STRATEGIST

STRATEGY & CONSULTING CLUB OF MDI

CONSULTING CASE BOOK

2021 - 2022

MDI GURGAON

Management Development Institute

Preface

Consulting Case Book, Strategist, MDI Gurgaon.

First Edition: July 2021.

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Acknowledgement

The very first edition of MDI Gurgaon's Consulting Case Book, brought to you by Strategist, is the outcome of consistent and co-ordinated efforts across the student and alumni community at MDI Gurgaon.

We would like to extend our sincere gratitude to Samarth Singh Gahlot (PGPM 2019 – 2021) and Krishna Kant Bharadwaj (PGPM 2019 – 2021) for initiating work on Strategist's Consulting Case Book and for their continued support during the initial phases.

We have the PGP batches of 2019-21 and 2020-22 to thank, for sharing their valuable interview experiences and helping us come up with the case transcripts that form a critical aspect of the Case Book.

We are grateful to the alumni of Team Strategist, who have helped us review the content of the Case Book and fine tune its delivery. We would like to thank Vaibhav Aggarwal (PGPM 2020 – 2022) for his extensive support in the review and refinement of this edition of Strategist's Consulting Case Book. We would also like to thank members of Team Strategist ('21-'22) for all their suggestions and support.

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Content

Content

Consulting Primer

Consulting Overview

1. What is Consulting?

Consulting means being "**engaged in the business of giving expert advice and recommending solutions to people working in specific fields.**" Typical focus areas of consulting include business strategy, project and product management, organizational processes, operations management, and technology enablement.

2. What do Consultants do?

Consultants help the businesses address its challenges, identify and leverage opportunities. Projects are typically carried out in teams and can focus on a variety of areas, including **strategy** and **implementation**. Consultants act as a bridge between complicated client contexts and the knowledge prowess of the firm. The activities that consultants perform include (but are not limited to) **project planning**, **developing initial hypotheses**, **interviewing** experts, clients and customers, **market sizing**, providing **recommendation** to clients and helping them in their **implementation journeys**.

3. What does a Consulting Internship look like?

- Interns are likely to be on-boarded to an active client engagement
- Interns could be involved in the following activities –
    - Research (Primary and Secondary) and Data Collation
    - Data Analysis and Visualization
    - Preparing Internal and External Client Deliverables
    - Stakeholder Management
    - Documentation, Reporting, and other Ad-hoc workstreams including Presentations, Coordination, and Support

4. What are the Qualities and Skills of a good Consultant?

Obvious Ones	Non-Obvious Ones
Quantitative Aptitude	Flexibility in switching between bird's eye and deep dive views
Problem Solving Skills	Ability to deviate from the norm – out of the box thinking
Communication Abilities	Being impactful and to persevere
Team Player	Networking – to develop & expand
Structured Thinking	

5. What is the difference between Management Consulting and Strategy Consulting?

Management Consulting is an overarching term that includes **recommending** and **providing services** to increase overall performance and competitive position of the client. *Strategy Consulting* a **subset of Management Consulting** where consultants provide industry-specific insights and actionable **strategies** to deal with individual business and management challenges. The strategy phase is usually in the start of a consulting project which includes working at executive levels. It is typically followed by the actual implementation and impact analysis phases.

Tip: Take the opportunity to prepare decks, conduct analyses and make presentations during B-school competitions and academic activities to fine tune yourself!

Mutually Exclusive Collectively Exhaustive (MECE)

Concept

MECE stands for "**mutually exclusive, collectively exhaustive**". It is an approach that helps structure thoughts with maximum clarity and completeness. *"Mutually Exclusive"* means that one idea/thought does not overlap with the other. For example, a number can either be odd or even. *"Collectively Exhaustive"* means that several components together, complete a larger idea/thought. A MECE approach ensures that all analyses are robust and complete. For example, when you say there are two types of beverages – Alcoholic and Non-Alcoholic, you are covering all types of beverages.

MECE follows a top-down approach of problem solving. It is applied when you intend to disaggregate a larger idea/problem into its sub facets – essentially, all of consulting!

