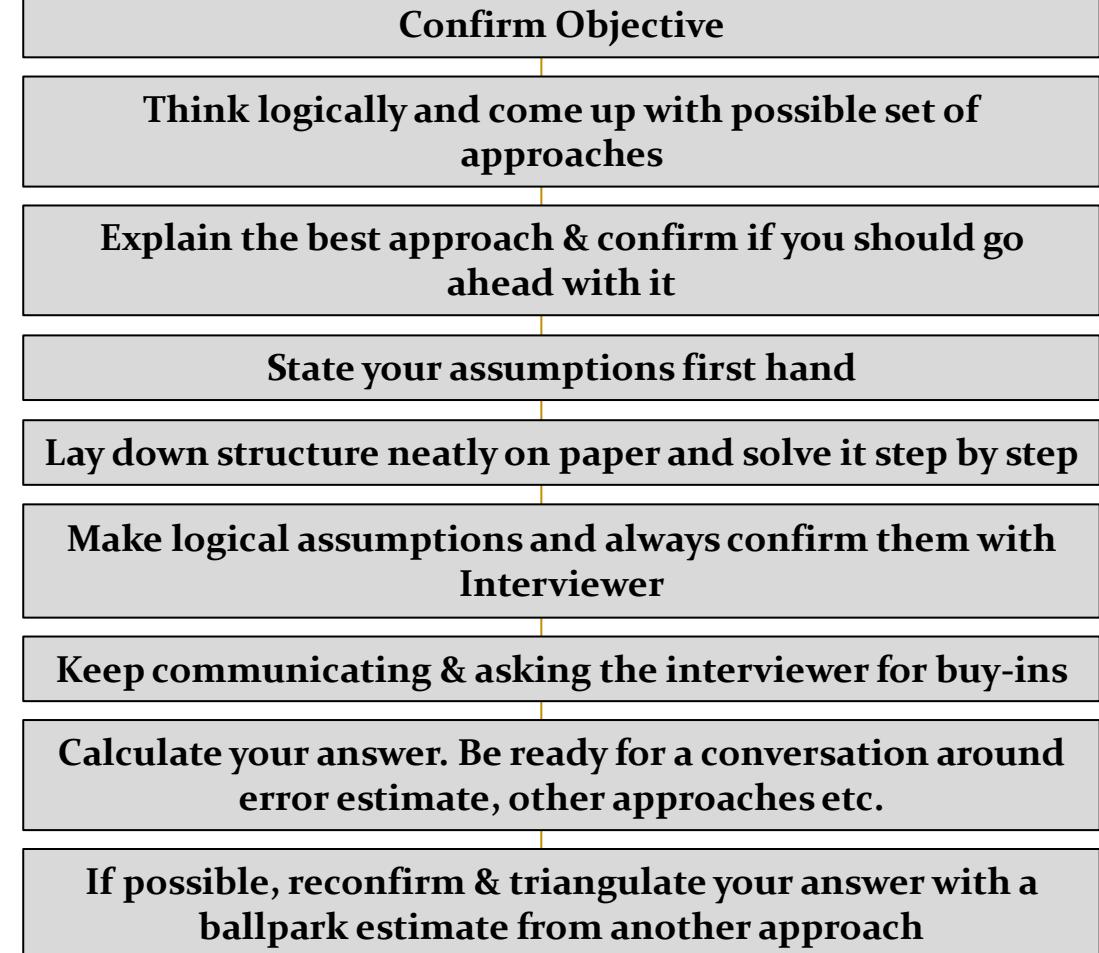
Guesstimates Do's & Don'ts

Do's



- Take about a minute to gather your thoughts and decide approach
- Use tree diagrams, normal diagrams, anything that explains your thoughts clearly in a visual way
- Relate your assumptions to facts, experiences and sellable logic
- Keep talking as you write, engage the interviewer

Ideal Flow



Don'ts

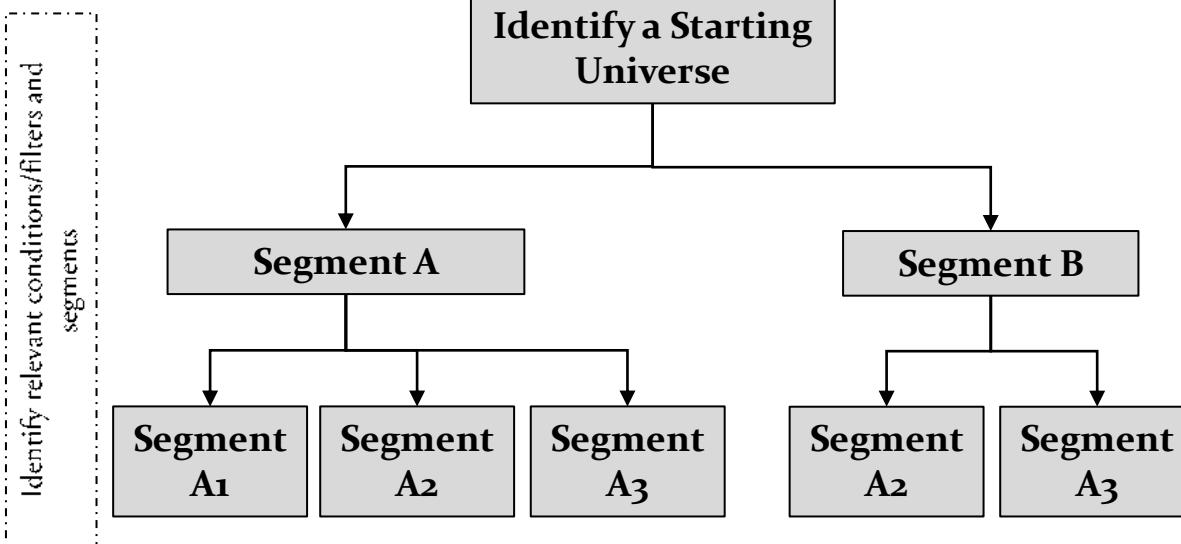


- Ask too many clarifying questions
- Questions about approach
- Start solving without discussing the approach
- Start with a population set every time
- Be text heavy on your sheet
- Unreadable writing
- Guessing the numbers
- Solving without explaining what you are doing

Top Down & Bottom Up Approach

Top down approach

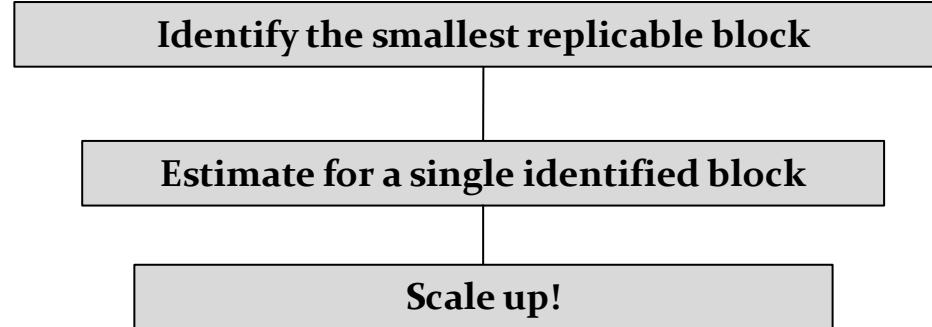
- Start with an entire population (in other words, the top level) and then breaking it down until you arrive at an answer.



- Segments:
- Demographics (age, sex, income)
- Psychographics (attitudes, behaviors, values etc.)
- Geography (city/country, urban vs. rural etc.)
- And many more depending on the case!

Bottom up approach

- Start from the bottom—some low-level statistic, such as Revenue per store, which does not change across your universe and build your way up to the answer.



- Bottom up approach is much more subjective than top down approach.
- Especially replicable blocks depend on the case in hand, it can be one single store, one family to a single person. Be careful while picking your block and while scaling up.
- Bottom up approach though gives accurate results provided you scale up properly.

Case Interview Process

Flow of a Consulting Interview



Case Interview:

- Cases form the crux of a consulting interview.
- There could be multiple case rounds with different partners.
- They are trying to test you for your:
 - Analytical ability
 - Quantitative skills
 - Structured problem solving and insight generation
 - Communication and presence
 - Impact and Effectiveness

Interviewer Expectations

Its not about being right. Its about being right in an client friendly way.
How you are right matters a lot.

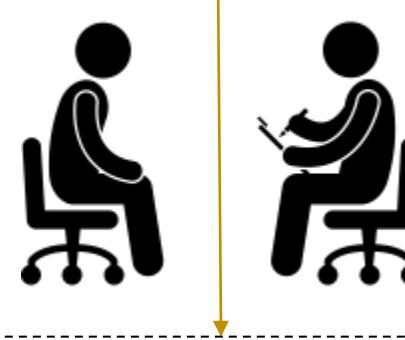
Things which are not client friendly:

- Jumping to conclusions
- Scattered ideas, shooting arrows in the dark
- Can't be justified by data/facts
- Logically correct but practically unfeasible
- Being rude
- Poor communication

Peer to Peer Case Practice

For Interviewer

- Understand the case properly
- Provide information at right time after right questions
- Be open to different approaches
- Guide the interview in such a way that there is relevant and fruitful discussion
- Feedback and self learning



- Why?
- Interview simulation
- Get used to speaking
- Instant Feedback
- Two-way learning

For Interviewee

- Understand the Question
- Clarify Objectives
- Set Context to Case
- Define a framework
- Analyze, identify, discuss
- Solutions/Suggestions
- Discuss improvements

Approaching a Case

- 1 Repeat the question and clarify the objectives
- 2 Think and understand what more you need to know
- 3 Set context to the case by asking questions. Be very careful about what you are asking and why.
- 4 Take time to think and lay down an structure for analysis
- 5 Involve interviewer in your analysis. Ask relevant question to process down your structure.
- 6 Make good and relevant suggestions which are specific to the case. Always have a rationale ready for Why?
- 7 Summarize the case properly. Be brief yet effective.

Case Interview Do's & Don'ts

Do's



- Listen and Interact with Interviewer.
- Develop your own framework to structure the problem.
- Focus on high impact issues.
- Explore variety of options with creative thinking.
- Demonstrate Business Judgement.
- Make quick and accurate calculations.
- Make a good conclusion to your analysis.

Don'ts



- Incorrect interpretation of case objectives.
- Jumping straight to conclusions.
- Not taking time to think, answering in hurry.
- Panicking if the answer is not apparent.
- Vehemently defending your analysis/suggestions.
- Internalizing the thought process.
- Sticking to artificial framework.

Part D – Basic Frameworks

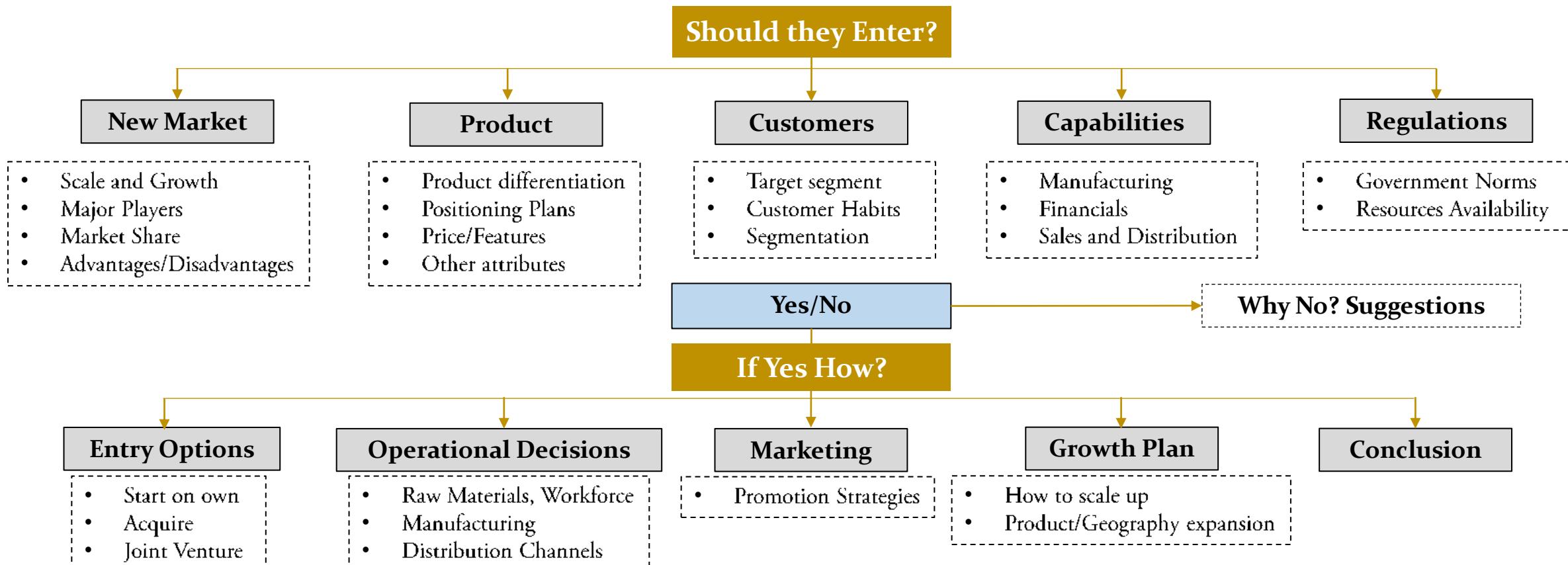
Market Entry Framework

Understand the question and clarify the Objectives

A market entry case is a relatively open ended case where in you need to understand the rationale behind entering a new market; and if that rationale can be profitably achieved or not. If the decision of entry is made how should it be implemented.

Set context

Know about company? What Business? Entry where? Which Product? Why enter? Target/objective? Decided to enter?



Growth Strategy

Understand the Question and Clarify the Objectives

Growth Strategy related cases are comparatively easier to analyze because avenues for growth are unlimited. You need to understand the current state of business and then come up with practically feasible growth opportunities. Each opportunity needs to be assessed for potential impact vs financial and practical feasibility.

Set context

What Business? Current Performance? Competitive Benchmarking? Growth Targets? Capabilities? Bottlenecks?

Growth Strategies

Existing Market

- Customer Satisfaction
- Marketing
- New distribution Channels
- Pricing

Geographic Expansion

- Domestic expansion
- Global expansion
- Rural expansion

Portfolio Expansion

- New Product line
- Additional services

In-Organic Growth

- Acquire competitors
- Acquire in new geographies

Business Integration

- Outsourcing
- Backward/Forward Integration

Summary

Proposed growth path, Potential growth prospects, Threats & Challenges Etc.

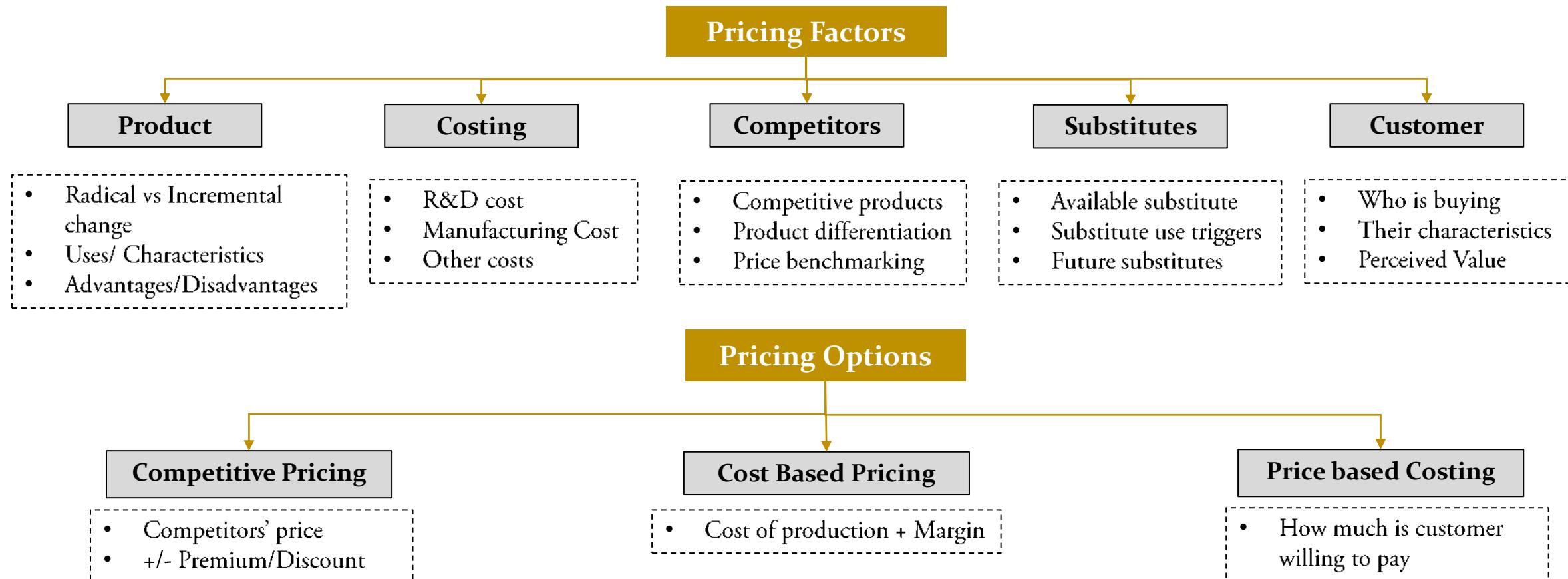
Pricing Strategy

Understand the Question and Clarify the Objectives

Pricing decisions should be taken to maximize the revenue potential by understanding product competitiveness in the market. Understanding competitive products, possible substitutes, price elasticity, cost structures is essential to take a good pricing decision.

Set context

Product/Service characteristics? Product use? Capital Investments? Competitors? Substitutes?



Go To Market Strategy/New Product Launch

Understand the Question and Clarify the Objectives

Provide a blueprint for launching a product in a market, positioning it to achieve competitive advantage. You would typically look at defining the 4Ps after deciding on the target segment. Touching upon all relevant aspects of the problem is much more important than the correct answer. The idea is to identify one/a few issue(s) examining the trade-offs.

Set Context

Objectives, Capabilities, Competition (How many, who all, Market Share, Growth Rate), Customers (Growth Rate, Potential Segments), Products (Existing Products, Substitutes).

Idea

GTM strategies are supposed to be integrated in nature and thus the processes strongly follow from each other.

Be Selective

The idea is to not do everything, rather to focus on one issue and nail it. E.g. Too many sales channels can lead to channel conflict, Too much communication is expensive.

Segmentation

Whom to Sell?

Use only relevant bases from the following:

- Geographic
- Demographic
- Psychographic
- Behavioural

Product Development

What to Sell?

- Features
- Packaging
- Use-cases
- Size (SKU)
- Product Name
- Differentiation
- Pricing

Distribution Strategy

Where to Sell?

- Distribution Channel
- Distribution Model
- WC Turnover
- Margins
- Sales Force T&D

Communication Strategy

What to Say?

- Positioning
- Communication Strategy
 - Advertising
 - Personal Selling
 - Sales Promotion
 - Direct Mktg
 - Public Relations

Merger & Acquisitions

Understand the Question and Clarify the Objectives

M&A cases are focused on decisions regarding a potential merger or acquisition opportunity. You need to understand the synergies involved, do cost vs benefit analysis & due diligence, and recommend whether to take the opportunity or not.

Set context

Company business? Current Performance? Target Company ? Past M&A history in similar space ? Industry Trend ?

Deal Rationale

What is the firm's objective?

- Target?
- New Markets/Channels
- Cost reduction
- Market Share/Competition
- Investment

Business Benefits

How the Target fits for Objective?

- Business Synergies?
- Market Reach (New/Existing)
- Competition/Survival
- Cost Savings/Tax Benefits
- Portfolio Expansion

Deal Price

Fair Price?

- Valuation?
- Is it fair can we afford?
- Transaction Type
- Post M&A costs

Potential Risks

Challenges/ Risk in M&A

- Synergy realization
- Integration
- Cultural Aspects
- Macro-economic risks

Implementation

- How can the merger or acquisition be effectively implemented.
- Issues related to cultural integration and operational aspects and targeted benefits

Due Diligence

Checks and Confirmations

- Strategic Options
- Commercial (Market related)
- Operational (Target related)
- Financial (Target's data, Valuation)
- Legal (Regulatory norms)

Exit Strategies

How, When why to exit?

- How long to Hold on?
- Strategic Options?
- Very important in Private Equity

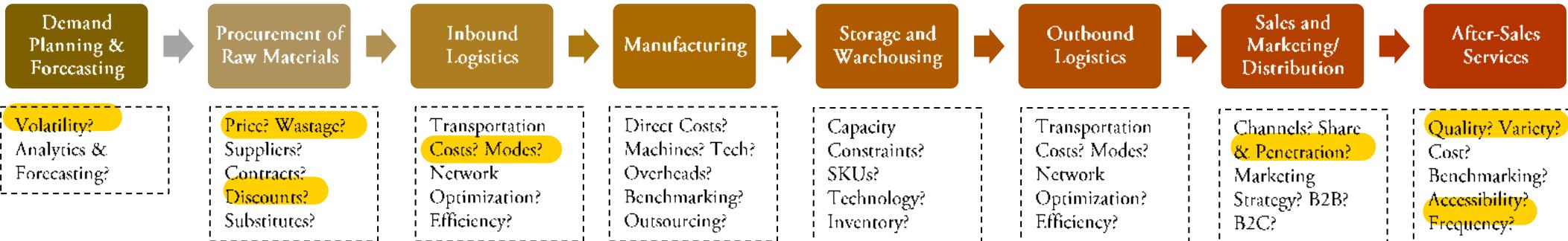
Case Framework Cheat Sheet-When Nothing Works

Sometimes, it may be the case that none of the standard case frameworks can be applied to the business situation at hand. There are certain other approaches you can explore to solve the case in that case.

Set context

Go through the entire Value Chain or Process Undergone (For Process Flow Cases). Drill down into each stage or step to look for inefficiencies, issues or bottlenecks.

Value Chain



Process Flow / Customer Journey

Chart out the entire process journey. Sample Use Cases –

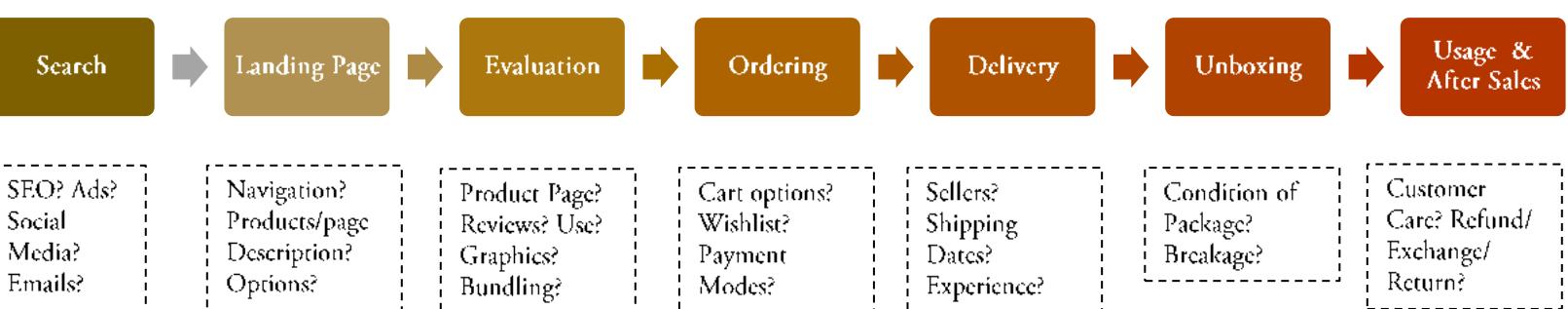
- 1) Ecommerce Ordering Dissatisfaction
- 2) Toll Plaza inefficiencies
- 3) Getting late to office/home

Look for Bottlenecks

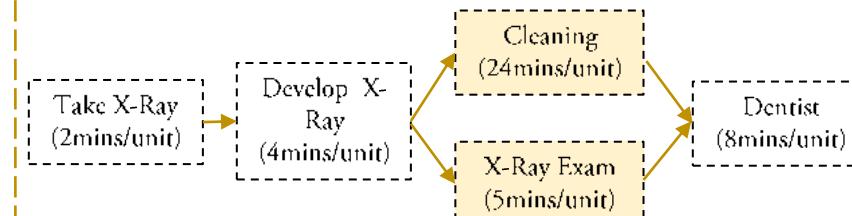
- A bottleneck is any area along the production line where work can get backed up for one reason or another.
- Performing a bottleneck analysis can help to identify the cause of a bottleneck, and lead to potential solutions to get a smooth, continuous, even work-flow.

Example: E-Commerce Discovery and Ordering Process Map

Process Flow



Example: Teeth Check-up and Cleaning Process

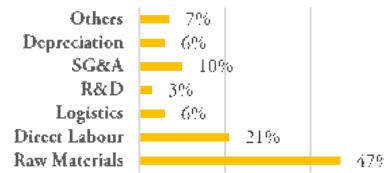


Part E – Sector Overview

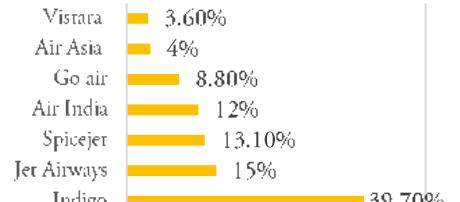
Industry Analysis: Table of Contents

Title	Page #
1. Indian Automotive Industry	39
2. Indian Aviation Industry	40
3. Global Aerospace Industry	41
4. Indian Banking Industry	42
5. Global Cloud Industry	43
6. Indian E-Commerce Industry	44
7. Indian Ed-Tech Industry	45
8. Indian FMCG Industry	46
9. Indian IT Industry	47
10. Google as an Industry	48
11. Indian Hospitality & Tourism Industry	49
12. Indian NBFC Industry	50
13. Indian Petrochemical Industry	51
14. Indian Pharma Industry	52
15. Indian Power Industry	53
16. Indian Telecom Industry	54
17. Indian Tyre Industry	55

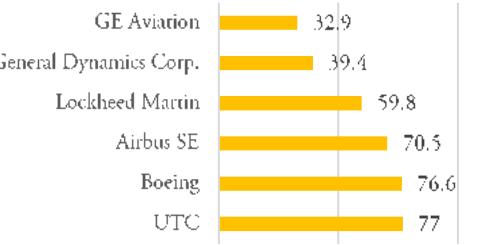
Understanding Indian Automotive Industry

Industry	Product Types	Market Share & Major Players	KPI	Growth Factors	Cost Factors
4 th Largest Car Manufacturer 7 th in Commercial Vehicles Industry Size – 7.1% of GDP Jobs – 37 million jobs CAGR – 6.96% (2013-19) Target – US\$ 251.4-282.4bn by 2026	2 Wheeler – 80%(units) Passenger Vehicle – 13% Commercial – 4% Three Wheeler – 3% Automotive Parts	3 Wheelers 5 Commercial 7 4 Wheelers 13 2 Wheelers 75	Tata Motors Maruti Suzuki M & M Hero Motocorp Bajaj Auto Ashok Leyland TVS, Eicher	Average Prodn., Downtime, Inventory Turnover, Utilization Rate Largest Importers United States Turkey Bangladesh Brazil Germany	<ul style="list-style-type: none"> Favorable demographic trends Continued government support to the industry Develop India as manufacturing hub The potential of EV
					
Value Chain	SWOT Analysis	Barriers to Entry	Current Trends		
Inbound log Operations Outbound log Marketing & Sales Service	<p>Raw materials, warehousing handling Machining, Assembling, Testing prod Warehousing and distribution Advertising, pricing and promotion Installation and repair parts</p> <p>Strength</p> <ul style="list-style-type: none"> Large domestic market Increase in the exports level Sustainable labor cost Competitive auto component vendor base Govt. incentives in manufacturing Upcoming bases for R&D Growth IT Capability in design, development and simulation Market proximity <p>Weakness</p> <ul style="list-style-type: none"> Low labor productivity High interest rate and overheads Various forms of taxes Inadequate and low inv. in R&D Supply Chain infra. Bottlenecks Lack of economies of scale <p>Opportunities</p> <ul style="list-style-type: none"> Commercial Vehicle Increase in income level Cut in excise duties Rising demands in rural areas Export projected to grow at 30% p.a. NATRIP – US\$ 400mn FAME for EV <p>Threats</p> <ul style="list-style-type: none"> Rising Input costs of raw materials Rising interest rates Cut-throat competition Increase in fuel prices Import of components from ASEAN and China 	<ul style="list-style-type: none"> Economies of Scale Product Differentiation Capital Expenditure Access to Distribution Govt. Guidelines Dynamic Environment Jockeying for Position Lack of Substitutes 	<ul style="list-style-type: none"> Deep diving sales – due to increasing fuel cost & liquidity tightening post ILFS Recent Job losses Recent tax cut Add. tax reduction, on loans for EV Shift to BS-VI 		
Factors impacting value chain	Production Clusters	Future Trends			
Suppliers Trade Legislation Fin. service Manufacturer Insurance		<ul style="list-style-type: none"> Changing consumer mobility Electric Mobility Digital Marketing Ride pooling Autonomous Vehicles 			

Understanding Indian Aviation Industry

Industry Overview																				
Services		Stakeholders	Market share	Major Constraints																
Revenue : USD 72 Billion India currently has 464 Airports and airstrips; 125 owned by AAI Currently 3 rd largest civil aviation market Predicted to be the 3 rd largest passenger volume market by 2024 Fastest growing domestic market @18%	Insurance, Finance, Distribution, Telecomm, Maintenance repair & overhaul (MRO), Fuel Suppliers Aircraft, Engines, Electronics, Computer, Chemicals	Firm Infrastructure: Finance, Accounting, Legal Compliance HRM: Flight route, yield analyst, pilot, safety, baggage handling, in-flight and agent training Tech Development: Reservation, in-flight and yield management system IT Communications	Market share of major players (2018)  <table border="1"> <thead> <tr> <th>Airline</th> <th>Market Share (%)</th> </tr> </thead> <tbody> <tr> <td>Vistara</td> <td>3.60%</td> </tr> <tr> <td>Air Asia</td> <td>4%</td> </tr> <tr> <td>Go air</td> <td>8.80%</td> </tr> <tr> <td>Air India</td> <td>12%</td> </tr> <tr> <td>Spicejet</td> <td>13.10%</td> </tr> <tr> <td>Jet Airways</td> <td>15%</td> </tr> <tr> <td>Indigo</td> <td>39.70%</td> </tr> </tbody> </table>	Airline	Market Share (%)	Vistara	3.60%	Air Asia	4%	Go air	8.80%	Air India	12%	Spicejet	13.10%	Jet Airways	15%	Indigo	39.70%	<ul style="list-style-type: none"> Dynamic Labour Situation High taxes, fee, regulatory costs Inadequate future plans for air & ground infra Restriction on airline consolidation & foreign investment Volatility in ATF rates making profitability uncertain for airlines
Airline	Market Share (%)																			
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Value Chain	The Indian Advantage	Cost Drivers																		
Inbound log Route Selection; Passenger Service; Yield Management system; Fuel; Scheduling; Crew Scheduling; Facilities planning	Robust Demand <ul style="list-style-type: none"> Expected demand boost from rising middle class with more disposable income No of airports to expand to 250 by 2030 Freight traffic also to increase for trade 	Opportunities in MRO <ul style="list-style-type: none"> Growth in services mainly for MRO Expenditure: 13-15% of revenue: Second highest after fuel By 2020 MRO industry likely to triple its revenue to USD 1.5 Bn 	<ul style="list-style-type: none"> Fuel and Labour Costs as 2/3rd of the costs of flying an airplane are fixed, so changes in fuel costs can swing a flight from profit to loss depending on how many people are on the flight. Costs – 10-12% Labor accounts for approximately 35% of the total of airlines' operating expenses. Other expenses: maintenance, parts and labor, handling luggage, airport fees, taxes, marketing, promotions, travel agent commissions and passenger expenses 																	
Operations Ticket Counter operations; gate operations; Aircraft operations; On Board Service; Ticket operations; Baggage handling	Increasing Investments <ul style="list-style-type: none"> USD 12.1 Bn invested in from 2012 to 2017: USD 9.3Bn in private sector Growing private sector participation through the Public-Private Partnership (PPP) route; Also promotion of FDI 	Policy Support <ul style="list-style-type: none"> Encouragement of Pvt. Sector by Govt. Foreign investment (~49%) allowed under automatic route in scheduled, regional & domestic scheduled passenger airline. 	New Revenue Streams Airline passengers represent a huge potential market for food, insurance, package tours, and other products that are adjacent to the core product of a seat. Carriers in search of high-margin growth can cultivate this market by building awareness, generating traffic, closing transactions, and filling the "shopping basket".																	
Outbound log Baggage System; Flight Connections; Rental Car and Hotel reservation system																				
Marketing & Sales Promotion; Advertising; Advantage Program; Travel Agent Program; Group Sales																				
Service Lost Baggage service; Complaint follow up																				

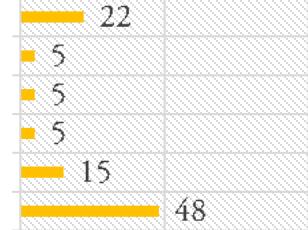
Understanding Global Aerospace Industry

Industry	Product Types	Major Players & Revenue in \$Bn USD (2019)	KPI	Distribution	Biggest Airline Fleets(# of Planes) - 2019														
<ul style="list-style-type: none"> Manufacturing of civil and military aerospace vehicles Services – 100+ Total Revenue – \$760 Bi. (2018) CAGR – 9-11% (2014-18) Players – 20+ Big Players - 8 	<ul style="list-style-type: none"> Civil Aircrafts - Small and large vehicles Helicopters Military Aircrafts and fighter jets Parts and additional support systems 	<p>Major Players & Revenue in \$Bn USD (2019)</p>  <table border="1"> <thead> <tr> <th>Player</th> <th>Revenue (\$Bn USD)</th> </tr> </thead> <tbody> <tr> <td>GE Aviation</td> <td>32.9</td> </tr> <tr> <td>General Dynamics Corp.</td> <td>39.4</td> </tr> <tr> <td>Lockheed Martin</td> <td>59.8</td> </tr> <tr> <td>Airbus SE</td> <td>70.5</td> </tr> <tr> <td>Boeing</td> <td>76.6</td> </tr> <tr> <td>UTC</td> <td>77</td> </tr> </tbody> </table>	Player	Revenue (\$Bn USD)	GE Aviation	32.9	General Dynamics Corp.	39.4	Lockheed Martin	59.8	Airbus SE	70.5	Boeing	76.6	UTC	77	<ul style="list-style-type: none"> Total Revenue by Category(Military/Civil) Average Monthly Aircraft Production Rate Monthly Delivery Value Value of Backlogs Annual R&D Spending 	<p>Full aviation vehicles manufactured and distributed by a handful of large key players.</p> <p>Other smaller players across regions to manufacture and sell parts.</p>	<ul style="list-style-type: none"> American Airlines – 1317 Delta Airlines – 1069 China Southern Air. – 809 Lufthansa – 783 United Airlines – 758 Southwest Airlines – 719 China Eastern Airlines – 697
Player	Revenue (\$Bn USD)																		
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Value Chain			Major Aerospace Deals in 2019																
Design	Conceptual Design, Preliminary Design, Detailed Design	<ul style="list-style-type: none"> Raytheon Co. – United Technologies Corp. - \$52 Bi Guangzhou Shipyard International Co. Ltd – China CSSC Holdings - \$8.6 Bi Cobham PLC – Al Convoy Bidco Ltd. - \$4.9 Bi Keppel Corp. Ltd. – Kyanite Investment Holdings Pte Ltd. - \$3 Bi Mitsubishi Hitachi Power Systems – Mitsubishi Heavy Industries Ltd. - \$2.3 Bi Daewoo Shipbuilding and Marine Engg. – Hyundai Heavy Industries - \$2 Bi Exotic Metals Forming Co. LLC – Parker Hannifin Corp. - \$1.7 Bi Dynetics Inc. – Leidos Holdings Inc. - \$1.7 Bi Oncic Engg. And Manufacturing Inc. – CVC Capital Partners VII LP - \$1.4 Bi 			Current Trends in the Industry														
Component Production	Airframe/Structural Components, Onboard Avionics Components, Propulsion System Components				<ul style="list-style-type: none"> Improvements in operating efficiency, advanced avionics, impressive interior cabin designs and noise reduction capabilities are driving increased consumer demand. Customers are now focused on replacing their older fleets. Over next 20 years, it is estimated that around 40% of aircraft deliveries will be for replacement purposes. 														
Subassembly	Airframe/Structural Subsystems, Onboard Avionics Subsystems, Propulsion Subsystems				<ul style="list-style-type: none"> Lower oil prices since 2014 have led to an increase in demand for civil aviation, which has caused for airlines to buy more aircrafts, and this trend is expected to continue with oil production being ramped up. The current imbalance in demand and supply will shift as analysts expect Boeing and Airbus cut back build rates to match with the demand in the sector. 														
Final Assembly	Airframe Assembly, Onboard Avionics Integration, Propulsion System Integration	<p>Key Growth Drivers</p> <ul style="list-style-type: none"> GDP Growth of emerging market economies Replacement Demand (Based on age of fleet) Global Aviation Fuel Prices Global Defence Budgets 																	
Post Production Services	Installation and repair parts																		

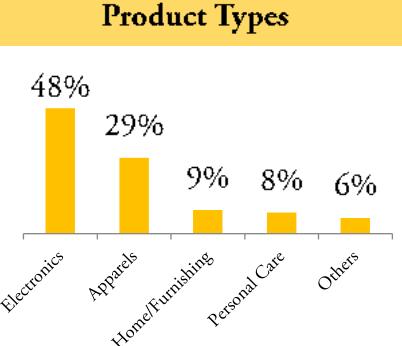
Understanding Indian Banking Industry

Industry	Trends	Type of Banks	Liabilities	Regulator
18 public sector banks 22 private sector banks 46 foreign banks 53 regional rural banks 1,542 urban cooperative banks 94,384 rural cooperative banks	Total credit extended by commercial banks \$ 1.3 trillion, CAGR (11%). Deposits - US\$ 1.7 trillion Total Asset – US\$ 2.2 tn, grew at 6% in last 5 years. Public sector banks account for over 68.3% of interest	<p>Scheduled Banks are accounted for in RBI Act and are governed by the general rules like CRR requirements etc.</p> <p>Non-Scheduled Banks do not have to comply with any RBI regulations.</p>	An NBFC is a company registered under the Companies Act, 2013 engaged in the business of loans and advances, acquisition of shares, stock, bonds, hire-purchase ins. business.	Current Accounts 0% Savings Accounts 3-4% Fixed Deposits 7%
Value Chain		Key Players	Innovations	COVID Impact
Marketing	Advertising, Branding, Sales Support	<ul style="list-style-type: none"> ▪ PNB ▪ SBI ▪ ICICI ▪ Canara Bank ▪ HDFC ▪ Axis Bank 	<ul style="list-style-type: none"> ▪ IDBI ▪ RBS ▪ Deutsche Bank ▪ HSBC ▪ Yes Bank ▪ Citi Bank 	<ul style="list-style-type: none"> • Hyper-personalisation • Open banking • Phygital Delivery • Predictive Banking • Robotic Automation • Instant Payments • Blockchain/IoT'
Porter 5 Forces Analysis		KPIs	NPA Crisis	Future Trends
Suppliers Pow.	Liquidity is controlled by the RBI.	<p>Loan growth rate indicates ease of venture into attractive new markets or a low-cost capital base</p> <p>Loan-Deposit Ratio helps assess a bank's liquidity, and hence, its aggressiveness.</p>	<p>Deposit growth rate gives investors a sense of how much lending a bank can do.</p> <p>Efficiency ratio measures how much the bank pays operating expenses</p>	<ul style="list-style-type: none"> • India holds the dubious distinction of having the worst non-performing loan ratio among the world's major economies. • A \$190 billion pile of soured and stressed debt. • 17 banks with bad loan ratio of above 10%, 16 were public sector banks. • Net NPA – 9.1%
Demand	Rising incomes, rural inclusion	<p>CASA ratio is the ratio of deposits in current and saving accounts to total deposits.</p> <p>Net Interest Income (NII) is the income earned due to difference in interest rate</p>	<p>Capital Ratio is degree to which the bank is vulnerable to an unexpected increase in bad loans</p> <p>Net Interest Margin is NII when calculated as a percentage of the average loan book.</p>	<ul style="list-style-type: none"> • The Association of Mutual Funds (AMFI) is targeting nearly five-fold growth in assets under management to Rs 95 lakh crore by 2025. • India's mobile wallet industry is estimated to grow at a CAGR of 150% to reach US\$ 4.4 billion by 2022.
Barriers to Entry	Licensing requirement, investment in tech & branch network, cap. & regulatory req.	If a bank's Credit Quality is in decline because of non-performing loans and assets and/or charge-offs increases, the bank's earnings are risked.		
Competition	High. Public, private, NBFC etc			
Bargaining Power, buyers	For good creditworthy borrowers bargaining power is high.			