Mutually
Exclusive → **Disjoint**

Collectively
Exhaustive → **Complete**

Tip: While segmenting, try to ensure that the number of segments is neither less than 2 nor more than 5 (3 or 4 is ideal)

MECE Example for Supply Chain Analysis

To identify potential issues in an organization's supply chain, we need to segment supply chain operations such that these segments (components) are **distinct** (ME) and **together, cover the entire supply chain** (CE). The following is a good MECE segmentation of a typical supply chain:

- Stakeholder Management – Vendors, Suppliers, and Distributors
- Inventory and Warehouse Management
- Production and Quality Management
- Logistics Management – In-bound and Out-bound

Non MECE Example for Customer Segmentation

A smartphone manufacturer segments its customer base as follows, while working on a produce launch strategy:

- Business Users
- Gen Z Users
- Rural Users

This segmentation is neither mutually exclusive nor collectively exhaustive (non-MECE)

Not Mutually Exclusive: Business Users can be Gen Z Users, while they may also be Rural Users.

Not Collectively Exhaustive: The segmentation is not complete as it does not include Urban Housewives, for example.

It is important to have a good understanding of MECE principles as this idea sits at the base of many other concepts discussed further.

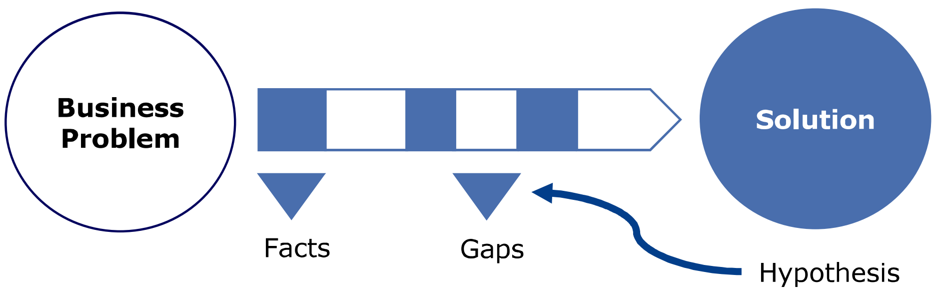
Other Frequently Used Concepts

Initial Hypothesis based Problem Solving

Once the problem is structured leveraging MECE ideas, Initial Hypothesis (IH) is used. Initial Hypothesis is the roadmap (although hastily sketched) for arriving at the solution. IH could be arrived at based on the previous experiences/projects and fact findings. IH acts as a baseline for further research.

3-step process to proceed with Initial Hypothesis

Once the IH is verified, you can then move deeper in the analysis to focus on one (or multiple) area(s) the IH was pointing to. If it turns out to be wrong, you would have acquired ample knowledge to arrive at the correct hypothesis.



80/20 Rule – The Pareto Principle (Rule)

According to 80/20 rule (also known as the **Pareto Rule**), 20% of the efforts/products/services/ideas result in the 80% of the results/profits/overall outcomes. In business, it is used to identify the big fish and helps consultants filter through noise and identify high impact areas. This is an important tool that helps the consultants develop preliminary analysis and initial hypothesis.

Below are few examples where the 80/20 rule has been applied:

- 20% of the holding in a portfolio is responsible for 80% of the portfolio's growth
- 80% of the profits come from 20% of the customers
- 80% of the pollution originates from 20% of all factories

Other Rules

- **Don't Boil the Ocean:** Timebox your research because there is a lot of data available and most of it is not relevant to the problem.
- **Be Elevator Test Ready:** Be thorough and precise with the solution so that you can explain it to the client in under 30 seconds if you find yourself on an elevator with them!
- **Pluck the Low Hanging Fruits:** During a complex problem analysis, go for the easy wins and make quick initial progress with minimal effort, before addressing other complex challenges at hand.

Tip: To read more about these concepts, along with examples, please refer to the book ***The McKinsey Way*** by ETHAN M. RASIEL

Business Concepts and Ideas

The 3C-P Framework

3C-P

Customers

- Identifying the Customer?
  - ✓ Customer Segments and Personas
  - ✓ Compare current customer metrics with the past
- Customer Needs
- Price Sensitivity and Willingness to Pay
- Bargaining Powers

Company

- Core Competencies – Business Line, Products and Services
- Vertical Capabilities – Sourcing and Selling
- Capital Allocation – Sore Activities, R&D, CSR
- Financial Situation and Key Metrics (Ratios)
- Organizational Structure and Culture

Competition

- Number and Market Share of Competitors
- Industry Structure, Trends, Behaviour, and Best Practices
- Minimum Viable Product (MVP) and Unique Selling Propositions (USPs) of competitors and the company
- Power of Suppliers and Distributors
- Regulations & Governance

Product

- Product Specifications
- Product Positioning
- Product Differentiation – Blue Ocean, Red Ocean, or Whitespace
- Power of Substitutes
- Brand Equity of the Product – risk of brand dilution
- Product Lifecycle

The 4P Framework

4P

Product

- Product Specifications
- Product Positioning
- Product Differentiation – Blue Ocean, Red Ocean, or Whitespace
- Power of Substitutes
- Brand Equity of the Product – risk of brand dilution
- Product Lifecycle

Price

- Price Elasticity (sensitivity) of the product
- Target consumers and their willingness to pay
- Customers' perceived value of the product
- Customers' intention to switch and ease of switching
- Historical pricing & price of the substitutes

Place

- Distribution Channels (retail, wholesale, online, omnichannel)
- Alignment of channels with company's strategy and capabilities
- Role of each of the intermediaries in the value chain
- Company's control over its distribution channel

Promotion

- Objective of Promotion – message to consumers
- Promotion Strategy: Pull vs Push
- Metrics to identify the effectiveness of campaigns
- Building long term relationships with customers
- Barriers to communication
- Budget allocated to promotion

Porter’s Five Forces

Porter’s Five Forces tool was created by Harvard Business School professor Michael E. Porter, to analyze an **industry's attractiveness** and likely **profitability**. The forces (as mentioned below) are used to assess market attractiveness both for **new entrants** and **existing companies/incumbents**. In general, the stronger the five forces are, the less attractive is the industry.

Each of Porter’s Forces **increases** as the following factors become more prominent

Industry Rivalry

- Number of competitors
- Size of competitors
- High fixed cost
- Lower product differentiation
- Brand recognition
- Highly specialized assets
- Barriers to exit

Threat of Substitutes

- Availability of substitutes
- Low switching cost
- Relative benefits of substitutes
- Higher buyer’s propensity to adopt/experiment with substitutes

Barriers to Entry

- Economies of scale
- High capital requirement
- Product differentiation
- Regulatory constraints
- Brand recognition
- Hard to access distribution channels
- High switching cost for customers

Buyer’s Bargaining Power

- Less number of powerful buyers
- Lower switching cost for buyers
- Substitutes’ availability
- Low product differentiation
- Buyers’ ability to integrate backward
- High price elasticity

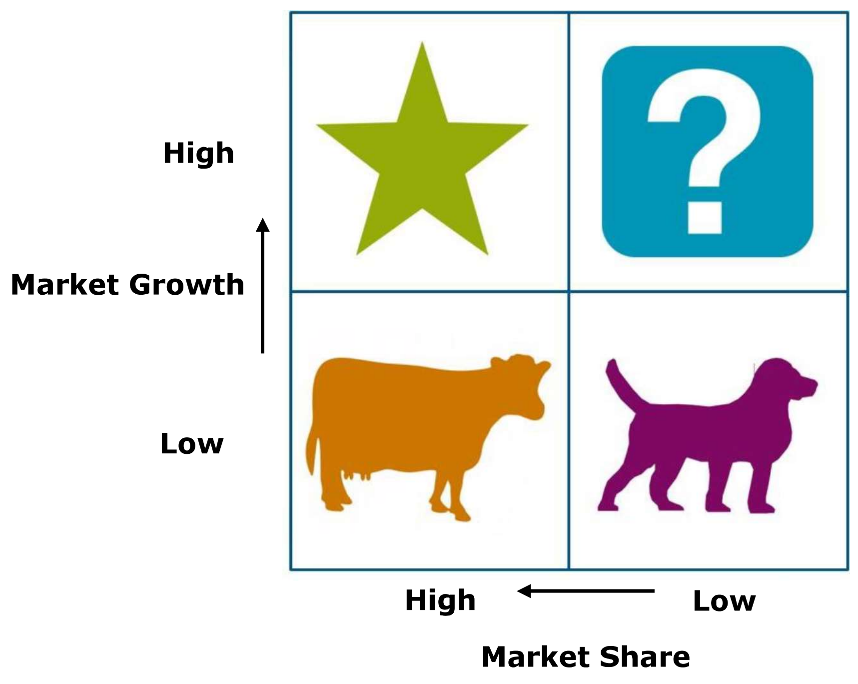
Supplier’s Bargaining Power

- Contribution to quality
- Contribution to cost
- High in switching cost for the company
- Suppliers’ threat to forward integration