Understanding Global Cloud Industry

Industry	Product Types	Market Share & Major Players	Distribution	Growth Factors	Biggest Clients														
On Demand Cloud IaaS (Infrastructure as a Service) Services – 100+ Industry Size – \$180 Billion CAGR – 25-30% (2014-18) Players – 30+ Big Players - 5	Virtual Machine Service Simple Storage System RDBMS Isolated Cloud Resources VPNs	 <table border="1"> <thead> <tr> <th>Player</th> <th>Market Share (%)</th> </tr> </thead> <tbody> <tr> <td>AWS</td> <td>48</td> </tr> <tr> <td>Azure</td> <td>15</td> </tr> <tr> <td>Others</td> <td>22</td> </tr> <tr> <td>Alibaba</td> <td>5</td> </tr> <tr> <td>IBM Cloud</td> <td>5</td> </tr> <tr> <td>Google Cloud</td> <td>5</td> </tr> </tbody> </table>	Player	Market Share (%)	AWS	48	Azure	15	Others	22	Alibaba	5	IBM Cloud	5	Google Cloud	5	Divided into no. of global regions, each has multiple availability zones. Allow users to set geographical limits on their services.	Marginality & Scalability Network Effect Demand for Remote Desktops Startup Ecosystem Increased Data Consumption	Netflix – \$19 million LinkedIn – \$13 million Facebook – \$11 million BBC – \$9 million Baidu – \$9 million ESPN – \$8 million
Player	Market Share (%)																		
AWS	48																		
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Others	22																		
Alibaba	5																		
IBM Cloud	5																		
Google Cloud	5																		
Fees <ul style="list-style-type: none"> “Pay-as-you go” model. Based on hardware/OS/software/networking features chosen. Pay for a single virtual computer, a dedicated physical computer, or clusters. The customer gets free “credits” in the beginning to set up their cloud computing structure on cloud platforms. <ul style="list-style-type: none"> Free Credit for startups: Microsoft - \$120,000 worth of cloud credits AWS - Up to \$100,000 worth of credits for funded startups. For individuals, it's a free trial (a dual core server with a 5 GB storage space for 1 year) <ul style="list-style-type: none"> Once these credits are used up and the customer has needs more server capacities, he can flexibly use as much server capacity as he needs and is billed accordingly. 	Pricing Models <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> On Demand <ul style="list-style-type: none"> You pay for compute capacity by the hour or the second depending on which instances you run. Can increase or decrease your compute capacity depending on the demands of your application Only pay the specified per hourly rates for the instance you use. </div> <div style="text-align: center;"> Spot Instances <ul style="list-style-type: none"> Spot instances allow you to bid on spare computing capacity for up to 90% off the On-Demand price. </div> <div style="text-align: center;"> Dedicated Hosts <ul style="list-style-type: none"> A Dedicated Host is a physical server dedicated for use. Reduce costs by bundling software licenses, including Windows Server, SQL Server. </div> <div style="text-align: center;"> Reserved Spots <ul style="list-style-type: none"> Savings Plans are a flexible pricing model that offer low prices in exchange for a commitment to a consistent amount of usage (measured in \$/hour) for a 1 or 3 year term. For applications that have steady state or predictable usage. Annual & prepaid service </div> </div>	Major Services over Cloud <ul style="list-style-type: none"> Compute Storage Data management Migration Networking & Content delivery Development tools & application services Management & monitoring Security, Identity, & Compliance Analytics Artificial intelligence & IoT Mobile development Notifications Business Productivity 																	
			Advantages of Cloud <ul style="list-style-type: none"> Trading Capex for variable Opex : Minimize overhead for investment, maintenance, and management. Economies of Scale Flexible Capacity & Agility: As a company grows, Cloud provides resources to aid in expansion and as the business model allows for flexible usage. Guaranteed 24*7 services and support. Security: Ensure security with modern cloud security standards and diversifying the physical locations in which data is held. Global Reach & Scalability 																

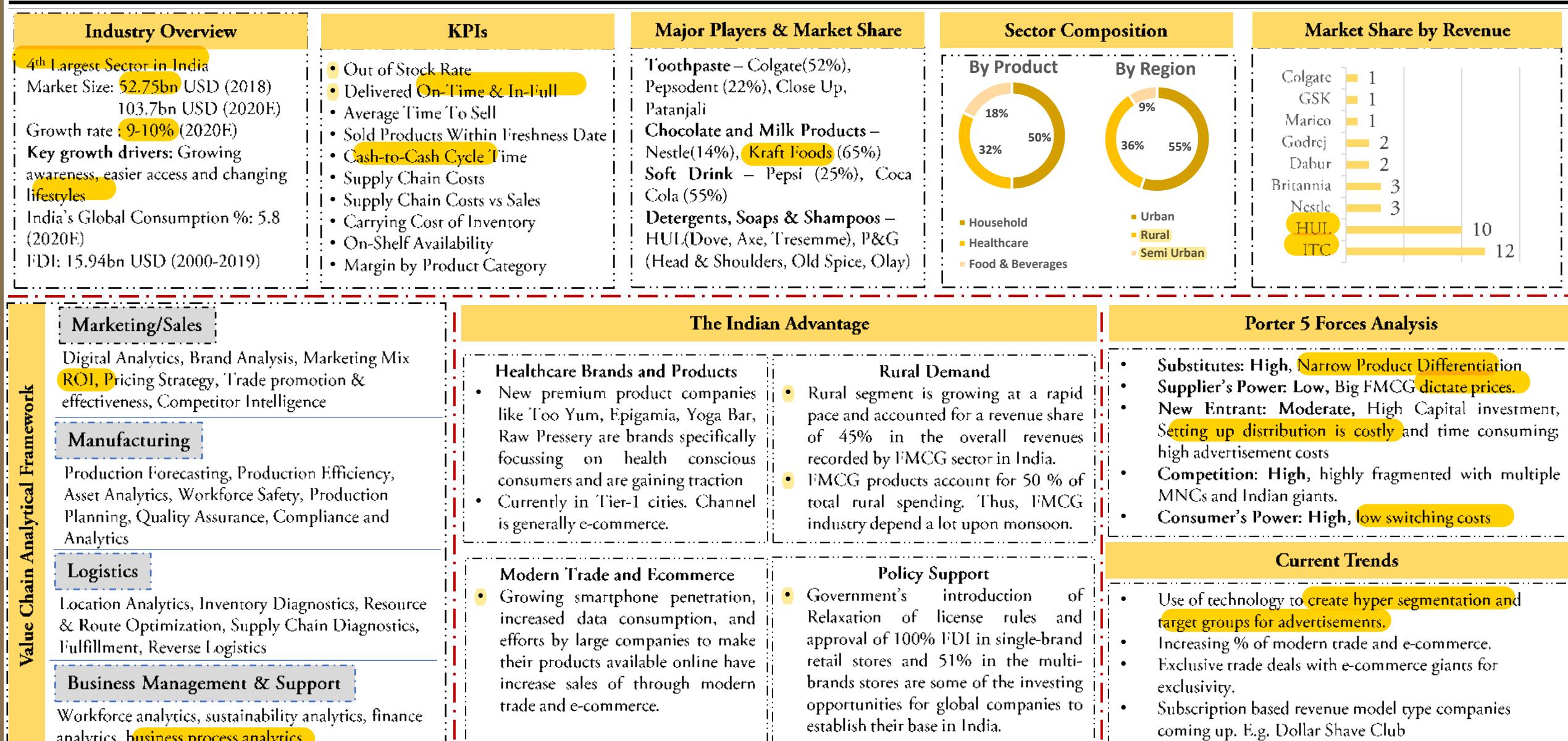
Understanding Indian E-Commerce Industry

Industry	Product Types	Major Players	Key Success Factors	Cost Factors												
<ul style="list-style-type: none"> Indian E-Commerce market expected to reach US\$84 billion by end of 2021 Over 175 million people are expected to shop in 2020 Growth at 25% CAGR over the next 5 years 100% FDI allowed in B2B E-Commerce E-commerce can potentially create 1 million+ jobs by 2022 E-tail and e-travel, together will continue to hold >90% share of e-commerce 	 <table border="1"> <thead> <tr> <th>Product Type</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Electronics</td> <td>48%</td> </tr> <tr> <td>Apparels</td> <td>29%</td> </tr> <tr> <td>Home/Furnishing</td> <td>9%</td> </tr> <tr> <td>Personal Care</td> <td>8%</td> </tr> <tr> <td>Others</td> <td>6%</td> </tr> </tbody> </table>	Product Type	Percentage	Electronics	48%	Apparels	29%	Home/Furnishing	9%	Personal Care	8%	Others	6%		<ul style="list-style-type: none"> Wide & diversified product portfolio Multi-channel marketing Conversion rate Efficient supply chain management Low acquisition costs 	<ul style="list-style-type: none"> Technology costs Software costs Marketing costs Management costs Logistics costs
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Value Chain			Latest Developments													
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Low fixed costs, innovation based, mass reach			<table border="1"> <thead> <tr> <th>Production Clusters</th> <th>Government Initiatives</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Performance based marketing efforts to boom Wallets & payment channels to grow manifold Introduction of new categories apart from fashion & electronics Use of AI for providing virtual shopping experiences </td> <td>    </td> </tr> </tbody> </table>		Production Clusters	Government Initiatives	<ul style="list-style-type: none"> Performance based marketing efforts to boom Wallets & payment channels to grow manifold Introduction of new categories apart from fashion & electronics Use of AI for providing virtual shopping experiences 	  								
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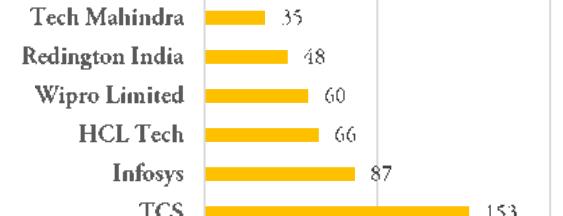
Understanding Indian Ed-tech Industry

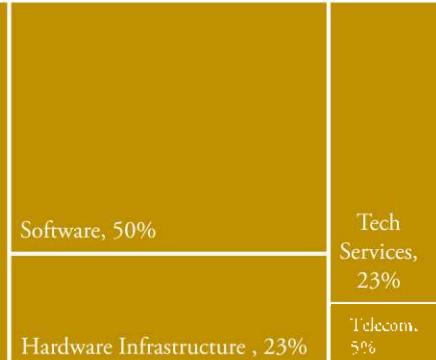
Industry	Product Types	Major Players	Distribution	Growth Factors	Strategic Levers																							
Currently \$ 1 Billion 45 million users Expected to grow to \$3.5 Billion and 90 million users by 2023. Second highest # of edtech startups in the World – 3000	Offline Coaching and Systems Integrated Classroom Tech, Primary & Secondary Tuition Skill Development Entrance Exam Prep Review Sites MOOCs	Byjus Unacademy EduComp UpGrad Testbook Simpl Learn White Hat Jr	InterviewBit Vedantu Toppr Edx Udemy Pesto MeritNation	Mobile Apps and Website B2B B2B2C B2C	• Technical Talent • Large Domestic User Base • English as a Language • Fastest Rising Consumer Spend on Education • 850 M mobile phone users • COVID Boost																							
Porter's Analysis			Market Segment & Size																									
Supplier's Power High, Good quality teachers are hard to find.			<table border="1"> <thead> <tr> <th>Segment</th> <th>Size (\$ M)</th> <th>Paid Users ('000)</th> </tr> </thead> <tbody> <tr> <td>Primary & Secondary Ed</td> <td>467</td> <td>73</td> </tr> <tr> <td>Test Prep</td> <td>196</td> <td>43</td> </tr> <tr> <td>Reskilling</td> <td>499</td> <td>93</td> </tr> <tr> <td>Higher Ed</td> <td>55</td> <td>33</td> </tr> <tr> <td>Language and Casual Learning</td> <td>353</td> <td>5</td> </tr> </tbody> </table>			Segment	Size (\$ M)	Paid Users ('000)	Primary & Secondary Ed	467	73	Test Prep	196	43	Reskilling	499	93	Higher Ed	55	33	Language and Casual Learning	353	5					
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Higher Ed	55	33																										
Language and Casual Learning	353	5																										
Buyer's Power High, too many options available to choose from and low switching cost.			Latest Developments <ul style="list-style-type: none"> COVID has a positive impact on the industry. The edtech industry have received \$717M in 2020 and expected to reach \$2.2B in this year. Byju's acquired DoubtNut for \$100M and WhiteHat Jr. for \$300M. 95% of higher secondary students take private tuitions. 11% of household expenditure in India is on private tuitions. The share of video consumption to total internet traffic is expected to rise from 58% in 2017 to 77% in 2022. \$1.8B investment received in this sector in the period 2014-2019. 																									
Competition Very High, new industry, seeing a lot of new players.			Division as per Type <table border="1"> <thead> <tr> <th rowspan="2">Age Group</th> <th>B2B</th> <th>B2B2C</th> <th>B2C</th> </tr> <tr> <th>Infra</th> <th>Platform</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>Upskilling</td> <td>Simpl Learn</td> <td>upGrad</td> <td>Pesto</td> </tr> <tr> <td>Higher Ed</td> <td>Moodle</td> <td>Interviewbit</td> <td>edX</td> </tr> <tr> <td>Competitive</td> <td>TCS Ion</td> <td>Unacademy</td> <td>Testbook</td> </tr> <tr> <td>K12</td> <td>Educomp</td> <td>Vedantu</td> <td>Byju</td> </tr> </tbody> </table>			Age Group	B2B	B2B2C	B2C	Infra	Platform	Content	Upskilling	Simpl Learn	upGrad	Pesto	Higher Ed	Moodle	Interviewbit	edX	Competitive	TCS Ion	Unacademy	Testbook	K12	Educomp	Vedantu	Byju
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Important KPIs <ul style="list-style-type: none"> Time-on-app Engagement level: MAU/DAU Revenue Growth Activation Range Churn Rate Client Acquisition Cost ARPU CLV Students served as a % of potential customers 			Trends <ul style="list-style-type: none"> Personalization of learning and Content. AI/ML technology is making learning sessions interactive and allow for real-time customized Q&A. Automated Doubt Solving – DoubtNut and Brainly Subscription based models. 																									
			Government Initiatives <ul style="list-style-type: none"> Programmes such as Skill India Mission, SWAYAM (Study Webs of Active Learning for Young Aspiring Minds), NDL (National Digital Library). Digitization of classrooms of government schools Online conduction of exams 																									

Understanding Indian FMCG Industry



Understanding Indian IT Industry

Industry	Product Types and Services	KPIs	Major Players & Revenue in Rs'000 Cr (2019)	NASSCOM's Digital India for trillion-dollar economy														
<p>The IT-BPM sector in India stood at US\$177 billion in 2019</p> <p>Estimated size of the industry to be US\$ 350 billion by 2025.</p> <p>YoY 6% growth rate</p> <p>Low cost advantage (about 5-6 times less expensive than US)</p>	<ul style="list-style-type: none"> IT Software: Software for documentation, banking services, security etc. ITeS Business Process Outsourcing – Back office operations which are outsourced elsewhere than done in house IT Hardware & Peripherals – Tangible components like laptop, desktop etc. IT Education – Training and certification courses 	<ul style="list-style-type: none"> Average Handle Time Number of Critical Bugs Server Downtime Estimates accuracy IT ROI Mean time to Repair 	 <table border="1"> <thead> <tr> <th>Player</th> <th>Revenue (Rs'000 Cr)</th> </tr> </thead> <tbody> <tr> <td>Tech Mahindra</td> <td>35</td> </tr> <tr> <td>Redington India</td> <td>48</td> </tr> <tr> <td>Wipro Limited</td> <td>60</td> </tr> <tr> <td>HCL Tech</td> <td>66</td> </tr> <tr> <td>Infosys</td> <td>87</td> </tr> <tr> <td>TCS</td> <td>153</td> </tr> </tbody> </table>	Player	Revenue (Rs'000 Cr)	Tech Mahindra	35	Redington India	48	Wipro Limited	60	HCL Tech	66	Infosys	87	TCS	153	<ul style="list-style-type: none"> Digital Payments – Digital transactions expected to increase to 20%(FY 2027) from (5% FY 2017) Digital Skilling – Swayam, IT Platform Digital Business – E-Way Bill, etc. Digital Infrastructure- 4th largest apps economy
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Expected Growth Rates of Different Categories by 2023	Value Chain	Industry Trends																						
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Category	Growth Rate (%)																							
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Key Emerging Tech Growth Categories :

- IoT Software, IoT Hardware
- SaaS+PaaS+IaaS
- IoT Connectivity
- Robotic/Drones
- AR/VR
- AI Platforms/Applications/Big Data Analytics
- Enterprise Social Software
- Next Gen Security

Key Growth Drivers
<ul style="list-style-type: none"> Low cost of operation and tax advantages Supportive government policies, Government established SEZs Availability of technically skilled manpower Rapid introduction of IT Technologies in major sectors such as Telecom, BFSI, and more Strong Growth in Export Demand Adoption of new technologies like cloud computing, AI/ML,

Understanding Business Models – Google



Overview

Market Cap - \$1.051 Trillion
 Revenues – \$161 Bn (2018)
 Net Income - \$34 Bn (2018)
 Google India's Revenue-\$590 Mn
 Processes 1 Bn search everyday

Model Type

Follows hidden revenue business model, where users are kept out of the equation so they don't pay for the product or service offered.

Revenue Stream



Ads
 Ad-words
 Ad-Sense



Cloud
 G-Suite
 Maps
 Docs



Hardware
 Phones
 Home Assistant
 Chromecast



- Ads are the major source of revenue.
- 2 types of Ads

1. Local search ads are featured businesses which appear as top results when searched on Maps
2. Promoted Pins: Google Maps uses a 'pin' like symbol to indicate the location of a place. For e.g., McDonald's in US pays a fee to Google to have its signature 'M' logo to be embedded in each map.

- Google Maps API - Customized API is geared towards businesses that benefit from having a tailored version of the Maps in their online or mobile applications. E.g. Ola, Uber, Pokémon Go etc.
- Payments unlocks potential in revenue by tapping merchants through Maps & advertising.
- UPI sees about 30% transactions being made to merchants.
- For online merchant transactions, Google Pay is the market leader (60% share).
- It has 33% share in offline merchant transactions. (1st PhonePe)



- Google Phones**
- Pixel 3 & 3a
 - Accessories: Stand, Cases, Headphones, cables & Adaptors



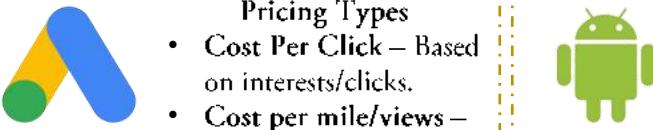
- Chrome Cast**
 Chromecast is a streaming media adapter that allows users to play online content such as videos and music on a digital television.



- Nest Hub**
 Voice-control multiple compatible devices, all from a single dashboard.



- Google Home**
 Smart speaker and voice Assistant.
 Play your music. Call your friends. Ask it questions.



Pricing Types

- Cost Per Click – Based on interests/clicks.
- Cost per mile/views – Based on impressions
- Ad-words - Helps advertisers display advertisements in the Google content network.
- Constitutes 80% of the ads revenue.
- Ad-Sense - Helps other website owners display advertisements on their own website.
- This time allows small businesses and blogs to generate ads revenue on their own.
- In return, Google gets one-third of the revenue generated.
- Constitutes 20% of ads revenue.

Google Analytics: Shows website owners track of visitors to their sites and how people use them. Costings for web search and android search varies but due to sheer volume of android devices, it is extremely profitable.

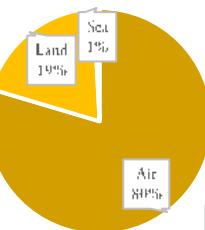
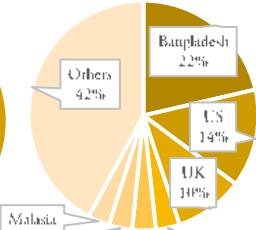
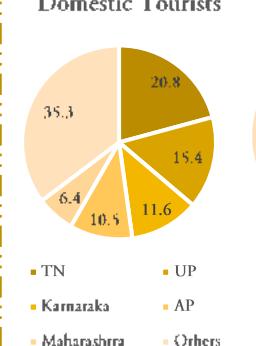
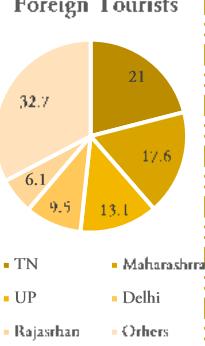
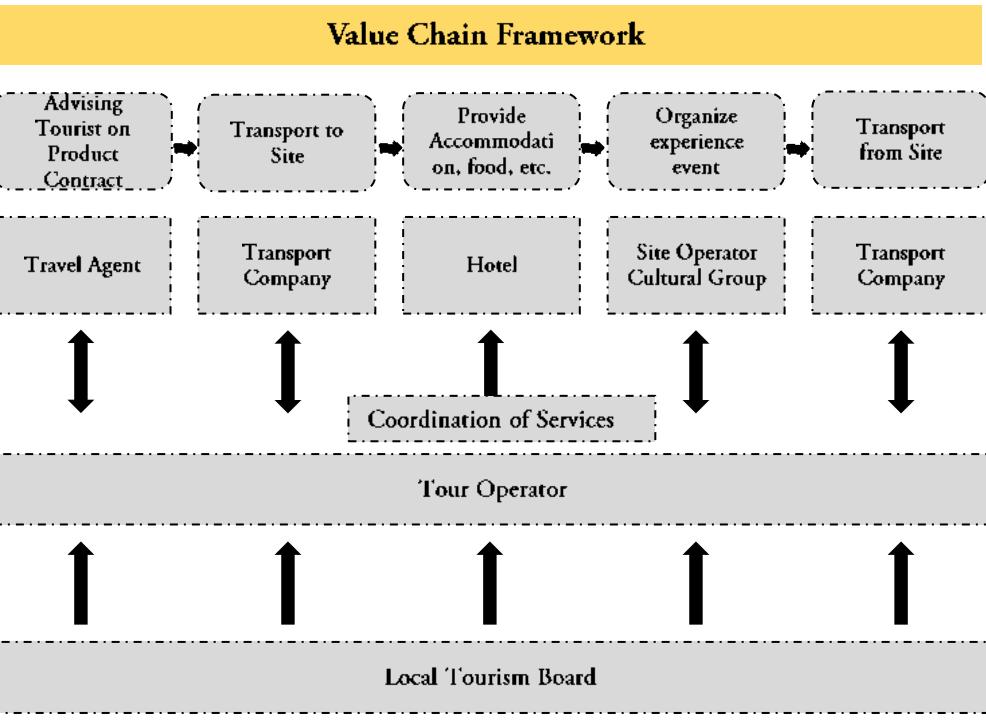


- # of android users worldwide – 2 billion monthly active users
- # Apps – 1.5 Million

- Mobile advertising -main source
- Google pays Apple billions to be default search engine on iPhone
- App Store – A 35% commission of every purchase of App and even in-app purchases.
- In exchange offers the platform and cloud infrastructure for delivering notifications.
- Media side of the Play Store - Paid music, movies, books, and subscriptions on Google Apps like Play Music, Play Movies etc.

Android has no licensing fees & it is beneficial because every phone user signs in with their unique account when setting up a phone. This helps in analyzing user data to improve the relevancy of the ads .

Understanding Indian Hospitality & Tourism Industry

Industry Overview	KPIs	India at a Glance	Sector Composition	Popular States for Tourist Visits
<p>Number of International Tourist arrivals in 2018: 17.42mn (3.7% YoY) 30.5mn (2028E)</p> <p># of Domestic Tourist visits in 2018: 1854.93mn (11.9% YoY)</p> <p>Market Size: US\$ 247bn (2018) US\$ 488bn (2029E)</p> <p>Number of Jobs: 4.2Cr (2019) (8.1%) 5.23Cr (2028)</p>	<ul style="list-style-type: none"> Foreign Tourist Arrivals (FTAs) International Tourist Arrivals (ITAs) Foreign Exchange Earnings (FEEs) # of Domestic Tourist Visits # of Tour Operators International Tourism Receipts # of approved Hotel & rooms Revenue Per available room Average daily Hotel Rate Hotel Occupancy Rate 	<ul style="list-style-type: none"> India ranked 3rd by WTCC in terms of tourism contribution to GDP India ranked 34th by WEF in Travel & Tourism Competitiveness India is 3rd in terms of investment in Tourism & hospitality sector International Hotel chains presence in India: 47% share (2020) 37 world heritage sites, 10 biogeographic zones in India 	 	 
Value Chain Framework		The Indian Advantage		Porter's 5 Forces Analysis
		<p>Diversity</p> <ul style="list-style-type: none"> Diverse niche tourism products- cruise, adventure, medical, wellness, sport, eco, film & religious tourism Diverse attractions- 37 World Heritage sites, 10 bio-geographic zones Big Coastline dotted with attractive beaches <p>Increasing Investments</p> <ul style="list-style-type: none"> In 2018, India was 3rd globally in terms of investment in this sector with inflow of US\$ 45.7bn Hotel & Tourism sector received cumulative FDI inflow of US\$ 15.28bn between March,2020 & April,2020. 	<p>Demand Drivers</p> <ul style="list-style-type: none"> By 2029, sector expected to grow 6.7% to reach Rs.35tr (9.2% of GDP) By 2028, International Tourists arrival expected to reach 30.5mn <p>Policy Support</p> <ul style="list-style-type: none"> GOI to develop 17 iconic tourist sites into world class destinations as per Budget 2019-20 Campaigns like <i>Swadesh Darshan</i> launched to support the industry 	<p>Substitutes: High, Large availability of attractions & Packages</p> <p>Supplier's Power: Low, Large # of service providers, Demand-driven industry</p> <p>New Entrant: High, Less barriers to entry, investment needed depends upon location & services .</p> <p>Competition: High, Large # of tour operators, agents, Hotels, Transporters, etc.</p> <p>Consumer's Power: High, Demand driven</p>
Current Trends				<ul style="list-style-type: none"> Catering to millennials: Eco-Tourism, Sport tourism & Film tourism Tech explosion increasing coordination among industry stakeholders. Influx of International visitors & emphasis on health & well-being

Understanding Indian NBFC Industry

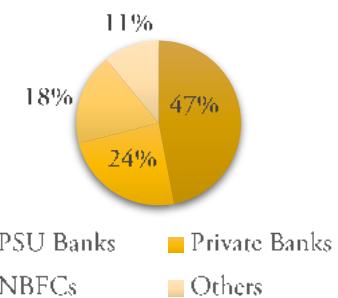
About the Institution

- NBFCs are financial institutions that offer banking services without a banking license
- They cannot demand deposits
- They do not form a part of the payment and settlement system and cannot issue cheques drawn on itself
- Unlike banks, they don't have a deposit insurance facility from the Deposit Insurance and Guarantor organization

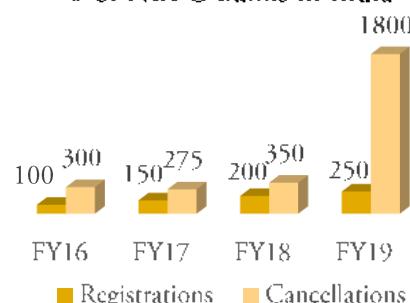


Key Statistics over the years

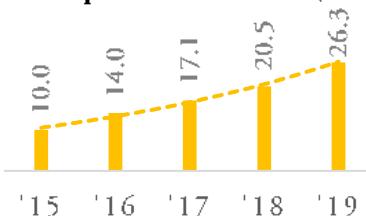
Mkt Share in Formal Sources of Credit



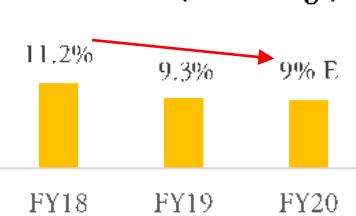
of NBFC Banks in India



Public Deposits over the Yrs (in Bn\$)



Risk Profile (NPAs %age)



Growth Drivers

- Stress on PSUs
- Latent Credit Demand
- Digital Disruption, especially in MSMEs & SMEs
- Increased Consumption
- Distribution reach & sectors where banks don't lend

Governance & Risk Mgmt

- Asset Liability Mgmt
- Liquidity Coverage Ratio
- Arm's length transaction
- Reporting Standards
- Concentration Risk
- Audit & Compliance

KPI

- RoA vs RoE
- Price to Book Ratio (P/B)
- Spread
- Opex as % of AuM growth
- Gross NPAs

NBFC Slowdown

- Liquidity transmission from PSBs to non-AAA rated NBFCs constricted
- Cost of funds up by 120 bps
- Before IL&IS crisis, banks charged nearly 40 bps as spread on AAA Rated NBFC Paper. This rose to more than 1.5% points

69% Lower Auto Loans 62% Fall in secured business loans

59% fall in Agricultural Loans 88% Fall in Cash Credit Facilities
31% Decrease in total Credit

7% Increase in Consumer Loans

22% Growth in Personal Loans

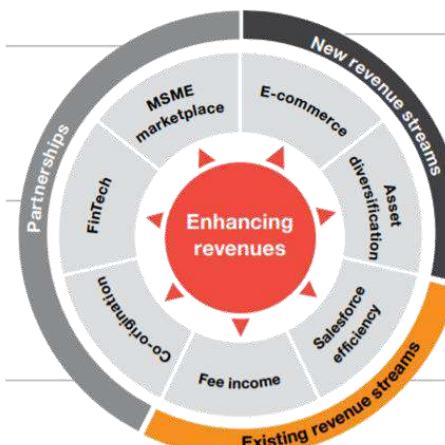
17% Increase in Gold Loans

Opportunities to boost revenue

Increase the penetration in the MSME segment with new and dynamic operating models

Synergistic alliances with FinTech to tap niche markets

Get access to new customers and cheaper funding sources by developing a viable co-lending business model



Target individual buyers, merchants and suppliers to tap into the fast-growing e-commerce segment

Diversify assets by targeting new profitable segments and developing the capabilities required to serve the segments

Develop digital capabilities to boost sales productivity

Increase fee income through advisory services

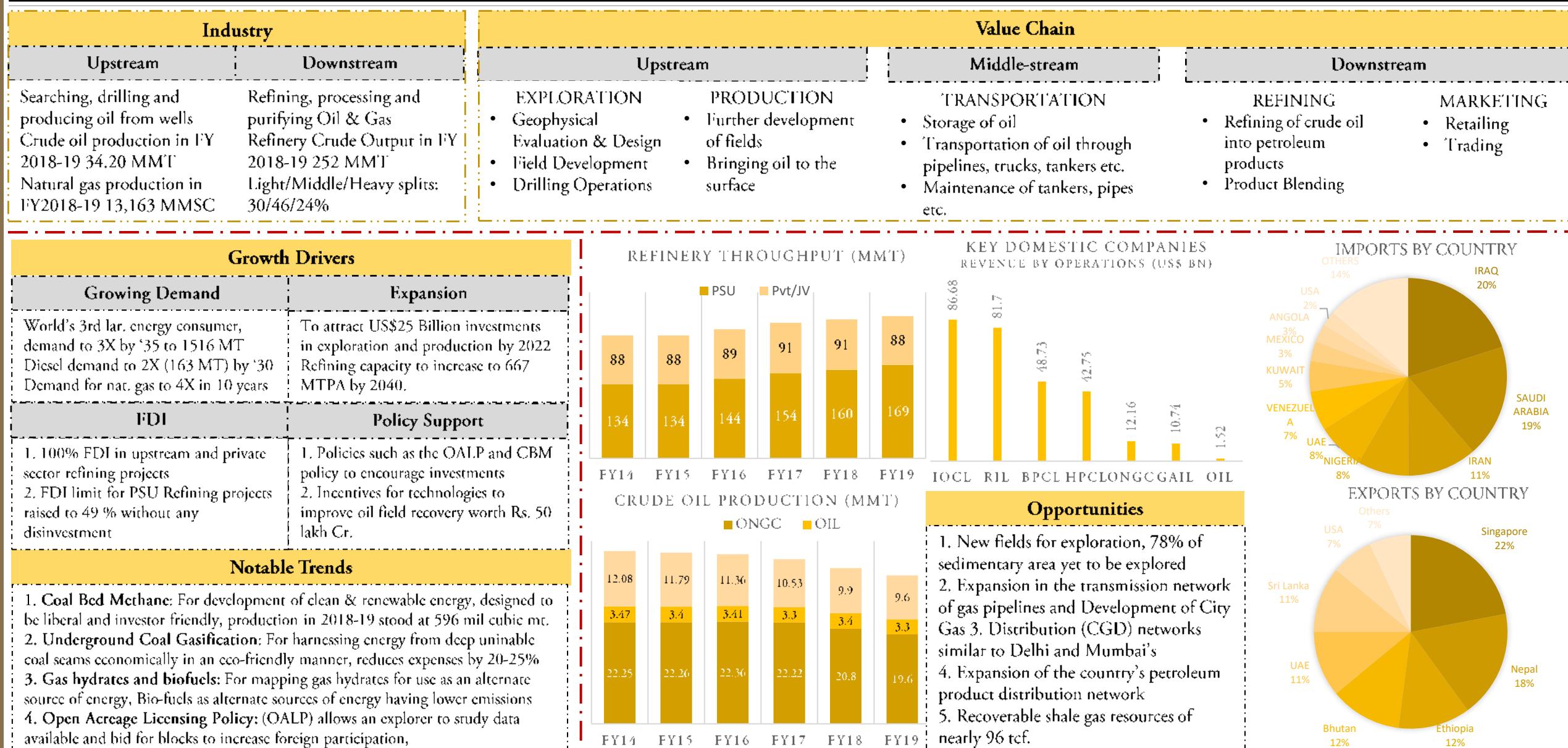
What caused the NBFC Collapses?

- Asset liability mismatch, resulting from short-term market borrowings & long-term loan tenures
- Absence of robust governance controls and due-diligence mechanisms to match aggressive credit build-up
- Low corporate governance and risk standards, resulting in slip-ups like intra-group lending
- Lower regulatory supervision compared to the banking sector

Emerging Tech. in NBFC Governance

- Analytics** – Stress testing and Simulations for better understanding of liquidity risks
- AI** – Rules Based Engines for data driven decision making and fraud management
- Mobility** – Convenient on demand dashboard for risk management
- Cloud** – Always-on environment with real time data access

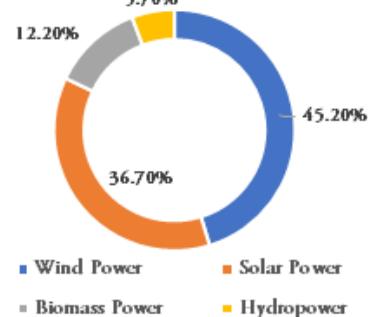
Understanding Indian Petrochemical Industry



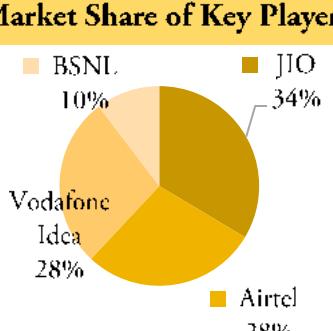
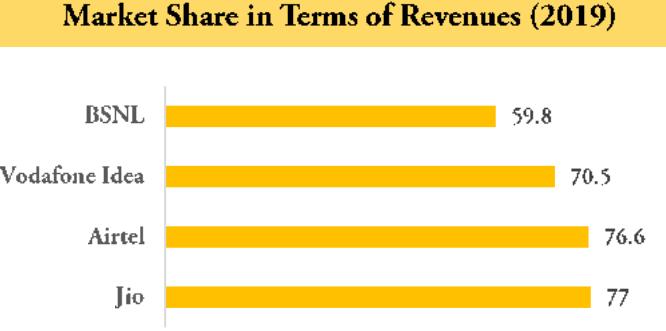
Understanding Indian Pharma Industry

Overview		Products	Key Segments	Key Drivers	Value Chain			
<ul style="list-style-type: none"> Valuation: US \$36.4 Bn (2018) Projected: US \$ 60 Bn (2021) 3rd largest in Volume 13th largest in Value 20% share in exports 		<ul style="list-style-type: none"> Bulk drugs Intermediates Drug formulation OTC drugs 	<ul style="list-style-type: none"> API Manufacturer/Traders Formulation Manufacturer Contractual Research Manufacturing Service Biotechnological Co. 	<ul style="list-style-type: none"> Knowledge Skill & Infrastructure Low production cost Quality Huge Market 	<ul style="list-style-type: none"> API/Bulk Drug Chemicals/Excipient Packaging Material 	<ul style="list-style-type: none"> Manufacturer (API/Formulation) 	<ul style="list-style-type: none"> Drugs/Medicine 	
Component	Cost incurred	Value Added	Porter 5 Forces Analysis			RORC	(Gross Profit of current year)/(R&D expense of previous year)	
Manufacture of drugs	<ul style="list-style-type: none"> R&D Manufacturing Costs Import Duties Promotion/Education 	<ul style="list-style-type: none"> Innovation Regulatory Quality Assurance Education 	Suppliers	Moderate	Certain chemicals are rare, some are generic	Profitability ratios	Operating Margin & Net Margin	
Distribution	<ul style="list-style-type: none"> Medicine Acquisition Handling & Delivery Obsolescence Cost Capital Cost Promotion/Education 	<ul style="list-style-type: none"> Ensuring supply Waste Management Order Processing Education 	Substitute	Low	Biotech, Ayurvedic, Homeopathic	Liquidity & Debt coverage ratios	Adequate liquidity and manage debt well	
Dispensing	<ul style="list-style-type: none"> Medicine Acquisition Labour, facilities Medicine Wastage Capital Cost 	<ul style="list-style-type: none"> Medicine Availability Pharmacist advice Patient Convenience Additional services 	Entry Barrier	High	R&D costs, regulation, distribution network	Trends		
Pricing Factors			Competition	High	Many Small players	<ul style="list-style-type: none"> Increase in turnover spend on R&D New drug discovery focus Exports increase in generic drug space FDI and collaborations 		
Manufacturer Selling Price	Insurance, freight	Importer Margin	Import tariff and charges	Buyers	Low	<ul style="list-style-type: none"> Tapping new international market like Africa Strategic M&A Advanced Analytics Specialty drug business model Health spending focus of govt. 		
Taxes	Retailer Mgn.	Distributor Mgn.	Promotion	Key players			Future Trends	
				<ul style="list-style-type: none"> Sun Pharma Dr. Reddy Cipla Zydus Pfizer GSK 	<ul style="list-style-type: none"> Sanofi Merck J&J Amgen Novartis Roche 	<ul style="list-style-type: none"> BM Squibb Wyeth Eli Lilly Schering-Plough Abbott Takeda 	<ul style="list-style-type: none"> Evolving regulatory landscape Tech-enabled healthcare and engagement with doctors 	<ul style="list-style-type: none"> Increased patient involvement in healthcare choices Rise of the role of pharmacy

Understanding Indian Power Industry

Industry Overview													
Value Chain	KPIs	Capacity & Consumption	% Capacity (Renewable)	Cost Factors									
	<p>Guaranteed Returns: Govt. guarantees a certain RoCE on generation.</p> <p>Maintenance Cost: Expenses incurred, efficiency indicator, Per capita power consumption, Total energy consumption, Renewable energy consp. %, Power Cuts & Average Duration, Energy Production Distribution, NAV</p>	<ul style="list-style-type: none"> India is the world's third largest producer and third largest consumer of electricity -369 GW Non Renewable – 83% Renewable – 17% Residential Consumption – 25% Industrial Consumption – 41% Agricultural Consumption – 18% Commercial Consumption – 8% 	 <table border="1"> <thead> <tr> <th>Source</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Wind Power</td> <td>45.20%</td> </tr> <tr> <td>Solar Power</td> <td>36.70%</td> </tr> <tr> <td>Biomass Power</td> <td>12.20%</td> </tr> <tr> <td>Hydropower</td> <td>5.70%</td> </tr> </tbody> </table>	Source	Percentage	Wind Power	45.20%	Solar Power	36.70%	Biomass Power	12.20%	Hydropower	5.70%
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Power Generation	The Indian Advantage	Porter 5 Forces Analysis											
<p>70% share of PSUs. Thermal based generation predominant (60%). High gestation period, capital intensive.</p> <p>Power Transmission</p> <p>200kV and 400kV transmission lines-40%. 250k+ circuit kilometers in grid. High commission period (6-7 years), less upgradation in technology</p> <p>Power Distribution</p> <p>Major bottleneck - loss making PSUs T&D losses > 25% of power generation; 2.5X of global average</p> <p>Power Trading</p> <p>10% of power generated is traded. Lack of long term power contracts</p>	<p>Robust Demand</p> <ul style="list-style-type: none"> 100% electricity produced is consumed. Huge demand expected in near future. 100% electrification opens up new avenues for distribution companies. <p>Increasing Investments</p> <ul style="list-style-type: none"> The industry attracted US\$ 12.97 billion in FDI. Growing private sector participation through the Public - Private Partnership (PPP) route; Also promotion of FDI . 	<p>Demand Drivers</p> <ul style="list-style-type: none"> Rapidly growing economy, rising exports, improving infrastructure and increasing household incomes. India pledged to increase its share of renewable energy to 40% in Paris Climate agreement. <p>Policy Support</p> <ul style="list-style-type: none"> Encouragement of Pvt. Sector by Govt. 46% of distribution is now private. <i>Deen Dayal Upadhyaya Gram Jyoti Yojana</i> (DDUGJY) with the objective of 100% rural electrification. 	<p>Supplier's Power: High, COAL India is the only supplier.</p> <p>Substitutes: High dependence on Coal for energy</p> <p>Barriers to Entry: High Capital investment, distribution and transmission dominated by PSU, high red-tapeism.</p> <p>Competition: Low, all power generated is used up.</p> <p>Bargaining Power, buyers: Low, limited distributors</p>										
Current Trends													
	<p>The per capita consumption has been increasing at an average of 6% every year.</p> <p>Direct Benefit Transfer (DBT) scheme in the electricity sector for better targeting of subsidies.</p> <p>Gol Roadmap to achieve 175 GW capacity by 2022, 100 GW of solar power & 60 GW wind.</p>												

Understanding Indian Telecom Industry

Industry	Product Types	Market Share of Key Players	Market Share in Terms of Revenues (2019)	KPIs																				
<ul style="list-style-type: none"> 2nd Largest Telecom Market 1.2 Bn subscriber base – 2.7% CAGR growth (2016-19) Industry Size – US\$17.4bn 2nd largest market of internet users Tele-density of 83.4% Wireless segment - 98.3% 	Mobile (wireless) Fixedline (wireline) Internet Services	 <table border="1"> <thead> <tr> <th>Player</th> <th>Market Share (%)</th> </tr> </thead> <tbody> <tr> <td>BSNL</td> <td>10%</td> </tr> <tr> <td>JIO</td> <td>34%</td> </tr> <tr> <td>Airtel</td> <td>28%</td> </tr> <tr> <td>Vodafone Idea</td> <td>28%</td> </tr> </tbody> </table>	Player	Market Share (%)	BSNL	10%	JIO	34%	Airtel	28%	Vodafone Idea	28%	 <table border="1"> <thead> <tr> <th>Company</th> <th>Revenue Share</th> </tr> </thead> <tbody> <tr> <td>BSNL</td> <td>59.8</td> </tr> <tr> <td>Vodafone Idea</td> <td>70.5</td> </tr> <tr> <td>Airtel</td> <td>76.6</td> </tr> <tr> <td>Jio</td> <td>77</td> </tr> </tbody> </table>	Company	Revenue Share	BSNL	59.8	Vodafone Idea	70.5	Airtel	76.6	Jio	77	<ul style="list-style-type: none"> Average Revenue per user (ARPU) Subscriber Acquisition Cost Churn Network Operating Cost Minutes of usage Tele-density
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Value Chain	SWOT Analysis	Barriers to Entry	Current Trends																					
Telecom Infrastructure: Network equipment, towers, test equipment Network/Service Provider: Network owners, also provide services to end customer Content Provider: Provides content to the user to view/use Technology: Provides software, spectrums, chipsets, technology (4G/5G) Devices: Mobile, handset, router manufacturers	<table border="1"> <thead> <tr> <th>Strength</th> <th>Weakness</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Robust and huge demand Highest data usage per mobile phone Good telecom infrastructure Relaxed FDI norms Strong government support Growing tele density </td><td> <ul style="list-style-type: none"> Cutthroat competition Increasing debt and financing cost Late adoption of 5G technologies Low switching cost Equipment become obsolete quickly </td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Opportunities</th> <th>Threats</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Untapped rural market Drastic growth in internet subscribers Growing subscriber base Increasing mobile banking and cashless transaction Growth in MVAS & cloud computing </td><td> <ul style="list-style-type: none"> Reducing tariffs & narrow margins Spectrum Auction Zero interconnection charges </td></tr> </tbody> </table>	Strength	Weakness	<ul style="list-style-type: none"> Robust and huge demand Highest data usage per mobile phone Good telecom infrastructure Relaxed FDI norms Strong government support Growing tele density 	<ul style="list-style-type: none"> Cutthroat competition Increasing debt and financing cost Late adoption of 5G technologies Low switching cost Equipment become obsolete quickly 	Opportunities	Threats	<ul style="list-style-type: none"> Untapped rural market Drastic growth in internet subscribers Growing subscriber base Increasing mobile banking and cashless transaction Growth in MVAS & cloud computing 	<ul style="list-style-type: none"> Reducing tariffs & narrow margins Spectrum Auction Zero interconnection charges 	<ul style="list-style-type: none"> Economies of Scale Huge capital investment Government policies and regulations Specialized equipment are needed Low tariffs Established players 	<ul style="list-style-type: none"> Reducing tariffs Expansion to rural markets Mobile banking Emergence of BWA technologies Investment in optical fibre network Consolidation in industry Increasing FDI 													
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Growth Factors		Government Initiatives	Future Trends																					
<ul style="list-style-type: none"> Growing demand Higher income Increasing minute of usage & data usage Reducing license fee Relaxed FDI norms Increasing rural penetration 		<ul style="list-style-type: none"> National Digital Communications Policy 2018 Phased Manufacturing Programme (PMP) 100% FDI Digital India Program 	<ul style="list-style-type: none"> Internet of things Growing number of mobile application Cashless transaction Internet of things Increase in data usage/mobile 																					

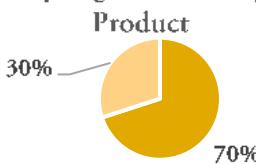
Understanding Indian Tyre Industry

Key Industry Statistics

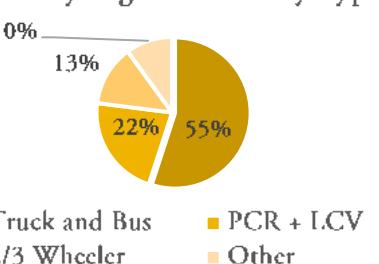
- 4th largest in the world after China, Europe and USA (in no. of units produced annually)
- No. produced in FY2019 – 192 Million
- ~3% Manufacturing GDP of India & ~0.5% of total GDP
- Export Volume is also on the rise.
- CAGR – 6.85%
- Market Size ~Rs. 59,500 crores (2017-18)
- Almost double from ~Rs. 30,000 (2010-11)

Market Segmentation

Industry Segmentation by End Product

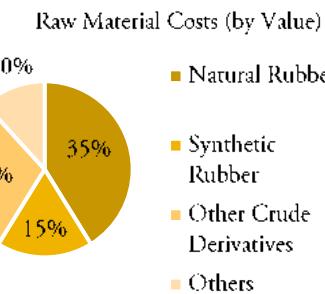


Industry Segmentation by Type



Cost Drivers

- Highly Capital Intensive
- Raw Materials cost 60-65% of revenues
- SG&A – 6-12%
- Employee Costs – 7-14%
- Negative correlation with Crude Oil prices as raw material like carbon black are derivatives.