Tip: Don’t use Porter’s Five Forces analysis as a forced approach to solving a specific case. Instead, you should resort to the forces with a bigger, more general framework (e.g., cost benefit analysis, market entry analysis and so on)

The BCG Matrix

Created by the Boston Consulting Group, the BCG matrix – also known as the **growth share matrix** – provides **a strategy for analyzing products according to their growth potential and relative market share.**



Tip: Use the BCG Matrix to analyze product portfolios and strategic decisions. The application can also be extended to cost analysis and new product development.

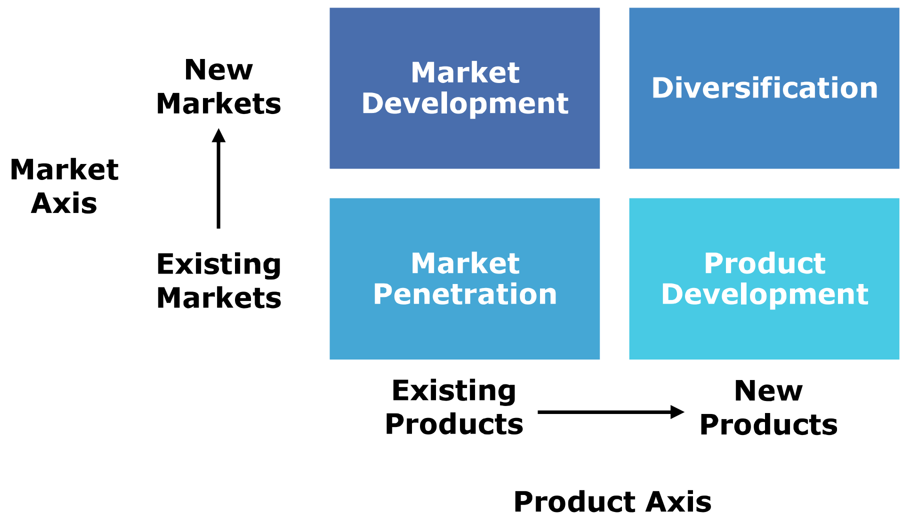
Matrix Element	Description	Strategy To Be Adopted/Action Plan
Stars	Monopolies and First to Market Products	Invest, Innovate, Improve
Cash Cows	Currently doing well with limited opportunities in the future	Strengthen and Leverage
Dogs/Pets	Weak in the markets and difficult to turn around	Liquidate and Exit
Question Marks	Uncertainties that can either becomes Stars or Dogs	Invest and push to Stars/Exit as Dogs

Example

Apple Inc. would classify the **iPhone** as a **Star**, **iWatch** and **Apple TV** as **Question Marks**, the **iPad** as a **Cash Cow**, and the **iPod** as a **Dog/Pet**.

The Ansoff Matrix

The Ansoff Matrix, also known as the **product/market expansion grid**, helps lay out **strategies for organizational growth.** The matrix posits a cost – benefit tradeoff analysis highlighting **whether the company should focus on new products** or **on new markets**.



Within the Ansoff matrix, **moving up the market axis**, and **moving right on the product axis** is an indication of **increasing organizational risk**. **New Products** and **New Markets** are always considered uncertain and hence increase the associated strategic risks.

Matrix Element	Description	Strategy To Be Adopted/Action Plan
Market Penetration	Increasing sales volumes to existing customers	Price Cuts, Increased Promotion, Acquisitions
Market Development	Entering new markets and selling to new customers with existing products	New Market Entry (Domestic and International), Market and Customer Segmentation
Diversification	Identifying new lines of business	R&D, Investment, M&A (Related or Unrelated)
Product Development	Develop and introduce new products into existing markets and customer bases	R&D, Development, Collaboration and Partnerships, Inorganic Growth

Tip: Use the Ansoff Matrix to critically identify growth opportunities for the organization. Based on the organization's priorities, focus either on market or product strategies.

Industry Overview

Fast Moving Consumer Goods (FMCG)

Value Chain

Product Development → **Procurement** → **Manufacturing** → **Transport & Logistics** → **Warehouse & Distribution** → **Consumer**

Product Development
Consumer insights & analytics, improving existing products, R&D

Procurement
Warehouses, cold storage and silos, Inventory Management

Manufacturing
Production planning and scheduling, efficiency, and quality management

Transport & Logistics
Transport optimization and fulfilment intelligence

Warehouse & Distribution
Location analytics, routing, and last mile delivery

Consumer
Retail outlets, Cash & Carry, supermarkets, and E-commerce

Drivers

KPIs
- Out of stock rate
- On-time delivery
- Avg. time to sell
- Cash-to-cash cycle time
- Supply chain cost vs sales
- On-shelf availability

Cost Drivers
- Inventory cost of production
- Storage costs
- Marketing & advertising
- Transportation Cost
- Labour cost for production

Growth Drivers
- Rising income levels
- Growth of e-commerce and digitalization
- Changing lifestyle
- Shifting economic power
- Premiumization
- Rising rural consumption

Porter's Five Forces

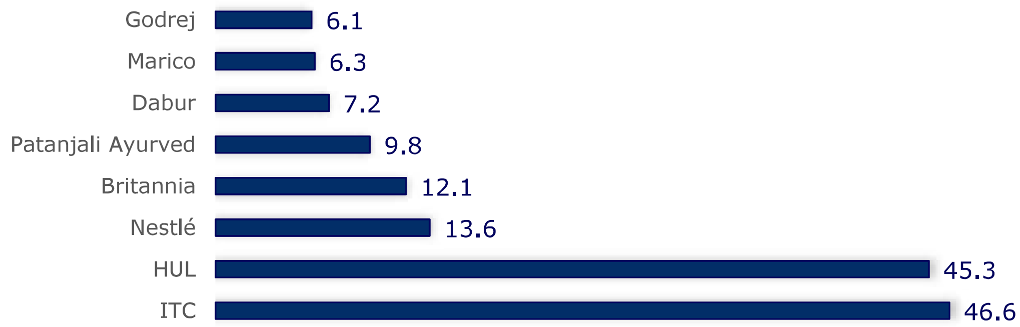
Force	Description/Analysis
Industry Competition **(High)**	▪ Private label brands that are priced at a discount to mainframe brands increase competition within the market ▪ Highly fragmented industry as more MNCs and disruptors are entering the market
Threat of Substitutes **(High)**	▪ Presence of multiple brands – local and global ▪ Narrow product differentiation across brands and products ▪ While not very evident, strong price wars impact the industry
Threat of New Entrants **(Medium)**	▪ Huge investments in setting up distribution networks and promoting brands ▪ Spending on advertisements is aggressive
Buyer's Bargaining Power **(High)**	▪ Low switching cost augments the customers' product shift tendencies ▪ Strong influence of marketing strategies ▪ Availability of same or similar alternatives
Supplier's Bargaining Power **(Low)**	▪ Big companies are capable of dictating the prices through local sourcing from a fragmented group of key commodity suppliers

Fast Moving Consumer Goods (FMCG)

Industry Statistics

- FMCG is the **fourth largest sector** in the Indian economy
- The urban segment accounts for 55% while the rural segment is 45%
- Rural FMCG market is expected to grow at a **CAGR of 14%** from 2020-25
- In 2020, the premium segment marked a significantly higher growth compared to that of the mass market
- **25%** fall in the warehousing cost due to implementation of **GST**
- FMCG has 3 major segments. The market share for each are – Household & Personal Care – **50%,** Healthcare – **31%**, Food & Beverages – **19%**

Major Players (Net Sales in 1000 Crores – FY 21)



Industry Trends

- **E-Commerce & Online Platforms**: Major Players - Flipkart, Big Basket and Amazon; Expected to contribute **11% to the overall sales** by 2030
- **Rural Demand:** Rise in disposable income in rural India and low penetration levels in rural market offers room for growth
- **Gamification:** Ensuring repeat customers by making transactions entertaining with cashbacks, discounts, and coupons
- **The Rise of Direct to Customer Models**: Time and money saving, more customization, targeted marketing by leveraging the consumer data and buying patterns
- **Rise of FMCG Start-ups:** New young age start-ups like WoW and Epigamia, are capitalizing on the changing needs of millennials with their ability to adapt quickly
- **Organic and Healthy Products:** Companies are investing majorly in health and wellness products, as customers awareness rises rapidly