Tyre Production Trends (in Mns)



Factors impacting value chain

Suppliers	Δ veh. platforms, Δ tech., discontinuation
Trade	After sales, Sales, service discontinue
Legislation	New standards, autonomous driving
Fin. service	Funding req. for transportation
Manufacturer	Collaboration, Chang. Drive systems
Insurance	New Tariff structures, Autonomous cars

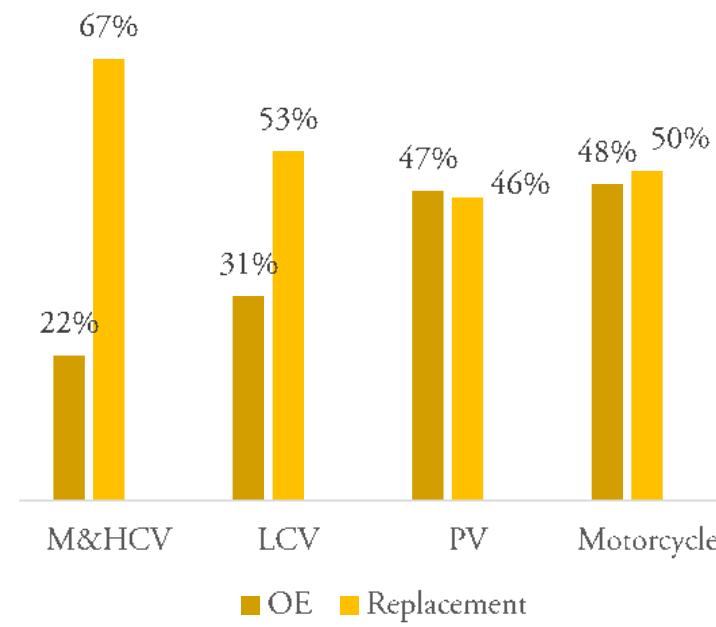
Key Growth Drivers

- Increasing radialization of tyres, especially in buses and trucks:
 - Most technologically superior design
 - Provide better mileage and improved driving
 - Now being introduced in buses, trucks and Light Consumer Vehicles
 - Therefore, increasing demand for new tyres and boosting growth
- Growing consumer base
 - No. of consumers increasing
 - As no. of produced automobiles is increasing

Recent Developments & Future Outlook

- Q3,4 FY19 Financing problems due to NBFC crisis, profitability, growth were affected with price increase for inputs
- BS-vi enforcement – Compliant vehicles will be more expensive, may keep buyers away for some time
- According to ICRA, the India tyre demand is estimated to grow by 7-9% over the next five years (FY 19-23) supported by favorable outlook for the domestic automotive industry

Original Equipment(OE) vs Replacement Demand Comparison (2018-19)



Part F – Practice Guesstimates

Practice Guesstimates: Table of Contents

Title	Page #
1. <u>Gurgaon Delhi Toll plaza</u>	58
2. <u>Revenues for TOI</u>	59
3. <u>Smart watches in India</u>	60
4. <u>Toothbrushes in India</u>	61
5. <u>E-Rickshaw Earnings</u>	62
6. <u>Number of Smokers</u>	63
7. <u>Number of Cheese Burst Pizzas</u>	64
8. <u>Petrol Pumps in India</u>	65-67
9. <u>TT balls in Delhi</u>	68-69
10. <u>White Shirts in Delhi</u>	70
11. <u>Schools in Delhi</u>	71
12. <u>Daily Departing Flights</u>	72
13. <u>People you have met</u>	73
14. <u>Tractors in India</u>	74-75
15. <u>Market Size of EV in India</u>	76
16. <u>DTC buses in Delhi</u>	77
17. <u>Revenue of Flat screen</u>	78
18. <u>Daily Amazon Orders</u>	79
19. <u>Daily Revenue of an Airport</u>	80
20. <u>Daily Revenue of 24*7 chain</u>	81

Toll Plaza

Estimate daily revenues of Delhi-Gurgaon toll plaza

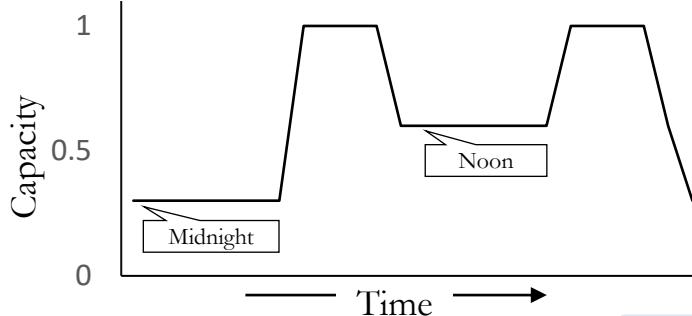
Assumptions

- Toll plaza operates 24x7
- 2/3 wheelers do not have to pay toll fare
- Toll fare is the only revenue source
- Traffic across booths is uniform

Methodology

- Daily revenue = (Daily revenue per toll booth) x (# toll booths)
- For one toll booth, the # vehicles crossing it will vary with time of the day (peak / non-peak hours)
- Average time for a car to pass the booth = 15 secs; Hence, 4 cars can cross the booth in a minute
- Therefore, capacity = max. vehicles that can cross a booth in an hour = 240 vehicles / hour

Traffic Distribution



Revenue per toll booth

We are treating the toll booth as a bottleneck to estimate traffic throughout the day

vehicle per booth

High traffic hours

8 hours /day
Full capacity

Medium traffic hours

8 hours /day
60 % capacity

Low traffic hours

8 hours /day
30 % capacity

Fare per vehicle

4 wheelers

70% of daily traffic
Fare – INR 30

> 4 wheelers (trucks)

30% of daily traffic
Fare – INR 70

'High traffic hours' include morning and evening office peak hours. 'Medium traffic hours' include afternoon and late night hours. 'Low traffic hours' include hours from ~11 PM to 7 AM.

$$\text{Total # vehicles per booth} = (8 \times 240) \times (1 + 0.6 + 0.3) \sim 3600$$

$$\text{Weighted Fare} = (0.7 \times 30) + (0.3 \times 70) = \text{INR } 42$$

$$\text{Daily revenue} = (3600 \times 42 \times 20) \sim \text{INR } 30 \text{ lacs}$$

TOI Revenues

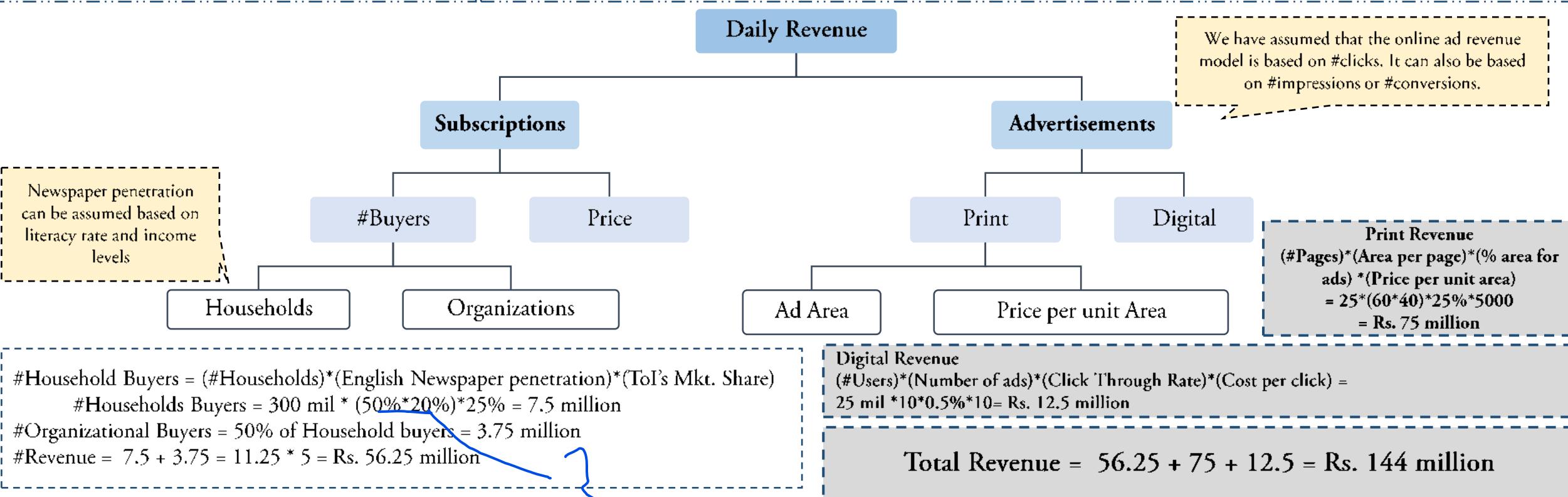
Estimate daily revenues of Times of India

Assumptions

- Households order 1 copy of ToI each
- No online subscription model for ToI
- Print ads are priced only on area basis
- Digital ads are priced on CTR basis

Methodology

- Revenue Streams = Revenue from newspaper circulation + Advertising Revenue
- Newspapers can be bought by individuals/households or organizations (libraries, offices, schools)
- Advertising Revenue Streams = Printed Ads on the paper + Ads on website/mobile apps
- Digital revenue is calculated based on the number of online users who click the advertisement



Smart Watches

Estimate the market size of Smart Watches in India

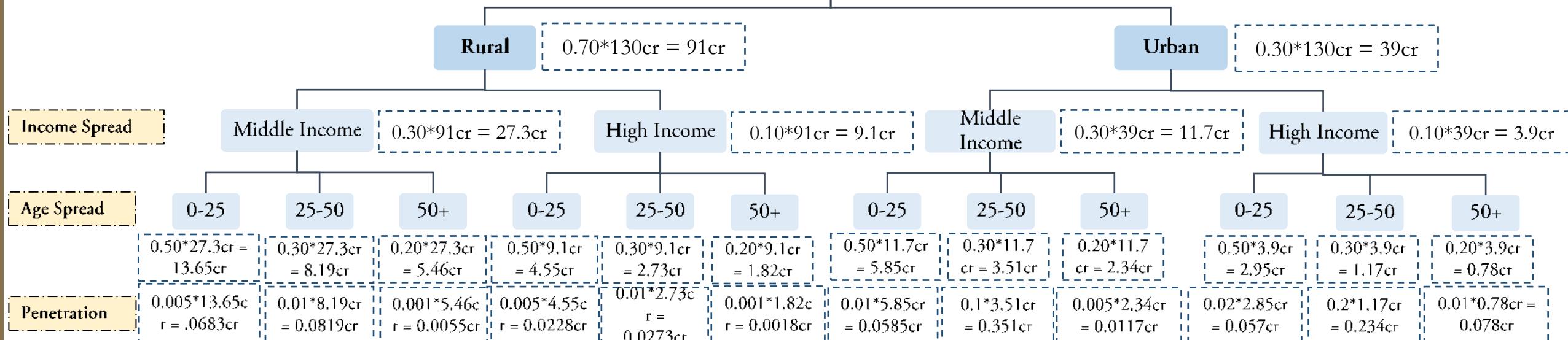
Assumptions

- Average price of Smart Watch is Rs. 10k (considering watches range from 3k-30k)
- Penetration in rural area will be much lower than in urban area
- Market exists only in middle & high income groups
- Income Spread is uniform in Rural & Urban

Methodology

- Population of India = 130 Cr; Urban = 30%; Rural = 70%
- Age Group classification: 0-25 = 50%; 25-50= 30%; 50+= 20%
- Income Spread: BPL = 20%; Low Income= 40%; Middle Income= 30%; High Income= 10%
- In Urban India 1% of 0-25 will own one, 10% of 25-50 will own one and roughly 0.5% of 50+ will own one in the middle-income population while in the higher income population, the penetration would be roughly double. In Rural India, 0.5% will own one in age group 0-25, 1% will own one in 25-50 and 0.1% will own one in 50+

Market Size of Smart Watches



Toothbrushes

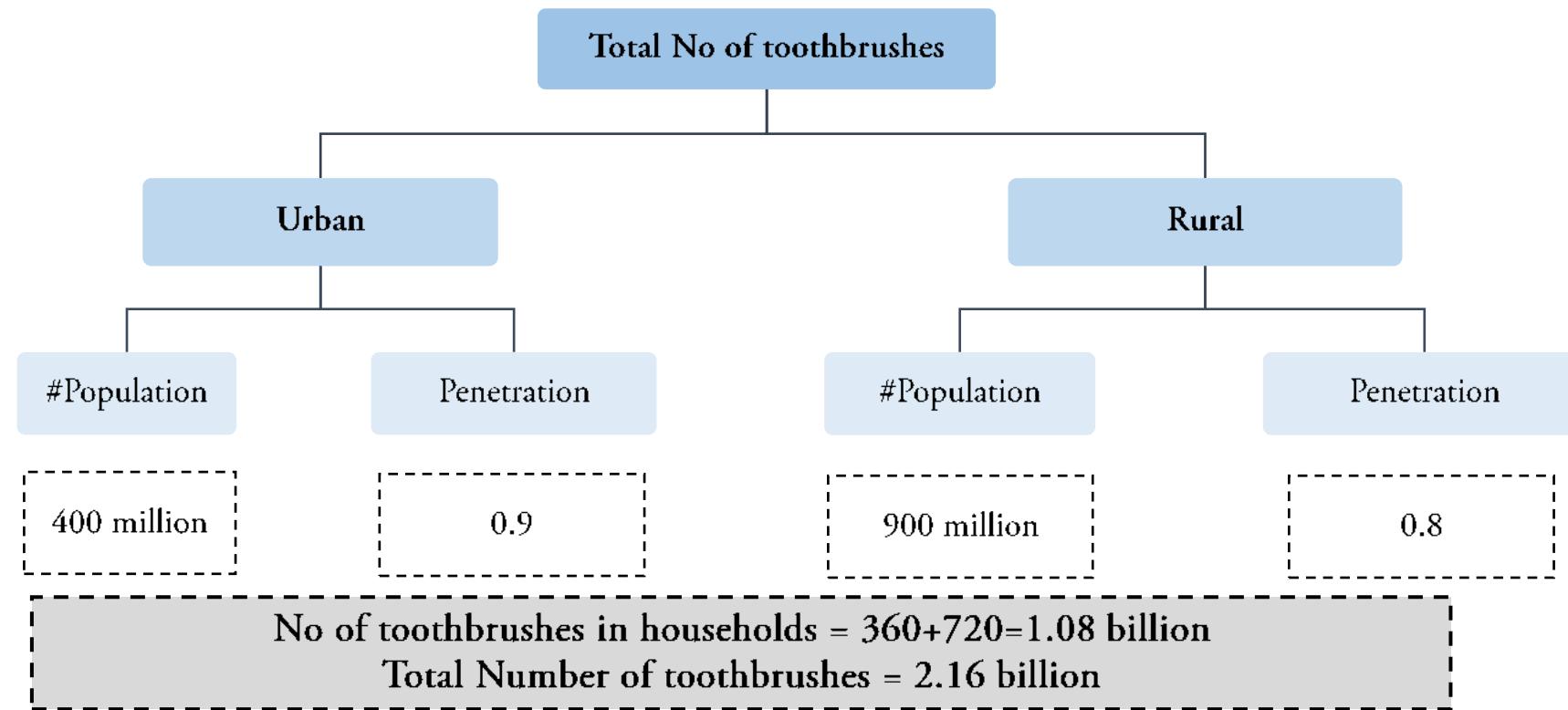
If a UFO sucked all the toothbrushes in India, how many would it have?

Assumptions

- Toothbrush penetration-90% urban and 80% rural
- Replacement frequency- 2 months Urban; 4 Months Rural

Methodology

- Total no of toothbrushes = No of toothbrushes in Households + No of toothbrushes in supply chain(retailers/distributors)
- No of toothbrushes in the supply chain can be assumed to be equal to 1 replacement cycle.
- Therefore just double the no of toothbrushes in households to account for the total number.



E-Rickshaw

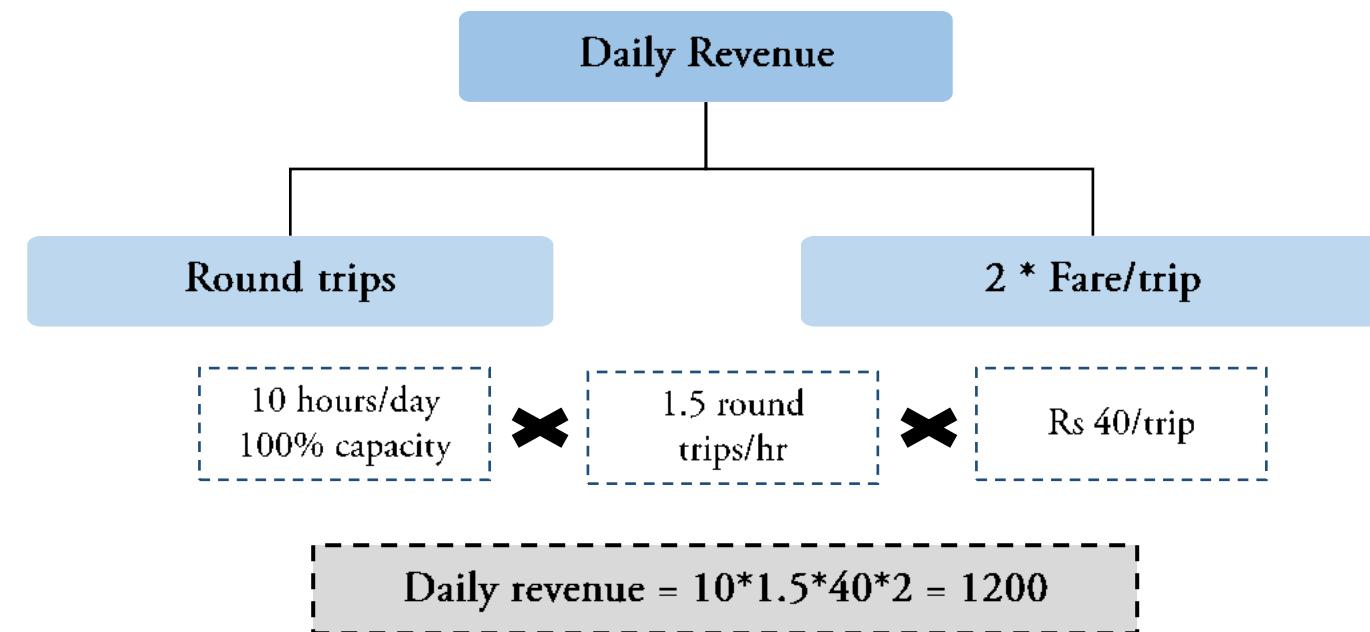
Revenue of a typical e-rickshaw driver per day

Assumptions

- Driver operate on full capacity
- They operate on fixed routes and fare
- Fare is the only revenue source
- Traffic across trips is uniform

Methodology

- For each round trip the e-rickshaw travels a fixed distance- Ex -between Metro and Mallkaganj
- Average time per round trip = 30 mins with a waiting time of 5 minutes on each side of trip
- For further segmentation-can assume different waiting period for peak and non-peak hours, though average round trip time can be assumed constant assuming normal traffic



Smokers in India

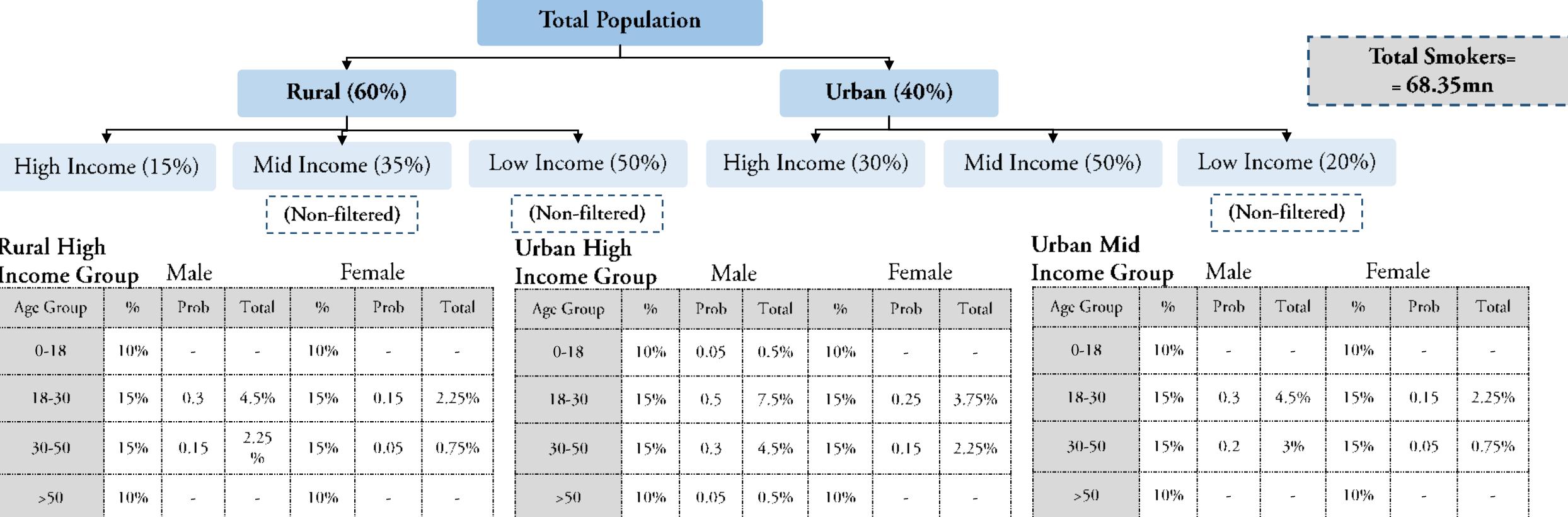
Estimate the number of Smokers in India

Assumptions

- Smokers can be divided into 4 categories- Chain smoker, Regular smoker, smoking with alcohol and occasional smoker
- Cigarettes can be filtered and non-filtered
- Population having filtered cigarettes to be estimated
- Sex Ratio – 1:1

Methodology

- Total smokers= Smokers in urban area + Smokers in rural area
- Urban and Rural areas to be divided into 3 classes each- High income , Middle income & low income
- Every class will have different proportion of male & female smoking cigarettes
- Probability of smoking will depend on the respective age group
- Low income group will not consume filtered cigarettes



Cheese Burst Pizzas

Estimate the number of cheese bursts pizzas sold by Dominos daily

Assumptions

- Working hours from 11AM to 11 PM
- Peak hrs - 2-4PM & 7-10PM(occupancy rate-80%), Non Peak- 7 hrs(occupancy rate-50%)
- An outlet is able to serve in a 4 km radius on average.
- Services available- Dine in or Home Delivery
- 40% of Pizza orders are Cheese burst orders
- On avg. it takes 5min to receive & 15 to process; 20min/customer.
- 3 orders can be processed in parallel.
- Delhi constitutes 10% of total metropolitan area
- No Dominos outlets in rural areas.

We'll divide country in 3 categories:

- Metropolitans(20%)
- Urban and Suburban areas(30%)
- Rural Areas(50%)

Methodology

- Daily orders from one outlet= $0.4 * [(Peak\ hrs/20mins) * 0.8 + (Non\ peak\ hrs/20) * 0.5] + 50\% \text{ of calculated figure for online and home delivery orders}$
- No. of Cheese bursts can be calculated for one city i.e. Delhi and then extrapolated to arrive at a national figure
- Area of Delhi= 1600 sq.km. and one outlet serves 4 km radius
- Therefore no. of outlets in Delhi= $1600 / (3.14 * 4 * 4) = 32$
- Consumption of pizzas in urban and suburban areas = 50% of that of metropolitan areas

Number of Cheese Bursts per outlet

Non Peak (7 hours)

In Store Purchase

Online & Home Delivery

Non Peak (7 hours)

In Store Purchase

Online & Home Delivery

Total Cheese bursts sold daily = 23520

$$\text{Customers} = 3 * (300/20 * 0.8 + 420/20 * 0.5) = 69$$

$$\text{Online orders} = 0.5 * 23 * 4 = 36$$

Since Delhi's area = 10% of total metropolitan area, no. of cheese bursts sold in metropolitans= $10 * 1344 = 13440$

$$\text{Cheese bursts} = 0.4 * 105 = 42$$

$$\text{All over Delhi} = \text{stores} * \text{per store} = 32 * 42 = 1344$$

Cheese bursts sold daily in urban and suburban areas= $(13440 * 0.5) * 1.5 = 10080$

Petrol Pumps

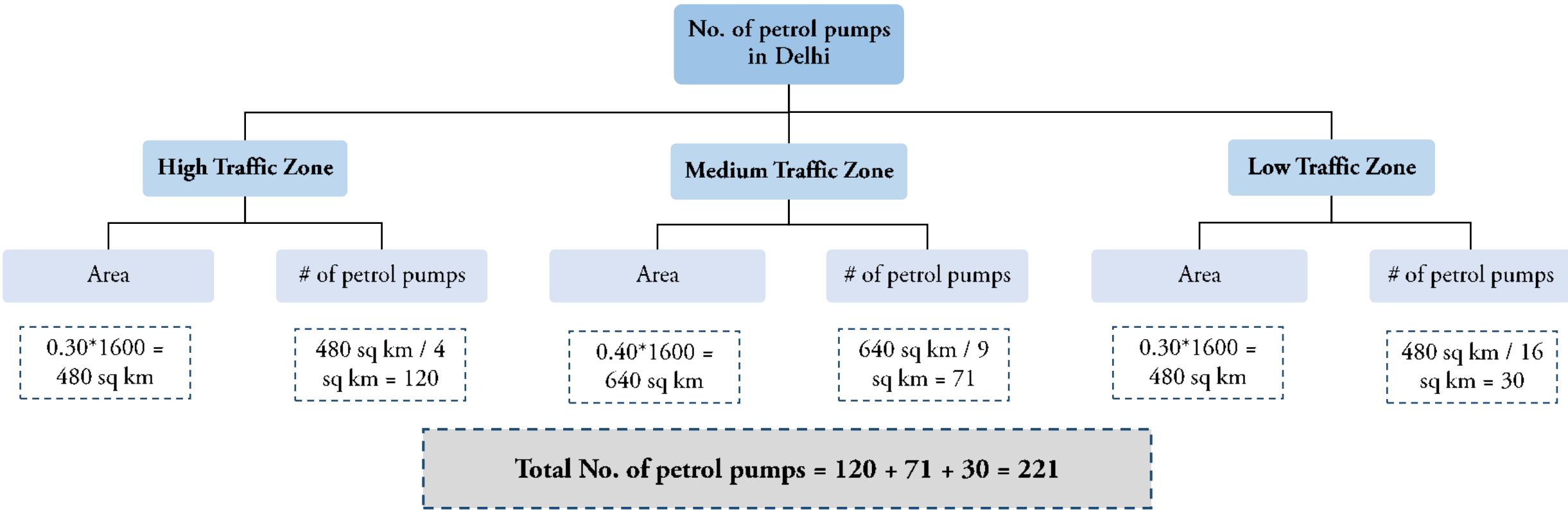
Estimate the number of Petrol Pumps in Delhi (Approach 1)

Assumptions

- High Traffic Zone = 30%; Medium Traffic Zone = 40%; Low Traffic Zone = 30%
- Distance between petrol pumps in:
- High traffic zone = 2km; Medium Traffic Zone = 3km; Low Traffic Zone = 4km

Methodology

- Area of Delhi = 1600 sq. km
- Area served by 1 petrol pump in:
 - High traffic Zone = 2×2 sq. km = 4 sq. km
 - Medium traffic Zone = 3×3 sq. km = 9 sq. km
 - Low traffic Zone = 4×4 sq. km = 16 sq. km



Petrol Pumps

Estimate the number of Petrol Pumps in India (Approach 2)

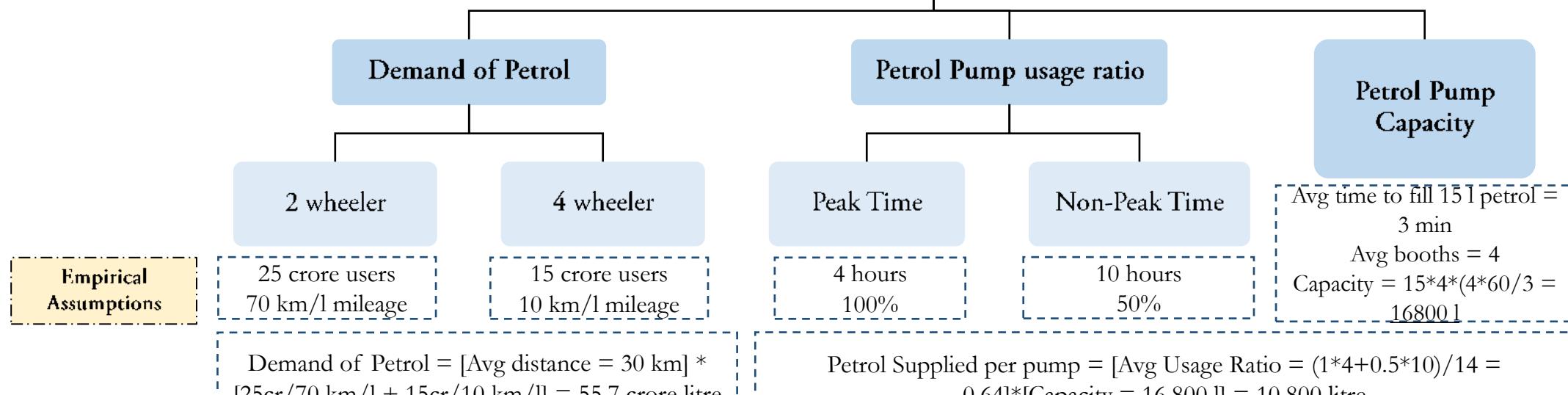
Assumptions

- Avg. distance travelled by user does not vary across vehicles and = 30 km/day
- Non-peak time hours of a petrol pump can be surmised in a single number = 50% in this case
- Pooling usage internalized in distance assumption

Methodology

- We use a demand side approach for this
- Number of Petrol Pumps = Demand of Petrol / Petrol supplied by a pump (avg)
- Demand of Petrol = Distance travelled by a vehicle user (avg) * (Number of bike users / Bike mileage + Number of Car users / Car mileage)
- Petrol Supplied by a pump = Overall Petrol Supplying Capacity * Weighted Average of Usage ratio

Number of Petrol Pumps



$$\text{Number of Petrol Pumps} = [\text{Demand} = 55.7 \text{ Cr ltr}] / [\text{Per Pump Supply} = 10,800 \text{ ltr}] = 51,587 = \underline{\underline{51,500 \text{ (approx.)}}}$$

Petrol Pumps

Estimate the number of Petrol Pumps in India (Approach 3)

Assumptions

- Petrol pump operated 12 hours a day
- Uniform petrol consumption by a car
- Arrival rate uniform across peak hours
- Arrival rate different across non peak hours
- Considering only 4 wheelers in the analysis
- Assuming average size of a household = 5 members.
- Total population of India = 1.25 Billion

Methodology

- # of pumps in India = (# of cars in India) / (number of cars serviced by a petrol pump) * (frequency of visits to a petrol pump by a car)
- For a petrol pump , peak hours (7 am to 11 am) and (4 pm to 8 pm) = 8 hours
- Car arrival rate in peak hours = 4 cars in 5 minutes
- Car arrival rate in non-peak hours = 4 cars in 10 minutes
- This implies total cars serviced daily = $8*(4/5)*60 + 4*(4/10)*60 = 384+96 = 480$ cars serviced a day.
- Assuming an average car needs petrol twice in a month

- 50% households = 0 vehicles
- 30% households = 1 vehicle
- 20% households = 2 vehicles



0.7 vehicles per household

of cars in India

Total number of cars in India =
 $250*0.7 = 175$ million private vehicles.

+

Assuming commercial vehicles form 20% of the total private vehicles = 35 million commercial vehicles

Total households in India = $(1250/5) = 250$ million

x

Average number of cars in each household

Total 210 million vehicles in India . Assuming each vehicle needs fuel twice in a month we get = $(2/30)*210 = 14$ million vehicles using fuel daily

Number of petrol pumps = (# of cars visiting a petrol pump) / (# of cars serviced by a petrol pump)

$14\text{million}/480 = 30000$ petrol stations in India . Asuming each station has 4 pumps = 120000 pumps

TT Balls

Estimate the number of TT balls used in a day in Delhi

Assumptions

- Considering only matches in commercial spaces for calculation
- Using a factor of 20% for private spaces
- Considering all matches to be similar (for avg. life of a ball)

G1 – Guesstimate the number of TT balls used in a day in Delhi

G2 – Estimate the number of TT matches played everyday

G3 – Estimate the number of TT racquets used in a lifetime by an international player & many more



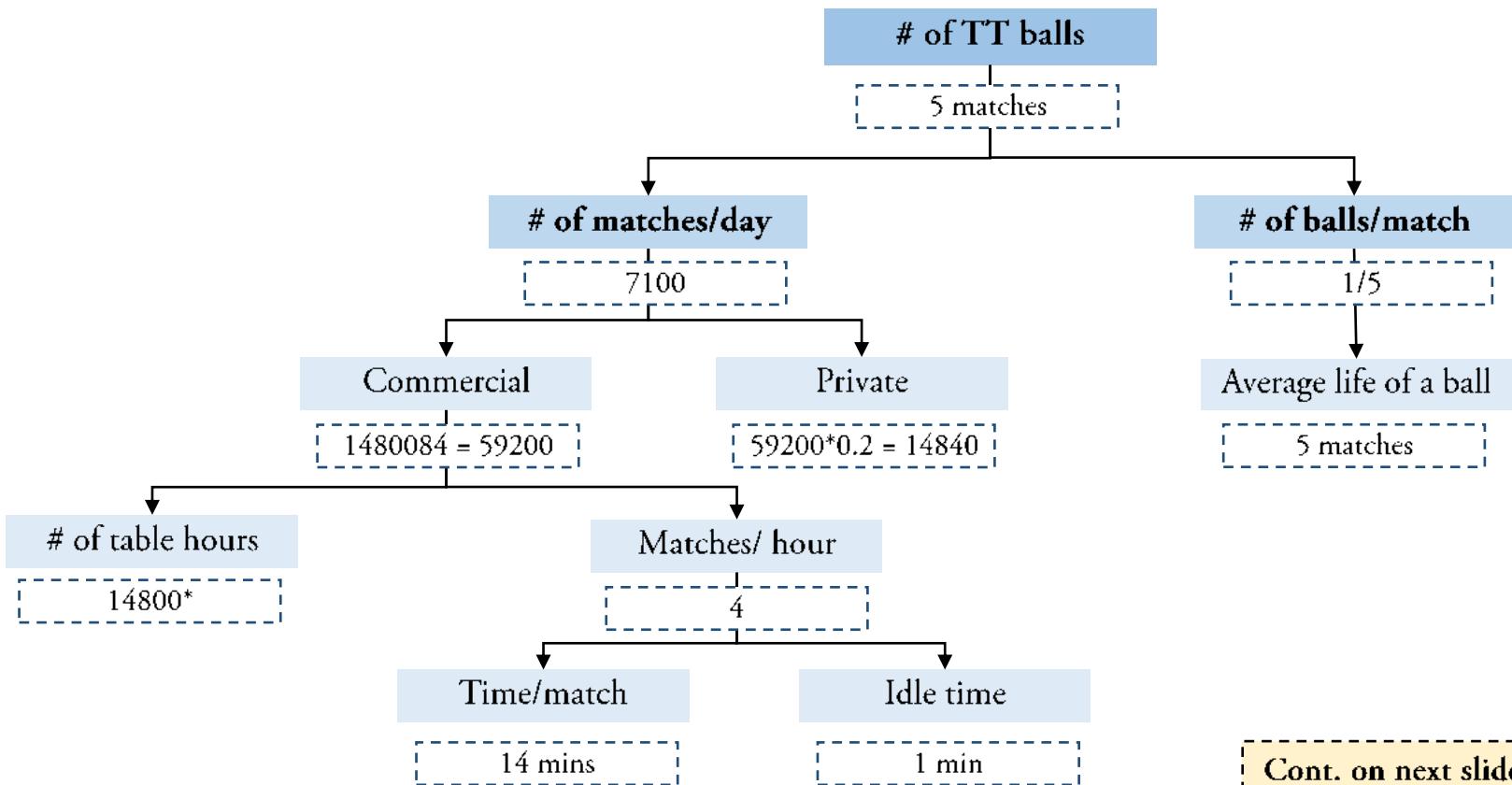
Basic Thoughts:-

Approaches – Demand side and Supply Side (try both)

Be ready with enough information about the manufacturing aspects of the sport or make assumptions

Methodology

- Solved from demand side
- #Matches per hour = $1 / (\text{Time per match} + \text{Idle time})$
- Time per match = 14 minutes (for simplicity; assuming 11-point match)
- Avg. Life of a ball = 5 matches

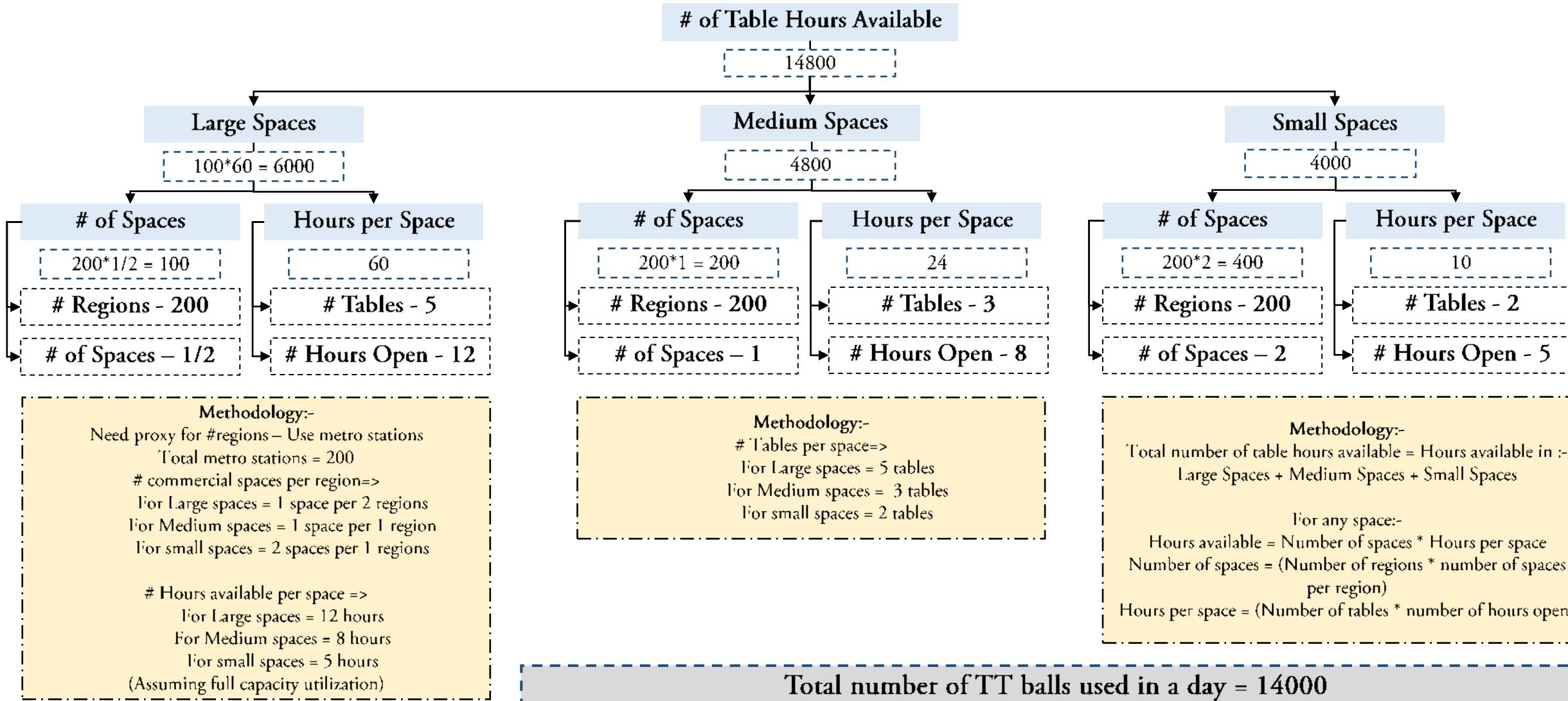


*Refer to the next Slide for calculations

Cont. on next slide:-

TT Balls

Estimate the number of TT balls used in a day in Delhi



White Shirts in Delhi

Estimate the number of people wearing a white shirt (WS) in Delhi on any particular day.

Assumptions

- Calculations are done for a working weekday i.e. assuming offices, schools and various institutions are open
- One person is wearing one shirt a day.
- No considering School going children and their shirts.
- Population of Delhi = 20 million

Methodology

- Population segmentation has been done across various age groups.
- Calculation for each age group is done on the basis of observed/experienced characteristics.
- Various percentages are used based either on memorised or experienced statistics.

Population (Age Segmentation)

25-59:

30% = 8 million

Student 5% = 0.4 M

Employed (Formal):
20% = 1.6 M

Employed (Informal):
70% = 5.6 M

Unemployed:
5% = 0.4 M

60+ :

20% = 2 million

Females :
50% = 1M

Males :
50% = 1 M

Non Professional Courses 95%

10% wear WS.
~ 0.038 M

Professional Courses 5%

30% wear WS
~ 0.006 M

40% wear WS. ~ 0.384 M

20% wear WS ~ 0.128 M

20% wear white shirt

1.12 million

10% wear white shirt

0.04 million

Assuming don't wear WS: 0

Employed/Self Employed: 20% = 0.2 M

50% wear white shirts ~ 0.1 M

Retired: 80% = 0.8 M

5% wear white shirts ~ 0.04 M

Total number of people wearing white shirts in Delhi = 5.76 million = 6 million (approximately)

Delhi Schools

Estimate the number of Schools in Delhi

Total Number of Schools

=

School going children in Delhi

/

Avg. children in one school

Part 1: Estimating no. of school going children in Delhi

We know that the population of Delhi is around 20 million. Since India is a young country, we can assume 50% is under 25. So population under 25 would be 10 million. Lets equally divide the population under 25 across every year, which would be equal to 400,000.

Population				
Age 0-3	Kindergarten & Primary School (Class 1-5) - 2.8m	Middle & Secondary School (Class 6-10) - 2.0m	Senior Secondary School (Class 11-12) - 0.8m	Age 18+ (out of school)

% Going to School			
Middle Class & Above (40%)	100%	100%	100%
Lower Class (40%)	90%	75%	50%
BPL (20%)	50%	25%	0%

$$\text{Total: } (1.0 * 2.8 + 1.0 * 2.0 + 1.0 * 0.8) * 0.4 + (0.9 * 2.8 + 0.75 * 2.0 + 0.5 * 0.8) * 0.4 + (0.5 * 2.8 + 0.25 * 2.0 + 0) * 0.2 = 4.388$$

Hence estimated school going children = 4.388 million

Part 2: Avg. children in one school

Schools	Small	Medium	Large
Class Size/Section	20/3	30/4	50%
Standards	Uptil 10	Uptil 12	Uptil 12

$$\begin{aligned} \text{Avg Student in one school} &= (20 * 3 * 10) * 0.4 + (30 * 4 * 12) * 0.4 + \\ &\quad (40 * 6 * 12) * 0.2 \\ &= 600 * 0.4 + 1440 * 0.4 + 2880 * 0.2 \\ &= 240 + 576 + 576 = 1392 \end{aligned}$$

$$\begin{aligned} \text{Total Number of Schools in Delhi} &= 43,88,000 / 1392 \\ &\sim 4,400,000 / 1400 = 3142 \sim 3150 \end{aligned}$$

To triangulate this number, you can take a 5km sq. area, estimate the number of schools and extend it for the entire city

Departing Flights

Estimate number of flights departing from Delhi Airport in a Day

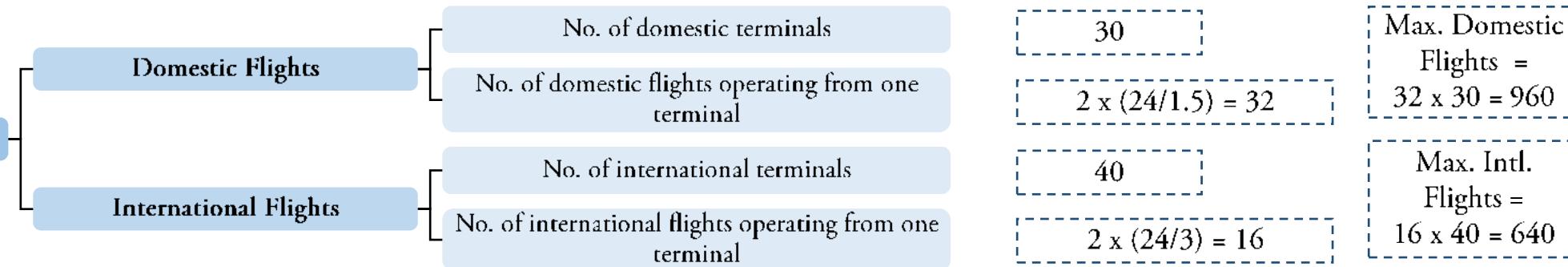
Assumptions

- Airport doesn't operate at max. utilisation
- Turnaround time –
 - Domestic flight – 1.5hr
 - International Flight – 3hrs
- Terminal at IGI – 30 (Domestic), 40 (Intl.)
- Every terminal has 2 hangars

Methodology

- Total departing flights (total out-bound flights) in a day = Total In-Bound Flights in a day = Total Flights Operating from an airport
- No of flights operating from one hangar = $(24\text{hrs}/\text{avg. turnaround time})$ [Turnaround time is the time a flight would stay in a hangar]
- No of flights operating from one terminal = $2 \times (\text{No of flights operating from one hangar})$
- There is a possibility that a flight landing in Delhi, might not depart that day itself. But there would also be flight which depart on a day that did not land on that particular day. Hence it should have a balancing effect.

Maximum Operating Flights



Utilisation rates have been considered to be different for different hours for domestic flights only. For international flights, uniform rush of 50% has been assumed

Domestic Flight Rush

6:00am – 9:00 am

100%

9:00am – 6:00 pm

60%

Hours of the day

6:00pm – 9:00 pm

100%

9:00pm – 12:00 am

60%

12:00am – 6:00 am

20%

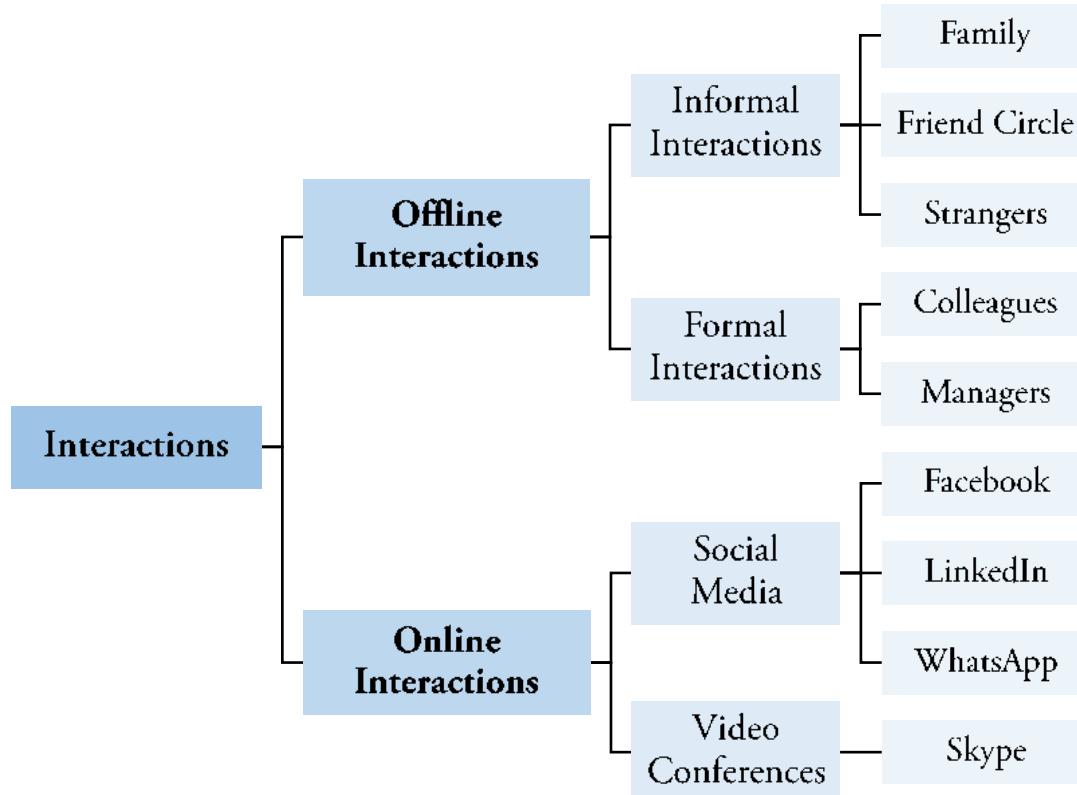
To triangulate the number, we can use the alternate approach from the demand side, by figuring out how many people would be departing from Delhi on one day divided by the avg. number of people in one flight

Avg. Utilisation for Domestic Flights = $(6 \times 100 + 12 \times 60 + 6 \times 20) / 24 = 60\%$

Total flight departures = Operating Domestic Flights + Operating Intl. Flights = $(0.6 \times 960) + (0.5 \times 640) = 896$ flights

People you met

Estimate the number of people you interacted with over the last year



Total People	Probability of Interaction	People interacted with
10 (Family)	1.0	$10 * 1.0 = 10$
50 (Friends)	0.9	$50 * 0.9 = 45$
250 (Strangers)	1.0	$250 * 1.0 = 250$
200 (Colleagues)	0.75	$200 * 0.75 = 150$
10 (Managers)	1.0	$10 * 1.0 = 10$
500 (Facebook)	0.1	$500 * 0.1 = 50$
200 (LinkedIn)	0.2	$200 * 0.2 = 40$
250 (WhatsApp)	0.8	$250 * 0.8 = 200$
50 (Skype)	1.0	$50 * 1.0 = 50$

$$\text{Total people interacted with} = 10 + 45 + 250 + 150 + 10 + 50 + 40 + 200 + 50 = 805 \sim 800$$

However, there would be potential overlaps, e.g. Friends and Colleagues, Facebook friends and LinkedIn connections, So we can introduce a normalizing factor, of let's say 0.75 to discount the potential overlaps.

Hence normalized value for people interacted with = $800 * 0.75 = 600$

Tractors in India

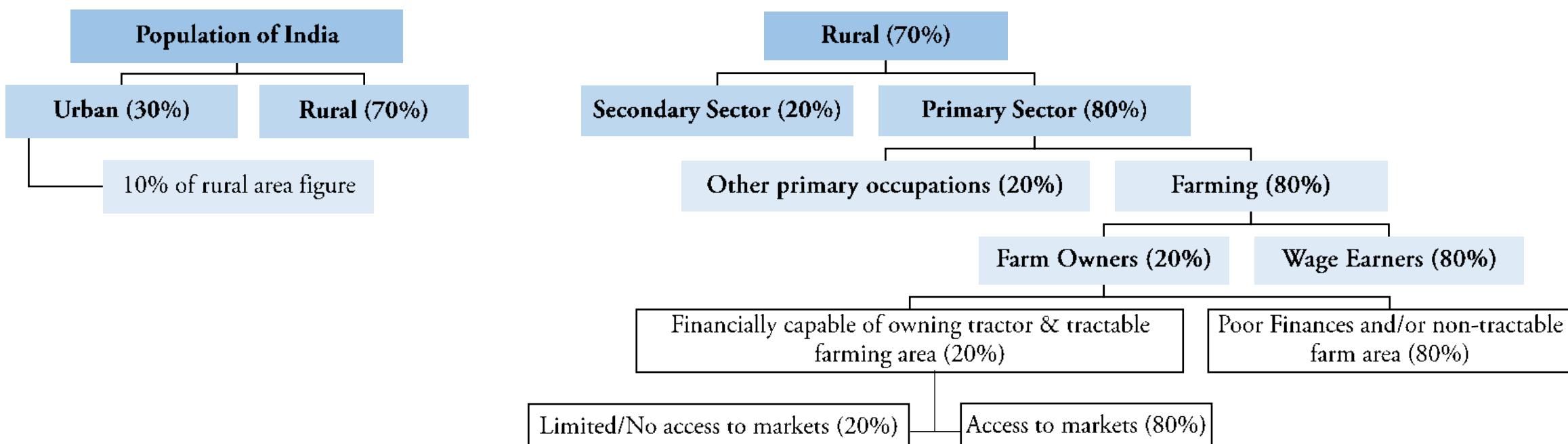
Estimate the number of tractors in India

Assumptions

- Tractors are only being used for agricultural purposes in the primary sector
- There is uniform supply of tractors around the country
- All the tractors in consideration are functional and others have been disposed off effectively.
- Each farm-owner has only one tractor for her land/ one tractor per farming household

Methodology

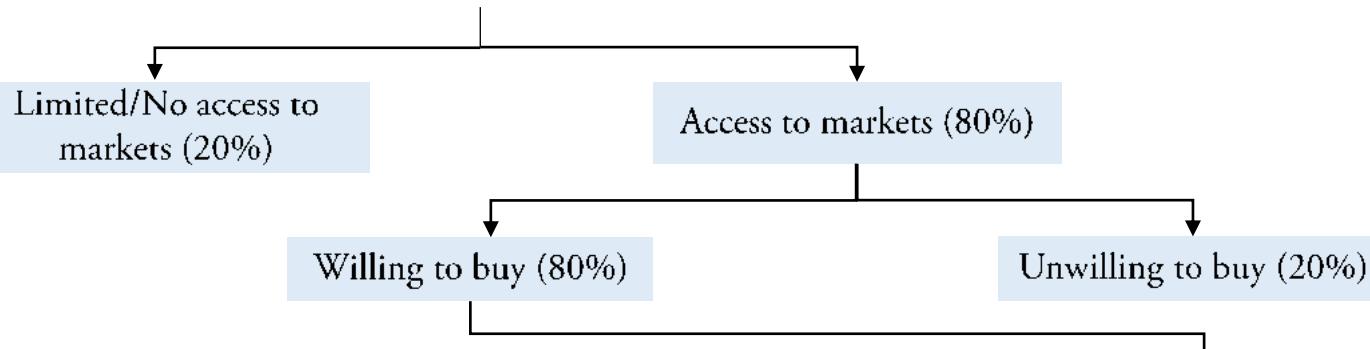
- The population of India = 130cr.; Rural= 70% & Urban= 30%; Avg. household size= 5
- Avg. life of tractor is 5 years (approx.)
- Methodology = [<# of tractors in rural areas + # of tractors in urban areas (10% of figure from rural areas)] / (avg. life)
- Applying 80/20 rule to estimate figures that are not commonly known



Cont. on next slide:-

Tractors in India

Estimate the number of tractors in India



Final Calculation

Number of tractors

$$\begin{aligned}
 &= [\# \text{ of tractors in rural areas} + \# \text{ of tractors in urban areas (10\% of figure from rural areas)}] / (\text{avg. life}) \\
 &= [(\# \text{ of tractors in rural area}) * 1.1] / 5 \\
 &= [(26 \text{ cr.} * 0.7 * 0.8 * 0.8 * 0.2 * 0.2 * 0.8 * 0.8) * 1.1] / 5 \\
 &= 6.56 \text{ lac.}
 \end{aligned}$$

Area of India = 32.9 lac sq. km
 = 32.9 cr. hectares

Arable land ~ 50%
 Tractable area ~ 40% of arable area

Average usage of tractor ~ 5 hectares daily
 Average 3 weeks of harvest per season

Triangulation & Sanity Check (Area based approach)

Alternate Approach

Number of tractors = $\frac{\text{Area of India} * \% \text{Arable land} * \% \text{Tractable area}}{\text{Tractor usage per day} * \text{days of harvest}}$

$$\begin{aligned}
 &= 32.9 * 10^7 * 0.5 * 0.4 / 5 * 21 \\
 &= 6.27 \text{ lac.}
 \end{aligned}$$

EV Market Size

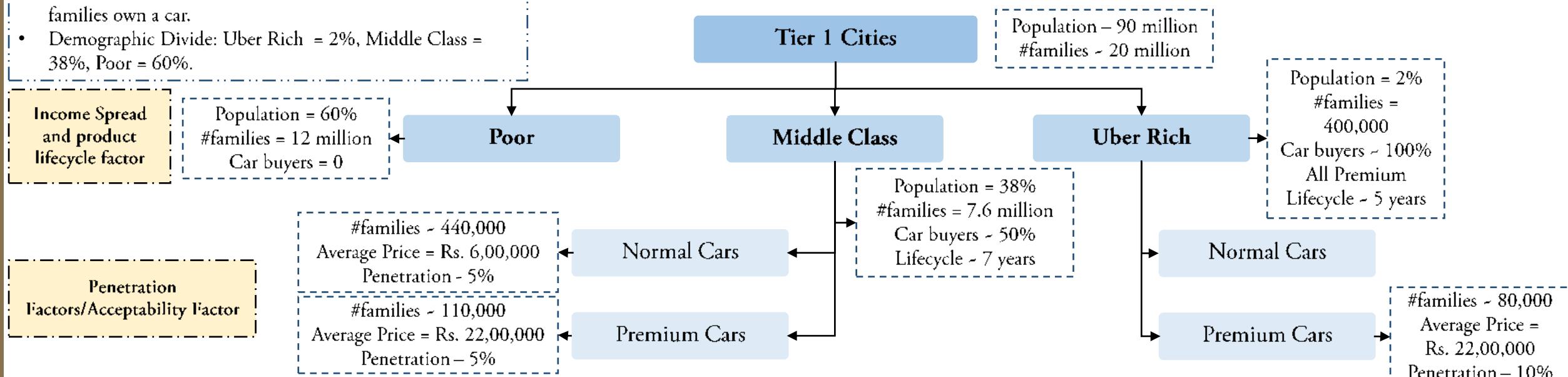
Estimate the market size of EV in India

Assumptions

- Considering market for only 4 wheeler passenger vehicles.
- Only available in tier 1 cities.
- Premium Car Segment – Price > Rs. 10,00,000.
- Average years a car is used by rich people – 5 years.
- Average years a car is used by middle class – 7 years.
- EV is currently in introduction stage in India, so not considering second hand EV.
- All families in rich sector own a car, 50% middle class families own a car.
- Demographic Divide: Uber Rich = 2%, Middle Class = 38%, Poor = 60%.