Themes of Omni-channel Retail Strategy

Capability	Benefits
Single view of product	Create single repository of product related data
Single view of inventory	Enable strategic placement of inventory across the supply chain to meet expected demand
Single view of customer	Ensure targeted messaging and offerings
Seamless customer experience	Enable capturing customers' orders consistently across channels and provide order visibility
Convenience and Personalization	Leverage analytics and ensure consistent communication with customers across channels
Digitally empowered store staff	Enable convergence of digital and store experience driven by associate engagement and enabled by store connectivity

Banking and Financial Services

Value Chain

Front Office	Middle Office	Back Office
Sales order creation; Trade order management; Order execution; Portfolio management; Market research	Risk management; compliance; client reporting; regulatory reporting; billing; reconciliation	Asset services, Fund accounting, Portfolio accounting; Security setup & pricing; Trade settlement

Products

Funding
- Deposit
- Securitization
- Credits

Investment
- Credits
- Securities

Services
- Account Management
- Asset Management
- Custodian
- Issuance/IPO

Transactions

- Payment
- Trading
- Clearing & Settlement

Drivers

KPIs
- Assets Under Management
- Volume Of Accounts
- AUM Per employee
- Net Interest Margin
- CASA
- GNPA/NNPA

Cost Drivers
- Cost of Borrowing
- Operating Expenses
- Risk management & compliance cost
- Provisions & write-offs
- Marketing expenses

Growth Drivers
- Digital Transformation
- Data & Analytics
- Customer Experience
- Disruptive Technologies
- Cyber Security
- Geopolitical shifts
- M&A

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ PSU banks control 77.3% of the banking sector ▪ Rivalry is much aggressive in metropolitan areas ▪ Issuing of new licenses will increase competition in rural areas over long term
Threat of Substitutes **(Low)**	▪ For deposit, substitutes are investment in gold, real estate, equity etc.; ▪ For advances, substitutes are bonds, IPOs and FPOs
Threat of New Entrants **(Low)**	▪ High entry barriers, as RBI (Central Bank) controls the issuance of licenses ▪ New licenses may reduce market share of public banks
Buyer's Bargaining Power **(Low)**	▪ High switching cost; Nascent debt market & volatile stock market, are less opted ▪ Internet penetration is however reducing the switching cost
Supplier's Bargaining Power **(Medium)**	▪ Largely, customers prefer banks for its reliability ▪ Gradually, customers have hedged investments by embracing other riskier avenues

Banking and Financial Services

Industry Statistics

12	22	46	56	1485
Public Sector Banks	Private Sector Banks	Foreign Banks	Regional Rural Banks	Urban Cooperative Banks

- As of November 2020, the total number of **ATMs** in India was 2,09,282
- **Total assets** across the banking sector (including public, private sector and foreign banks) stood at US **$2.52 Trillion** in FY20
- Bank **credits** and **deposits** stood at Rs. 107.75 Trillion and Rs. 149.34 Trillion, respectively, as of February 29, 2021.
- India is leading the **real-time payment transactions** across the globe with 25.5 Billion transactions in 2020

Industry Trends

- **Omnichannel Strategy** for a 360 degree customer view
- **Digital Customer Onboarding** for fast and seamless experience
- **Open Banking** to provide new dimension to the value chain and giving more power to the customers
- Using **AI for decision making** in the fields like risk and portfolio management, automated exception handling, and API integration
- Innovation through **Fintech Collaborations**
- Rapid **digitization** to drive operational efficiency and tangible outcomes
- Manage compliance cost in an increasingly **regulated environment**
- Banks are actively exploring the potential of **Blockchain**

Indian Banking and Financial Services Industry Classification

RBI

Commercial Bank	Specialized Bank	Institutional Banks	NBFCs	Cooperative Banks
Nationalized Banks	Land Mortgage	IFCI	Asset Finance	Primary Credit Societies
SBI & its Associates	Rural Credit	SFC's	Investment	Central Cooperative Banks
Private Sector	Industrial Development	IRBI	Loan	State Cooperative Banks
Foreign Banks	Housing Finance		Infrastructure Finance	
RRBs	EXIM bank		Infrastructure Debt Fund	
Small Banks	NABARD		Micro Finance Institutions	
Payment Banks	SIDBI			