Methodology

- Population of 5 major tier 1 cities in India – Approx. 90 million.
- Average household size – 4.5 member/family.
- Poor wont choose a costly EV.
- In middle class, 50% families will have a car. Among them, 80% will buy normal cars, and 20% premium cars.
- In elite class 100% population will have a car, all will be buying premium cars.
- Innovators/Environmentalist among rich - 10%, who will adopt to EV. Innovators/Environmentalist among middle class- 5%, who will adopt to EV.



DTC Bus

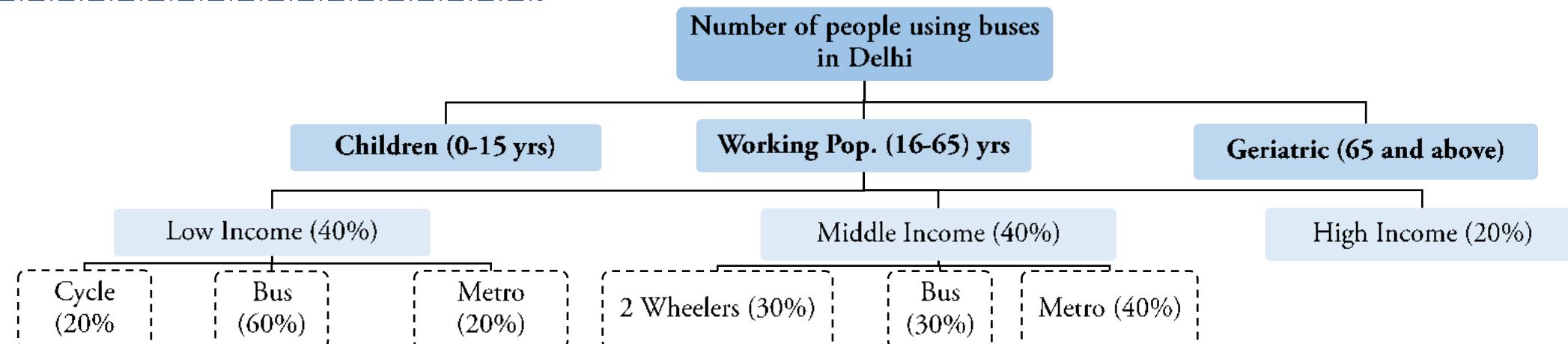
Estimate the number of DTC buses in Delhi

Assumptions

1. Only Working population uses buses in consideration.
2. Only buses that are operating are counted.
3. Calculation on the basis of buses running on a normal weekday morning.
4. No. of people per bus = 50
5. High Income people do not use buses and include upper middle and high class.

Methodology

1. Population of Delhi - 2 Cr
2. Dividing by age, income group and preference of transport.
3. In Middle Income group, Metro and Motor Cycle are comparatively affordable and thus lesser people use buses.
4. Total no. of buses = No. of people using buses on a busy morning simultaneously/50
5. At any given time only, 10% people will be able to use the buses.
6. DTC buses = 70% of total buses plying i.e. 30% private.



$$\text{No. of people using buses regularly} = ((0.4 \times 0.6) + (0.4 \times 0.3)) \times 0.4 \times 2 \text{ Cr} = 28,80,000$$

$$\text{At peak hour, considering 10\% in buses at any given time} = 0.1 \times 28,80,000 = 2,88,000$$

$$\text{No. of Buses} = 2,88,000 / 50 = 5,760$$

$$\text{DTC : PRIVATE} = 70 : 30$$

$$\Rightarrow \text{No. of DTC Buses in Delhi} = 0.7 \times 5,760 = 4,032$$

Flat Screen Televisions

Estimate the revenue of flat screen televisions sold in Australia in the past 12 months

Assumptions

- Population: 25 million people
- Size of average household : 3 people
- Average life of TVs = 4 years
- Average number of TVs per household = 1

Methodology

- No of households = Total Population/Average size of household
- No of TVs per household is considered by taking an average of all the households (Across all categories)
- Calculating the average price of 1 TV, assuming price under each category
- Here we are not considering reused TVs; only fresh purchases

Revenues

Price of 1 TV

Total No. of TVs

Premium

Medium

Low End

No. of Households

No. of TV/Household

Share and Cost

20% of Total Cost = \$1000

60% of Total Cost = \$600

20% of Total Cost = \$200

25 million
3 member/family
~ 8 million

1 TV per household/4 years

$$\text{Average Price of 1 TV} = (0.2 \times 1000 + 0.6 \times 600 + 0.2 \times 200) = \$600$$

$$\text{Total no of TVs sold} = 8 / 4 = 2 \text{ million}$$

$$\text{Total Revenues} = \text{Average Price of 1 TV} * \text{Total no of TVs sold} = \$1.2 \text{ Billion}$$

Amazon India

Guesstimate the number of daily order of Amazon India

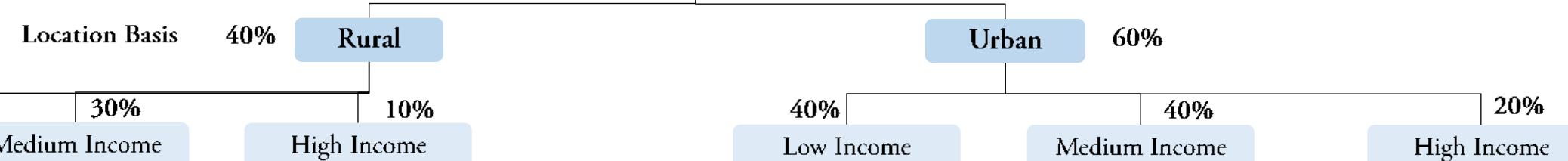
Assumptions

- No of mobile users in India – 800 million.
- No. of internet users – 70% of mobile users.
- Urban Internet Users – 60%
- Rural Internet Users – 40%
- Users belong to Age group 10-55.
- Rural low income group's buying pattern is negligible.

Methodology

- Population of India – 1.3 billion. No of mobile users – 800 million.
- Frequency of buying varies across age groups and income.
- Considering just the sales of Amazon India, not its grocery or any other chain.
- Amazon has around 35% market share in India e-commerce industry. Flipkart – 45%, rest others.
- Considering 50% of the population is aged below 25 and uniform distribution of population across ages.
- Considering life expectancy of 65 years.

of internet users – 560 million



Income Group	Rural – Medium Income			Rural – High Income			Urban – Low Income			Urban – Medium Income			Urban – High Income		
Age	10-25	25-40	40-55	10-25	25-40	40-55	10-25	25-40	40-55	10-25	25-40	40-55	10-25	25-40	40-55
Orders/Yr	2	2	0	4	6	3	2	4	0	4	6	3	9	12	6
Total Orders/day	1.1L	69K	0	73K	69K	35K	2.2L	2.7L	35K	4.4L	4.2L	2L	5L	4.1L	2L

Summing all order values gives the total orders delivered in a day around 30 lacs. Out of this around 35% belongs to Amazon, that would give a figure of around 10 lakh packages per day.

Daily revenue of Airport

Estimate the daily revenue of an airport

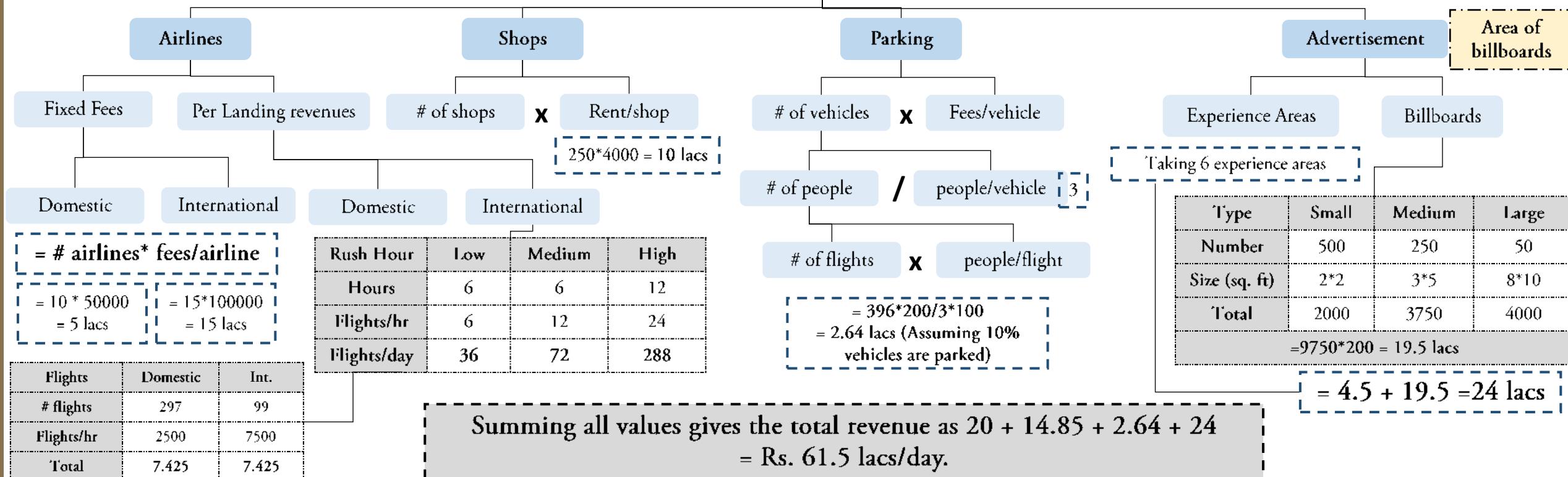
Assumptions

1. Considering only the most substantial revenue streams.
2. Assuming that shops pay only a fixed rent.
3. Number of flights per hour is a function of the kind of rush.
4. Assume that the primary revenue source from advertisements are billboards.
5. No. of flights per hour is a function of the no. of airstrips.

Methodology

1. *Advertisement Revenue = revenue from billboards & experience areas.*
2. Area of billboards * price/m². Assuming Price/m² is 200 for a day. Assuming 6 experience areas and 75k/day as charge.
3. Airline charges: Fixed charges (domestic) : 50k, Fixed charges (international) : 100k.
4. Average shop charges = 4000/day; parking charges = 100.
5. No of airstrips – 3, Low rush – 1 flight per strip ; Medium – 2 flights per strip High – 4 flights per strip

Revenues of an airport



Daily Revenue of 24x7 Retail Store Chain

Estimate the daily revenue of 24x7 chain of Retail Store

Assumptions

- Currently the brand has around 50 stores in Delhi NCR out of which only 20(40%) are in NCR
- Considering a normal working day
- Here we are considering both online and offline stores
- 3 counters in each store with an average footfall of 60 (peak hour)

Note: The stores in Gurgaon and other NCR areas have an online presence and can deliver using Zomato/ Swiggy Stores, hence we need to account for them as well

During Peak hours:

1 billing every 6 mins/counter :30 orders per hour

Hence total revenue per store (offline during peak hour)

$$= (0.3*300+0.5*250+0.2*200)*30 = 6810$$

Extending this to daily revenue :

$$18X6810= ₹ 1,22,580$$

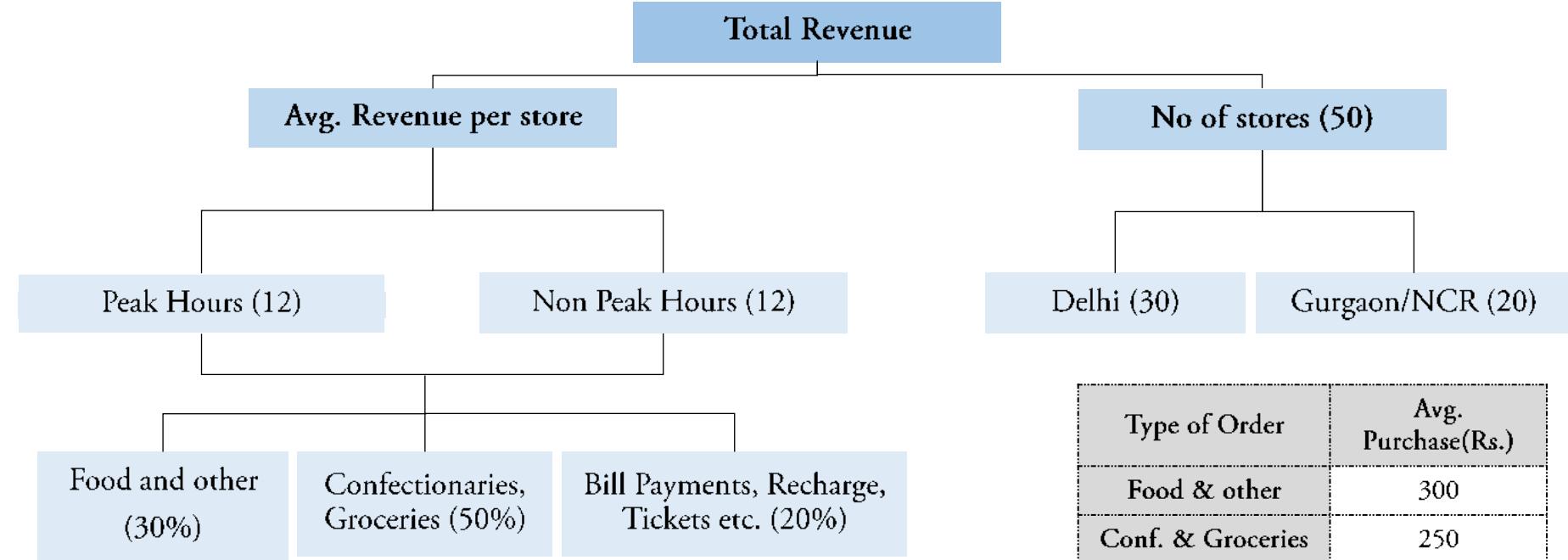
Now we include the online and offline sales over the complete Delhi NCR region

$$\text{Total Revenue} = (50+20*0.5) * 122580$$

$$= ₹ 73,54,800$$

Methodology

- Peak can be 12 hours from 8 PM to 8AM for offline stores; when other convenience stores are not operating
- Non Peak hours report a sales of 50% compared to peak hours
- Online order are almost 50% of offline in NCR
- Three broad product categories present.



Hence, the daily revenue of 24X7 chain of retail stores is ₹ 73,54,800

Part G – Practice Cases

Practice Cases: Table of Contents

Sr. No	Case	Type	Page #
1	<u>Orchid Farmer</u>	Profitability	85
2	<u>Retail Stores</u>	Profitability	87
3	<u>Steel Manufacturer</u>	Profitability	89
4	<u>2024 Olympics Rights</u>	Profitability	91
5	<u>Automobile Company Sales</u>	Revenues	93
6	<u>Auto Dealership</u>	Revenues	95
7	<u>Kids TV Channel</u>	Revenues	97
8	<u>Shopping Mall</u>	Revenues	99
9	<u>Food Manufacturer Case</u>	Cost Reduction	101
10	<u>IT Services</u>	Cost Reduction	103
11	<u>Quick Service Restaurant</u>	Cost Reduction	105
12	<u>Steel Manufacture High Costs</u>	Cost Reduction	107

Sr. No	Case	Type	Page #
13	<u>Women Apparel Retail Chain</u>	Cost Reduction	109
14	<u>Golf Course</u>	Pricing	111
15	<u>Hepatitis B Drug</u>	Pricing	113
16	<u>Paint Manufacturer</u>	Pricing	115
17	<u>Ride Hailing Helicopter</u>	Pricing	117
18	<u>5G launch in India</u>	Pricing	119
19	<u>Home Automation</u>	Market Entry	121
20	<u>Home Insurance</u>	Market Entry	123
21	<u>Gold Mine in Mongolia</u>	Market Entry	125
22	<u>Skin Care Manufacturer</u>	Market Entry	127
23	<u>Smart Phone Market</u>	Market Entry	129
24	<u>South African PE Firm</u>	Market Entry	131

Practice Cases: Table of Contents

Sr. No	Case	Type	Page #
25	<u>Apparel Top line Business</u>	Cost Reduction	133
26	<u>Appliance Distribution Company</u>	Growth	135
27	<u>Gift Card Firm</u>	Growth	137
28	<u>Light Bulb Company</u>	Customer Satisfaction	139
29	<u>Bottling Plant</u>	Customer Satisfaction	141
30	<u>Telecom Provider</u>	Customer Satisfaction	143
31	<u>Airline Acquisition</u>	M&A	145
32	<u>PE Cosmetics Chain</u>	M&A	147
33	<u>FMS Students Falling Ill</u>	Unconventional	149
34	<u>Logistics Efficiency</u>	Unconventional	151
35	<u>Increase in Road Accidents</u>	Unconventional	153
36	<u>Swedish Government</u>	Unconventional	156

Apple Orchid Farmer

Your client is a farmer who owns an apple orchid. He has seen reduction in profit in the past year. Find reasons and recommend solutions.

Ma'am, if I understand correctly, our client is a farmer who owns an apple orchid. He has seen reduction in last 1 year and I have been approached to find the reasons about this.

Yes, you are right. Please go ahead!

I want to know how about the farmer and product to understand the business in detail. Where is he operating? How much land does he own or rent? And is he following a parallel source of revenue also?

The farmer is located in Northern India and owns 30 acres of land dedicated to apple production only.

Okay! To understand the business, I would like to know about competitors and their practices and want to understand the chain from farm to final customers.

Although there are no new regulations in the industry, all farmers are impacted and having a tough time. I would like you to list out what can be members of the chain in the apple production business.

That would be my pleasure, Ma'am. I think there should be a system of Distributors to take the produce to the retailers which finally sell it to customers. Or there can be wholesalers as well. But since apple expire after a short duration, I think they should be directly sold to the customers.

That's right. There are no wholesalers and there are 2 distributors in the chain as well.

Okay. Apart from direct consumption in raw form, are there any other usage of apple like juices?

Yes, they are widely used in gifting, candies, sweets, jams and beverages.

That seems to be a really important piece of information for the problem. I think since the company has observed reduction in profits, I would like to break the profit structure into Revenues and Costs. Do you want me to look at any particular component first?

I think you can start with revenues only as there hasn't been much changes on the cost side.

Okay. Revenues can be expressed as Price/unit and total units. Have the prices changed in recent?

No, the prices have been fairly constant for past 3-4 years.

Has there been a major change in the supply demand equilibrium recently?

As matter of fact, supply has remained same but the demand is decreasing due to unknown reasons?

Let me analyse demand from 4 angles: Awareness, Accessibility, Affordability, Acceptability. I would like to know if there are any major changes in these factors as they impact demand directly.

That's an impressive way to look at demand. Farmer is not able to reach the market fluently.

Oh that seems like there is a problem in the accessibility component of demand. The major stakeholders here are farmers, distributors, retailers and customers. How are the distributors and retailers performing compared to previous set benchmark?

There seems to be falling response from retailers. Can you think of potential reasons about the same?

Sure Ma'am, I think there can be a wide array of reasons for potential fall in response. I would like to classify them into 2 buckets – Direct industry and Processing Industry. In the direct industry, Modern Trade, Hotels, Export, Gifting while in the processing industry, it can be candies, jam and beverages. Are there any particular complains regarding any particular product line?

Yeah, the apple based beverage industry has been hit because of false rumours of alcohol present in the drink. The loyal customer base has decided to move away from the beverages as a result.

Well that's unfortunate. Have there been any steps taken to counter the situation?

Since we couldn't identify the problem earlier, there were no plans in place. Can you suggest some?

Since farmer is running the business on his own and complete industry is fragmented so a common action is less feasible. We can definitely salvage to sustain. Hence we should try finding other places to sell apple. Maybe export more apple. Assuming apples are unsold, stock apple in cold storages for next year. A far reached solution can be having a detailed test done and publishing results in media.

That are really helpful suggestions. Thanks a lot for your analysis.

Apple Orchid Farmer

Your client is a farmer who owns an apple orchid. He has seen reduction in profit in the past year. Find reasons and recommend solutions.

Case Facts & Notes

- Context - Farmer in north India. Owns 30 acre of land for apple production only.
- Industry Scenario – All players in the industry impacted.
- Change in Regulation – None
- Uses - Gifting, Candies, Sweets, Jams, Beverages
- Value Chain

2 Distributors

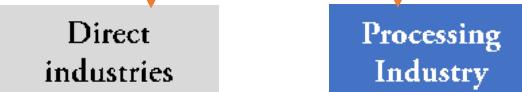
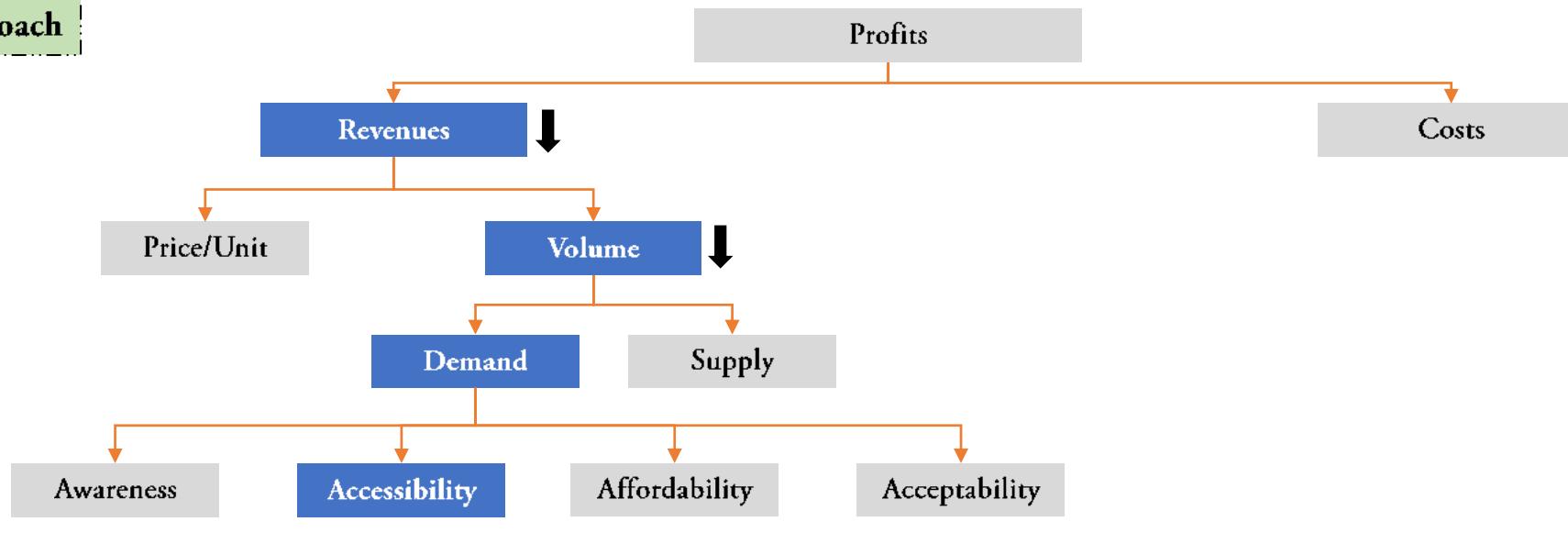
Retailers

Customers

Recommendations

- Try finding other places to sell apple. Export more apple.
- Since apples are unsold, stock in cold storage for next year.

Approach



- Modern Trade
- Hotels
- Export
- Gifting

- Candies
- Jams
- Beverage

Apple based Beverage industry hit

Rumors of alcohol in drink have impacted demand of these beverages.

Retail Chain

A chain of retail stores recently increased the number of stores. However, with increase in the stores the profitability has dropped.

I would like to clarify a few things before I start analyzing the case

Sure

Can you tell me the type of retail stores we are taking about? Where are they located? And the number of stores the chain has with a break-up of new vs old stores?

It is general retail store which is operational round the clock just like chain of 24Seven. All the stores are in Delhi with 35 stores out of which 5 are new and 30 are existing stores

I follow that the store is in the process of expansion. What are the products being offered by the old stores? Also, are the products offered are new stores same or different?

The offerings of old and new stores are same. The products offered are packaged foods, groceries and personal care

Can you tell me about the target customer segment the stores aims to serve? The younger or older generation? I believe if its operational 24*7, it is targeted more towards younger generation

Yes, the customers visiting the store are 20-30 years old

Ok. Have the profits gone down or profitability per store has reduced? Also, it just for new stores or all the stores are facing the same issue

Profits have gone down, and the problem is with all the stores

Are there any recent regulatory changes which would hinder operations of retail stores

No change

I would like to proceed with dividing profit in revenue and cost. Revenue can be further broken down in # of stores and revenue per store. Since the problem is across all the stores, I would not delve in old vs new stores separately. Cost can be broken down into # of stores and cost per store, which could be further broken in fixed and variable cost. Is the structure good to proceed or am I missing something? Also, would you like me to investigate revenue side or cost side

The structure looks fine to me. Kindly investigate the revenue side

I can see number of stores have gone up; I believe revenue per store have reduced over time?

Yes, the revenue per store has gone down

Revenue can be further broken down in Average ticket size and # of customers? Has any or both have reduced?

Average ticket size has remained same though the number of customers per store has reduced

The reduction in number of customers could be due to our inability to supply the products or demand has reduced?

There are no concerns on supply side, can you further investigate demand side of it

Demand can be impacted due to internal or external factors. Any change in internal policies of the store?

No change

Any change in landscape? Industry has stagnated or change in competition landscape like entry of new player/new stores by current players or change in customer's perception of the stores?

Industry is fairly growing at 5%. No changes in both competitive landscape and customer's perception. There is no major change in the total number of customers visiting the chain, but 80% sales take place between 6pm-2 am

That is interesting. Total # of customers visiting the chain is same but # of customer per store has reduced which means the customers are getting divided into increased stores. Also, the timeline of 6PM- 2AM suggest that Stores essentially used for emergency buying post 6pm or for midnight cravings.

That's correct

Do you want to me explore the cost side it?

Not required as of now. Can you suggest way to increase the revenue?

Are we open to idea of opening new stores which would require major expenses?

No, the client doesn't want to incur major expenses

So, the client can either increase the average ticket size or increase number of customers/store. To increase the average ticket size, We can introduce new product categories like stationery, fresh groceries; start home delivery in nearby areas for bigger orders; & add loyalty programs to regular shopper. To increase the # of customers, the client needs to work on marketing campaign & promote the chain as a day store similar to a kirana store to increase revenue during daytime & to increase revenue post daylight, highlight safety aspects & provide home deliveries.

Sounds good to me. We shall move to the next rounds now. Thanks for your time

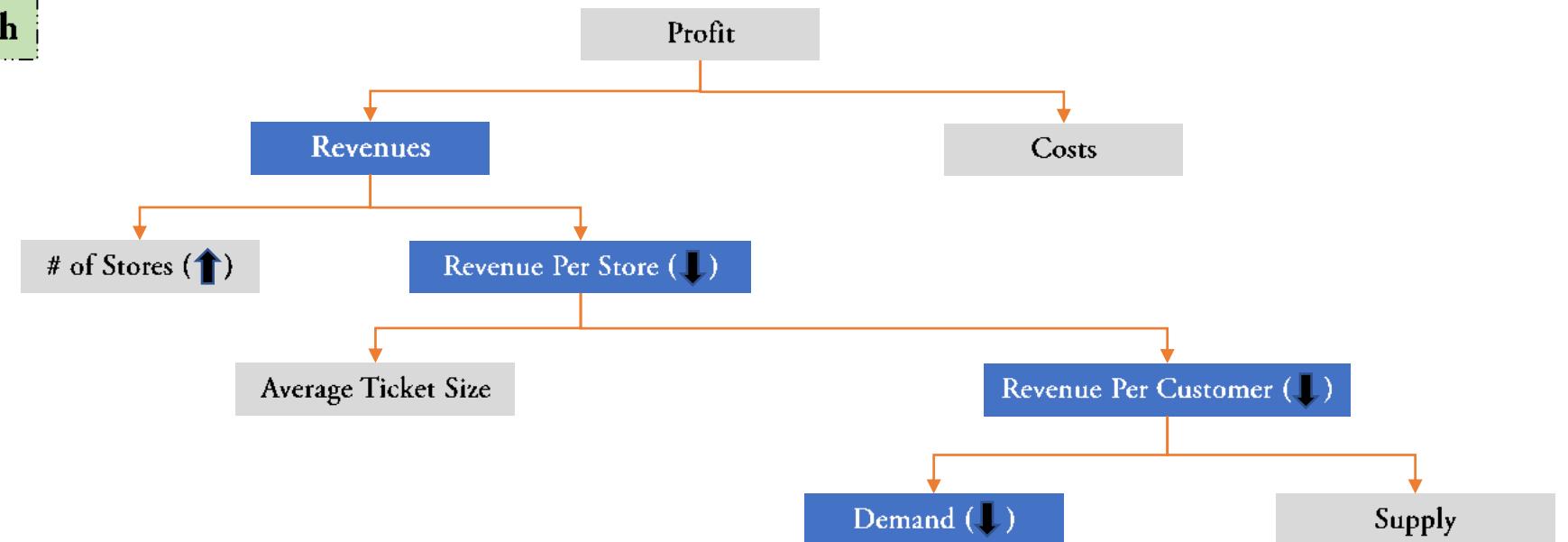
Retail Chain

A chain of retail stores recently increased the number of stores. However, with increase in the stores the profitability has dropped.

Case Facts & Notes

- Company**-It is general retail store chain like 24Seven. All the stores are in Delhi with 35 stores out of which 5 are new and 30 are existing stores.
- Products** - Packaged foods, groceries and personal care.
- Customers** – 20-30 years old
- Regulatory Changes** - None

Approach



Recommendations

- To increase the average ticket size, we can
 - Introduce new product categories like stationery, fresh groceries.
 - Start home delivery in nearby areas for bigger orders.
 - Add loyalty programs to regular shopper.
- To increase the number of customers, we can
 - Work on marketing campaign
 - Promote the chain as a day store similar to a kirana store to increase revenue during daytime
 - To increase revenue post daylight, highlight safety aspects & provide home deliveries.

External

- New Entrant
- Regulatory Challenges
- Industry wide downturn
- Customer perception
- Accessibility

Internal

- Customer Service
- Product quality & Variety
- Interior
- Customer service time
- Redistribution of customer

Steel Manufacturer Declining Profits

Profitability | Moderate | BCG

Your client is a Steel manufacturer observing declining profits from past 2 years. They want you to figure out what is going wrong

So, just to be on the same page, I would re-iterate the problem statement. Our client is a Steel manufacturer facing declining profits from last 2 years and wants us to figure out the problem.

Yes, absolutely right. Go ahead!

Before delving deeper into the Case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

In which Geography does the client operate? Is there a single plant or multiple plants?

So, our client operates in India with multiple plants in North, East & South-West.

Also, does the client operate in Upstream, mid-stream or downstream segments of Steel manufacturing?

That's a really nice question. So, our Client is involved in both Upstream & downstream manufacturing. In Upstream, it manufactures Hot Rolled Steel (HRS) Coils & in Downstream operations, it uses HRS Coils to manufacture further items.

Thank you sir! Do we have any information regarding our Customer segments & their proportion in our business?

Yes. So, we have 3 Customer segments: OEMs (Auto, Appliances), Trade (Distributors, SMEs & Retailers) & Export with a proportion of 50%, 40% & 10% each respectively.

Moreover, what is happening with our competitors & how is the Overall industry performing?

Good question! We don't have data specific to any particular competitor, but the industry is experiencing a decline of around 10% as compared to 30% decline in profits for our client. Is there anything else you would want to ask at this stage?

No sir, thank you! Just provide me a couple of minutes to gather my thoughts and analyse the problem.

Sure!

Sir, Since the problem is regarding declining profits. It will involve Micro factors of Revenue & Costs for our Client & Also other Macro factors such as Political, Economic & Technological affecting the entire industry. I would first like to look into Macro factors which is affecting the entire industry as a whole & then narrow down to the Revenue & Cost factors for our client.

Sure, Go ahead!

Has there been any recent Political, economic or technological changes impacting entire steel industry?

Yes, indeed. There have been sanctions on Iran leading to higher fuel costs & reduced exports & due to cheaper manufacturing , China has flooded International markets with its steel, leading to further reduced demand. There has been no major economic change in last 2 years.

I see. This has led to 10% decline in profits for the steel industry players. But since our client is facing more decline, there has been some others factors affecting our client specifically.

Yes, indeed.

Since, Profits is Revenue minus Costs. Can you tell me which of these is increasing, decreasing or constant leading to overall declining Profits.

So, Revenue is declining & Costs are increasing.

Sure. I would like to delve first into cost side & like to look into the entire value chain of our client to see what are the factors leading to increasing costs. Give me a few seconds to make the value Chain.

Yes, the value chain you have made is absolutely right. Due to decline in demand for our client, we started defaulting on our payments 1 year ago. We have 3-4 major Contractual suppliers. The payment has also changed from credit-based to advance-based leading to declining inputs, reputation & working capital.

I thinks that's the specific problem for our client. Increasing fuel & financing costs have led to increased cost/ Unit production. Also, since the demand has dipped our client is not able to overcome increasing costs. Which has led to higher declining profits for them. Give me few seconds to come up with recommendations.

Sure, Good job!

Steel Manufacturer Declining Profits

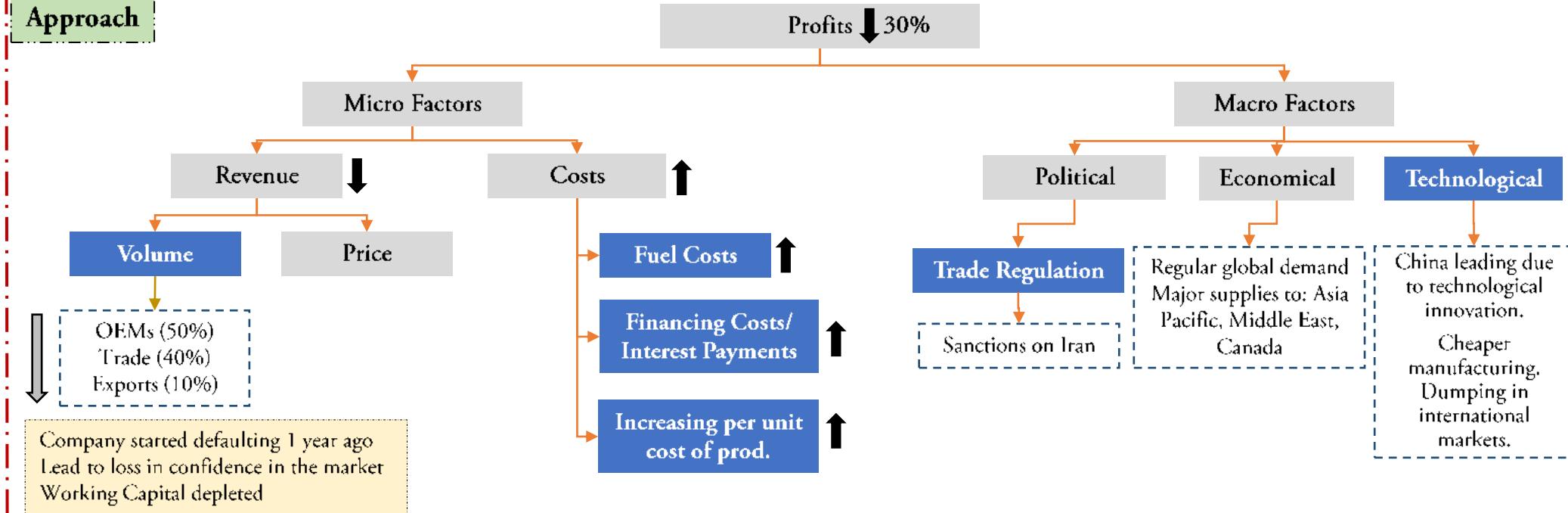
Profitability | Moderate | BCG

Your client is a Steel manufacturer observing declining profits from past 2 years. They want you to figure out what is going wrong.

Case Facts & Notes

- Company** - Operations in India. Plants in North, East, South-West
- Product** - Hot rolled steel coils. Downstream uses HRS coils.
- Customers**
 - OEMs. (Auto, appliances)
 - Trade (Distributors, SMEs, Retailers)
 - Export (Distributors)
- Market is experiencing a 10% decline in comparison to 30% decline to our company.

Approach



Recommendations

- Focus on customers with higher margins & lower advance requirements.
- Consider changing prices to remain profitable
- Govt. lobbying to curb steel dumping by China.

Sourcing

- 3-4 Major suppliers
- Raw Materials: Coal, Iron Ore, Limestone
- Contractual Relationship
- Declining inputs
- Declining reputation among suppliers
- Moved from credit based to advance based payment system

Inbound Logistics

- Smooth Flow
- Optimized
- Increasing fuel costs

Bigger players have their own mines

Production

- Capacity: 5.4 MT
- No bottlenecks
- Under-production
- Increasing per unit production costs
- Low capacity utilization

Lower production costs for competition due to economies of scale

Outbound Logistics

- Smooth Flow
- Optimized
- Increasing fuel costs

Customer Pull

- Down to 3.2MT from 4.3MT'
- Approx. 25% decline in demand
- Reputation on decline
- Credit payment (1 month cycle)

Competitor Benchmarking

2024 Olympic TV Rights

Profitability | Hard | McKinsey

Your client is a major TV Network, wants to know how much to bid on the TV rights for the 2024 Olympic Games. Bid is to be paid in 2019.

Sir, just to be on the same page, our client is a TV network company, which wishes to bid for the 2024 Olympics Games TV rights. I have to help them figure this amount in 2019. I would like to ask some clarifying questions.

Yes, you are right. Go ahead!

What is the objective of this bidding?

For a TV network the objective is profits.

Okay, then we will have to look at costs of bidding and revenues we can generate from the telecast. Can I assume that advertisements on the channel is the major source of revenue?

Yes, they will only show the Olympics on their one flagship channel.

And in what region are we planning to telecast the Olympics.

Good question. Consider USA.

Okay and Can I assume that Olympic programming will replace regularly scheduled programming.

Yes, Go ahead!

Okay for exact calculation of the advertisement revenue I will need specific data related to Olympics, so we will come back to it again. I would like to explore costs first. Do we have any data for coverage costs?

Consider all costs associated with coverage are \$500 Million

Okay. Should I consider other costs too? Like opportunity costs of missing out on other content and revenue from them?

Yes, consider opportunity costs too. The value is \$1M/hour.

If that all on the cost side, I would move to revenue side. How long are the Olympic games?

The duration of the Games is 16 days. This comprises of one day each for opening and closing ceremony and 14 days of events.

And can I assume that Opening and closing ceremony will have higher viewership. Even certain times of the day and events will have higher viewership than other and we consider that in our pricing model?

Yes, you are right. Event Broadcast timings- a) Weekdays: 9am – 12 pm, 2pm – 5pm, and 11 pm. b) Weekends: 11am – 9pm. Duration of opening & closing ceremony: 3 hrs each

Okay, and how much are we charging per ad to customers. Also, since its Olympics I will assume all slots will be filled.

- Ad costs: \$400K/30 seconds during prime time and half of this (\$200K/30) during non-prime time.
- Prime Time is considered anytime after 7pm on a weekday, and all day during the weekends.
- Ad duration: 10 min/hour
- Opening and closing ceremony ads costs 50% above primetime costs

Okay based on the above data, the revenue come out to be \$952M. Total costs are \$500 + 146 hours * 1M/hour = \$646M. Thus the profits come out to be \$306M. So we can bid anything below \$306M.

Are you forgetting something?

Oh yes, the bid is to be made in 2019. These profits are in 2024. So we will have to discount them to present value. Do we have the value for cost of capital?

Take Cost of Capital as 10%.

Based on this, the bid price shouldn't be greater than \$190M in 2019.

Good! It was nice doing a case with you. You can go now!

Thank You!

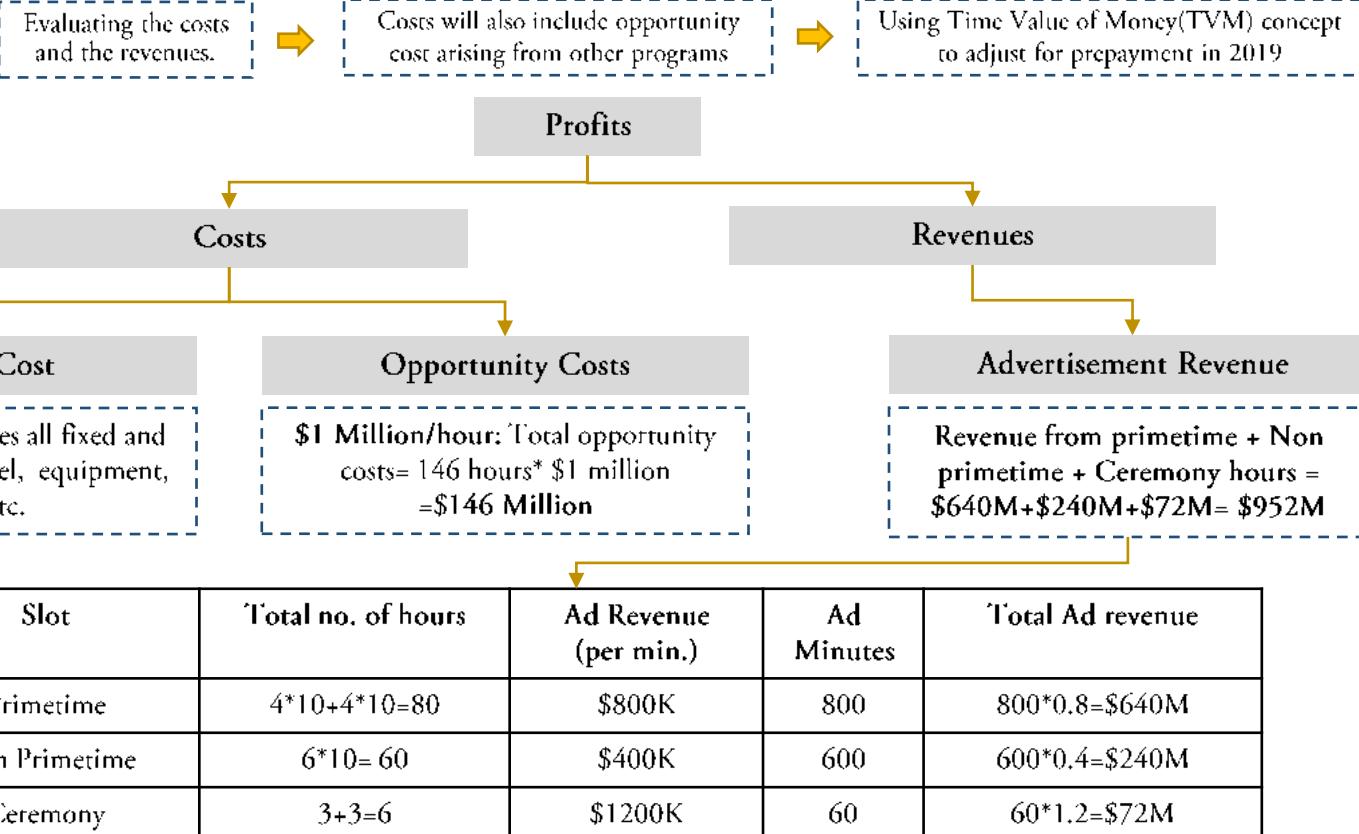
2024 Olympic TV Rights

Your client is a major TV Network, wants to know how much to bid on the TV rights for the 2024 Olympic Games. Bid is to be paid in 2019.

Case Facts & Notes

- Objective** – For a TV network the objective is profits.
- Revenue Sources**-a) Advertisements on the channel is the major source of revenue
- Region** - USA
- Duration of the Games**- 16 days. This comprises of one day each for opening and closing ceremony and 14 days of events.
- Event Broadcast timings**- a) Weekdays: 9am – 12 pm, 2pm – 5pm, and 7-11 pm. b) Weekends: 11am – 9pm
- Olympic programming will replace regularly scheduled programming.
- Costs associated with coverage**: \$500 Million
- Opportunity Costs from other programming: \$1M / hour
- Ad costs: \$400K/30 seconds during prime time and half of this (\$200K/30) during non-prime time.
- Prime Time is considered anytime after 7pm on a weekday, and all day during the weekends.
- They will only show the Olympics on their one flagship channel
- Ad duration: 10 min/hour
- Opening and closing ceremony ads costs 50% above primetime costs
- Duration of opening & closing ceremony**: 3 hrs each
- Cost of Capital : 10%

Approach



Recommendations

To earn a profit, the bid amount should be less than \$190M.

Automobile Company Declining Sales

You client is an automobile company experiencing lower sales recently. Figure out the problem & suggest ways to increase sales in the next 3 months

So, just to clarify, I would re-iterate the problem statement. Our client is an automobile company facing declining sales recently & they want us to find out the problem & suggest ways to increase sales in next 3 months.

Yes, absolutely right. Go ahead!

Before delving deeper into the Case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

Does the client operate only in India & are there any other operations run by the client?

So, the client only manufactures personal cars. It is based out of India & serves Indian market.

Also, since when is the client facing this problem?

Since last 3 months.

Thank you sir! Do we have any information regarding what kind of different products our client manufactures?

Yes! So, the client manufactures only a single product, i.e., Single model of a Single type of car.

One last question. Do we know about the presence of the client in its value chain? I mean in which all segments of the automobile value segment the client operates?

Good question! So you can consider that the client operates all across a general automobile value chain from manufacturing till after sales services.

Sure sir, thank you! Just provide me a couple of minutes to gather my thoughts and analyse the problem.

Sure!

Sir, since this is a case of declining sales, it will have two components: Quantity sold & Price/Unit. Do we have any information regarding which of these have changed, i.e., either increased, decreased or remained constant in last 3 months?

Sure! So, the quantity sold has gone down in last 3 months & the Price/ Unit has remained unchanged.

Since the quantity sold has declined, it can be due to either a supply side issue or a demand side issue. What is the case with our client?

Yes, nice observation. You can consider it a demand side issue.

Thank you sir! So, the demand side issue can be further segmented into 2 segments of Marketing & Customer pull. Do we know on which of these two fronts our client has not been performing well in last 3 months?

Yes! Consider it to be related to Customer pull issue.

So, we can divide Customer pull issue into four issues of Product visibility, Product likability, Affordability & feasibility. So, do we know which of these four factors related to our client's product is affecting the client's customer segment?

That is quite insightful. Yes, the issue is related with the product feasibility.

Since the automobile sector is highly regulated, is there any regulatory issue that our client is facing due to which the product feasibility is impacted?

Yes, the Government has announced to introduce BS VI regulations soon encouraging people to stop buying for now and wait till later when the company will give heavy discounts. Do you have any recommendations?

Yes Sir! Since we have a target to increase sales in next 3 months, I can come up with following two recommendations. First, Client shall focus on exporting its product & second, it shall focus on making sales through billing earlier and receiving money later. This will result in increasing sales.

Good job! Looks good to me. Hope to see you in the next round.

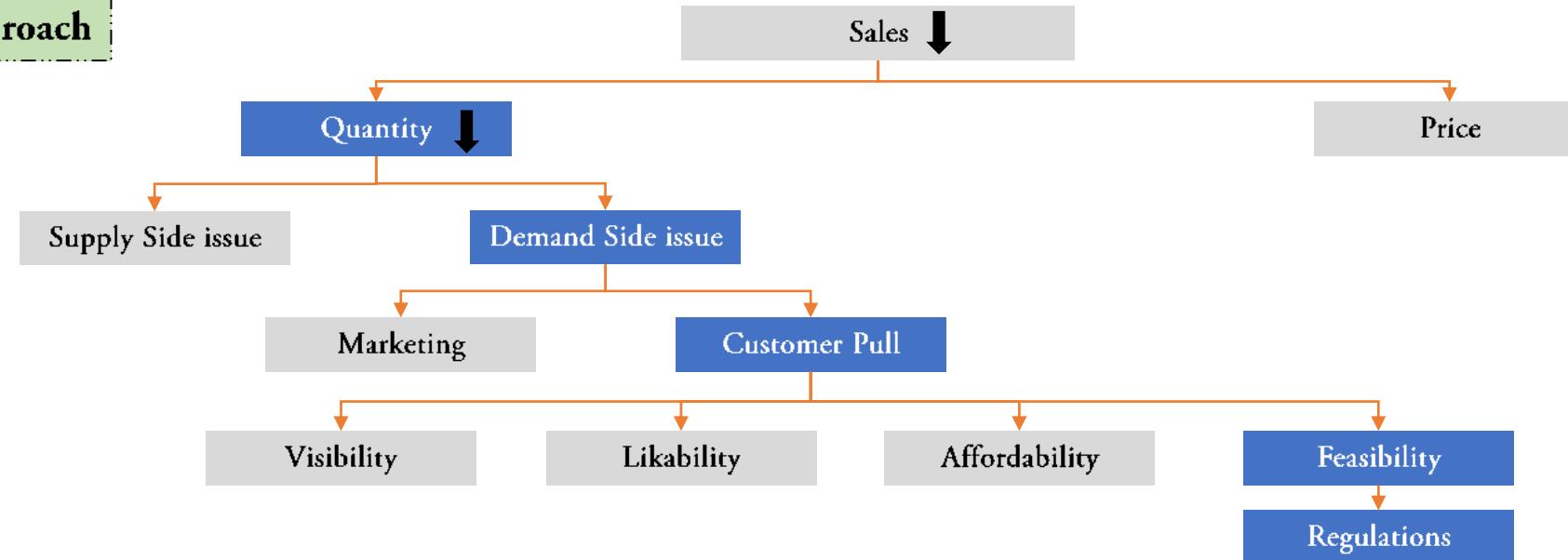
Automobile Company Declining Sales

You client is an automobile company experiencing lower sales recently. Figure out the problem & suggest ways to increase sales in the next 3 months

Case Facts & Notes

- Client-**
 - Manufactures Personal Cars
 - Based out of India, serves India
- Product-**
 - Single Product, i.e., Single Model of a Single Car
- Period-** Since last 3 months
- Value Chain-**
 - Present across the general automobile value chain

Approach



Government has announced to introduce BS IV regulations soon encouraging people to stop buying for now and wait till later when the company will give heavy discounts.

Analysis

- The company can improve sales by focusing on the 4Ps
 - Product: Modifying the product to conform to BS IV norms
 - Price: Introducing discounts right now on non BS IV compliant models
 - Promotion: No change
 - Place: Reaching more dealerships, if possible
- Also current strategy is not able to make the product reach the people in time.
- Problem is stock is present but it is difficult to make the stock reach people in short amount of time.

Recommendations

- Focus on exporting the Products
- Making sales through billing earlier and receiving money later. This will result in increasing sales.

Automobile Dealership

Your client is an owner of automobile dealership in Delhi NCR and is experiencing flat sales. Find reasons and give recommendations.

So our client is an owner of automobile dealership in Delhi NCR who is experiencing flat sales and I need to find reasons for the same and give recommendations to solve the problem?

Yes

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What does the client's business look like, what kind of services are provided by the client and where is the dealership located and what is the size of dealership?

Apart from selling cars in the showrooms the client provides post sales car servicing and the client has 10 sales showrooms and 4 service showrooms spread across Delhi NCR.

What is the product mix of the client?

The sell Skoda and Audi cars, both Volkswagen brands and they deal in the premium segment of car market

How long the client has been facing this problem and how is the competitive landscape, is it a industry wide problem, has there been changes in government regulations/laws?

The client has been facing this problem since the past two years and it's not an industry wide problem, there has not been any change in the government regulations/laws.

Is our client the only distributor of these cars in the city or are there other dealers as well, and how are these brands performing in the market, if there are other dealers for these brands as well are they facing the same problem?

There are other dealers as well in Delhi NCR, the brands themselves are strong and performing well and other dealers are not facing the same problem.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Is this a supply side problem or a demand side problem, as in is our client not being able to serve customers because of constraints or there are not enough customers in the first place?

It's a demand side problem, number of customers of the client has not been growing

Since we already know that the demand for these particular brands is high and other distributors are doing well, the problem has to be internal. So should I look into these factors?

Yes

Well, the different factors that can effect the customer experience in a premium car dealership can include things like the location, aesthetics, operational hours of the showroom, sales personnel skills, quality of post sales services. Do we have a measure of these things for our client?

The client has a customer feedback program and customer feedback has dropped and post sales service quality has dropped according to the feedback.

Scores on surveys taken at the dealership have dropped and post sales service quality has dropped. This could be due to multiple reasons, like Quality of sales people has dropped or they have not been trained properly or process of providing service has become obsolete or has been altered wrongly

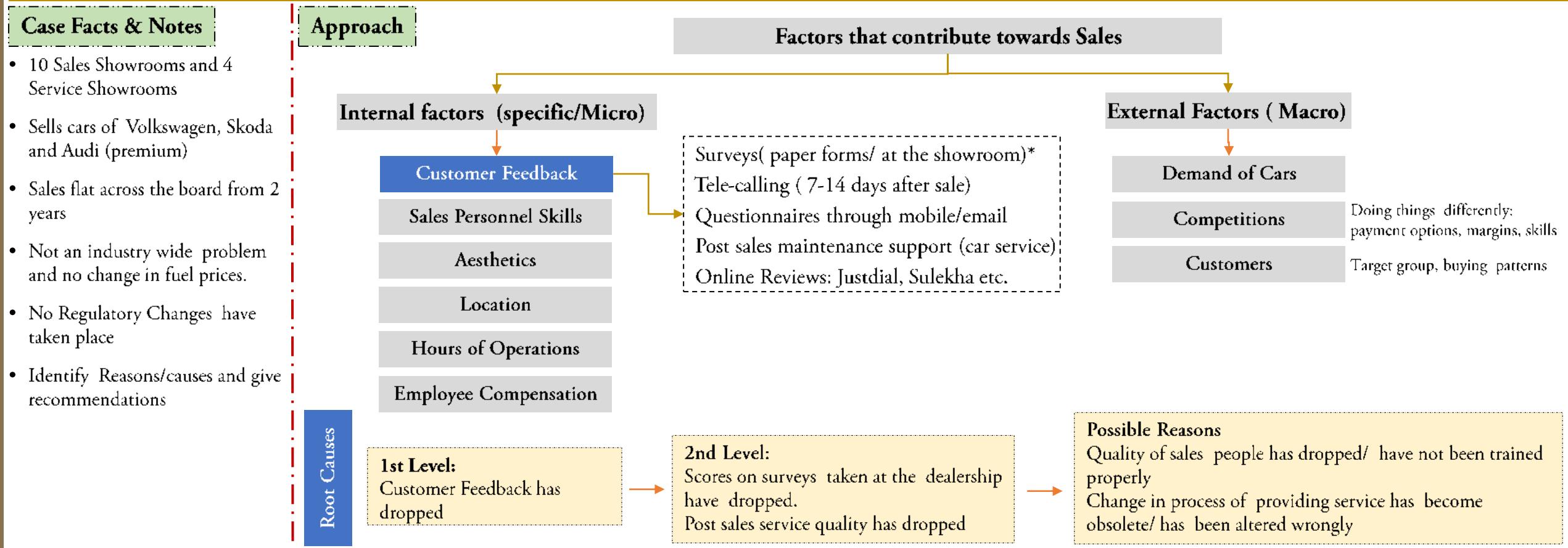
Yes, these are the reasons the quality of post sales services has dropped, can you suggest ways to improve this?

To increase the quality of after sales service the client can retrain sales and service staff, the client can link bonuses/ incentives to dealership survey scores for all employees of dealership, so that they have a stake in the overall performance of the dealership. The client can review the current practices for after sales services and compare them with historical trends, if they are not upto the industry standards the client should improve that as well

Yes, these recommendations sound good.

Automobile Dealership

Your client is an owner of automobile dealership in Delhi NCR and is experiencing flat sales. Find reasons and give recommendations.



Recommendations

- Retraining of sales and service staff
- Linking bonuses/ incentives to dealership survey scores for all employees of dealership
- Review of service process and quality with comparison to history and current trends

Kids' TV Channel

Our client is a Kids' TV Channel that is facing a dip in revenues and advertisers are moving out of contracts. Help them fix their problems.

Okay, so just before we begin, I'd like to confirm my understanding. Our client is a Kids' TV Channel that has declining revenues & advertisers are moving out of contracts. We've been hired to solve this issue? Right?

Yes, that's right.

Okay, then in that case I would like to ask a few clarifying questions.

Sure, go ahead!

Where is the Channel based out of and viewed? Since when are they facing these issues?

The channel is based in the US and it's an add-on channel that doesn't come with the regular package. This issue of declining revenues has been prevailing since the past couple of years.

Thank you sir! Regarding the problem – Are our competitors also facing the same issue?

Not really. Some of our competitors are doing fine while some have also faced a hit like us.

Okay, then in that case I think we should see what are the different revenue streams for our channel that have taken a hit and then view what are the competitors are doing differently in terms of those revenue streams. Is that fine?

Yes, that seems to be a fair approach. Go ahead.

Thank you! Then first, I'd lay out the different revenue streams I believe the channel has and then we could look into the specifics?

Sure

Okay, so according to me, I can currently think of four different areas from where the channel could earn money. Please correct me if I'm wrong. I think there is advertising revenue for sure also a fee must be charged from the channel's end to package and air the content based on the no. of subscribers and timing of the show. Lastly I think there must be some indirect sources too like merchandising etc.

Yes, that's absolutely right! You can divide fee you mentioned regarding subscribers and time into two. One is a regular TV Show fee that has to be given to a channel for choosing a particular slot, while the other is a distributor fee charged per subscriber.

Okay, thank you. In the past few years has any one of these streams specifically taken a hit?

Yes, distributor fee has reduced.

I can think of two reasons for that to happen. Either our subscribers have declined in number or we've reduced our distribution fee per subscriber.

Yes, you're right. Our subscriber-base has declined.

Okay, so I will try and enlist the reasons for this. These can be internal or external. By internal, I mean it can be that our content quality has reduced or we're having too many ads causing viewers to shift while by external, probably our competitors have launched a new show or service or customer preferences are changing.

Internally, nothing has changed. But you're right about the competitors doing things differently. They've launched an On Demand Video Service

That explains a lot. It could be the case that subscribers must have shifted to this new service. Not only this, the general shift of preferences is also towards internet based entertainment. If we could also launch such a service, our revenues might regain momentum. We could also compensate lost revenue by focussing on other things like merchandising, altering the show mix and increasing advertisements on different areas of the screen.

Yes, that's absolutely right. These sound like good suggestions. Could you calculate what monetary benefit we might gain on launching this new service?

Sure, sir. If I consider one show with 9 seasons and 22 episodes per season which is the general case, we can multiply that to the average viewers per episode and per subscriber fee to get total benefit. Is that sufficient or I should get into the specifics?

That sounds good, it should suffice. Thank you!

Kids' TV Channel

Our client is a Kids' TV Channel that is facing a dip in revenues and advertisers are moving out of contracts. Help them fix their problems.

Case Facts & Notes

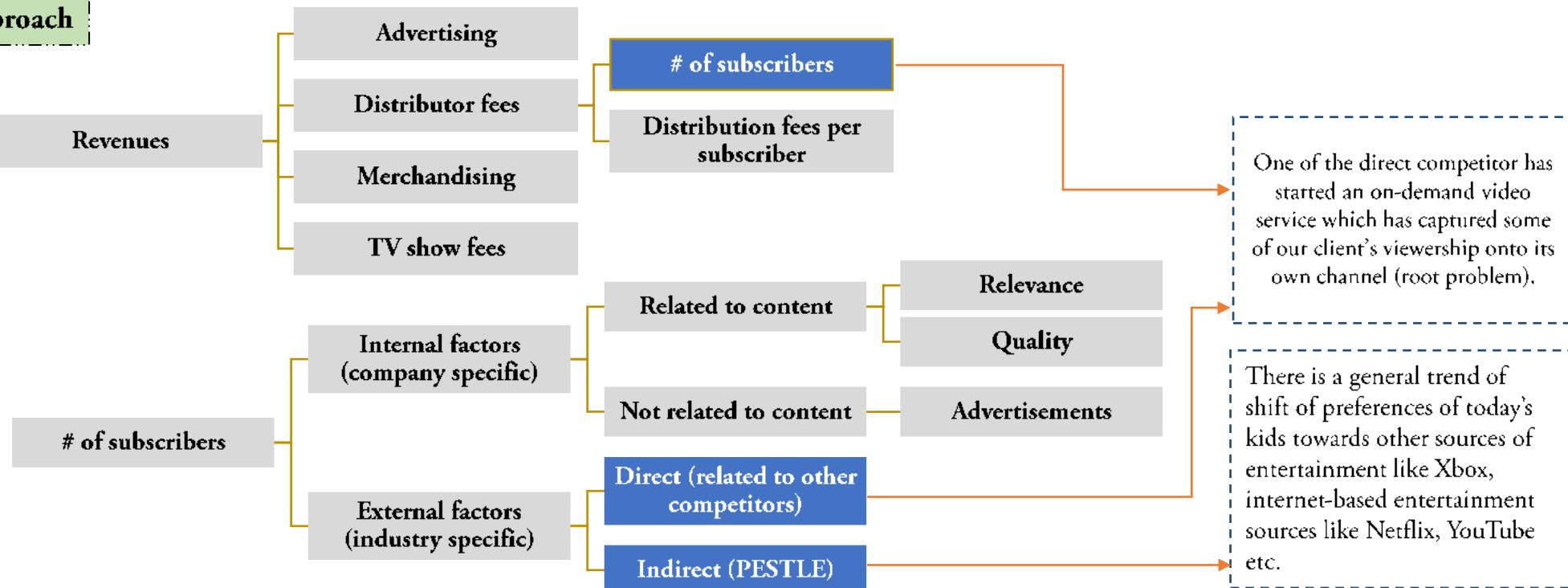
- Kids' TV Channel based in US
- Facing these problems for past couple of years
- Add-on channel (not a part of regular channel package)

Content Creation

Content Packaging

Content Distribution

Approach



One of the direct competitor has started an on-demand video service which has captured some of our client's viewership onto its own channel (root problem).

There is a general trend of shift of preferences of today's kids towards other sources of entertainment like Xbox, internet-based entertainment sources like Netflix, YouTube etc.

Recommendations

1. To tackle the root problem, we can launch an on-demand video service on our channel
2. We can also circumvent the root problem by compensating the lost revenue from other sources of revenues. Suggestions for this could be
 - a. Focus on merchandising revenues
 - b. Changing show mix by introducing popular shows at prime time
 - c. Introducing advertisements in screen headers and footers

Benefit of Introducing an on-demand video channel:

Total benefit = (Price charged) × (Average viewership per episode) × (No. of episodes/Season)* (No of Seasons)

.

Price charged: \$4 per subscriber
No. of episode in one season: 22

Average viewership: 10000 per episode
No. of seasons: 9

Total benefit: \$7.92 million.

Shopping Mall in South Delhi

Your client operates a shopping mall in South Delhi. They want to increase their advertisement revenue

So, just to be on the same page, I would re-iterate the problem statement. Our client operates a shopping mall in South Delhi & wants to increase their ad revenue.

Yes, absolutely right. Go ahead!

Before delving deeper into the case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

How big or popular is this shopping mall & what is the proportion of ads in its revenue?

So, it is one of the largest & most popular malls in all of Delhi & ads have currently 8% revenue share.

Also, What are the various categories of Ads that our client indulges in & who are its clients for these ads?

That's a good question. So, you can consider the ads categories to be firstly, Displays which are either billboards or standees & secondly, some events/exhibitions held in the mall. We have both internal as well as external clients. Internal clients are in-mall outlets. External clients include exhibitions held by car or other vehicle dealers & other events being held by some various firms & organizations. In mall-outlets are more frequent clients & events are least frequent.

Thank you sir! One last question. How do we benchmark our ad revenues?

So, we benchmark it with similar businesses, Past ad revenue numbers & also compare ad revenue between different ad categories.

Ok Sir. Just provide me a couple of minutes to gather my thoughts and analyse the problem.

Sure!

So, Ads revenue will depend upon 3 factors: Allotted space, average revenue/ unit space & % utilization. I would like to look into these factors one by one & suggest ways of increasing overall revenue using these. Is that fine with you?

Sure! Go ahead.

Allotted space can be divided into space optimization & new space. We consider gross revenue/space from existing spaces used for advertising & optimize use looking in visibility & footfall. We can optimize ad mix/year & charge more for spaces with high visibility & footfall. For new space, we look into internal (elevators, washroom, etc) & external spaces (Parking lots, rooftops, etc.)

This looks good. Go ahead!

Ad revenue/unit space can be divided into new categories, new methods & pricing models. We can hold entertainment/ festival events. We can advertise on kiosks, uniforms, sign boards, foot-maps, etc.

This looks interesting.

In new methods we can include digital screens. Ads will be replaced easily & take less space. We can use customized kiosks to handle basic level exhibitions. This will take less space & increase revenue /space. We can look into pricing model too. It has 2 challenges: right price & convincing clients. We shall link prices to response of mall consumers to extract maximum revenue potential of ads.

These are really good insights. What about the % utilization?

Yes sir. So, % utilization can be further segmented into client management & maintenance of spaces. Under client management, we can start doing e-listing of spaces for external clients & use separate internal platform for internal clients. We can offer packaged offerings to our clients such as fully managed events/exhibitions etc. We also shall look into data with respect to client exposure.

This looks good to me. On what factors do you think choice of ads for our client will depend?

So the choice will depend upon various like medium of advertisement, associated cost, potential exposure to the customers, relevance of ad for the mall audience, middle agencies involved & ease of implementation.

Good Job! Hope to see you in the next round.

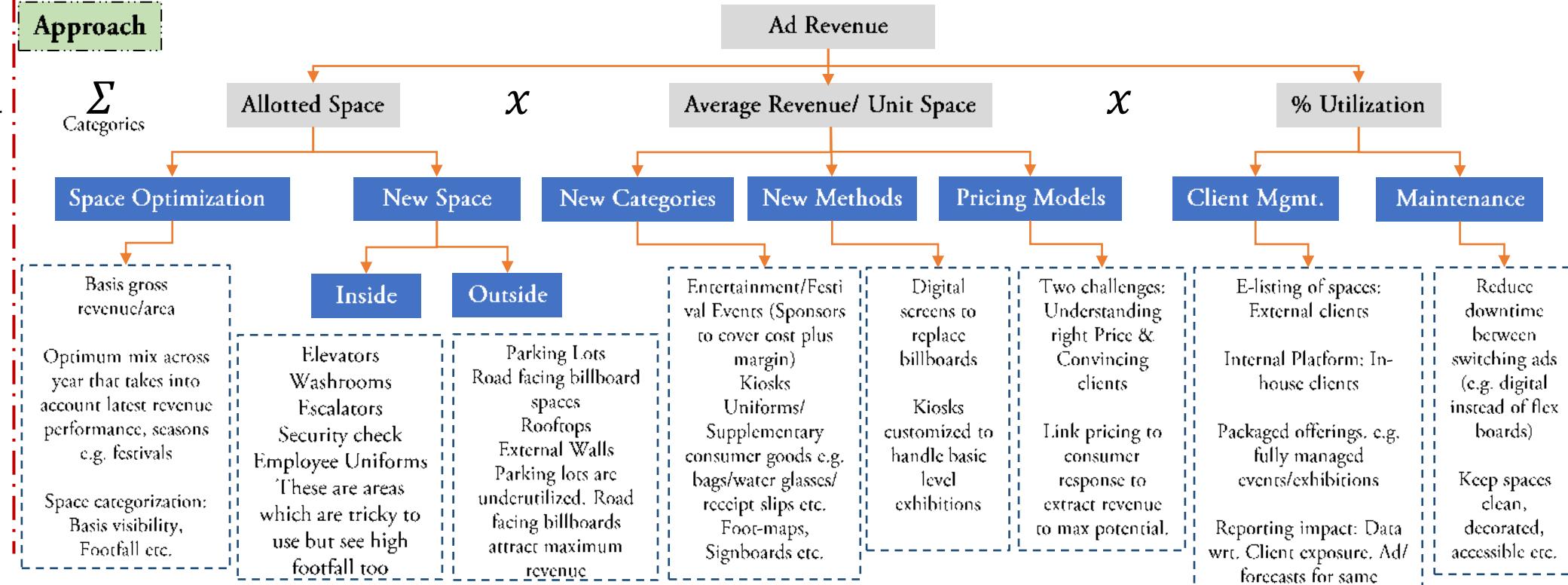
Shopping Mall in South Delhi

Your client operates a shopping mall in South Delhi. They want to increase their advertisement revenue.

Case Facts & Notes

- Shopping Mall** – One of the largest & most popular in Delhi. Facilities, Customer base, etc.
- Current Status** – 8% revenue share for ads. Categories: Displays (Billboards /Standees). Events/Exhibitions.
- Benchmarking with:** Competitors, Similar businesses, Past numbers, Between Categories
- Clients:**
 - Mainly In-mall outlets
 - Car dealers in exhibition
 - Events: wide base, less frequent

Approach



Supplementary Aspects

How clients choose between two Ad options

Important Factors

- Nature of offering: Medium of advertising
- Price: Cost associated with options
- Reach: Potential exposure to consumers
- Relevance: Between their business & mall audience
- Middle Agencies: Have significant influence on their final choice
- Ease of implementation: Critical when it comes to events

Analytical Pricing Model for an Advertisement space

$$\text{Price} = f_{\text{internal}}(\text{Location, Size, Medium, Internal cost, Time, Special Features}) + f_{\text{external}}(\text{Season, Mall popularity, Competition})$$

Function relating these parameters can be derived based on: Existing data such as footfall etc. (Better collection of data is essential) Competitive Benchmarking with similar businesses e.g. Gaming Arcades Understanding Elasticities basis operational experience

Food Manufacturer Case

Your client is a food product manufacturing corporation and has observed decline in profits. Figure out the problem.

Sir, just to be on the same page, Our client is a food manufacturing corporation and they are observing a decline in profits and I have to help in figure out the problem.

Yes, that's right.

Can I ask a few clarifying questions regarding the case?

Sure, go ahead!

In which geography do we are based? What markets do we serve?

We are based out of India, and serves entire India.

What is our product? Are we just into manufacturing or other parts of the value chain too?

We are a Biscuit manufacturing company. Present across the entire value chain. Consider Parle.

Thank you! And do we have multiple products? Or just a single type of biscuit.

For this particular case, Consider we are a single product company. Take Parle-G as proxy.

Thank you sir! And since when we have been facing this problem?

Almost 6 months.

Is it an industry wide problem?

Good question! It seems that industry is immune to this issue.

Okay Sir! I would like to take a few moments to structure my thoughts before we move ahead. I will approach this problem by dividing profits into revenues and costs. What would you like me to approach first?

Since there are no changes in revenues, I would you to look into costs.

Okay, then I will breakdown costs using value chain based approach.

So we break the value chain into raw material, transportation, manufacturing, packaging, warehousing, outbound logistics, sales and marketing. Would you like me to look into a particular head.

I want you to look into Warehousing costs.

Okay. Warehousing costs can be broken into rent, labour and food wastage costs. Since biscuit is product that comes with expiry, wastage costs might be a big risk.

Yes, you are right! We are facing issues in food losses only.

Okay, so losses in food can be due to pests or due our own system of inventory management. Are we facing some kind of pests related issues?

No

So the problem can be in our own management, Can you help me understand the logistics process of this company?

Now that inventory management has been identified as the problem area, consider this. The warehouse used to have 2 doors (entry and exit door). The exit door no longer exists. How could this be a problem? Also suggest solution/s.

Sure sit! Just give me a minute to think. It is possible that the goods are stored away from the entry door first and near the entry door in the end. During distribution, goods are collected from near the entry door first and away from the entry door last i.e. LIFO model of inventory management is in place. LIFO model will result in losses since biscuit is a perishable good and has a limited shelf life.

Good! What will you recommend?

There are 2 immediate solutions that I can think of. One is to shift to FIFO type of inventory management. Second would be open the previously closed door to facilitate FIFO.

Okay! Thank you. You can leave now!

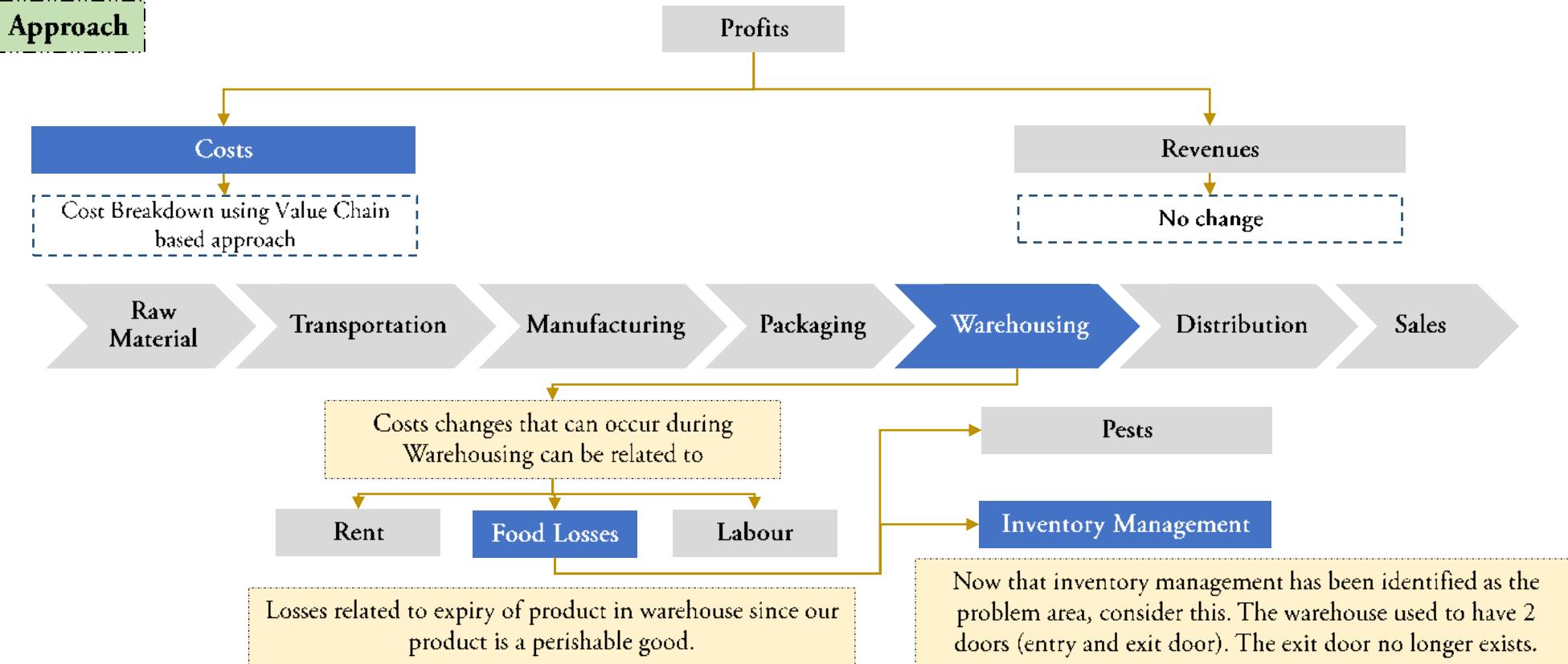
Food Manufacturer Case

Your client is a food product manufacturing corporation and has observed decline in profits. Figure out the problem.

Case Facts & Notes

- Company—Biscuit manufacturing company
- Geography—Based out of India, serves India
- Product— Single product. Proxy-Parle G
- Value Chain – Present across the entire value chain
- Duration of the Problem -6 months
- Just Us

Approach



Recommendations

Shift to FIFO model of inventory management.
Open the closed date.

- It is possible that the goods are stored away from the entry door first and near the entry door in the end.
- During distribution, goods are collected from near the entry door first and away from the entry door last i.e. LIFO model of inventory management is in place
- LIFO model will result in losses since biscuit is a perishable good and has a limited shelf life.

The client is an IT Services firm, interested in improving the bottom-line of the India Region, help them chart their way forward

Thank you sir, so just to reiterate and confirm, our client is an IT Services firm and they want to improve their bottom-line in India.

Yes, that's right

Okay, so I had a few questions to clarify my thoughts.

Sure, go ahead.

Where are we located apart from India, and are there any benchmarks we have in mind compared to other locations or companies about increasing the bottom-line?

In India, we're located in New Delhi. Apart from that, we're located in New York, US. There isn't any benchmark but we're not doing as well as New York on some parameters.

Okay, thank you. So, I believe to improve bottom-line, we need to either increase our revenues or decrease our costs and spending? Is there any which you want me to focus on?

There isn't much scope to increase revenue. Let's look at the cost side.

Alright, so for an IT Services firm, if I think of costs, major would be infrastructural and administrative, software development costs, and the employee costs.

Yes, that's right. You can explore more on each of these. We label them as SG&A and employee costs respectively.

Okay, talking about SG&A, it would include I believe it would include hardware, software costs, and also all the Outsourcing costs while the employee costs would depend on the number of employees, their utilisation and wages. Should I discover if there is scope to improve any of these?

Yes, that's true. SG&A does not have much scope to reduce costs while I would definitely want you to explore the employee related costs. The factors you've mentioned are fine.

Okay, thank you. So in that case, I would want to ask if we have any information about how many employees we have and also about their utilisation rates to see if they are over or under staffed.

Sure, so you can have a look at these data points for number of employees, utilisation rates and number of employees in both New Delhi and New York. (Provides datasheet)

Number of Employees: 1) New Delhi – 5000 Employees, 75% utilization, 2) New York – 10,000 Employees, 85% utilization

Avg Cost Per Employee: 1) New Delhi - \$700 each, 2) New York - \$800 each

Thanks! So analysing this sheet, I can see that in New Delhi, utilisation levels are lower than New York and there seems to be a clear case of overstaffing.

Yes, so what would you suggest to the firm in this case.

I believe to increase worker utilisation rates should be the firm's first priority and as a benchmark we can keep the New York office numbers a first target.

Alright, that sounds good, how do you aim to achieve those increased rates.

That could be done in two ways, either we could take the hard decision of laying off people or we can try and get more projects for the firm, which I'm sure the company would anyway have been trying to do.

Yes, that's right. If you were to layoff, how many would you need to?

(Performs calculations) Given the data at hand, I think we would need to layoff a little less than 600 workers from the New Delhi office, saving on major costs and improving the bottom-line.

Okay, that seems fair. Anything you would want to suggest the company before taking such a move?

Well, these are decisions that might cause a hit on the brand image of the company so they should be done keeping in mind the employees' futures in terms of the negotiation or settlement that is made when they're asked to leave and also while being conscious of the negative press we might accumulate. If we can get over these two important considerations carefully, I think this would be in the right interest of the firm.

Alright, that should be good to go!

The client is an IT Services firm, interested in improving the bottom-line of the India Region, help them chart their way forward

Case Facts & Notes

- It is an IT Services Player present in India (New Delhi) and US (New York)
- Provide BPO Services and customized Software Development
- Clients are present across all sectors
- Objective: Improve Bottom-line as soon as possible

Approach

Increase in Revenues

Basic Facts:
No of Employees:

- New Delhi – 5000 Employees, 75% utilization
- New York – 10,000 Employees, 85% utilization

Avg Cost Per Employees:

- New Delhi - \$700 each
- New York - \$800 each

Bottomline Improvement

Decrease in Major Costs

Employee Costs

Average Cost per Employee

As per industry standards

No of Employees

Problem not restricted to any one department

Employee Utilization Factor

Higher utilization would lead to lower employee cost per project

Selling, General and Administrative Expenses

- Critical component as acquiring clients for both BPO and Software Development is the driver of topline
- No Scope of Improvement

Recommendations

Cost Savings

Layoffs

Increase in Projects

There needs to be increase in employee utilization at New Delhi Office. For this, if layoffs are considered, total layoffs required would be $5000(1 - (75\% / 85\%))$ i.e. 588 employees, saving Rs 411,000 approx.

If projects increase, an increase in topline could lead to an increase in bottom-line too. But economics and impact of employee utilization should still be taken into consideration

Quick Service Restaurant

Your client is a quick service restaurant and is experiencing high manpower operating costs. Find reasons and give recommendations.

Sir, just to be on the same page, I will repeat what I understood from the question. So our client is a quick service restaurant and wants to reduce its manpower operating costs.

Yes, go ahead!

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What is a quick service restaurant? Geography? What does it serve? Standalone or a chain?

Consider fast food chains. It's a pizza chain spread across India. They make and deliver pizzas.

Thank you sir! Regarding the problem – Since when is the restaurant experiencing this problem?

Is it concentrated in a particular geography? Are only we suffering or are competitors are also impacted?

Well they have been experiencing this problem for the past 2-3 years. They are experiencing this problem pan India but its majorly concentrated to Metro and Tier-1 cities. As far as we know, the competitors are also impacted by it.

Thank you sir! How is the competitive landscape and has there been a change in government regulations/laws regarding manpower that might be impacting the industry?

No, there has been no change related to labour laws. The industry is fragmented with 2 big players and lot of small players. Plus each city have local chains and eateries that add to the competition. We have 30% market share in Tier-1 and Metro cities and 40% in Tier-2 cities, where we exist.

Thank you sir! Regarding service, what all kind of service are we providing?

Good question! The restaurant provide dine-in, drive-by and delivery service. Anything else you would like to know?

No sir, thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Sir, considering a store, manpower costs can be divided into chefs/cooks, servers, managers, billing, delivery, maintenance & security. Is there a particular head you would like me to look into?

Let's assume the problem is the store level only and I would like you to dive in delivery costs. What factors make delivery costs?

Delivery costs would include wages, insurance, spillage, and probably vehicle maintenance. Are any of these heads changed?

Are you sure vehicle maintenance will come in manpower costs? The company wages of employees have increased.

Has the pay structure changed?

Yes, it was earlier fixed pay model. Now its changed to fixed + variable kind of structure. Why do you think this happened?

Maybe industry model has changed sir. Or competitors introduced new pay structure and to keep up the company had to change its pay structure too. Maybe due to entry of food aggregators.

Yes, due to entry of food aggregators, the delivery employees were leaving the client for better pay. Thus they had to increase the pay. I want you to analyse the change in pay.

Sure sir, fixed pay would be factor of no. of working days, working hours and hour rate. Variable pay would depend on number of deliveries. Do we have the data regarding this.

Yes, a delivery employee on an average has 24 working days, has a 8 hour workday, and is paid ₹ 50 per hour. Apart from it, they are paid ₹ 5/delivery and can deliver 30 order per day. Also suggest ways to reduce costs. Earlier pay - ₹ 10000/month

New costs: ₹ 13200. That's an increase of 32%. Regarding solutions: We can outsource delivery activity to Swiggy and Zomato after doing a cost benefit analysis. That might save on the delivery charges. We can also introduce a loyalty bonus to retain employees, or we can introduce/increase delivery charges to recover the costs.

Quick Service Restaurant

Your client is a quick service restaurant and is experiencing high manpower operating costs. Find reasons and give recommendations.

Case Facts & Notes

- It is a Quick Service
- Restaurant chain of Pizzas - Make & Deliver Pizza
- Experiencing problem since past 2-3 years
- Problem visible in 40% of the restaurants across chain. Pan India – Tier 1 cities
- No changes in government regulations.
- Impacting competitors too.

Activities

- Dine-In
- Drive By
- Delivery

Approach

Manpower Costs

Chefs/Cooks

Servers

Managers

Billing

Delivery

Maintenance

Security

Pay structure have changed from only Fixed to Fixed + Variable.
Earlier Fixed Pay – ₹ 10000

Wages

Insurance

Vehicle Maintenance

Spillage

Fixed Pay

Variable Pay

working days

X

Hour Rate

X

of Hours

Pay Structure had changes due to entry of hyperlocal delivery players (Swiggy, Zomato), thus increasing delivery boys' demand.

24 working days
₹ 50/hour
8 Hours Work Day

of deliveries have increased over the years.
Currently paying ₹ 5/delivery.
Can deliver 30 order per day.

Fixed Pay Now – ₹ 9600
Variable Potential – ₹ 3600
Total pay = ₹ 13200
Increment of 32% per person.

Recommendations

- Outsourcing delivery activity to Swiggy and Zomato after doing a cost benefit analysis. That can save on the delivery charges.
- Introducing a loyalty bonus to retain employees.
- Start charging delivery charges for Pizza delivery to recover costs. Currently, they don't charge
- Increase prices of pizza by a little amount(1-2%) to cover for the increased costs. People won't mind paying Rs. 410 for a Rs.400 pizza.

Steel Manufacturer High Costs

Your client is the CEO of a Steel Manufacturing Company and he thinks that his transportation costs are very high. Help him understand if he is correct.

So, just to be on the same page, I would re-iterate the problem statement. Our client is CEO of a Steel manufacturing company and he thinks that his transportation costs are very high & we have to help him understand if he is correct.

Yes, absolutely right. Go ahead!

Before delving deeper into the Case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

In which Geography does the client operate? Is there a single plant or multiple plants?

So, our client operates across Delhi, Kolkata, Chennai, Mumbai & Pune. They have 2 plants.

Also, does the client operate any other operation apart from that of Steel manufacturing?

Yes, they operate in transportation & distribution segment apart from steel manufacturing.

Thank you sir! Do we have any information regarding our Customer segments & their proportion in our business?

Our client operates in B2B segment, but we don't have any customer segment wise data.

Moreover, what do we know about the competition in the industry?

So, it is a fragmented market with many competitors. Our client is one of the major players.

Also, what are the Products that our client makes?

So, the Client makes Steel rods & nails & uses finished steel as the raw material. But the client controls only the outbound logistics.

Since, the client is also involved in the transportation & distribution apart from manufacturing, do we have any information related to any regulation which affects our client's business?

Yes, so the client has to pay Toll/State tax at each border for inter-state travel. That's all we have.

Sure sir, thank you! Just give me a couple of minutes to gather my thoughts and analyse the problem.

Sure, Go ahead!

Because this is related to costs, I would like to look into the value chain of our client's business. I have drawn the value chain from Inbound Logistics to Final delivery. But, since our client controls only outbound logistics, I would like to focus on that.

Sure!

Does our client owns its own vehicles for transportation & distribution or does it rent them? Do we have any data regarding that?

Yes, we have. So, our client uses 3rd Party vendors to rent trucks. The average truck rental is Rs.25/Km. Average route length is around 1000 Km & on an average there are 30 trips annually.

Thank you for this data. So, this comes to a cost of around Rs. 7. Lacs/year for a single truck. But to see how the client is doing on the cost front, we need some data to benchmark. If the client wishes to own his own truck, the cost that he incurs annually in that case can be a good benchmark for us to see how is he doing right now on cost front. Do we have any data regarding that?

Yes. (Interviewer gives a data sheet mentioning all the relevant costs)

In this case, the annual cost/truck comes to around Rs. 13,30,000 which is a lot more than current.

Yes. So what do you recommend?

I think owning trucks doesn't look like a relevant option for our client. But, to further reduce the cost I have following recommendations: We can try to negotiate cost with the current vendor or change the vendor if we get lower bid. We can try to utilize the full capacity of trucks in each trip so that number of trips can be reduced annually. Further, we can also look into the option of Route optimization which would reduce the average route length in each trip for our client. Also, if it's possible we can look into the cheaper modes of transport such as railways for bulk transport of our items which might help us to reduce our costs.

These recommendations look good to me. Well done!

Steel Manufacturer High Costs

Your client is the CEO of a Steel Manufacturing Company and he thinks that his transportation costs are very high. Help him understand if he is correct.

Case Facts & Notes

- Client - Steel Manufacturer**- Major Player. Transportation/ Distribution along with Manufacturing. 2 Plants
- Customers** - Mainly B2B across Delhi, Mumbai, Pune, Chennai, Kolkata.
- Product** - Finished steel as raw material. Steel rods & nails. We only control Outbound logistics.
- Competitors** - Fragmented Mkt. Client is one of major players making steel rods & nails.
- Regulation/Route** - Toll/State tax at each border for inter-state travel.

Approach

Inbound Logistics
(Raw Materials)

Manufacturing/
Processing

Value Chain

Warehousing

Outbound
Logistics

Final
Delivery

Client is using 3rd Party Vendors ('ltruck Rentals)
Truck Rental: Rs. 25/Km
Route Distance: 1000 Km
No. of trips: 30 (Annually)
Total Cost: $Rs. 30 * 1000 * 25 = Rs. 7,50,000/\text{yr.}$

Note: Since we only have to concentrate only on Outbound Logistics, we analyse it further (confirm with interviewer)

To assess whether this figure is high, we need a benchmark,

What if the client wishes to purchase his own transport and own up the complete outbound logistics:

Cost of Truck Rs. 30 Lakhs ; Life 10 yrs. (Salvage value 0); Mileage 5km/ltr.

Description	Value (Rs.)	Amount (Annual)
Fuel	50/Ltr.	3,00,000
Driver Salary	10000/trip	3,00,000
Toll	100/100 km	30,000
Depreciation	3,00,000/yr.	3,00,000
Maintenance		3,00,000
Tyre Replacement		1,00,000
Total		13,30,000

Recommendations

- Change of Vendor OR Negotiate with current vendor
- Utilise the full truck load capacity to reduce the number of trips
- Route optimization
- Use cheaper means of transport: Railways for bulk transport

Women Apparel Retail Chain

Your Client is a big 'women apparel' retailer is facing margins problem. They are experiencing a constant sales growth but there is a cost problem in the retail side. They want you to find out the problem & give recommendations.

I would re-iterate the problem statement first to be on the same page. Our Client is a big 'women apparel' retailer facing margins problem. They are experiencing constant sales growth but there is a cost problem in the retail side & they want us to find out the problem & give recommendations

Yes, absolutely right. Go ahead!

Before delving deeper into the Case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

Where is the client based out of & where does it operate?

The client is based out of USA & owns a retail chain operating in USA.

Also, does the client sell its products only via its own stores or through some other channels as well?

They sell only via their own retail stores.

Thank you sir! Do we have any information regarding what kind of different products our client sells?

You can consider the client sells Women merchandise. That shall suffice the requirements of this case.

Sure sir, thank you! Just provide me a couple of minutes to gather my thoughts and analyse the problem.

Sure!

Sir, Since this is a Cost problem, I would like to divide the Costs into two components, Fixed & Variable costs. Fixed costs can be further segmented into 5 types: Rent, Utilities, Salary, Machinery & Administration costs. Variable costs can be segmented into 3 types: Raw materials, Transportation & Miscellaneous costs. Do we have any information regarding which cost segment is a cause of concern for our client?

Yes! I would like you to look into the fixed cost component of Salaries.

Sure sir! I would like to look into the structure of the retail side of our business as in where all do we pay salaries. I can think of Retail shop service staff, maintenance staff, etc. Do we have any information on what are the various layers at which we pay salaries & how much?

'That's a nice observation. I would like to give you some data regarding our salary structure. We have 4 layers in our value Chain: Regional Sales Heads (4), Divisional Sales Heads (10), Territorial Heads (16) & Shop Sales Heads (60). The per employee salary at these 4 layers are: \$350, \$300, \$280 & \$100 respectively. Looking at this data can you tell me your observations?

Thank you sir! So, Total Salaries at these 4 layers are : \$1400, \$3000, \$4480 & \$6000 respectively. What I can see is the salary expenditures at Territorial Head & Shop Sales Head levels are relatively higher. So, I am thinking of looking into these.

Sure! Go ahead.

I would want to benchmark our Salary expenditure at these levels with our competitors to check whether the compensation that we are paying at these levels are fair or not & also if our staffs are working at comparable efficiency or not. Do we have any information regarding these factors?

That is quite insightful. Yes, I have some data for you. Our competitor has 5 people manning each store whereas we have 6 people manning each store. What do you understand out of this?

I think then we have identified the problem. There are two situations possible. Either the efficiency is not up to the mark or there is some problem in the training

So, what do you recommend then?

Sir! I have two recommendations. Firstly, our client shall look into why we need 6 people as compared to 5. We shall take into account # of customer walk-ins & shift durations & act accordingly. Secondly, We Shall also analyze our Training process & look into Curriculum, duration & evaluation criteria & take corrective measures

Good job! This looks perfect. We are done.