Top 5 India Banks by Market Share (Deposits and Credits)

Banks	State Bank of India	HDFC Bank	ICICI Bank	Axis Bank	Kotak Mahindra Bank	Market Share of Top 5 bank
Deposits	23.9%	8.5%	5.7%	4.7%	1.9%	**44.7%**
Credits	22.5%	9.6%	6.3%	5.5%	2.1%	**46%**

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Automotive

Value Chain

Inbound Logistics → Operations → Outbound Logistics → Sales and Marketing → Service

1) Inbound Logistics: Raw Material handling, Raw material distribution across manufacturing units, Supplier Relations
2) Operations: Manufacturing (Machining, Assembling and Testing), Manufacturing unit setup, Quality Control
3) Outbound Logistics: Final Inspection, Warehousing, Distribution
4) Sales & Marketing: Pricing, Promotion, Advertisement, Channel selection
5) Service: Repair and maintenance, Warranty, Setting up service centres – Leading to customer retention and brand recognition

Drivers

KPIs

- Sales
- EBITDA
- Inventory Turnover
- Avg. Downtime
- Cycle Time
- AP/AR

Cost Drivers

- Raw Material
- Direct Labour
- Logistics
- R&D
- SG&A
- Dealer Margin
- Marketing & Advertising

Growth Drivers

- Rural Demand
- Government Support
- Easy Financing
- EV Potential & FAME Scheme
- Rising Income

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ Presence of large-scale incumbents ▪ Strong brands such as Maruti Suzuki, Hero, Bajaj in their respective domains ▪ Highly price sensitive market
Threat of Substitutes **(Moderate)**	▪ Rising fuel prices ▪ Availability of cheap and beneficial public transport ▪ Growth in the shared mobility provided by players such as Uber and Ola
Threat of New Entrants **(Low to Moderate)**	▪ Huge capital investment ▪ Economies of scale and distribution network achieved by the incumbents ▪ Brand identity & established reputation ▪ Price sensitive market
Buyer's Bargaining Power **(Moderate)**	▪ Low product differentiation ▪ Low switching cost ▪ Availability of multiple options ▪ However, the industry remains marginally powerful due to high customer to producer ratio
Supplier's Bargaining Power **(Low)**	▪ Huge number of local suppliers leading to a stiff competition ▪ Low switching cost for the OEMs ▪ But high-cost contribution to cost and quality

Automotive

Industry Statistics

- India is the 4th largest automobile market, only behind US, China & Japan, and set to replace Japan as 3rd largest market by 2026
- Annual production in FY20 was **26.36 Million** vehicles with **4.77 Million** vehicles being exported
- The industry's **contribution to GDP** is **~6.4%**, with 35% to manufacturing GDP, supporting **8 Mn jobs directly** (OEMs, suppliers, dealers) and **30 Mn more across the value chain**
- As per a study by CEEW (Centre for Energy Finance), by **2030 US $ 206 Billion** opportunity for **electric vehicles** will exist in India
- Industry Structure – 2 wheelers (81%), Passenger Vehicles (13%), Commercial vehicles (3%) and Three wheelers (3%)

Industry Trends

- 4 **key disruptors** in the industry are - Autonomous Driving, Connected Cars, Electric Vehicles, and Shared Mobility
- Increased preference for **personal mobility** vehicles is expected to drive vehicle demand post-COVID
- **Digitization** in dealership models to provide personalized experience
- Growth in **SUV sector** with introduction of players like MG & Kia Motors
- With the government's revamped scrappage policy, the automakers need to address the **resale market** and focus on repeat customers
- Automakers need to develop better **leasing options** to address the evolving need of millennials to move away from direct ownership
- **International expansion** of Indian players to diversify risk and address the cyclic demand

Electric Vehicle Expected Penetration in India

Segment	Sub-Segment	EV Penetration %	
		2025	2030
2 Wheelers	Scooters	15-25%	50-70%
	Motorcycles	1-2%	10-20%
	Overall	7-10%	25-35%
3 Wheelers	**Overall**	35-45%	65-75%
4 Wheelers – PV	Personal	1-3%	10-15%
	Commercial	5-10%	20-30%
Buses	STUs	15-25%	25-40%