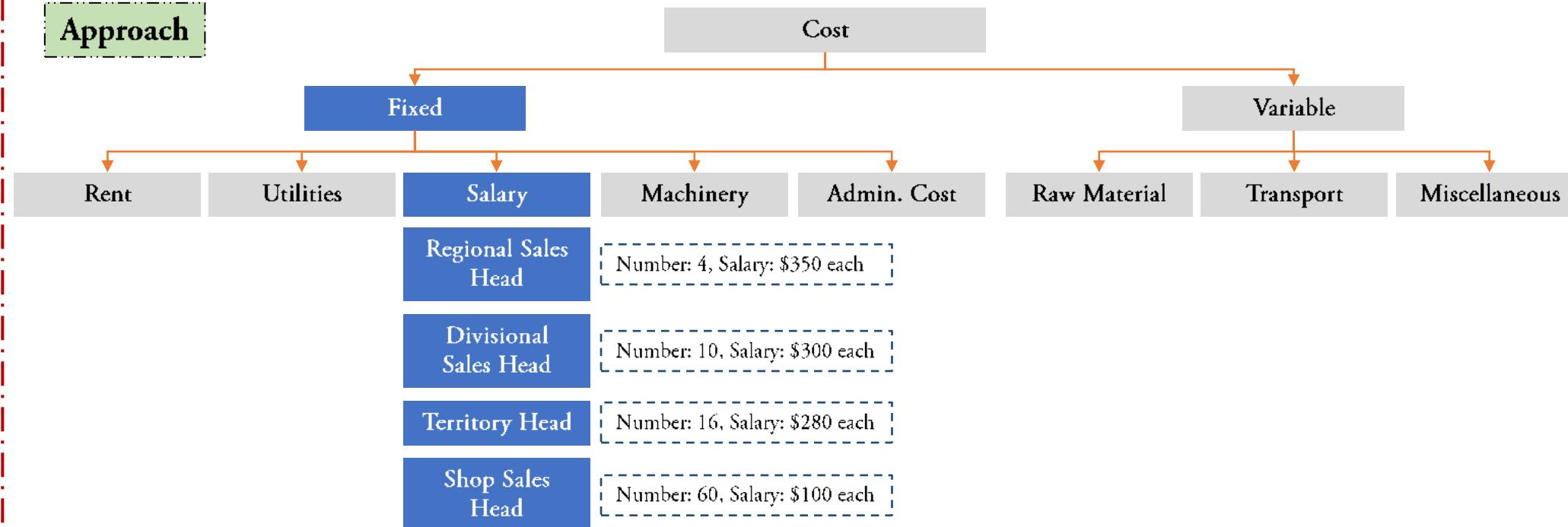
Women Apparel Retail Chain

Your Client is a big 'women apparel' retailer is facing margins problem. They are experiencing a constant sales growth but there is a cost problem in the retail side. They want you to find out the problem & give recommendations.

Case Facts & Notes

- Client-**
 - Owns a retail chain operating in USA
 - Sells only via own stores
- Product-**
 - Sells Women Merchandise

Approach



Analysis

Regional Sales head - 1400
 Divisional sales - 3000
 Territory sales - 4480
 Shop sales - 6000

Higher

Benchmark with Competitors

Compensation

Efficiency

Competitor has 5 people manning/store whereas we have 6 people manning/store

Recommendation

- Client shall look into why we need 6 people as compared to 5. We shall take into account # of customer walk-ins & shift durations & act accordingly.
- We Shall also analyze our Training process & look into Curriculum, duration & evaluation criteria & take corrective measures.

Golf Course

Pricing | Moderate | McKinsey

The client wants to setup a new golf course. They have hired you to come up with a pricing strategy for the same

Our client possess a huge field. They want to set up a golf course there, and they've hired you to help them come up with a price that they should keep for their customers to come and play golf

Alright, so I'll just start by clarifying a few aspects and the objective, and then we could go into how we can arrive at the right price point. Is that fine?

Yes, that sounds good

Firstly, I will want to know if we have any prior experience in setting up this kind of a complex or golf-course?

No, this is the first time we're thinking of setting up such an entertainment/sports facility

Okay, so are there any competitors we have in this space?

Yes, this field is in Gurgaon, and as you may be knowing since you've worked there, there is a Golf Course there nearby on the Golf Course road, owned by DLF

Yes, right, I know about that. So, what is our aim i.e. what do we plan to achieve with the price? Profitability first or Market Share first?

The DLF Golf Course that is our competitor charges a very high membership fee to its customers, i.e. around Rs 8000 per year. This doesn't allow a huge group of golf-lovers to come and enroll themselves. So, our aim is to capture that share of people.

Do we also want to keep an annual membership-fee based structure?

No, we do not have any rigid structure in mind. Whatever makes you convinced that the target group of people will become our customers, we are fine with it.

Alright. When we talk about pricing strategy, we can come up with three kinds of methods to arrive at a fair price. They are Cost Based, Competitor Based, and Value Based Pricing.

Okay, seems fair

If we look at competitor-based pricing, we have the price of the DLF Course at hand, hence, we would be similarly priced or lower to tap into the economy segment. We can come back to this later, but first, I would want to know the costs involved in this effort so that I can achieve a minimum price using the cost-based approach that we can charge

Since we own the land ourselves, there is no cost involved there, all that's there are maintenance and upkeep fee along with the initial construction involved for the facility

Do we have numbers/data for this information?

Currently, no. You can consider that you have a very short time to spend with your client and this is a conversation over coffee, hence in-depth cost analysis and calculations aren't possible. You need to think something quickly on your feet there & produce an approach that is simple & easy to convince the client

Alright, in that case I think we should go by considering what our value proposition is.

Okay, tell me more about what you're thinking

Since we're trying to reach to an affordable price, to tap into the mid-income golf-lovers market, we should consider what can proxies for such an activity be, i.e. those activities that they undertake in place of playing golf currently since it's too expensive.

Okay, that sounds interesting, carry on.

As an example, we can consider that currently, to indulge in a two/three-hour recreation, they can plan to go for a movie.

Right.

There, they spend about Rs. 500 on an average for a three-hour long engagement. So, here, if we consider that they want to come and play golf instead, they would be willing to pay at least that amount for a 2/3hr play, given that there's an option of no annual membership fee and they can pay on-demand instead, whenever they wished to come to play.

Yes, that seems right.

Now, since this option provides a whole new elite experience altogether because of the kind of sport, golf is, we can attach a premium to it. Additionally, we can appeal to the belongingness people have to the fact that they are now able to indulge in their loved activity at an affordable price, contrary to the prior scenario when they couldn't afford it due to the fixed fee subscription

Okay, that's great. How much premium due you intend to charge?

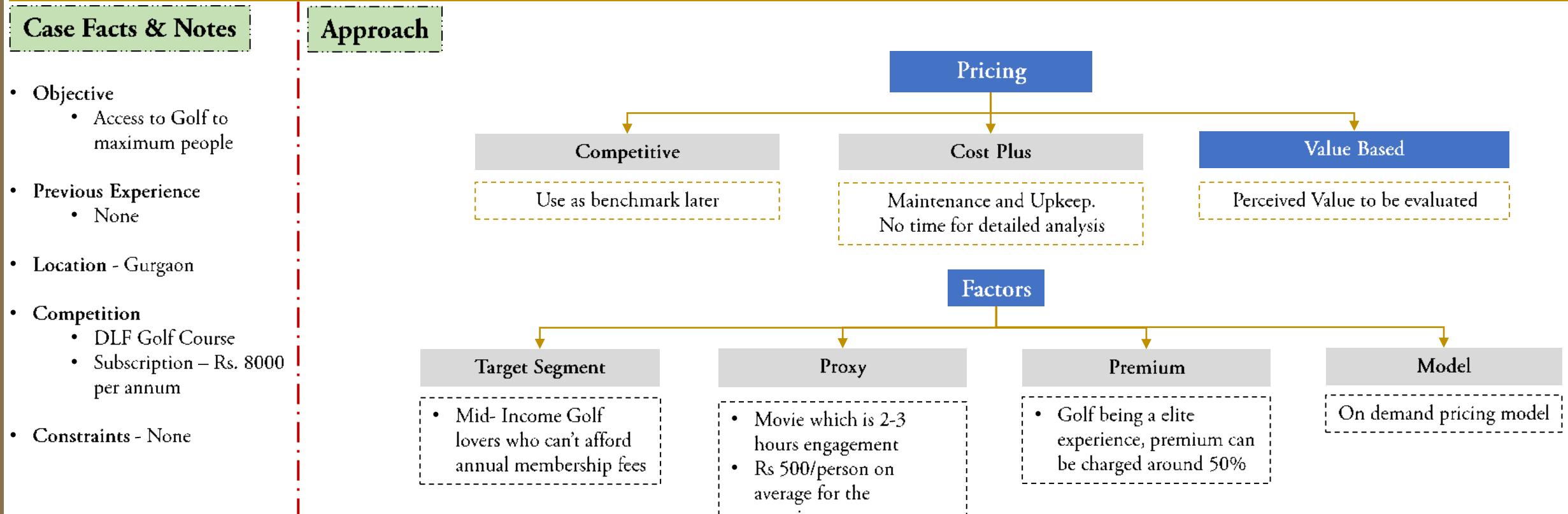
I believe we can ramp up the fee to be about 50% greater than the movie ticket prices, giving us a total of around Rs 750 for every 2 or 3 hrs spent. Also, since there's flexibility now around choose your frequency of visit and paying then-and-there itself, people would not be hesitant in spending this amount of money.

Great, that sounds like a perfect price. We too arrived at a range of around Rs. 700-800 for the fee without a subscription model.

Golf Course

Pricing | Moderate | McKinsey

The client wants to setup a new golf course. They have hired you to come up with a pricing strategy for the same



Recommendation

$$\text{Price} = 1.5 * 500 = \text{~INR } 750/\text{session}$$

Hepatitis-B Drug

Our client is a pharmaceutical company. They recently invented a drug to cure Hepatitis-B. They have hired you to find the annual price range of treatment.

Before I dwell into the analysis, I would like to ask few clarifying questions in order to better understand the client, the product and the market. May I know the geography where our client is operating.

Yes, the client is based out of the US.

Can you tell me about the treatment?

The treatment goes on for 1 year. The cost of the treatment is borne by the health insurance cover provided by the government.

Does it have a substitute? I would also want to know the success rate of our drug compared to the existing drug.

Both are equally effective. They cure the patient completely in the given time-frame (1 year). Can you tell me about the parameters on which drugs can differ?

I think these the parameters on which drugs can differ are side-effects, effectiveness, mode of delivery, frequency of delivery

Great! The drugs primarily differ on "side-effects". While using the existing drug there is a 20% chance of going for a Liver Transplant (LT) whereas the new drug is free of all such risky side-effects.

Do we have data about the price of LT?

Yeah, the complete treatment costs close to \$300,000.

To price this drug, I would like to suggest multiple approach. There can be 3 types of pricing strategies used cost-based, value-based and competition-based. Do we have information about the pricing of the current treatment?

There are 2 kind of existing drugs:

- Generic drug - \$1,000 – 80% market share
- Niche drug for pregnant women - \$10,000 – 20% market share

Do we have data from some credible source about the number of patients going for treatment?

There are close to 150,000 going for treatment each year according to Public Health Department.

I think to decide about the price, I'll use a mix of cost-based and value-based method. I'll find the base and add price of value created in the form of no risk of LT. The expected cost should be $(20\% * \$300,000 = \$60,000)$. The price range for the treatment hence should be \$61,000-\$70,000.

This figure matches the expectation of the client. Can you try to find out the total money spent by the government? Take adoption rate to be 50%.

I am assuming a 80-20 split in the generic and innovative niche treatment in the 50% adoption rate scenario. In one year, following are the major cost brackets for the government

- Investments (assumed \$1Bn)
- 50% adoption rate implies 75,000 people to be treated
- Assuming price of \$65,000 for the treatment

$$\text{Total spending} = 1\text{Bn} + 75K * 65K = \$5.875\text{Bn}$$

What are the risks involved if the client decides to launch this new drug?

I can think of the following 3 major risks

- Resistance from government due to high one-time costs
- Resistance from doctors and hospitals who depend on LT as an important component of income
- Competing firms can replicate the success of the drug and would eat the profit in the coming time

Good work! This analysis sounds fair

Hepatitis-B Drug

Our client is a pharmaceutical company. They recently invented a drug to cure Hepatitis-B. They have hired you to find the annual price range of treatment.

Case Facts & Notes

- US based company
- Govt. provides health insurance
- Treatment takes 1 year
- Equally effective substitute
- 150k patients
- Current Drug Analysis
 - Generic – 80% Market Share - \$1000
 - Niche – pregnant women – 20% M.S. - \$10,000
- Liver Transplant treatment cost - \$300,000

Approach

Pricing

Competitive

Use as benchmark later

Cost Plus

Maintenance and Upkeep.
No time for detailed analysis

Value Based

Perceived Value to be evaluated

Parameters of Difference in Drugs

Side Effects

20% chance of Liver Transplant

Effectiveness

Mode of Delivery

Frequency of Delivery

Cost to Government

- Adoption rate – 50%
- Fixed Investments required - \$1 Bn
- 50% of 150k x \$65,000/patient + \$1 Billion
- = \$5.875 Billion

Risk involved

- Resistance from government due to high costs.
- Resistance from doctors and hospitals who depend on LT as an important component of income.
- Competing firms can replicate the success of the drug and would eat the profit in the coming time

Recommendation

Pricing – 20% of \$300,000 + 1-10k
This gives price between 61k-70k

Paint Manufacturer

Pricing | Moderate | Kearney

Your client is a paint manufacturer who has developed a new paint that lasts three times longer than original paint. Help them to price it.

Sir, if I understand correctly, our client is a paint manufacturer who has developed a new paint that lasts 3 times than the current paint that they sell. I have to figure out a price at which they should sell.

Yes, you are right. Please go ahead!

I would like to understand a few important detail about our client. What is the geography we are operating in and how is our client's performance against competitors.

The client is Indian based and has services across country. They are a leading manufacturer of paint in the exterior paint category and enjoys a market share of 20% which makes them 3rd in the list.

Okay! Since this is a new product I would like to understand this as well as the old product from pricing, features like shades and durability.

The new product is 3 times as durable as the older paint. The old paint costs Rs 500/ltr and the new product is an innovative product and no substitute exist in the market. Both the paints are available in all major shades and kinds.

Oh! That's sounds like a great product for a TG which looks forward to a long duration product. Is there a pattern or target group that the company cater to or it has all kinds of customer?

The major customers belong to tier 1 and 2 cities and have an affinity towards durability.

Since we have to price this brand new product, so I wanted to know if there are any regulations?

There are no regulations and barrier in launch a new product and pricing it.

Okay! I would like to use Value Based Pricing since we are introducing a new product having superiority over existing products. I would calculate price based on the value addition provided by the new paint over the existing one. Does this approach sounds good to you?

Yes, this sounds good for a new product. You can proceed.

So, I'll calculate the cost needed to paint a 10,000 sq. ft area. I am assuming that 1 ltr of paint can paint an area of 100 sq. ft. Hence 100 ltr of paint will be used here. Next cost head will be wages of the painter. Assuming 1 person can paint an area of 100 sq. ft. in 1 day

And charges Rs 1000/day. This brings the cost to Rs. 100,000/day. Are these estimates correct or they need to be altered?

These seem correct, you can continue with your approach.

Okay, thank you. I would like to see the cost to be paid by the customer with earlier product over 9 years as new paint will last 3 times the duration of older paint. The major cost heads are – paint, painter, overheads, convenience. Out of this paint and painter are the ones impacted in new product. Earlier, total cost of paint would be $3 \times 500 \times 100 = 150k$.

Cost of painter would be $3 \times 100k = 300k$

Total cost = 450k

Now, let the new price be p, then total cost will be $p \times 100 + 100k$
Therefore $p = \text{Rs. } 3500/\text{litr}$

That seems like a fair price. Thank you for your analysis.

Thank you Sir for your time.

Paint Manufacturer

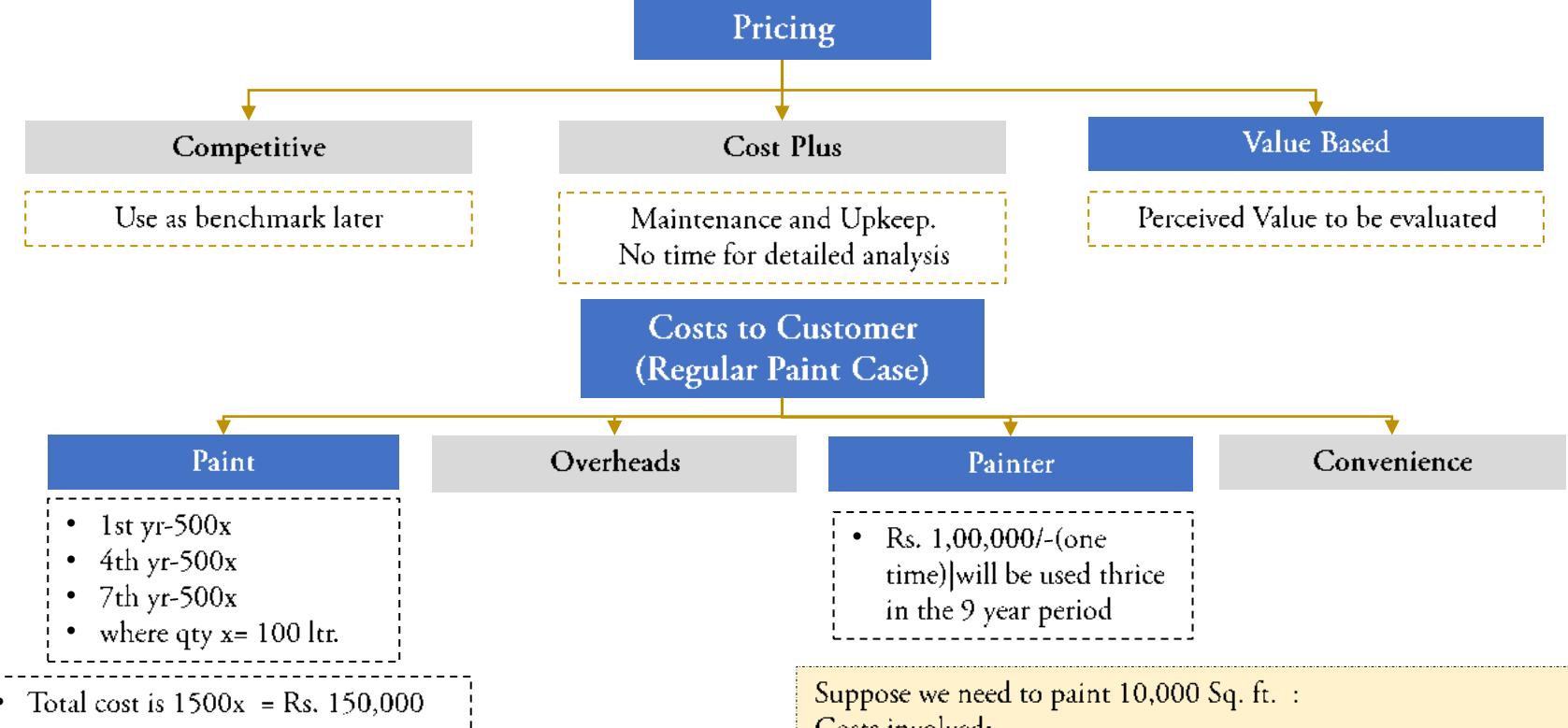
Pricing | Moderate | Kearney

Your client is a paint manufacturer who has developed a new paint that lasts three times longer than original paint. Help them to price it.

Case Facts & Notes

- Market/Client** - Leading Exterior Paint Manufacturer. Current Market share of 20%. Top 3 manufacturers
- Product** - New, durable- thrice of current paint available. No benchmark available; Old paint cost Rs. 500/Ltr. Available in all shades and kinds.
- Customers** - Tier-1 & 2 cities. Would prefer durability due to obvious reasons.
- Regulations** - No price ceiling/floor for paints. No barrier related to entry of any player or introduction of any new product

Approach



Recommendation

Hence total cost to customer in original paint case is $150k + 3*100k = 450 k$; which the customer can pay one time provided the paint lasts for 9 years.
 Hence, total price = $(450k-100k)/100 \text{ litre} = \text{Rs. } 3500/\text{Ltr}$

Hence Total cost of getting painting done: Rs. 1,00,000/-
 Note: Normal Paint Lasts 3 years, hence this will last 9 years

Ride hailing Helicopter Cab Service

A ride hailing service wants to start a helicopter based cab service in Indian market. You are required to price this service for them.

So, just to be on the same page, I would reiterate the problem statement. Our client is a ride hailing service who wants to start a helicopter based cab service in India & they want us to price this service for them.

Yes, absolutely right. Go ahead!

Before delving deeper into the case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

Does the client operate only in India & are there any other operations run by the client?

So, the client is Major cab aggregator service provider in Indian & global markets. You can take a Proxy as Uber.

Also, do we have any competition in air-cab service or any other competitor also planning to start similar service?

As of now, there is no direct competition in the air cab service segment as no such service is available anywhere else in world. Also, we don't know of any other player who is planning to start similar service.

Thank you sir! Do we have any information regarding the Customer segments we are planning to target with this new service & is this launch in India the first one for us?

So we are planning to target ride passengers only. No cargo/freight service. Yes, this is the first such launch for us & its going to be a pilot launch.

Also, has the launch decision be made already or we have to look into that also?

Good question! The launch decision is already made. Only the pricing is to be done & we want your help in that. Objective is finding the right audience & penetrating effectively. Break even is not a target

Sure sir, thank you! Just provide me a couple of minutes to gather my thoughts and analyse the problem.

Sure!

Sir, there can be 3 ways to do it: Competitive pricing, cost-plus pricing & value-based pricing. Since there is no competitor in this segment & cost is not a concern for the company right now, I think we can't apply competitive & cost-plus models here. Therefore, I am thinking of looking into value-based pricing as to know how much value is this service adding for a customer. Is that fine?

Sure, Go ahead!

We can look into 4 factors: Routes, feasibility/capability, Convenience/experience & Benchmarking. Regarding routes, I am thinking of Inter-city routes rather than Intra. In that also, we shall focus on Metro-Tier 1 or 2 cities as prospective routes. Major flight routes won't be preferred by customers. New routes would do much better we can take an example of Delhi-Indore

Fine, Go ahead!

Regarding feasibility, various remote routes shall be avoided since currently they won't have helipad facility for landing. Regarding convenience & experience, there will be lesser security (than airports), no baggage allowed, no in-flight meals, allowance of upto 4 passengers only, quicker speed than train but lower than flight, loud chopper noise & relatively less safety too than the flights. Benchmarking can be done based on target audience. For the middle class, train, car & ships & for businesses, flights & private jets.

That is quite insightful. So, what do you think finally about route, target audience & pricing?

For routes, we shall focus on Inter-city & Metro-to-Tier 1 which are not major flight routes. We can target both middle class & corporates. For middle class we can price lesser to give them affordable flying experience & for corporates, we focus on convenience. Pricing shall be higher than trains but lower than flights.

That looks great to me. Can you summarise your final recommendations?

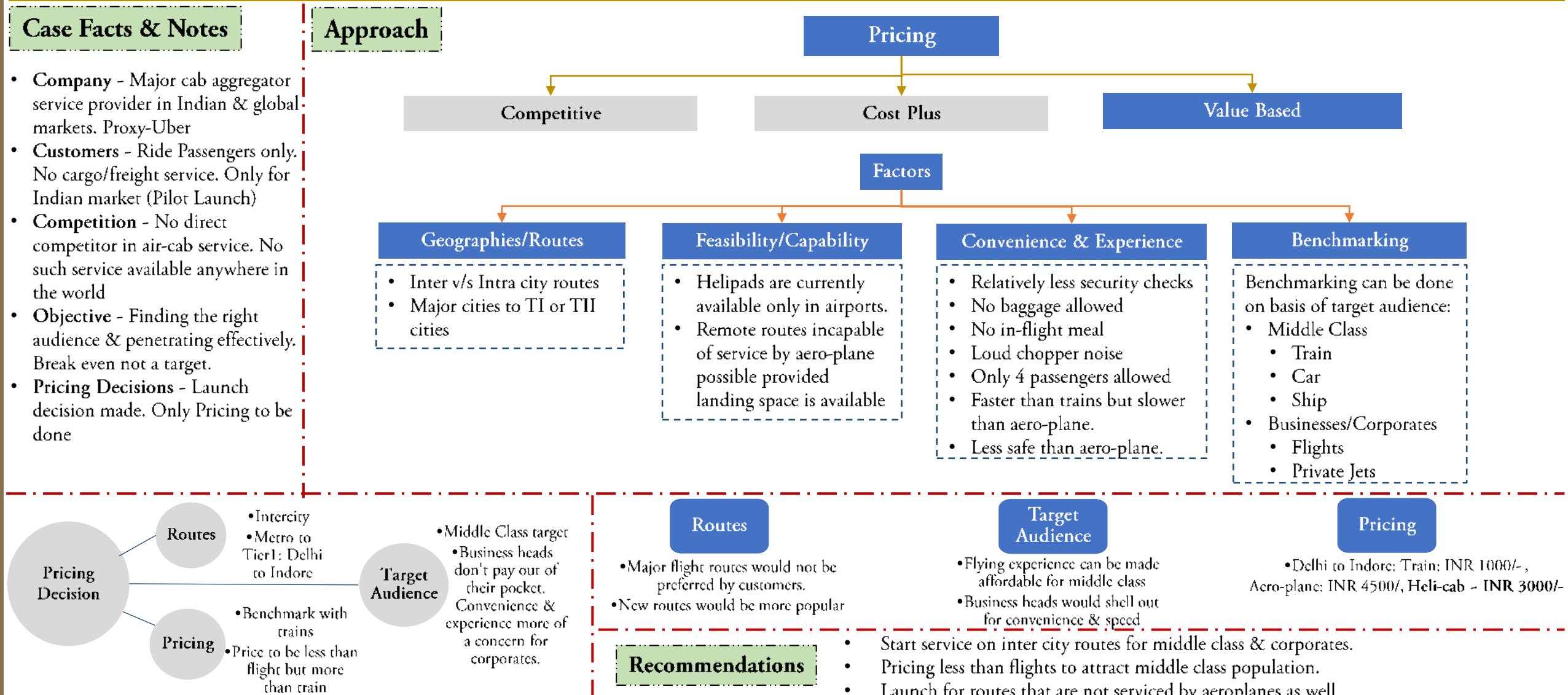
Sure, we shall launch service on inter-city routes for middle class & corporates. Price be lesser than flights to attract middle class. We shall also launch for the routes that are not serviced by flights at all.

Good job! Hope to see you in the next round.

Ride hailing Helicopter Cab Service

Pricing | Hard | Kearney

A ride hailing service wants to start a helicopter based cab service in Indian market. You are required to price this service for them.



5G Launch in India

A telecom operator in India wants to launch 5G services, analyze this decision.

Sir, just to be on the same page, Our client is a 5G operator and they want to launch 5G services in India. Can I ask a few clarifying questions regarding the case?

Yes, go ahead!

Is the decision to launch 5G already taken? What parts of this decision you want me to analyse?

Yes. We are looking for financial profitability in the next 2 years. Apart from that we want you plan execution and pricing of service.

Okay. What is the current industry scenario like? Are there any other players in this domain?

At the moment there is no 5G player at present. There are 4 players in the market, 3 of them have 4G capabilities. There was disruption and price war recently in the industry but things are stabilizing now.

Thank you! I'd like to know more about the company. Why are they looking to move to 5G?

They want to be first movers in the market. 5G is the future. With this move, they wish to capture 40% of the market share in the industry and consolidate their customer base. Their core competencies are: Good brand image, international expertise and market experience.

Thank You! And can you tell me more about the customers? How adaptable are they?

The customers are very price sensitive. But when 4G was launched, 90% of the customers shifted to 4G within 2 years. We expect the same pattern with the launch of 5G.

Thank You! Can I have a few moments to gather my thoughts about the approach.

Sure! Take a minute.

Okay! As profitability is the objective, I will be approaching this case by finding the major costs and expected revenue we can generate. Revenues will depend on number of customers which will depend on customer adoption rate and benefits of 5G over 4G. Also the revenues will depend on our price. But I would like to analyse the cost side first.

The biggest cost will be spectrum costs. Other than this, infrastructure cost, procurement cost & installation cost I believe would be important since the tech. base of 5G is considerably different from 4G. Do we have any data regarding this?

The spectrum costs are 1500 cr. Apart from that, we are planning to install 2500 towers, each costing 2 Cr

That will make the total costs around 6500 Cr. Are there any other costs involved? If not, can I move to the revenue side? I would like to understand more about the customer adoption rate.

No these are the only costs. Customer adoption rate follows a normal curve with innovators (10%) adopting within 3 months, early adopters (20%) within 6 months, majority (50%) within 9 months and others adopting within 12 months (10%).

Okay. I can calculate number of customer from that. For price I need to understand the benefits of 5G over 4G and current prices of 4G services being offered first.

Good question. In 5G services, internet access speed (establishing connection) improves from 1s to 0.2s/10MB & call connection time improves from 2s to 0.4s. Current 4G packages are offered @Rs150 pm with 1.5GB of data per day. Estimate this to rise to 5GB a day in 5G.

Alright, to calculate price, we can take 3 approach-cost based pricing, value based pricing or competitive pricing. In this case the # of customers are coming to be #of 4g users (30 Cr)*market share (40%)*adoption rate = 7.2 Cr in the first year. Based on this, the price/month should ideally be Rs 75. But this is lower than 4G services. Since we are providing more value to customer. We can go for value based pricing.

How would you calculate the price of value being offered?

Sure. For that, we should calculate the value of added benefits over 4G. We can break the benefits into call & internet based. There are no considerable benefits over calls via 4G. However, in terms of data, there are 2 benefits, decrease in connection time and amount of data. The former is negligible, hence the only major benefit is 5 Gb/day data over 1.5 Gb/day today. Based on simple proportionality we can price our services anything from Rs. 150 to 450. To ensure faster adoption we can charge a 10% mark-up over our current offering and price the service at Rs. 165.

5G Launch in India

A telecom operator in India wants to launch 5G services, analyze this decision.

Case Facts & Notes

- Objective** - Financial profitability in 2 years. Execution & pricing of service.
- Industry** - No 5G player present currently. Disruption and price wars recently.
- Company** - First movers in 5G technology. Max market share (-40%).
- Customers** - Upgrades to latest technology within 2 years. Very price sensitive.
- Competitors** - Oligopolistic Market (3 players). All have 4G capability.

Core competencies of client company? - Good brand image, international expertise and market experience.

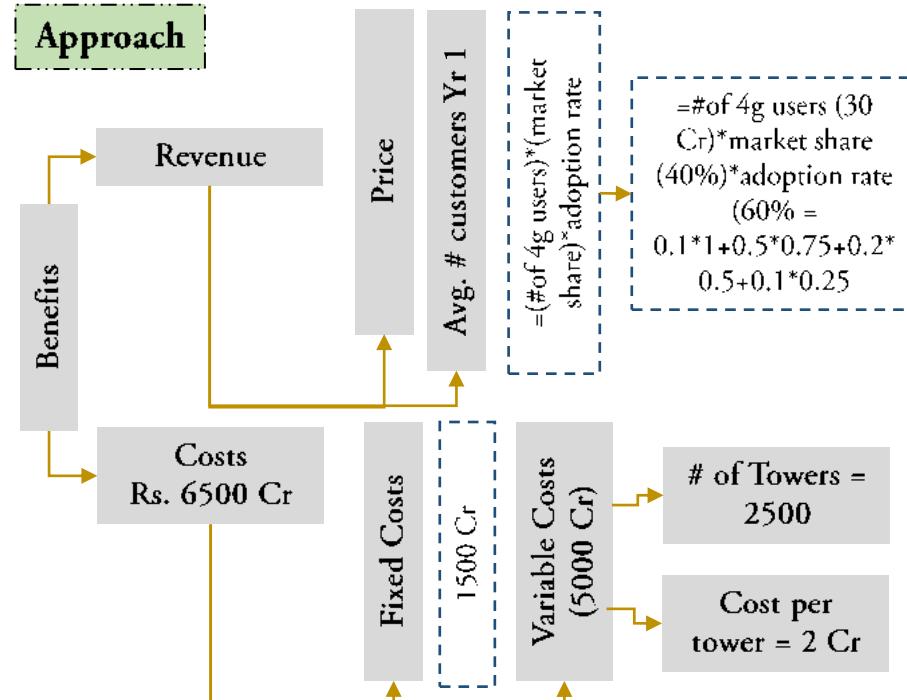
Customer adoption rate? Follows a normal curve with innovators (10%) adopting within 3 months, early adopters (20%) within 6 months, majority (50%) within 9 months and others adopting within 12 months (10%).

Costs for launching 5G? Spectrum allocation, new infrastructure and tower upgradation, need for high speed fiber cables, technical upgradation of HR, etc.

Benefits of 5G over 4G? Internet access speed (establishing connection) improves from 1s to 0.2s/10MB & call connection time improves from 2s to 0.4s.

Pricing of 4G? Current packages are offered @Rs150 pm with 1.5GB of data per day. Estimate this to rise to 5GB a day in 5G.

Approach



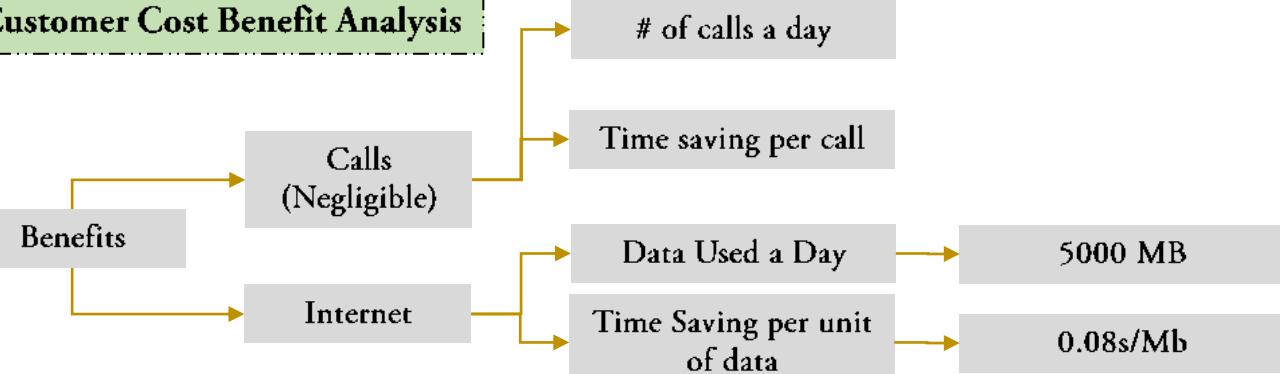
Pricing

- In order to break-even in an year: $7.2\text{cr} * \text{price/mnth} * 12 = 6500\text{cr}$ $\Rightarrow \text{Price/month} = \text{Rs}75$
- Pricing can be done in these manners:
 - Cost plus pricing
 - Alternate benchmarking
 - Cost-benefit analysis
 - First movers, want to maintain market dominance after competition enters the 5G space, use value based pricing and then switch to cost plus/competitive pricing.

Recommendations

- Should enter the 5G market.
- Can realize the investment within an year given current estimates.
- Would help gain market share given the pricing structure.
- Pricing Strategy** - Price the service at Rs165/month initially and decrease/increase as the competition enters.

Customer Cost Benefit Analysis



Pricing Decision

- Total time saving = 400s ≈ 10 min
- Assuming average income of person using 5G = Rs1500/day
- Rs 10 benefit/day
- Total benefit/month = Rs 300
- Therefore, the service can be priced anywhere between Rs150 – 450/month: To start can begin with 10% markup over original Rs.150

Home Automation Player

A European Home Automation Player wishes to enter the Indian Market. You have to figure out how they should go about it.

Thank you sir, I'd just like to confirm that our client is a European Home Automation Player that wishes to enter the Indian market and we have to find a way to go about it. Right?

Yes, that's right

Okay, so do they want to assess first if the market is attractive enough or has that stage passed?

They're expecting you to do that analysis too.

Okay, in that case before starting, I'd like to ask a few clarifying questions

Sure, go ahead.

Thank you! Could you give me a bit more information about our products, where we're based and who our customers are?

Sure. They deal in mainly two automation components, cameras for security and appliance automation kits for appliance lighting control etc. The HQ is in Europe while the manufacturing is carried out in China. Who do you think our customers would be now that you have an idea about the business?

Well, I think that for homes, only relatively better off families would install such technologies while on the other hand, I think it would be common in commercial buildings and offices

Yes, that's right. Could you assess the market potential for the client now?

Sure, do we have an idea about existing competition? Also I would want to know what our benchmark is so that we can know if the market size obtained is good enough.

You can consider there are 2 major players Philips and Havells who are already into this kind of automation while others are relatively smaller. They aim to achieve breakeven in 3-4 years & would prefer a market size of \$1Bn.

Okay, thank you. So I'll start to estimate the market size by estimating it for households first and then consider that a mark-up of 50% on that would be the commercial demand. Is that fair?

That sounds good.

Great, so to calculate household demand, I would divide the total no of households in the country into those from rural and urban areas, considering only urban households would install this system. Then within the urban households, I would consider only the upper middle & upper class households to purchase such a system.

That's right. (Candidate solves the guesstimate on paper)

That will bring us to an estimated market size of \$1.5Bn, assuming we capture about 10% of the market and the price of 1 kit is \$ 5000. Since this is above our benchmark, I believe it is an attractive market.

Great, then how do you suggest we go about it.

In terms of entering the market, since we've established attractiveness, I would like to know if they are financially sound for different modes of entry like starting from scratch, M&A or JV?

Yes, they are financially sound and capable.

Okay, and how about our operational capabilities? What are the distribution channels?

They distribute through retail and e-commerce channels and also provide post sales installation and repair.

Okay, then I suggest in such a case I think that there exists a lot of scope to integrate and have synergies with existing players or newer players who are already present in similar product categories. For eg., for retail they can partner with existing players like Tata and RIL to come up with such an automation system to give competition to Philips and Havells.

Okay, that sounds okay and how about the E-Commerce capabilities?

For E-Commerce, the client can partner with Amazon/Flipkart to be their exclusive selling partners. In fact, in case of Amazon, they can bundle their products with Alexa or other such home controlling device if possible.

Great, that sounds good!

Home Automation Player

A European Home Automation Player wishes to enter the Indian Market. You have to figure out how they should go about it.

Case Facts & Notes

- HQ in Europe
- Manufacturing in China
- Home Use Customers – High income Groups
- Institutional Customers – Commercial buildings, offices
- 2 existing major players in the competition – Philips & Havells (line of connected bulbs). Our brand is unknown
- Objectives –
 - Global Expansion
 - Break even in 3-4 years
 - Market size should be \$1B
- Home Automation Products –
 - Security (cameras)
 - Auto kit (appliance & lighting control).
- Financially capable & sound
- Distribution: Retail & E-commerce

Approach

Market Entry

Market Attractiveness

- Customer Analysis
- Competition
- Market Sizing
- Regulatory Environment

Resources & Capabilities

- Product
- Financial
- Operational
- Marketing
- HR

Execution Strategy

- Start from scratch
- Merger & Acquisition
- Joint Venture

Risks & Synergies

- Barriers to exit
- Reaction by competition

Competition Analysis

Large Brands

- Retail
- Probably won't be interested in JV

End to end automation

- System Integrators (work with Interior designers)
- High end brand names

White goods market

- Chinese Goods
- Unofficial

Start-ups

- Not very big in size
- Bangalore & Pune hubs

Market Sizing (Home Automation)

Pop. of India = 1.35B
 # of households = 340M

Households 340M

Institutional

Rural (70%)

Urban (30%) 100M

50% markup on HH for easy calculation

Rest (80%)

Upper & Upper Middle Class (20%) 20M

20M

Price of 1 kit=\$5000, Estimated Market share capture=10%

Total = 20M * 5000 * 10% * 150% = \$1.5B

Recommendations

- Partner up with start-ups or get new players into the market for partnerships – Tata, Reliance etc.
- Exclusive sales through Amazon/Flipkart
- Bundling with products like Alexa or any other home controller if possible..

Home Insurance Entry

Your client is a multinational insurance company and wants to enter the home insurance segment in the Indian market. It already has presence in health and life insurance segment in the Indian markets. How should they go about it.

So our client is multinational insurance company with presence in health and life insurance segment and wants to enter the home insurance segment

Yes

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What are the reasons the client has decided to enter this particular segment and what are we are offering?

The client is looking to enter this market because there is a projected real-estate boom in the next 5 years, hence potential in the home insurance segment.

What is the market for home insurance currently, who are the major players?

No significant competitors and the market penetration is also very low.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Okay

So I would like to first look at the target consumers for our product, analyse our strengths figure out the business structure and then analyse and the risk and barriers.

Okay, that sound alright

So looking at the target customers, a house can only be afforded by middle and higher income people. For middle-class, owning a house is a dream as well as they are risk averse, hence they would be interested in insurance products. But even high income people will be interested if they find value.

Okay

The client is already present in the Health and life insurance market, how do people buy insurance from our client?

The client has trained on ground agents which sell insurance directly to people.

Since we already have trained on ground agents, we can train them to sell this product and we can also look to hire new agents to get new customers immediately. We can also have strategic partnerships with banks where customers go to get loans.

Okay

Also because of low penetration and insignificant competitors, the possibility of a tie up or an acquisition seems unviable. So, the client should follow a market-development strategy, working on awareness. The client can get significant advantage by being the first mover.

Right

As far as risks go, since we are targeting mainly middle class consumers, they are very price sensitive and will move even if the competitors have marginally better prices. Hence, we would need to give special attention to the price point we fix.

Okay

My final recommendations thus are, following a market development strategy, focussing on awareness since there is low penetration and no significant competitor. To sell the product the client should have training sessions for on ground agents for selling insurance products and strategic partnership with retail banks who can push home insurance products whenever they issue home loans. The roll-out would be slow and gradual. Also since we are educating the masses, we are educating them for the competitors too. Therefore, we need to pay attention on our price because even if the competitors have marginally better prices, the consumers would shift to them, being price sensitive.

Yes, these recommendations sound good.

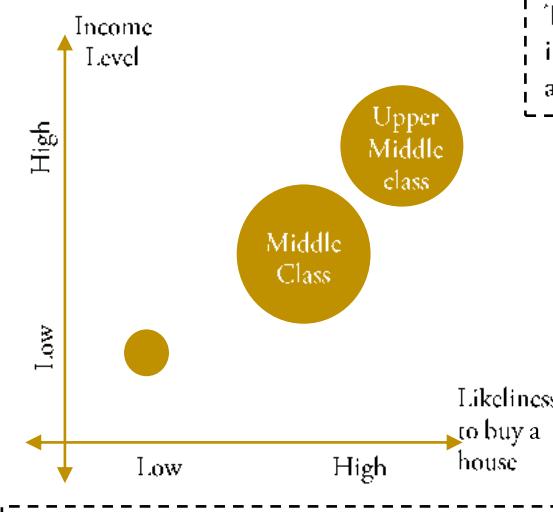
Home Insurance Entry

Your client is a multinational insurance company and wants to enter the home insurance segment in the Indian market. It already has presence in health and life insurance segment in the Indian markets. How should they go about it.

Case Facts & Notes

- Projected real-estate boom in the next 5 years, hence potential in the home insurance segment
- Home insurance products to
 - New houses
 - Existing houses
- Very low home insurance penetration
- No significant competitor in that segment

Approach



"Customer lifetime value analysis" by taking into account their acquisition cost and the revenue earned per customer over their lifetime. This will give a quantitative assurance the market segment we are entering makes financial sense.

Objective of market Entry

Target Customers

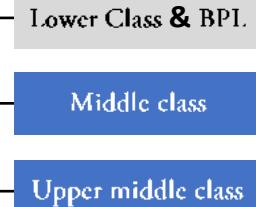
Analyze strengths

Business structure

Risks & Barriers

The client has already decided to enter the home insurance segment. Now, we can further segment and identify our potential target segment.

Population



Income segmentation serves as a proxy for likeliness that a person will buy a house

- Very few people in low-income segment own a house
- For middle-class, owning a house is a dream as well as they are risk averse, hence they would be interested in insurance products
- Upper middle class would also be interested

Low penetration and no significant competitor, market-development strategy

Awareness



- on-ground agents, can be trained for selling insurance products.
- Strategic partnership with retail bank to push home insurance products

Market Structure

Start from scratch

Joint venture

Acquisition

Recommendations

- Low penetration and no significant competitor, the client should follow a market-development strategy, working on awareness
- Training sessions for on ground agents for selling insurance products, strategic partnership with retail bank who can push home insurance products whenever they issue home loans
- The roll-out would be slow and gradual. Also since we are educating the masses, then we are also educating them for the competitors. So even if the competitors have marginally better prices, then people would go for them as people in this segment would be price sensitive.

Gold Mine in Mongolia

Goldman Sachs' Investment Division is considering buying a goldmine in Mongolia. The mine is fully operational and producing 120,000 units/annum. The government of Mongolia is selling the mine to raise foreign currency to pay their dollar-denominated debt. They want you to provide a go or no-go decision.

So, just to be on the same page, I would re-iterate the problem statement. GS's Investment division is considering to buy a Goldmine which is fully operational & producing 120K Units/ annum in Mongolia & they want us to provide a go or no-go decision.

Yes, absolutely right. Go ahead!

Before delving deeper into the Case, I would like to ask a few clarifying questions. Is that fine?

Sure, go ahead!

What are the various Prices & Costs related to purchase & operations of the mine? Do we have any information on that?

Yes. The purchase price of mine is \$200mn, operating cost is \$800/unit & fixed cost is \$25mn/annum.

Also, what are the various options client is considering? Are they thinking of increasing or reducing the capacity of the mine after purchase?

Good question! GS has the option of expanding the mine to produce addn. 20K units/ annum & in this case the purchase price is \$20mn.

How will the expansion further affect the costs & how much time will it take to become operational at new capacity?

So the total development time for new capacity is 12 months after which the mine can be fully operated. It will increase the fixed cost by around 10% & variable cost by around 15%.

One last question! Do we know the market price of Gold & what are the final objectives that GS is keeping in mind?

Yes the Gold price is \$1800/unit. Also, GS has 2 objectives: to generate 25% ROI in 3 years & to resell the asset at profit.

Sure sir, thank you! Just give me some time to gather my thoughts and analyse the problem.

Sure!

Sir, the prime question is whether GS should buy the Goldmine or not. For that I am looking at 3 important factors: Market attractiveness, asset attractiveness & ROI target. First, I would want to look into market attractiveness. Can you tell me how Gold prices & demand vary according to economic growth, interest rates & inflation?

Sure. Gold prices vary inversely with respect to economic growth. Gold demand increases during inflation & falls as interest rates rise.

Thank you sir. Also, attractiveness of Gold mine will depend upon Legal aspects, Political & Financial aspects, Environment & technological considerations & exit options. What do we know about these?

So, since we are dealing directly with the Mongolian Government, we are safe with respect to legal, political financial & exit factors. We have good technological partners in form of both local & global players. Environment conditions have also been taken care of.

That sounds great! That brings us to our last factor of ROI Target. So, ROI is (Gain-Investment)/Investment. Do we have any information on the Gain proceeds, WACC, Tax rate & P/E ratio. I am thinking of calculating and comparing the ROI in current scenario & in case of expansion to see in which case are they performing better & also if they are able to meet our ROI target at all or not.

This sounds good. So, the Gains will be coming from Operating income & Sales proceeds. WACC is 10%, Interest rate is 30% & P/E ratio is around 3.

Sure. Just give me a few minutes to do my calculations

OK! Go ahead.

So, In current scenario of no expansion, we have 418% ROI in the first year itself which is way more than our target of 25% ROI in 3 years. Also, if we choose to expand, in the first year we are making 444% ROI. In the second year, as Profit after tax is further increasing we will have even more ROI

That looks great to me. So, what are your final recommendations?

So, We shall go for the buy decision & the option of expansion shall be preferred due to higher ROI.

Gold Mine in Mongolia

Goldman Sachs' Investment Division is considering buying a goldmine in Mongolia. The mine is fully operational and producing 120,000 units/annum. The government of Mongolia is selling the mine to raise foreign currency to pay their dollar-denominated debt. They want you to provide a go or no-go decision.

Case Facts & Notes

- Price & Costs (of Mine)-**
Purchase price: \$200mn, Operating cost: \$800 /Unit, Fixed cost: \$25mn/annum
- Client-**
 - GS has option of expanding the mine to produce addn. 20K units/ annum
 - Purchase price on option to expand: \$20mn
 - If expansion is done, total development time: 12 months & mine would immediately operate on new capacity.
 - With new capacity, Fixed cost: 10% ↑, Variable cost: ↑15%
- Price (of Gold) - \$1800/Unit**
- Objective -**
 - Resell asset for a profit
 - Generate 25% ROI in 3 yrs.

Approach

Should GS buy Goldmine?

Market Attractiveness

- Economic Growth – Gold prices vary inversely with EG
- Interest Rates – Demand for Gold increases as interest rates fall
- Inflation – Gold demand increases during inflation (*inflation hedge*)

Asset Attractiveness

- Legal Aspects: Licenses, Permits, Labor laws
- Political Stability in Mongolia
- Environmental Considerations
- Technological Requirements
- Financial Aspects – liabilities
- Mine – reserves, life of asset
- Exit Options

ROI Target

- $ROI = (Gain - Investment) / Investment$
- Gain will be from Operating Income & Sales Proceeds
- Assumed WACC of 10%, Tax Rate of 30% & P/E ratio -3
- Evaluate ROI in the current scenario & in expansion option
- The ROI is higher with option of expanding the mine

Calculations

Current Scenario

Investment	20,00,00,000	Profit Per Annum (after tax)	6,65,00,000
Gold Price	1,800	NPV	-3,46,24,343
Quantity	1,20,000	P/E ratio	Assumed 3
Revenue	21,60,00,000	Selling Price	1,15,76,29,602
Operating Costs	9,60,00,000	PV of Sales Proceeds	86,97,44,254
Fixed Costs	2,50,00,000	ROI	418%

Expansion Option

	Year 1	Year 2/3
Gold Price	1,800	1,800
Quantity	1,20,000	1,40,000
Revenue	21,60,00,000	25,20,00,000
Operating Costs	9,60,00,000	11,04,00,000
Fixed Costs	2,50,00,000	2,75,00,000
Option Purchase	2,00,00,000	
Profit Per Annum (after tax)	5,25,00,000	7,98,70,000
Tax Rate	30%	
NPV	-2,62,56,950	
P/E ratio	Assumed 3	
Selling Price	1,21,62,01,352	
PV of Sales Proceeds	91,37,50,077	
ROI	444%	

Skin Care Manufacturer

A skin care manufacturer wants to enter the sunscreen market. Evaluate if they should enter the market or not? If yes, then suggest the ways for the same.

Sir, the firm had already made a decision to enter market or they are still evaluating it? And why is client looking to enter sunscreen market?

The client is yet to decide. They want to expand their portfolio & increase their market share

I would like know about the sunscreen market? Competitive landscape, size etc. Also, is the client looking to expand into any particular geography?

The market is highly competitive but stable. The key benefit is that people are aware about sunscreens but because of it being perfectly competitive, pricing is market driven. Initially we are targeting India

I would analyse the opportunity on four factors which are our product, customers, our capabilities and regulations. If we conclude to enter, then I would look at execution part

The approach looks good to me

Starting with the product, what is the USP of our product? How is our quality & offerings as compared to other products in the market?

Our products are made up of natural ingredients which makes it suitable for any skin including oily skins. Also, our products will be available in smaller SKUs, thus more affordable and easy to carry. The shelf life of our product is higher than average & we provide vast variety for different skins

Looking at our product, I believe our product is quite attractive to customers. Coming to customer segments specially in country like India, customers will be limited to urban areas?

Skin care products are a premium product for Indian consumer, especially sunscreen. So yes, we will target only tier 1 customers, since they are the ones who invest in skincare products

Owing to India's huge population, even that segment is huge in number. But do we have operational & financial capabilities to launch products in India? Also, how is our brand presence in India for other products?

The client is an established player in the skin care market with strong brand recall in India. We have manufacturing capabilities for all major products with an efficient distribution network. Most of our products are STAR as per BCG matrix. And company have strong financials

Most of these factors look favourable, what about the rules & regulations in India. Are there any barriers such as taxes, labour norms, stringent rules for foreign players etc.?

Fortunately, India is an open market with no constraints, favourable tax regimes. We will have cost advantage too due to both production & distribution within India

As per my analysis, all the factors are favourable for the client to enter the Indian market, except the pricing power. If the R&D and manufacturing cost are as per the industry average, the client should go ahead. Would you like to explore the execution side of it?

Yes, now that we have decided to enter, let's explore the implementation side of it

We can either launch the product under our own brand name or a JV. But, since we are already an established player with good brand recall with existing manufacturing & distribution network, we should launch under our own brand provided we have the R&D facilities to manufacture

We have R&D capabilities & yes, the client would like to launch it under its own brand name

Coming to operational decisions, we can leverage the existing distribution network. Additional workforce and experts needs to be hired if required. We can use the existing manufacturing facilities & in future if current production capacity is not sufficient, looking at their strong financials, increasing the production capacity wouldn't be an issue

Sounds like a good plan

Though we are established brand, we currently have no presence in sunscreen market. So we need to market our product. We can leverage existing brand name to market the product, but we would also need to launch a unique marketing campaign to highlight our USP in this highly competitive segment. Since, India has huge celebrity following culture, we can rope in a known face to better market our product

The marketing plan looks effective for our product

I suggest we launch our product at a competitive price and try to capture the existing market. Further, once we have established ourselves, we can expand into new geographies and segments

We can surely launch it at such price point since R&D cost involved in this product is not significant and the client aims to capture market share as quickly as possible

Would you like me to explore any other aspect of the case?

We can conclude the case here. Have a great day ahead!

Skin Care Manufacturer

A skin care manufacturer wants to enter the sunscreen market. Evaluate if they should enter the market or not? If yes, then suggest the ways for the same.

Why Expand

- Reason: Portfolio Expansion; Growth- To increase market share
- Competitive, well established market
- Advantage: People are aware
- Disadvantage: Pricing, due to perfect competition. Wants to enter Indian market first.

Unique Features?

- Uniqueness of product: Natural, available in smaller SKUs; suitable for oily skin too
- Durability of the product
- Variety of creams available for different skins

Customers

- Mainly to target the tier-1 customers, who already invest in skin care products.
- Currently there is a market demand for the product but is limited to premium buyers only. People in tier 2 and 3 cities still reluctant to try.

Capabilities

- Already established player.
- Manufacturer of major skin care products. Has a well-established distribution network and market presence
- Most of the products still lie in the Star category of BCG matrix (Financially strong)
- One of the market leaders in skin care

Regulations

- No regulatory constraints as such, since is an already established market and player.
- Introducing within India.
- Easy exit
- Well known markets, easy tax compliances.
- Production and distribution within India

Based On Above Inputs We Decide To Enter The Sunscreen Market

Entry Options

Can launch under its own brand, without any JV or consortium, provided we have the R&D facilities to manufacture.

Operational Decisions

Leverage the existing distribution network. Additional workforce and experts to be hired if required.
Use the existing manufacturing facilities.

Marketing Decisions

Use of existing brand name to market the product(established player). But, roping in a known face or a unique ad campaign to differentiate ourselves in a competitive market(can delve further).

Growth plan and Conclusion

We can launch the product at a competitive price and try to capture the existing market. Further, once we have established ourselves we can expand into new geographies and segments.

Smart Phone Market

The CEO of an US oil & gas company is excited about the growing smartphone market in India. Formulate an approach to enter this market.

Sir, just to be on the same page, Our client is a Oil and Gas company and they are looking to invest in the Indian smartphone market and I have to look for an approach to formulate this entry. Can I ask a few clarifying questions regarding the case?

Yes, go ahead!

Is the decision to launch enter already taken? What are the objectives here?

Yes. There are 2 objectives: – 1) Market entry into smartphone industry. 2) A metrics to evaluate business plan.

Okay. Can you tell me more about the company?

The company is an oil & gas company catering to US & Canada. It focusses on downstream activities, refining and distribution. They have good amount of capital to invest in India businesses.

Okay! And do they have experience of diversification like this? Have they entered some other region in the same industry before?

No, this will be their first entry.

Okay. Give me a few moment to structure my thoughts.

Sure! Take your time.

So I would want to start with a broad market analysis of competitors, customers, need gaps, growth estimates, product and channels. Customer viewpoint towards these phones can be categorized into: Smartphone features, pricing, elasticity and market trends.

Good start. But we you to start with the identification of market to enter.

Okay sir. So we can divide the market into Smartphones themselves, component suppliers (OEMs) and smartphone embedded services.

Hardware is a touch field to enter so we would like you to go ahead smartphone embedded services.

Okay Sir! So smartphone embedded services can be categories into app based services and OS based services like android and apple iOS.

Yes, good classification. OS is again a tough market to enter, let's move to app based services.

So app-based can be categorised into costumer centric and business centric. Given client inclination, I believe they will be willing to move into customer centric apps. They can be further categorized into Communication, Entertainment, Food, Shopping, Transport and Health, based apps. Is there a particular category you wish for me to analyse.

Yes, your assumption is right. Client is looking for something in the entertainment category in customer centric apps.

So entertainment can be further classified into OTT platforms, Gaming and audio services.

Move into OTT platforms. We are looking to do something in that category. This is the data we have for the current players: Hotstar, Amazon Prime Video and Netflix. (Shows data)

Okay. This is an growing field and something that can be targeted.

Good! On what metric will you evaluate this particular apps of yours.

Sure sir. Just give me a minute. We can evaluate the performance in 4 categories, customer satisfaction, financial, employees, and operations or processes. In the customer side of things, we can look for NPS and customer acquisition and retention rates (DAU/MAU). For financials, we can look at return on capital employed and customer lifetime value. In employees we can look at employee NPS and turnover rate and in operations and processes, we can look at technological prowess, ability to compete with existing players and quality of content.

Okay Thank you! You can leave now.

Thank you sir!

Smart Phone Market

The CEO of an US oil & gas company is excited about the growing smartphone market in India. Formulate an approach to enter this market.

Case Facts & Notes

- Objective – 1) Market entry into smartphone industry. 2) A metrics to evaluate business plan.
- Company - Oil & gas company catering to US & Canada. Focuses on downstream; refining and distribution.
- Market Analysis Factors – Competitors, Customers Need gap, growth estimates, products & channels.
- Client's Experience in this industry - None

Customer Viewpoints

Smartphone Features

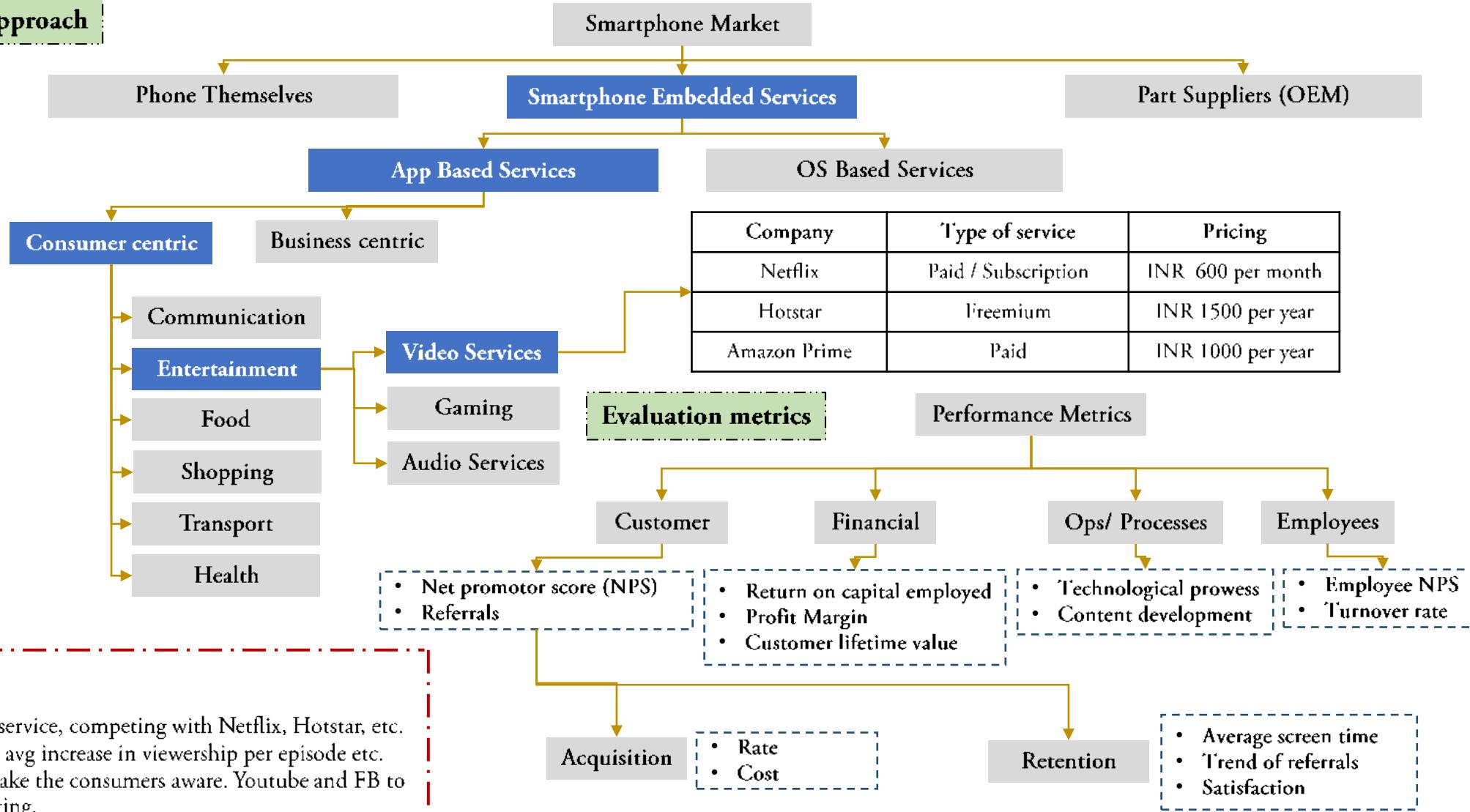
Pricing / Elasticity

Market Trends

Recommendations

- Introduction of a video on demand service, competing with Netflix, Hotstar, etc.
- Close monitoring of parameters like avg increase in viewership per episode etc.
- High marketing efforts needed to make the consumers aware. YouTube and FB to be primary drivers for online marketing.

Approach



South African PE Firm

Your client is a south African PE firm and wants to invest in Indian tech-consultancy and advisory company. Suggest how to do it?

Sir, if I understand correctly, our client is a South African Private Equity form and they want to invest in Indian tech-consultancy and advisory company. I need to devise a plan of action for the same.

Yes, you are right. Please go ahead!

First of all, I wanted to understand the objective of doing this investment. Is it from the growth perspective and to synergize with current holdings or is it their first investment in India or something totally different?

The client has no previous experience of investing in India and have decided to enter the market. The primary objective is to tap the growing Indian IT market and exit in 8-10 years.

Okay! Since the decision to enter has been taken I would like to start with understanding the Indian IT industry by looking at growth drivers and trends. I would then move to the various options we have by analysing various companies and finding the target company. At the same time I'll also establish a competitor study. At the end I'll suggest exit strategies for the same. Does this sound okay to you or is there something I should change?

That sound good. Please proceed. I want you to identify the parameters on which you'll evaluate the various headers you just listed.

Sure. I'll start with the industry analysis. I think to have a sound understanding about the industry, I need to know the market size, growth figures along with recent initiatives and investments by other players that maybe private and public.

What is the key factor that we are missing here?

Oh yes we also need to check the forecast for next decade since our exit is in 8-10 years.

That's right. Please go ahead.

I think now I'll define the parameters to find the company of choice for our client.
 I think the key parameters are Sales, sources of revenue, financials, management and growth potential. Do you think this list is exhaustive or should I look at any other parameter as well.

For source of revenue as stated in the problem statement, we'll have 2 components – Tech consulting and software services. Both the components should be evaluated based on 3 key parameters – Market share, growth numbers & their forecast and finally, share in revenues. In financials, 4 key parameters can be looked upon – Profitability, EV/EBITDA, Margins and ratios. These will define financial health of the company and back the qualitative assessment with quantitative assessment.

Since management forms a key bucket in the future of the investment, I suggest 3 key parameters for judging i.e. the quality of management(openness to new technology, focus on innovation), experience (past experiences help in understanding the vision of the company better) and average age (since it's a relatively long-term investment, it is important that the team sticks for the duration as well as is experienced enough).

Future growth in IT sector is impacted by the projects in pipeline, innovation mindset and forward and backward tech integration.

Competitors can be analysed based on the same parameters.

That is quite detailed analysis. Can you suggest some good exit strategy for the business?

Sure. There can be multiple strategies like going for IPO, secondary sale and strategic acquisition.

Okay. Thank you for your detailed analysis.

Thank you for your time, Sir

South African PE Firm

Market Entry | Hard | Kearney

Your client is a south African PE firm and wants to invest in Indian tech-consultancy and advisory company. Suggest how to do it?

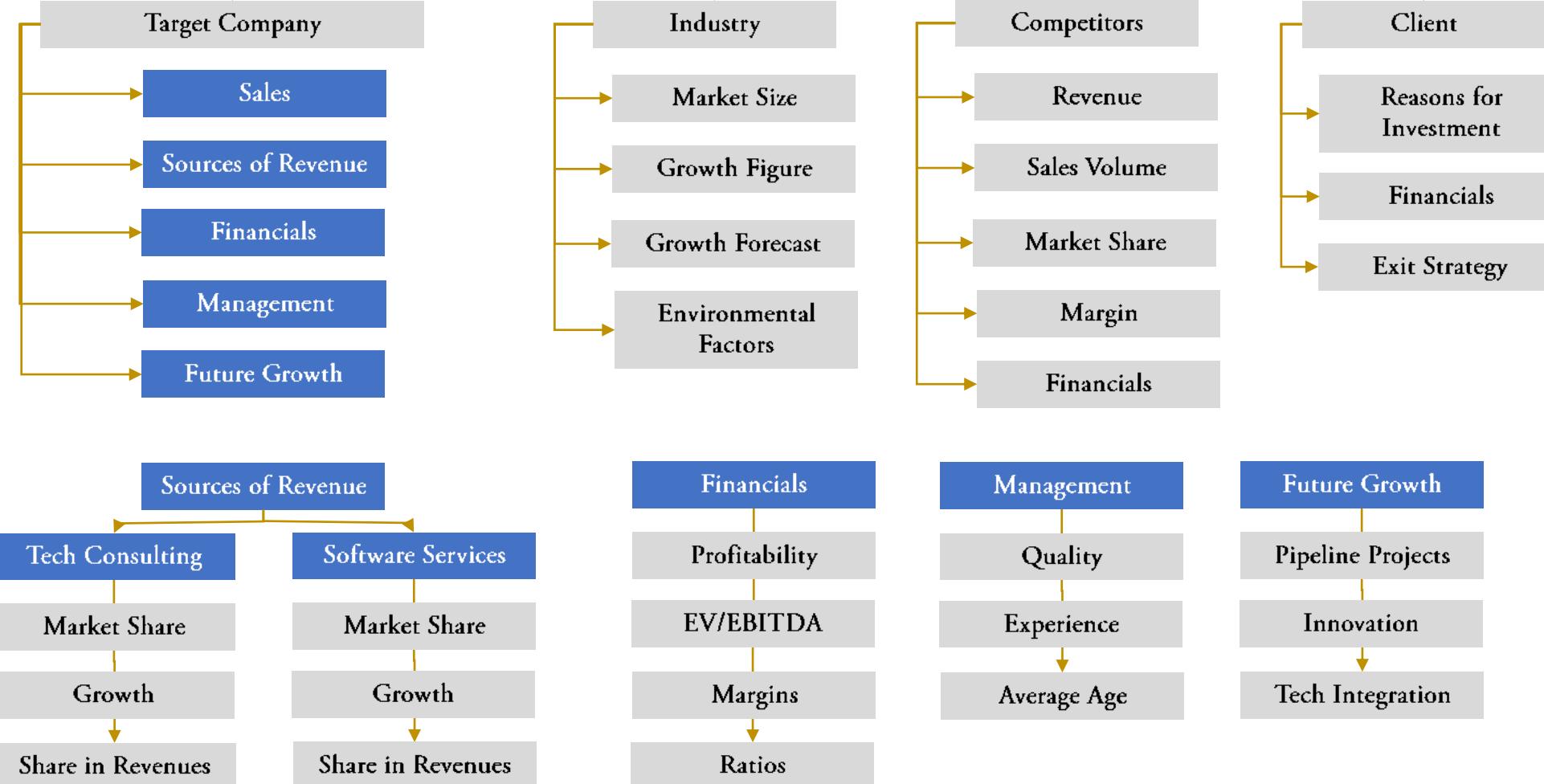
Case Facts & Notes

Note:

1. Decision to enter has been taken.
2. No previous investment experience in India
3. Objective: The objective is to tap the growing Indian IT market and exit in 8-10 years.

Approach

Factors Affecting Investment Decision



Apparel Business Topline

Our client is in the apparel business in the US and wants to expand its top-line. How should we go about it.

Sir, just to be clear, our client wants to increase revenue? And, does he have any target in mind?

Yes, our clients wants to grow its top line by 25%

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What product does our client provide? What is its USP? What is the client's market share?

Our client provides mid-priced jeans which are known for quality at affordable prices. The market is quite fragmented, but our client is amongst the top 5 players in the market

Thank you sir! Since the jeans are known for their quality at affordable price, is it fair to assume that target customer are low income families? Or they want to target a new segment as well.

The clients targets low-income adults – both men and women. For now, lets focus on same segment

Thank you sir! There are two options available to us. Either the client can grow organically or via acquisition which would require huge capital investment from clients' ends

The client just want to grow organically for now.

Sure sir! Revenue is function of number of customer and revenue per customer. For organic growth we can increase both. For revenue/customer, either we can increase the price or/and increase the prices, though because of our USP, I would suggest not increase price. To increase number of customer, we can either enter new markets or penetrate deeper in existing markets

Sounds good to me. First let's explore revenue per customer. As you correctly pointed out, we can't increase price, so lets target the frequency of purchase

To increase the frequency, I suggest we can strategically tie-up with departmental stores and retail chains for cross-selling promotions. This would also help us expand our customer base. Second, We can also investigate the marketing activities over E-commerce segment and provide bulk discounts. Third, we can start with loyalty program if there aren't any.

That interesting. Let's explore how we can increase customers starting with new markets.

For new markets, either we can enter new geographies, we can target other customer segments like upper income group, kids etc., and we can launch new products to attract more customers

If the client goes with your first option of new markets, what factors should we consider?

As per my understanding, we should evaluate any new market considering size of the market in terms of demand for jeans and favorable attitude to jeans, paying capacity, competition and ease of setting up manufacturing/distribution operations.

Are there any potential risk as well?

Yes, with new markets there might be some associated risks as well. Let us say we select China as a new market to explore, potential risk I could foresee are; 1. Mid-priced jeans in US might be comparatively expensive in China, 2. Getting licenses and permissions might be difficult, and 3. Existing low-cost competitors in China

All these are legitimate concerns. We will keep them in mind while moving forward. What are your thoughts on existing markets?

To achieve deeper penetration in existing markets, we can look for new marketing campaigns to reach out to untapped customer and simultaneously expand our existing distribution channels to serve more customers

We can present all these ideas to the client and ideate further. Thank you! Have a great day ahead.

Apparel Business Topline

Growth | Easy | Kearney

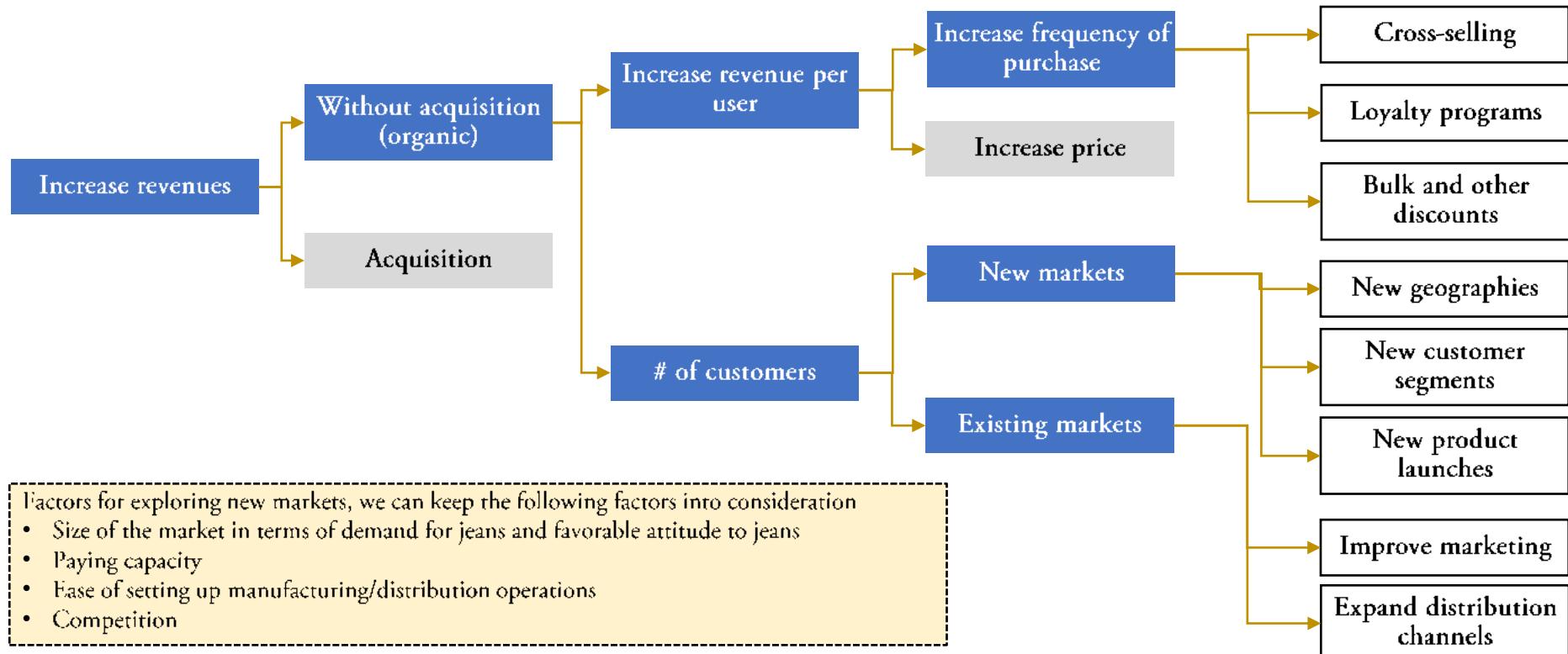
Our client is in the apparel business in the US and wants to expand its top-line. How should we go about it.

Case Facts & Notes

- Objective—Increase revenues.
Target of 25% increase.
- Product- Mid-priced jeans.
Known for quality at affordable prices.
- Market-Fragmented market.
Client is one of the top 5 players
- Target Segment-Low-income adults – both men and women

Approach

As this is a fragmented market, there would be many small players. The company can investigate strategic acquisitions to expand into different customer segments or acquire differentiated product capabilities.



Recommendations

1. Strategic tie-ups with departmental stores and retail chains for cross-selling promotions. This would also help us expand our customer base.
2. We can also investigate the marketing activities over E-commerce segment.
3. Starting loyalty programs.

However there might be some associated risks as well. Let us say we select China as a new market to explore

Potential risks / concerns

- Mid-priced jeans in US might be comparatively expensive in China
- Getting licenses and permissions
- Existing low-cost competitors in China

Appliance Distribution Company

Our client is a PE Firm which has recently invested \$400mn in an appliance distribution company, ABC Ltd. You are hired to increase company's profits

Thank you sir, I'd just like to confirm my understanding. Our client is a PE Firm that has invested \$400mn in an appliance distribution company and now they want us to help them increase profits. Right?

Yes, that's right

Okay, so I'd want to know if we have any minimum threshold of profit increase?

We are looking for an increase in profits by around \$300 Mn.

Okay, thank you. I'd like to clarify a few more aspects regarding ABC. Where are we based, what are the goods we deal in, who our customers are and what the competition looks like?

ABC is based out of US, dealing in white goods like ACs, refrigerators, ovens etc. They're basically involved in distributing products to retailers, both big and large retailers all across US are their customers. The market is fragmented and has about 5-6 players.

Thank you sir! Can I also know a bit about the revenue and business model? Also, our USP?

Sure, no specific USP exists but as far as revenues are concerned, current revenue figures are at \$1500Mn, 33% of which are profits.

Okay, so as I see it, we aim to increase about \$300mn , i.e. about 20% of the current revenues.

Yes, that's right.

Okay. So would you want me to consider only one of increasing revenues or lowering costs to increase profits, or should I look into both?

You can focus on increasing revenues. Their costs are under control and competitive.

Okay, thank you. So I'll start by enlisting a few ways by which the company may increase its revenues and formulate a strategy for growth. The first would be geographical expansion.

Sure, that sounds good. What do you exactly mean by geographical expansion and what do you think would the pros & cons of your suggestion be?

Sure, pros could be that with expanding, they could tap into untapped markets and get access to new customers, technology etc. while cons would be that there may be a considerable amount of capital investment involved along with looking out for any regulatory constraints.

Okay, what else do you think could be ways to increase revenues?

The client can also expand into new products of the same categories like electronic equipment, consumer durables etc. Similarly, we can look to expand within the existing market too.

That sounds interesting, how do you propose to do that?

For this, I'd like to ask if our retailers purchase only from us or other distributors too?

That's a good question. Retailers currently purchase about 50% of their inventory from us while competitor retailers have 70% of their products worth from their major distributors.

Oh then that surely has a scope of improvement. We can work on negotiating terms to increase share in each retailer's inventory. We can also look to onboard other retailers in the long term.

Great, that sounds good! Any other solution?

For any inorganic growth option, I don't think it's very feasible currently since there is time yet to realise full potential in the current market, making capabilities to offer in case of a merger less attractive.

Right, that was insightful, thank you!

Thank you!

Appliance Distribution Company

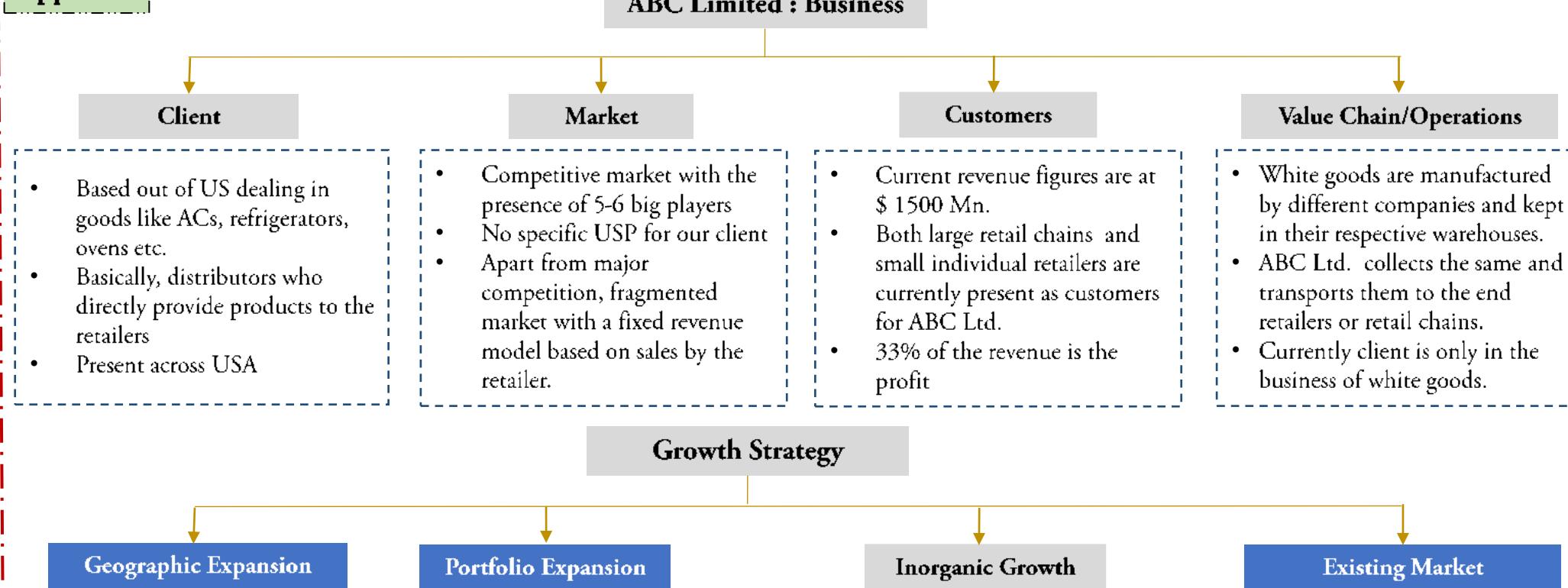
Our client is a PE Firm which has recently invested \$400mn in an appliance distribution company, ABC Ltd. You are hired to increase company's profits

Case Facts & Notes

- Objective: Gain a better return on investment/ increase profits for the ABC company both in the short and the long term.
- The metric is also to increase profits by \$ 300 MN.

Note: Instead of applying a typical Profitability framework, we have to instead consider only the revenue part as we need to increase profits equal to 20% of present revenues, also the PE firm has already invested \$400 MN. Hence, this is a case of growth strategy.

Approach



Recommendations

- The client can expand geographically domestically or internationally. Uncertainty about the new markets; Capital investment; Unfavourable regulations would have to be kept in mind in this case. Moreover the client can still further expand in the existing geography
- The client can expand into new products of the same or related categories like electronic equipment, consumer durables, brown goods etc. This would lead to an increase in revenues.
- The client can add more retailers or can increase share from each retailer. If the retailers are using less of client's products as their total inventory compared to our competitors retailers, if we upsell, profits can rise.

Gift Card Firm

Your client is a gift card firm. They provide back-end support for gift cards to partners (like Amazon) which includes activities like code generation, checks and balances, tech support. They would like you to suggest ways in which they can grow their sales revenue.

So our client is a gift card firm and they are looking for ways to increase their revenues?

Yes

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What does the client's business look like, what kind of services are provided by the client?

They provide back-end support for gift cards to partners (like Amazon) which includes activities like code generation, checks and balances, tech support.

What is the customer base for our client and what are the features they use gift cards for?

Our clients include companies like Amazon who provide gift cards to their own customers it is profitable for them because it provides upselling, unused balance gets expired, gives interest, fulfils their working capital requirements etc.

What is the end benefit to the customers who buy these gift cards?

Gift cards are expensive than traditional gifts, but they offer flexibility while gifting.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Sure!

If the client wants to increase the revenue they can either do it organically or inorganically by buying or partnering with other companies. Which one I should focus on?

You can look into organic growth.

Revenues are total number of customers multiplies by revenue per customer. We can increase them to increase total revenue, which one of these is our client looking to do.

You can look into how the client can increase the total number of customers.

To increase the total number of customers the client can look into ways to retain the existing customers and getting new customers.

Yes. Go Ahead!

To acquire new customers the client can look for new partners like other ecommerce firms, travel agencies etc., it can venture into different customer segments like selling directly to individuals and corporates and can come up with new use cases like specialised holiday gift cards etc.

Good Suggestion! What else can we do?

To increase customer retention the client can look into improving services like reducing complaint resolution, specialised lines for large customers etc. The client can also run special promotions for existing customers to keep them loyal.

Good Idea!

The client can also look to increase revenue per customer, this can be done by introducing new gift cards with higher values or again by introducing specialised gift cards holiday based gift cards. Are there any other avenues I should look at?

Yes, these recommendations sound good.

Gift Card Firm

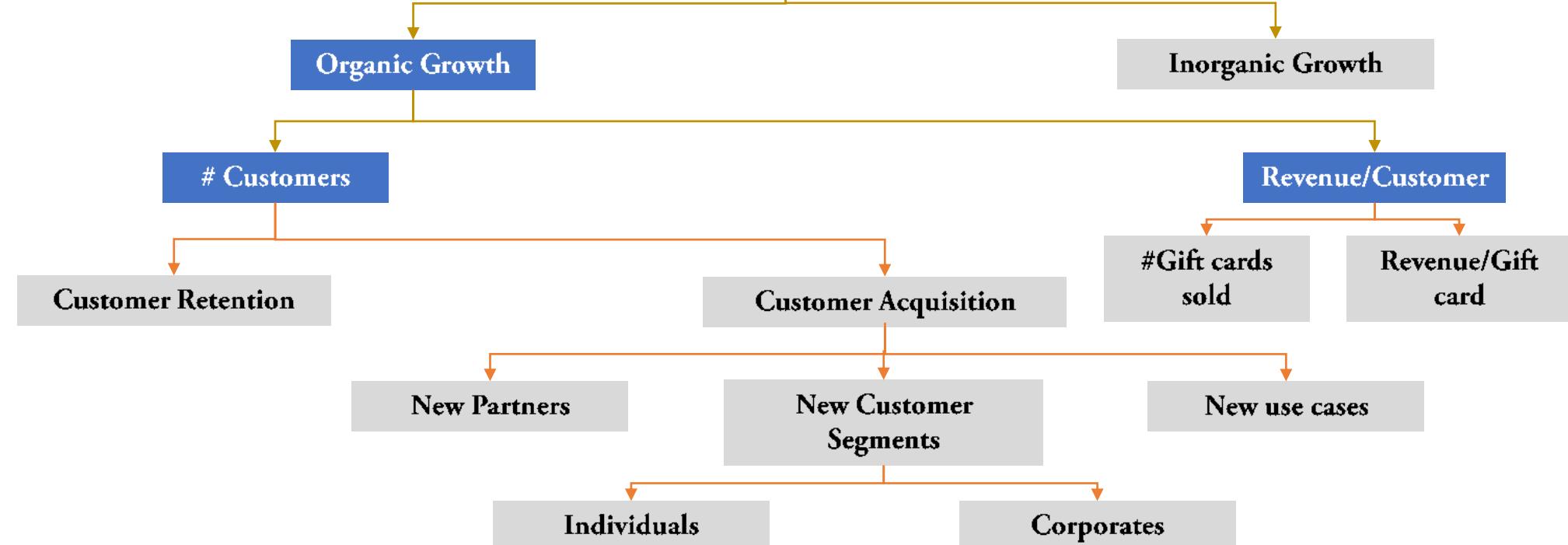
Your client is a gift card firm. They provide back-end support for gift cards to partners (like Amazon) which includes activities like code generation, checks and balances, tech support. They would like you to suggest ways in which they can grow their sales revenue.

Case Facts & Notes

- Provide back-end support for gift cards to partners like code generation, checks and balances, tech support.
- Gift cards are expensive, but offer flexibility while gifting
- Customer experience is dependent on the partner (Amazon, Hotel service)
- Profitable for client as it provides upselling, unused balance gets expired, gives interest, working capital requirement

Approach

Gift Card Sales Growth



Recommendations

- New partnerships with E-commerce, travel, restaurants/food, hotels, spas, entertainment etc.
- New occasion based use-cases like Diwali gift cards, Anniversary or Birthday gift card.
- Better marketing, promotion to retain current customers.
- Gift cards at more price points, preferably higher price points to improve revenue per gift card.

Light Bulb Company

Your client is a light bulb firm who sell through 2 channels – trade retailers (90%) and modern retailers (10%). Sales team (DSM) is responsible for selling to trade retailers. Each DSM has an app which tracks every call (visit) and a beat plan (call plan for 20 retailers per sales representative). On an average a DSM makes 15 calls a week of which only 5 are productive (industry average is 8). You have to suggest how they can increase the number of productive calls per DSM.

Ma'am, if I understand correctly, our client is a light bulb manufacturer which is facing low productivity issues in Sales team called DSM. We are clocking 33% conversion where industry average is more than 50%. I have to suggest a plan to increase the productivity of the team.

Yes, you are right. Please go ahead!

First of all I would like to understand the model of running the team to understand the problem then suggest a strategy to solve the problem. In that regard, I would like to understand what is the plan followed in a week and how are the clients allocated. Also since when are we facing this issue?

We have been facing this issue for past 6 months when we included the productivity KPI for the team. Before we didn't have any metric. As mentioned the beat plan is used to allocate the clients to DSM every week. It tells when a person has to go to a particular client and which route to follow.

Okay! Which area are we operating in? Is it rural or urban?

We are operating in Delhi NCR region.

Can you tell me more about the product line. Basically about various type of bulbs available.

We sell a single type of bulb and have been in business for 5 years.

Okay. So to understand the productivity I would like to look it from 2 segments:

1. Total number of calls
2. Conversion rate

Sure that sounds good.

The total number of calls/visits a DSM makes is a function of 3 factors:

1. Total working hours
2. Idle Time
3. Time/visit and this can be segmented into Transit and Duration of visit.

The conversion rate depends on major stakeholders: DSM and retailer. DSM effectiveness can be attributed her knowledge about the product, frequency of visit and her negotiation skills whereas retailer's willingness will be majorly impacted by the existing inventory, financial benefits and consumer demand for the products.

Is there anything in particular I should focus upon or do you want me to suggest a consolidated strategy?

You can develop a plan based on your finding which seem comprehensive to me.

One way of increasing the number of productive calls is increasing the total number of calls per DSM. This can be done by increasing total working hours, reducing idle time (like lunch breaks). The time per visit can also be reduced. Route optimization can help improve transit time.

The industry average is a total of 15 calls per week and we are meeting that, so there is no problem with the total number of calls.

Whether the call is productive or not depends on 2 factors – how well the DSM is doing his job and whether the retailer is willing to buy. DSM effectiveness depends on how well they know the product (training), price negotiation skills and whether they are actually visiting the retailer (can be tested through GPS records on the app).

Retailer willingness to buy would depend on financial incentives (margins compared to competition), end customer pull and whether the retailer actually needs the product when the DSM visits. If the retailer is a small counter where few customers buy, the stock will need to be replenished less frequently as opposed to a large counter. Hence, we could look at beat plan optimization so that the frequency of visits to a retailer is optimum leading to better call conversion.

That is a good strategy. Thank you for your analysis.

Thank you Ma'am for your time.

Light Bulb Company

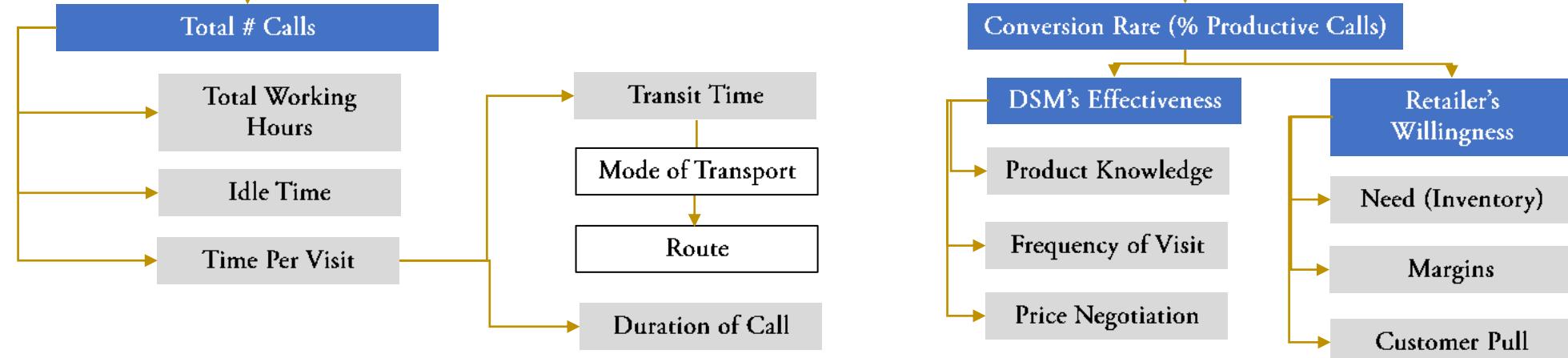
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Case Facts & Notes

- Objective: Find reasons for low productivity of sales team and suggest ways to improve it.
- Delhi NCR based client

Approach

Increase # productive calls per DSM from 5 to 8 per week



Increase it by-

- Increasing working hours
- Reducing idle time
- Route optimization

Recommendations

DSM effectiveness can be improved by

- Product knowledge
- Training on negotiation skills
- Keeping track of frequency using an app

Retailer's willingness can be tackled by

- Monetary incentive
- Increasing demand via advertisement locally
- Replenishment tracker
- Beat plan optimization synced with replenishment

Bottling Plant

A Cola Manufacturer's bottling plant has excess inventory and increased customer complaints. Find out reasons and recommend solutions.

Thank you sir, I'd like to confirm my understanding that our client is a cola manufacturer's bottling plant and they have the problem of excess inventory and customer complaints. We have to find reasons and help fix the issue. Right?

Yes, that's right

Okay, so I had a few questions to clarify my thoughts.

Sure, please go ahead

By bottling plant we mean that the client only does the bottling & no manufacturing of cola?

Yes you're right. The client receives all the made Cola from the manufacturer and their job is to only bottle it into different SKUs and be ready for distribution.

Okay, thank you. Also, I wanted to know if this problem is recent or has been persistent?

We've only recently started to face this problem since the last three months.

Okay, so I would need to figure out what has changed in the last three months to cause this problem. Have competitors also suffered?

Yes, that's right. No, the competition isn't facing this problem.

Okay, so to understand the problem of piling up inventory, I would start by looking at the client's complete value chain and then at each step try to find if any issue exists. Is that fine?

Sure.

Thank you. So, as I understand it, cola would be transported to our plant and then bottling would occur and finally the packaged Cola would be distributed. Is that right?

Yes, that's right. To add to your understanding, before bottling is done, first the bottles are sterilised and then filling is done of the bottles. Only post sterilising and filling is bottling done.

Okay. So I'd like to know if there has been any change in our inbound cola's quality/quantity?

Quality hasn't changed. Just our volumes have increased by almost 2x. Earlier, we used to receive 6000 bottles worth Cola in a day while now we receive roughly about 10000 bottles worth due to summers.

Oh, so maybe in that case it means our demand has increased but distribution has taken a hit which is why customers also seem unhappy.

Yes, that seems fair. I'd like you to find why distribution must have taken a hit.

Okay, so I'll move to the next step. Are our machines able to sterilise, fill and bottle 10000 bottles in a day? If yes, then I would look into outbound logistics, else will drill deeper.

That's a good question. We are not being able to bottle these high quantities demanded.

Okay, so could you tell me if we are running at full capacity?

Not entirely, but almost 100% capacity. We have the capabilities to sterilise 10,000 bottles a day, fill 9000 bottles a day and bottle 8000 bottles a day.

So this means that bottling is a bottleneck. Inventory must be piling up before this stage and we would not have been making enough finished goods to be distributed, leading to complaints.

Yes, that's absolutely right. Could you recommend ways to deal with this issue?

Sure, Sir. As I see it, we could do two things broadly, either fix the bottleneck at our own plant or outsource/shift this process to another plant.

Right, go deeper into the former please.

Okay, so for fixing the issue at our own plant, we can do three things. First, we can install new bottling machines, but that would involve Capex and I'm not sure if that would be feasible only for seasonal demand change. Second, we could share the workload among the other machines that are idle and capable, making it possible to increase production. Lastly, we can work on making sure that we run at 100% capacity by proper QA, however we may still not be able to completely fulfil demand in that case.

Great, that sounds good!

Bottling Plant

A Cola Manufacturer's bottling plant has excess inventory and increased customer complaints. Find out reasons and recommend solutions.

Case Facts & Notes

- Kind of inventory – inventory from suppliers
- Magnitude of increase – 2x increase
- Timeline of increase – last 3 months
- Nature of complaints – increased delivery time to customer by 5x
- Reduce inventory and lead times as much as possible
- Production process
 - Sterilizing
 - Filling
 - Bottling

Approach

Reduce inventory and customer delivery times in bottling plant

Inbound Operations

Has there been in a change in the quantity supplied? Why?
Demand has gone up from 6000 to 10000 bottles a day, since it is summer.

Manufacturing

Has there been a change in the manufacturing process?
No

Outbound Operations

Why are customer orders delivered late?
The factory is not producing enough to meet demand, forcing us to cancel some shipments

How does Manufacturing Work?

Sterilize
10,000 bottles/day

Filling
9,000 bottles/day

Bottling
8,000 bottles/day

New Demand – 10,000 bottles/day
Demand > Supply => Product deficit

Recommendations

The bottling part of the manufacturing process causing inventory build-up leading to customer delays

Fix the bottleneck to eliminate inventory build-up

Move Q&A process before the bottleneck

By moving the Q&A process before the bottleneck, we can ensure that the bottleneck is being used at max. capacity and hence, maximum product possible is produced

Expand the bottleneck

Will involve Capex which may not make sense for a seasonal demand surge

Outsource process or shift production to another plant

Share bottleneck's workload

Makes sense since the surge is seasonal

Telecom Provider

A telecom provider in Kenya has seen a major dip in customer satisfaction levels.

Sir, just to be clear, our client is facing dip in customer satisfaction level and wants to know reason behind it. Any secondary objective I should look for?

Yes, our clients wants to increase customers satisfaction levels to retain subscription base

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What services our client provide? Geography? market share?

Our client provides mobile services, Broadband, customer services. Its clients include both businesses and individuals with country wide operations. It currently owns 40% market share

Thank you sir! Regarding the problem – Since when is the client experiencing this problem? Are only we suffering or are competitors are also impacted?

Well they have been experiencing this problem for the past few years. As far as we know, the competitors are not impacted by this problem.

Thank you sir! I would like to know about our operations in consumer service. What all services come under customer service and how it operates? One of them I believe will be customer calls.

So we provide support via call centres. The customer calls are routed via interactive voice response to our call centres where our staff assist the customer with complain resolution

Thank you sir! Regarding service, I would like to break-down the operations in three steps, first IVR, then customer calls and finally the resolution and post call service.

Sounds good to me

Coming to IVR, how many options we have in it? And all the relevant options available and how easy is to for customer to access them?

All the relevant options are available to the customer with options organised in order of most commonly opted to least.

Sir, as per my experience Primary reasons for calling customer center are for information , Requests & grievances. What is the breakup among these three?

Queries, requests and complaints comprises 20%, 20% & 60% of total calls. Queries and requests are above industry average whereas as complaints are below industry average

Either our services have improved suddenly in past few months, which is unlikely or, customer is unable to get through to customer service executive.

We have observed that complaints not getting through to CC staff, leading to high wait times & lower satisfaction levels

I see that not being able to reach to CC staff is aggravates the situation. In order to counter it, I propose 1. We can educate the customers about common functionalities and Query or Requests through campaigns; 2. Improve the IVR system and add most common Query and Request option in main menu on a regular basis. For educating customers, we can educate customers through pamphlets, information booths, stores about Q&R functionalities to reduce call volume based on Q&R. Simultaneously we can move customers to digital platforms for Q&R. Incentivize use of these platforms. Both can be implemented in short term.

Sounds like a good plan. What about IVR?

We can implement AI & NLP solution to route customer calls & provide appropriate information. Since it would require considerable effort from tech division, I believe the time required to execute it will be substantially longer than other two.

I think the client would be willing to implement it as part of their long term strategy.

Would you like me to delve into resolution and post call service?

That won't be required. We can close the case here. Have a good day!

A telecom provider in Kenya has seen a major dip in customer satisfaction levels.

Case Facts & Notes

- Services** - Services offered – Mobile services, Broadband, customer services.
- Timeline of dip** – Past few months
- Competition** - 40% market share. Company specific problem, industry satisfaction at normal levels.
- Objectives** - Increase satisfaction levels of customers to avoid loss of subscription base.
- Client Line** - Businesses & Individuals.
- Country-wide operations**
- Customer Service** - Calls routed through IVR. Call center with staff for resolution.

Approach

Optimize Operations

Interactive Voice Response (IVR)

- The number of options on IVR?
- All relevant options available
- Ease of access of most used options & CC staff? Low

Customer Calls

- Primary reasons for calling customer center are for information (Q), Requests (R) & grievances (C)
- Increased average wait time
- What are call volume divisions between these?

Resolution & Post Call Service

- Call center staff capability? - above average.
- No complaint post connection to staff.
- Efficiency & motivation of staff? - Optimal

Query (20%)
Higher than industry avg

Request (20%)
Higher than industry avg

Complaints (60%)
Lower than industry avg

Complaints not getting through to CC staff, leading to high wait times & lower satisfaction levels

Recommendations

The customers that call for complaints are not able to reach through to call center staff which aggravates the situation.

1 Educate the customers about common functionalities and Query or Requests through campaigns

2 Improve the IVR system and add most common Query and Request option in main menu on a regular basis

Short term

Short term

Long term solution

Educate customers through pamphlets, information booths, stores about Q&R functionalities to reduce call volume based on Q&R

Move customers to digital platforms for Q&R. Incentivize use of these platforms

Implement AI & NLP solution to route customer calls & provide appropriate information

Airline Acquisition

A major airline operator needs advice whether they should make an acquisition to drive up their revenues, and if so, which one.

So our client is a major airline operator needs advice whether they should make an acquisition to drive up their revenues, and if so, which one?

Yes

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What does the client's business look like, what kind of services are provided by the client and where does it operate?

The client offers passenger services and cargo and is present in all north, south, east, west and central regions the share of revenues of these regions is given in Exhibit B.

What is the objective of our client with this acquisition?

The client believes that broader coverage across the country will lead to an increase in revenues and profitability, so the client wants to diversify its footprint.

What is competitive landscape like, how much market share our client owns and what are other competitors?

The size of the industry has increased from \$22.2B in 2010 to \$29.5B in 2014, up by 25%, even though our revenues have increased, our market shares has gone down, the revenues for major competitors have been given in exhibit A.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

From exhibit B we can conclude that Our market share has increased in North, South and Central regions while our market share has decreased West and East regions.

Yes

Since our client wants to gain markets where the company doesn't have low market share, I would like to know the markets of all the competitors.

Competitor A: Major player operating routes that connects major cities across the country as well as connecting them to international destination

Competitor B: Emerging airline player operating flights in Central, West and East regions

Competitor C: Acquired by Competitor A in 2013

Competitor D: Emerging airline player operating in South and Central regions

Competitor E: Emerging airline player operating in North region

Based on insights from exhibits A and B and this data, we can generate a plot between 'degree of overlap' and 'revenue' for every player in the market. This plot will be useful in making a decision as to which player should be acquired. 'Degree of overlap' is an approximate measure that would indicate the overlap of customers between the client and the competitor. Our objective would be to choose a player that has greater revenues and smaller degree of overlap. Is this approach feasible?

Yes

Competitor B has the lowest degree of overlap and has good revenues as well, Henceforth, competitor B would be the recommended player for acquisition.

Okay

Do you also want me to look at operational synergies like aeroplane models etc.

No, these recommendations look good

Airline Acquisition

A major airline operator needs advice whether they should make an acquisition to drive up their revenues, and if so, which one.

Approach

Need for acquisition

(Company + Industry) analysis

Due diligence

Valuation + Financing decisions

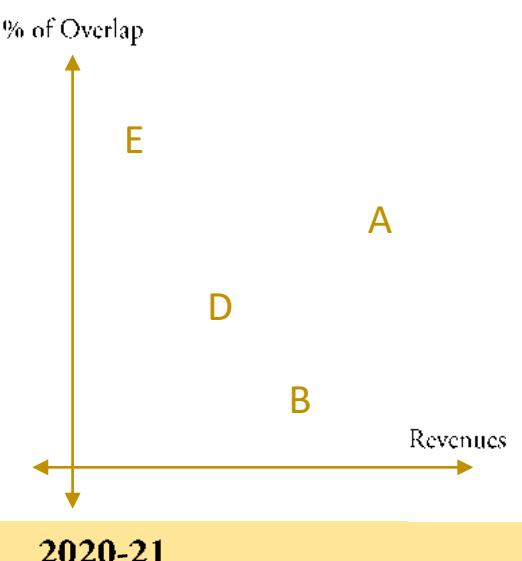
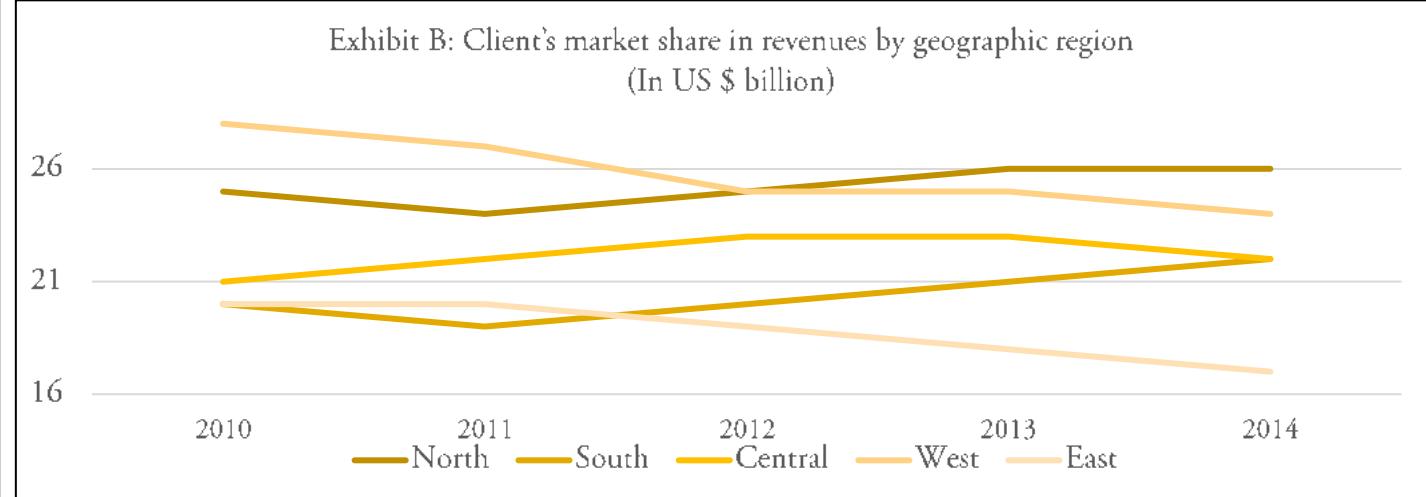
Exit strategies



- Competitor A: Major player operating routes that connects major cities across the country as well as connecting them to international destination
- Competitor B: Emerging airline player operating flights in Central, West and East regions
- Competitor C: Acquired by Competitor A in 2013
- Competitor D: Emerging airline player operating in South and Central regions
- Competitor E: Emerging airline player operating in North region

Insights from Exhibit A and Exhibit B:

- The size of the industry has increased from \$22.2B in 2010 to \$29.5B in 2014, up by 25%
- Even though our revenues have increased, our market shares has gone down
- Our market share has increased in North, South and Central regions
- Our market share has decreased West and East regions



Based on insights from exhibits A and B, we can generate a plot between 'degree of overlap' and 'revenue' for every player in the market. This plot will be useful in making a decision as to which player should be acquired. 'Degree of overlap' is an approximate measure that would indicate the overlap of customers between the client and the competitor. Our objective would be to choose a player that has greater revenues and smaller degree of overlap. Henceforth, competitor B would be the recommended player for acquisition.

Note: Although the primary need for acquisition in this case would be to increase coverage revenues, listing down other possible objectives can help prioritize/decide between different options for acquisition. For example, in case of airline operators, operational synergies can be achieved by acquisition of a competitor which operates airplane models which are already present in our client's fleet.

Your client is a PE firm looking to invest in large chain of cosmetic stores in Australia. Figure out whether they should go ahead or not.

So our client is an PE firm which is looking to invest in cosmetic chains in Australia and I need to figure out whether they should go ahead with it.

Yes

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

What are the objectives for client?

The client wants a 25% rate of return, high growth and a turn around time of 5 years.

What is the product mix of the client?

The client has a new product, a Botox substitute at 20% price. The Cosmetic clinics provide laser hair removal and Botox implants (anti-wrinkle injections)

What are target customers for our client?

The target customers for the client are high to middle income, middle aged women in Australia.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Sure

I would like to first go understand the consumer and what is the consumer journey like, how do they buy, what brands are preferred and what other factors are?

Customer rely on doctor recommendations and no specific brand is preferred and customers will adopt Botox if price is slashed by 50%.

I would like do a market sizing to determine what kind revenues and profits our client can generate out of the business. We have 20 mil Australians, so 10 million women, out of which we can assume 30% can be assumed to be above 40 and 40% of those women can be from upper and middle income groups which give us 1.2 million people. Assuming 10% of that are interested and 60 % of them actually get it, we have 72,000 customers. How much market share we are expecting and what is the cost of our alternative.

We are expecting a 50% market share and the cost is around \$1000 and you can expect 30% profit.

So, we have 36,000 customers, revenues of 36 million and profits of 11 million

That sounds about right.

Okay, we can also look at the potential growth drivers such as rising disposable income, reducing cost of cosmetics, adoption of Botox by younger people and lifestyle changes leading to more wrinkled faces.

Okay

When it comes to different risks and synergies, we can tap new customers in and increase volume Sales, growth in market share. But this acquisition will cannibalize the Korean drug and customers might perceive it to be an inferior product because of the low price.

Okay, So what are your recommendation?

Don't invest in the cosmetic chain due to possible cannibalization & reduced profits in future. The client can do a Close Study of Korean Market to understand drug response & launch drug in global markets, launch Korean drug into different markets to gain profits from drug. The client must evaluate other business segment (Hair Removal) as well. Evaluate the scenario & reactions in Korean Market to understand possibilities in Australia – Drug made money in Korea but the cosmetic chains crashed.

Yes, these recommendations sound good.

PE Cosmetic Chain

Your client is a PE firm looking to invest in large chain of cosmetic stores in Australia. Figure out whether they should go ahead or not.

Case Facts & Notes

- Investments in Pharma Co. in Korea
- Pharma Co has a new drug, Botox substitute at 20% price
- Target customers are mid & High Income Group, mostly middle aged women
- Objectives, 20-25% RoR, high growth, turn around time ~ 5 years
- 50% Market Share in Cosmetic Clinics with Company, 20% MS with ASC & 15% with CSC, rest with small players
- Cosmetic clinics provide laser hair removal and Botox implants (anti-wrinkle injections)

Approach

Customer Study

- Customers rely on Doctor's recommendations
- No specific brand is preferred
- Customers will adopt Botox if price is slashed by 50%

Distribution Channels

- Dermatologists (40%) - Fragmented
- Cosmetic Chain Clinics (60%) – 50% Market Share with co.
 - Doctors on call
 - Doctors prescribe implant & nurses administer

Pricing

- 4 shots in 1st year - \$800 each
- One shot post 1st year - \$200 each

Korean Drug

- Perfect Replacement/Substitute
- Lowered price, 20% of Botox, No side effects

Investment Analysis

Financial Analysis

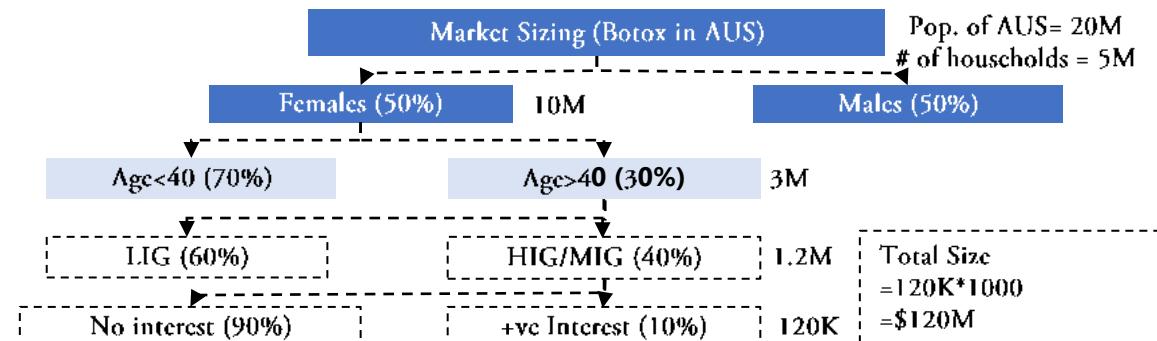
Revenue	Costs
Market Size* Mar. Share =120M *60% * 50%=\$36M	70% Operating Cost
Profit = 30% * \$36M = ~ \$11M	

Growth Drivers

- Rising Disposable Incomes
- Reducing Cost of Cosmetics
- Adoption of Botox by younger population
- Lifestyle changes leading to more wrinkled faces

Risks & Synergies

- Cannibalization of new Korean drug in Australian market
- Perception of bad quality due to low price
- Benefit – New customers can be tapped in
- Volume Sales in focus, growth in market share



Recommendations

- Don't invest in the cosmetic chain due to possible cannibalization & reduced profits in future.
- Close Study of Korean Market to understand drug response & launch drug in global markets, launch Korean drug into different markets to gain profits from drug.
- Must evaluate other business segment (Hair Removal) as well.
- Evaluate other business segment (Hair Removal), Competition (crash). Volume sales increase not enough to offset decrease in revenue due to price point fall.
- Evaluate the scenario & reactions in Korean Market to understand possibilities in Australia – Drug made money in Korea but Cosmetic chains crashed.

FMS Students Falling Ill

Recently, the students at FMS have been falling ill. Analyze the reason and recommend solutions.

Sir, to reiterate, students are falling ill in FMS and I have to find out the reason why it is happening.

Yes, go ahead!

I would like to ask a few clarifying questions.

Sure, go ahead!

Since when are we observing the problem and what are the symptoms?

Problem is being observed for the past 2 days. Symptoms are sore throat, nausea, fever.

This means that the disease is probably a communicable disease. How many students are impacted?

Around 30% students of FMS are impacted.

And is the illness rate uniform across different batches and gender?

Good question. Actually, No. 80% of the students impacted are first year students and 60% of the students impacted are females.

That strange. What is the male: female ratio in the college? And is any activity, event related to 1st year students going on in the college?

Good question! Female form 30% of the students. And summer placements event is going on in the college.

Are students other than FMS in other DU colleges also impacted?

No, the illness seems to be limited to FMS students

Thank you! I think that's sufficient for now. Just provide me a couple of minute of gather my thoughts and analyse the problem.

I would like to break the problem into all the activities a student go through during summer internship project and try to analyse different sources of illness during these activities. I will break the activities home activities, commuting activities and activities in college into sources of disease can be environmental, physiological and psychological as summer placements are a high stress activity. Would you like me to deep dive into a particular source or activity.

Based on your preliminary questions, what do you think you should approach first?

Since the illness is related to FMS students only, I would like to focus on in college activities only. Also, since the illness isn't uniform across gender and batches, I would like to focus on physiological factors. Am I thinking about it in the correct way?

Yes, Go ahead.

There are 2 major activities that have high physiological impact. Consuming contaminated food during breaks and using same unhygienic washrooms. Since the female students are impact unproportionally, it would be safe to assume that the problem is related to usage of washrooms.

Good Analysis. The problem is due to infrastructural constraints at FMS all female students have to use the same washroom during placement season. So to move ahead. What can be wrong with washrooms?

The problem can be either related to improper cleaning of washrooms or less frequent cleaning. Are washroom being cleaned frequently?

Yes washrooms are being cleaned but male and female washrooms have different Sulabh workers and female workers are on leave. So the frequency of cleaning is impacted. What solutions will you recommend?

We can hire temporary staff for the same. Another solution can be open washrooms on other floors for female students or allowing access to male washroom for ladies. One solution can be to get male Sulabh workers to clean ladies room as well.

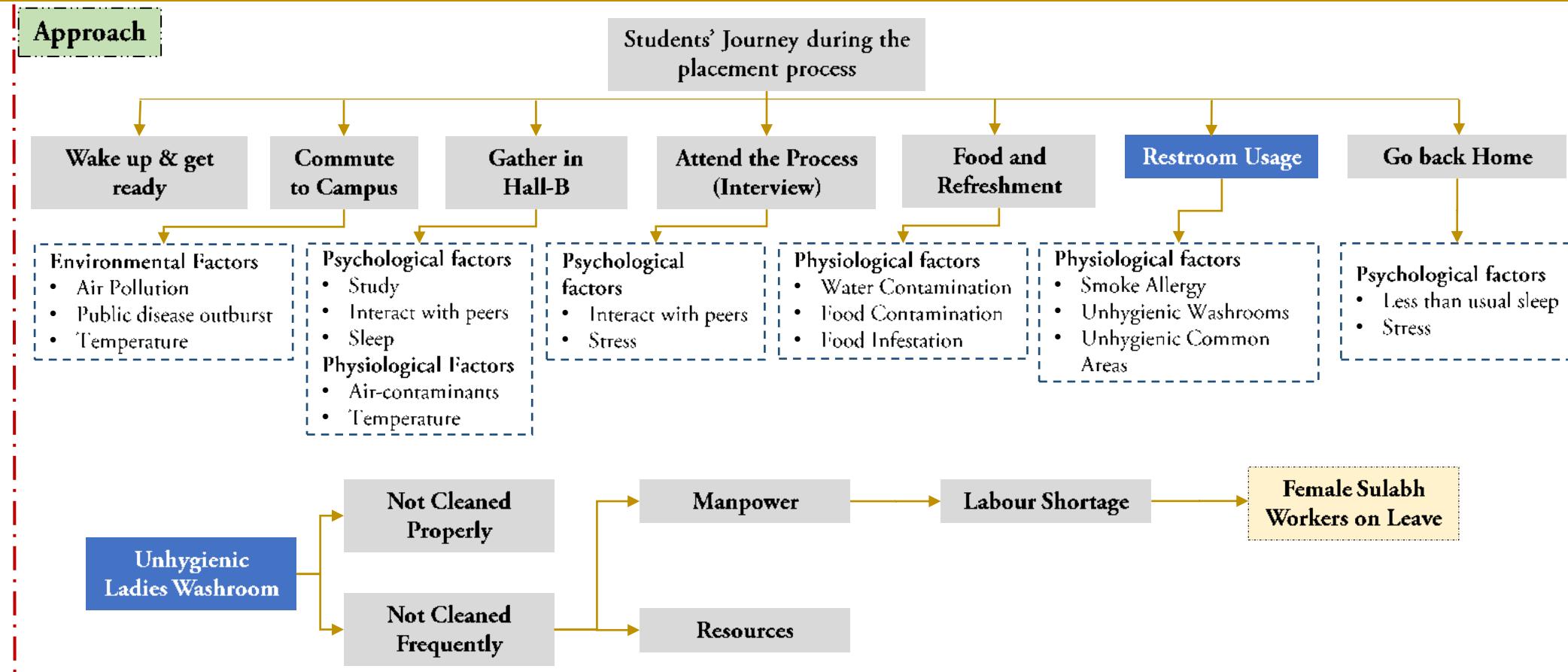
Thank You! Thank will be all.

FMS Students Falling Ill

Recently, the students at FMS have been falling ill. Analyze the reason and recommend solutions.

Case Facts & Notes

- Problem is being observed for the past 2 days.
- Symptoms – Sore throat, nausea, fever.
- 30% of the students impacted. Limited to FMS Delhi students only.
- 80% students are 1st year and 60% of the ill students are female.
- Sex ratio-M:F=7:3
- Placement started 3 days ago.
- Infrastructural Constraint Limited- # of restroom accessible during placements.
- Sulabh workers for male and female restrooms are different.



Recommendations

- Hire temporary staff for the same.
- Open washrooms on other floors.
- Open access to male washroom for ladies.
- Get male Sulabh workers to clean ladies room as well.

Logistics Efficiency

Your client is the ministry of road, transport & highways. They want to improve the logistics efficiency of the country. Give recommendations

Sir, just to be on the same page, ministry wants us to come up with ways to improve logistics efficiency. And what actually does client mean by logistics efficiency?

Yes and logistics efficiency, it means time taken to transport goods from A -> B

Is it fair to assume that ministry is considered only about road transportation and not other modes? Also, we are focussed on PAN India road or international routes too

Yes, the ministry is considered only about roadways PAN India and not international routes

Are there any operational or financial constraints that I should keep in mind?

There is no financial or operational constraints for the client

Thank you sir! Any timeline we are looking at to increase efficiency?

The project needs to completed as early as possible

Thank you sir! There are five external factors I can think of which impacts the efficiency namely road capacity, road quality, stoppage time, total average distance and transit permits. Other factors are vehicle & driving expertise but they lie within the purview of the companies.

That correct. Let's explore each of these and what ministry could do to increase efficiency

Sure Sir. To increase road capacity client can increase number of lanes, develop alternate routes for busy routes, dedicate lanes for different vehicles, restrict truck/car width according to road dimension to fit maximum vehicle, and develop freight Corridors

Sounds good to me. What about road quality?

To improve road quality, client can ensure better quality of material is used, quick repair of potholes, preventive maintenance of the roads, conduct Audits and regular reporting of conditions, and perform timely/deadline-based repairs

What are your thoughts on stoppage time?

Sir, I believe stoppage time will depend on factors such as number of red lights, traffic jams, toll booth & government checkpoints.

That's correct. What steps do you think the client can take to reduce time at toll booth?

The average time by a vehicle spent on toll booths during its journey will depend on total number of toll booths it came across, waiting time & processing time. To reduce the number of toll booths, we can optimize the toll network. To reduce the waiting time, we can increase the number of lanes. To reduce the processing time, the ministry can launch RFID tags, designate specific lanes based on kind of vehicle & hire mobile toll collection personnel.

All these sounds good to me. The client can surely look into these. What about the total average distance and transit permits?

To reduce the total average distance, we can come up with a plan to optimize the road network and increase the total road length to connect more places via it. Though this would take considerable investment, effort and time. For transit permit, we can create a centralised system & reduce the number of permits required. Also, if there is scope of reducing the time required to procure them, we should definitely come up with process to make it quicker. Lastly, if there are cross border check points, the ministry with support of central and state government can explore the option of removing them or at least make the process less time consuming

The ministry will be excited to explore all the options in order to increase efficiency.

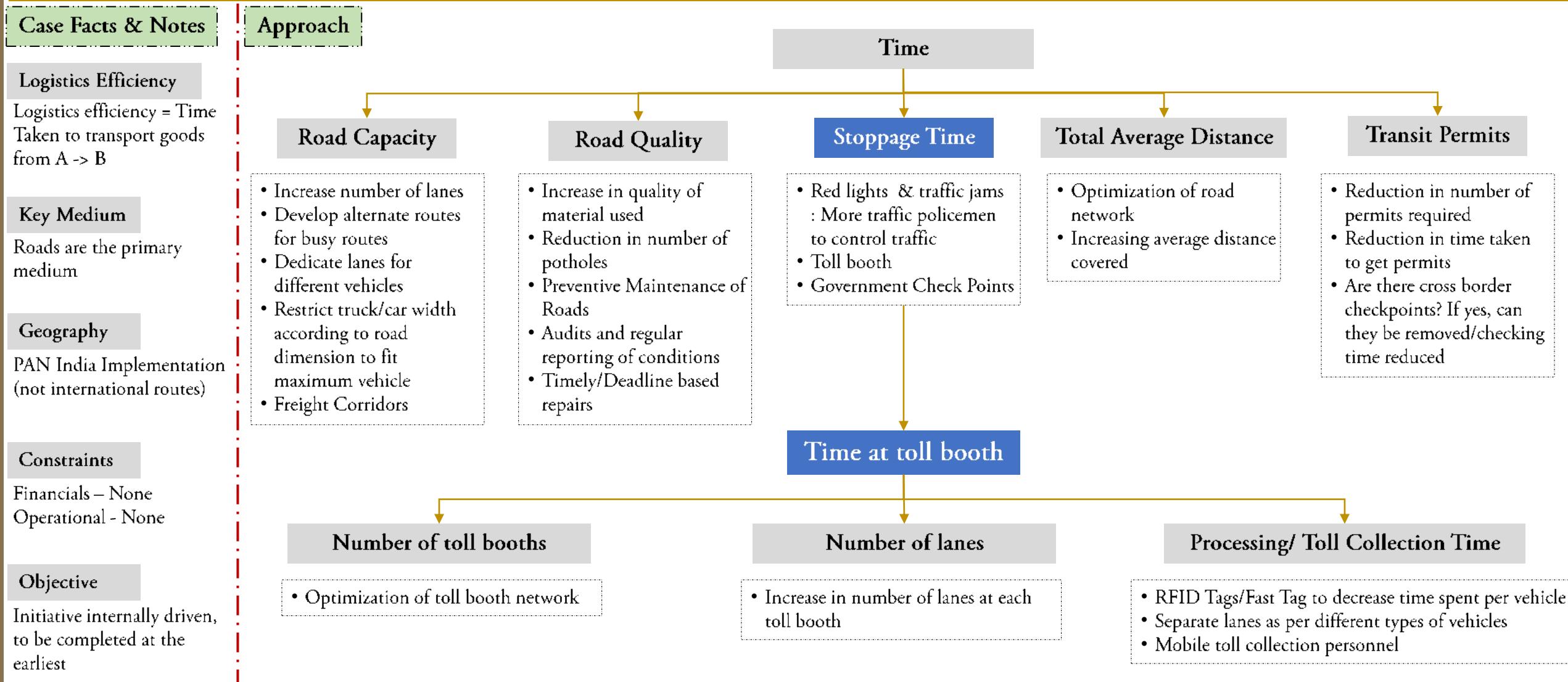
Sure sir. Would you like me to explore anything else?

That won't be required. We can close the case here. Have a good day!

Logistics Efficiency

Unconventional | Easy | Kearney

Your client is the ministry of road, transport & highways. They want to improve the logistics efficiency of the country. Give recommendations.



Increase in Road Accidents

Your client is a state road and transport corporation and they are experiencing an increase in road accidents. Find all the reasons & give solutions.

Sir, just to be on the same page, our client is a state road and transport corporation and they are experiencing an rise in road accidents and I have to find out reason for it?

There can be multiple reasons. I want you to find all you can. A state run transport corporation is responsible running government buses in the state. Take UPSRTC as proxy.

Sir I would like to ask a few clarifying questions.

Sure, go ahead!

Since when are we facing this problem? And is it specific to a single state only?

Number of accidents have increased since 2013. On national level it has decreased.

Thank you! So what kind of services do we offer? Are the number of accidents increasing in all kind of services?

There are 3 types of services - Interstate, IntraState, Intracity. Yes, all three services are seeing an increase in the number of accidents.

Okay. What about buses? Are all of the same kind? If not, are all facing issues?

Good Question! We have around 12500 buses. There are 20 different kind of buses. 6 new type of advanced buses have been introduced in the past 5 years and sadly, all 20 of them have accident issues.

Okay. What about service of these buses? How is it carried out?

Good question! We have 250 depots to hold these buses. 80% of them have our own service centres.

Thank you! Just provide me a couple of minute of gather my thoughts and analyse the problem.

Sure! Take your time.

So, since accidents can be caused due to a lot reasons, I would like to break the problems into internal and external. In internal reasons I will break them into the bus, the driver, the passengers and the depot. In external I will classify reasons into weather, infrastructure and other issues.

Good approach. Lets start with the depot. What problems can you think off?

Before we proceed, I want to include management practices of SRC too. We can look them in depot only. So I will break this category into 2 things: the staff, and the maintenance issues. Has there been a decrease in staff at the corporation in the past 5 years?

Yes, so in our industry staff is defined in terms of crew : bus ratio. It has decrease from 8 to 6.4 in the last 5 years.

Well this can be one reason. But we first need to establish what is a good crew : bus ratio.

The national ratio is 5. Some states have a crew : bus ratio as low as 3.5 but are not facing any issues like this.

Okay. Maybe in culmination with other factors, it might be impacting the performance. Let move to maintenance. What kind of maintenance schedule do we follow?

Good question. Buses are repaired when they are damaged. New buses are serviced regularly but as the bus gets older, the frequency of service and repair decreases. Can you think why?

Maybe as the bus gets older, the cost of repair and maintenance increases due to non availability of parts.

Good. Lets move to buses. As mentioned before, both old and new buses are facing issues. What do you think are the reasons here? Specially in new buses.

Sure sit, as old buses are serviced less, they might breakdown more frequently. For new buses, may I know where are they being used?

Yes, apart from service and maintenance, can you think of some other issue in old buses. Some along the technical lines. As for your other question, new buses are being used for intracity transport in big cities like Lucknow, Noida etc.

Will, I know that government has made it mandatory to install speed governors in new public transport vehicles and taxis. This is something not available in older buses. So over speeding might be occurring and because of it, the accidents.

Increase in Road Accidents

Your client is a state road and transport corporation and they are experiencing an increase in road accidents. Find all the reasons & give solutions.

Regarding new buses, are they complicated to drive?

Good reasoning for old buses. That in fact is one of the reasons. Define complicated to drive?

Are there too many controls? Any change in physical dimension of the bus?

Yes, the new buses are 13m in length whereas the older one were 11m. The driver are facing issues in driving longer buses in city traffic.

Since you mentioned drivers, we have found two reasons what they might be the reason of more accidents. One is the lack of training on new buses. Second is over speeding of old buses. Do we have more reasons to attribute to drivers?

What impact due to think decrease crew: bus ratio might have on long interstate travel buses?

Let me think! Well, less staff means current staff needs to over time. Long distance drive with a single driver might be contributing to more driver fatigue and hence accidents.

Okay. Good! Lets move to the final head under internal factors. Passengers. How will they cause accidents.

Well overloading of passengers is a big issue. It can result in both distraction of drivers and impact the general safety of the bus.

What if I say that the overall load factor is 70%.

Well then I will need to analyse load factor at each type of service. Is it uniform across intracity, intrastate and interstate buses?

Good. No its not uniform. Intracity have load factor of 90%, interstate 60% but intrastate buses have a load factor of 125%.

Well, then it will be a contributing factor. Should I analyse external factors too?

Sure, go ahead!

I will like to break external reasons into weather, infrastructure and government management. Would you like me to look into a particular header?

I would like you to deep dive into infrastructure.

Okay, So I can break it into roads and other infrastructure. Has the condition of roads worsen over the years?

On the contrary, the conditions have improved drastically in the last 5 years. What would you cover under other infrastructure.

Well lighting on the road. Sign boards on the road. Are they properly installed across highways and new roads?

Yes, this is a problem. New roads are constructed but signs not installed. Lets move to solutions now.

There can be multiple solutions pertaining to each. Predictive maintenance instead of reactive maintenance of buses. A proper audit of maintenance schedule and process. Retiring Extremely old buses and end of life buses in service. Retrofitting speed limiter devices in all buses. Training drivers on new buses. Starting an yearly training program for new buses, process, routes, rules and regulations. Route Optimization on intrastate routes. Monitoring service wise load factor instead of total load factor. Urge state government to install signs on new roads made. Install Navigation system in buses.

Great! Good solutions! It was fun doing case with you. We will move you to the next round.

Thank You! It was a nice experience.

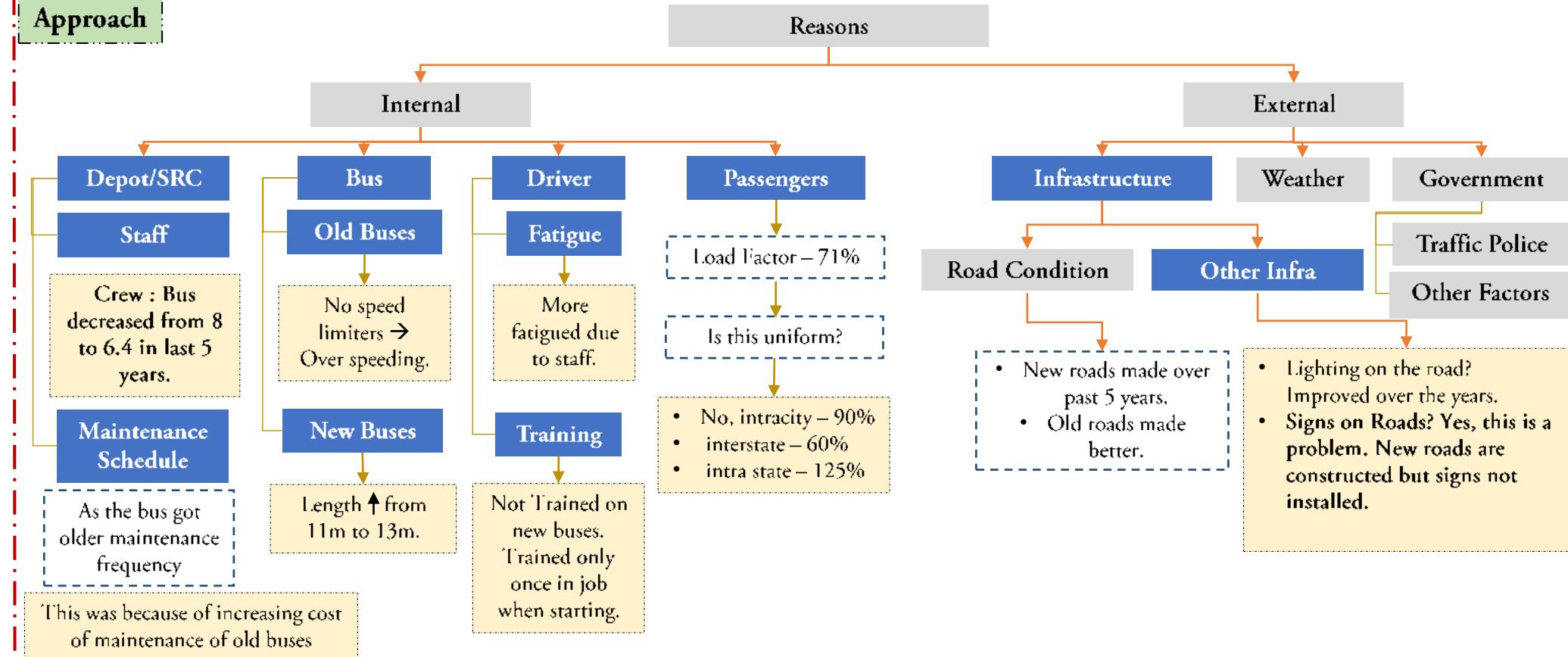
Increase in Road Accidents

Your client is a state road and transport corporation and they are experiencing an increase in road accidents. Find all the reasons & give solutions.

Case Facts & Notes

- State Run Transport is responsible running government buses in the state. Consider UPSRTC.
- No. of accidents have increased Since past 5 years. On national level it has decreased.
- Type of service – Interstate, IntraState, Intracity. Facing accident Issue in all types.
- 12500 buses. 20 different types. 6 new type introduced in the last 5 years. Problem in both old and new buses.
- 250 depots. 80% have service centers.

Approach



Recommendations

- Predictive maintenance instead of reactive maintenance of buses. A proper audit of maintenance schedule and process.
- Retiring Extremely old buses and end of life buses in service. Retrofitting speed limiter devices in all buses.
- Training drivers on new buses. Starting an yearly training program for new buses, process, routes, rules and regulations.
- Route Optimization on intraState routes. Monitoring service wise load factor instead of total load factor.
- Urge state government to install signs on new roads made. Install Navigation system in buses.

Swedish Government

In the 1960's, the Swedish Govt. wants to switch from driving on the left-hand side of the road to driving on the right. You have been hired to chalk out a plan.

Sir, just to be on the same page, the government wants to switch from left hand side driving to on the right. May I know why do want to do it?

The government has observed that cars typically had the steering wheel on the left, leading to increased number of accidents on narrow roads. Thus, they want to switch to right. Many European nations have already shifted to right-hand side driving.

Sure Sir. Since few nations have already shifted, have we also tried attempting it before or is it the first time we are taking this initiative.

This if first time we are attempting it. In past decade, the ideas was voted down several time, so we never reached the implementation planning stage.

Okay, so do we have any timeline in mind? And any other constraints, operational or financial?

We are looking at time frame of 2 years with no financial or operational constraints.

Okay. They way I look at it, to switch to right hand side, we need to look at three key steps to implement it. First, change in the infrastructure, both vehicles and road infrastructure. Second, we need to have systems and processes in place. Third, to ensure that people adapt to this new system. Would you like me to look any other aspect here.

The approach looks good. Let's proceed with infrastructure first.

Sure sir. First, we would need to look at the current vehicles and what segment/percentage of them have right hand side driving?

Most of them are configured to right side except buses.

So, we would need to discuss manufactures and come up with a plan to modify the buses. Coming to road infrastructure, I believe the current system is designed for left hand driving?

Yes, your assumption is correct.

Okay, so we need to revamp the current infrastructure including intersections, traffic lights, road signs, landscaping, entry and exit points. All these would require significant investment. Since, we do not have any financial constraints, I believe the govt. can bear the cost for collective good.

The government can incur the investment. What about the systems and processes?

In systems and process, we need to all the legal aspect of this transition including permissions, following security protocols. Also, since it's a large scale transition, we need to create/revamp different departments to assist with the transition.

The client has sufficient resources and manpower to create new departments.

Coming to people, We need to work on awareness, acceptance and training of the people. For awareness, we can go for mass media advertisements along with use of physical stickers and logos. For acceptance, we need to come up with a long term education program, preferably remote along with physical demonstrations. Third, implement the training exercises for all kind of drivers, both long & short term and also for people who are yet to start driving.

What do you think can be potential risk or considerations while executing the plan?

First, since the idea was voted down several times, we need to consider the possibility of opposition turning decision against the current government. Second, We need to retrain the all drivers. Though younger generation could easily adapt to the change with sufficient training, it would be difficult for elderly and long-term drivers finding to adjust. Thirdly, since we have never attempted this before the government should take recommendations from countries who have already implemented and have similar demographics

Sounds like a good plan

Anything else you would like me to explore?

That will be all. Thank you for your time. Have a great day!

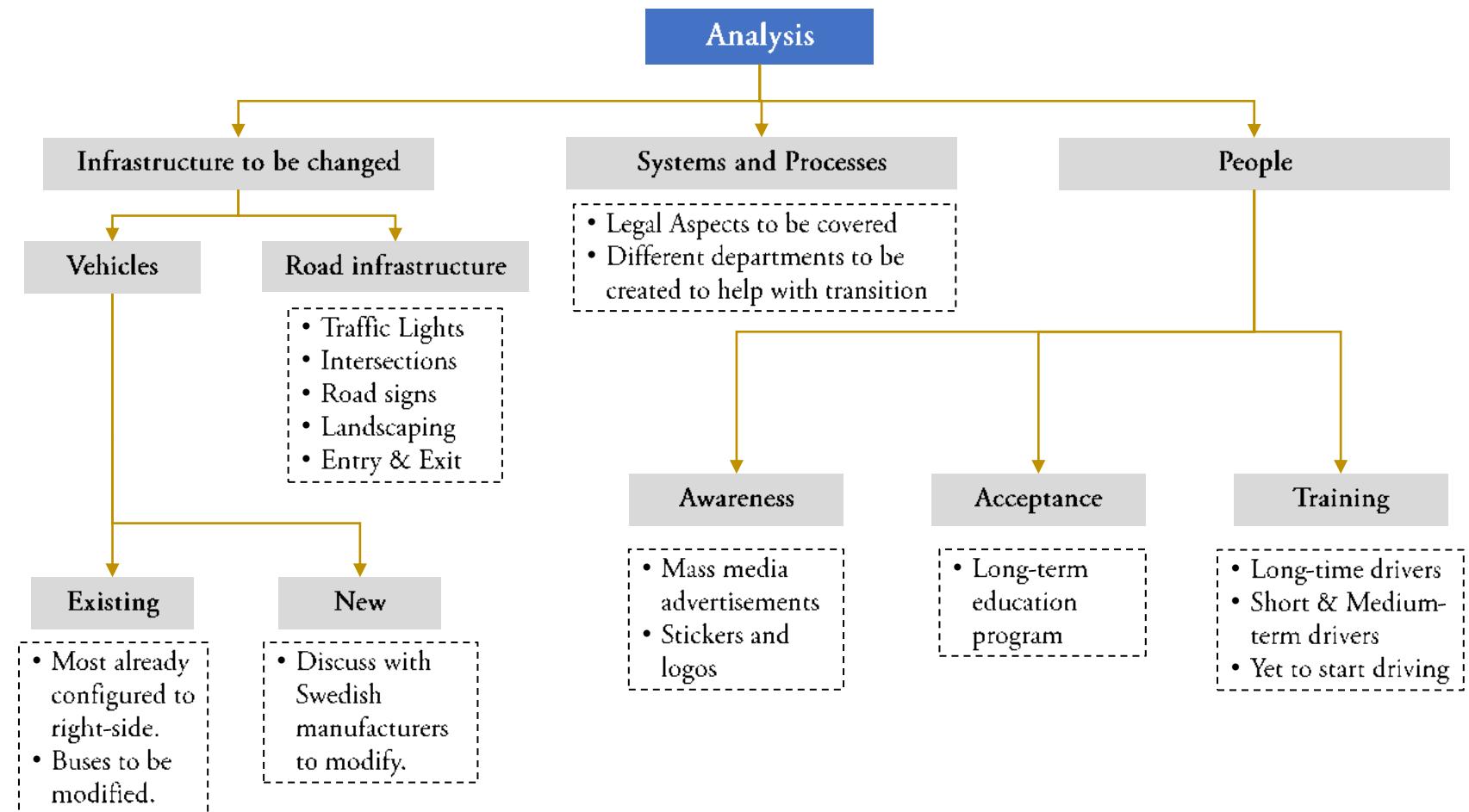
Swedish Government

In the 1960's, the Swedish Govt. wants to switch from driving on the left-hand side of the road to driving on the right. You have been hired to chalk out a plan.

Case Facts & Notes

- Objective - European neighbors had shifted to right-hand side driving. Cars typically have the steering wheel on the left, leading to increased number of accidents on narrow roads.
- Previous Attempts - Idea voted down several times in past decades. First attempt to implement.
- Time Frame – 2 Years
- Constraints - None

Approach



Recommendations & Risk Mitigation

Retraining

- Drivers to be retrained after initial phase.
- Especially elderly and long-term drivers finding it hard to adjust.

Political Factors

- Explore possibility of opposition turning decision against government.

Learn From Others

- Take recommendations from countries who have already implemented and have similar demographics.

Part H – Behavioral Questions

Primer to Behavioural Prep

What are you doing here?

A time you showed leadership skills

Why Consulting?

A time you were a team player

Why did you pick your school?

A time you persuaded a group

What do you think consultants do?

Tell me about a recent crisis you handled

What do you know about the job & the firm?

Have you ever failed at anything?

Why our firm over competitor?

A time you took initiative

Tell me about yourself?

What type of work do you like the best?

What accomplishments have given you the greatest satisfaction?

What other firms are you interviewing?

Primer to Behavioural Prep

Travel schedule? Typical work hours in a day?

Client contact in first year

Why should I hire you?

Firm's mentorship program

What type of consulting does the firm do?

How is a case team picked?

In what industries does the firm specialize?

How many consultants does the firm expects to hire? Compare to last year?

How big is the firm?

How often do you get reviewed?

Training programs the firm offers

Where do consultants go when they leave the firm?

Type of work an entry level consultant do

Is it possible to transfer to other offices and international offices?

What experience/skills do you feel are particularly transferable to our organisation?

No of professionals in the firm

The Team

This case book is curated and compiled by the Consulting Club Members (2020-21):



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