Major Players (with Market Share)

Two Wheelers	**Passenger Vehicles**	**Commercial Vehicles**	**Three Wheelers**
Hero MotoCorp **37%**	Maruti Suzuki **46%**	Tata Motors **37.26%**	Bajaj Auto **50.6%**
Honda Motor **26%**	Hyundai **16%**	M&M **29.4%**	Piaggio **29%**
TVS **14%**	Tata Motors **9.2%**	Ashok Leyland **12.79%**	M&M **9.5%**
Bajaj Auto **12%**	KIA Motors **6%**	VECV **5.12%**	Atul Auto **7.1%**

Information Technology

Value Chain

Operational Setup → Customer Acquisition → Customer Need Analysis → Design and Develop → After Sale Service

(1) Infrastructure Setup, Capability Development, Employee Operations

(2) Customer Pitches, Client Acquisitions, Cross Selling, Value Realization

(3) Requirements Analysis, Augmentation, Feature Translation, Methodology

(4) Product/Service Development, Testing & Validation, Delivery & Deployment

(5) Update Handling, Technology Support, Relationship Management and Recurring Sales/Purchase

Drivers

KPIs

- Total Contract Value
- Customer Lifetime Value
- Annual/Monthly Recurring Revenues (ARR/MRR)
- Revenue and Cost Growth Rate
- Product/Service KPIs
- Net Promoter Score

Cost Drivers

- Employee Costs
- Infrastructure Costs
- SGA Costs
- Customer Acquisition Costs
- Licensing Costs
- Overheads

Growth Drivers

- Global Demand
- Policy Support
- Talent Pool
- Infrastructure
- Domestic Consumption

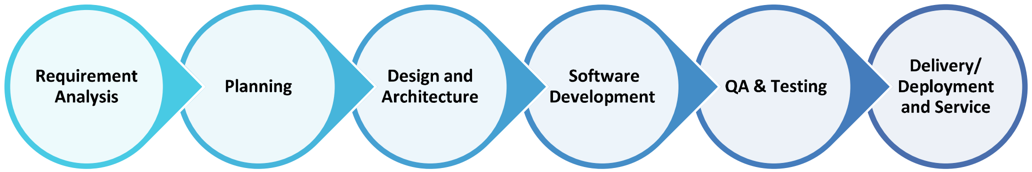
Porter's Five Forces

Force	Description/Analysis
Industry Competition **(Very High)**	▪ Traditional IT Services – Fierce Competition ▪ Next Gen Services – Strong Competition ▪ Industry Commoditization ▪ Minimal Differentiation
Threat of Substitutes **(Low)**	▪ Technology (IT) is integral to organizations today and not replaceable ▪ Organizations' internal IT capabilities can be real threats to the service segment
Threat of New Entrants **(Moderate)**	▪ Traditional services are commoditized and threat of new entrants is very low ▪ Disruptive areas are however welcoming of change due to low entry barriers
Buyer's Bargaining Power **(High)**	▪ Due to availability of alternatives, buyers have large bargaining power for both traditional and niche (SMAC) services.
Supplier's Bargaining Power **(Low)**	▪ With low differentiation and marginal value add (if any) the suppliers have little to offer and consequently little to bargain over. ▪ However niche products and service providers may still have higher bargaining capabilities

Information Technology

SDLC - Processes

The **Software Development Life Cycle** (**SDLC**) refers to a methodology with clearly defined processes for creating **high-quality software solutions**. The general SDLC flow is represented below.

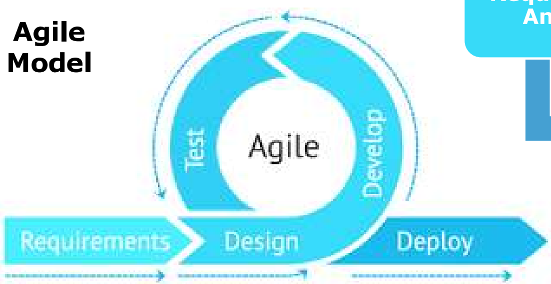


- **Requirements Analysis:** This stage of the SDLC process deals with understanding the requirements of the clients, taking in inputs from all stake holders and translating them into software features.
- **Planning:** The planning stage seeks to answers questions of what needs to be done and how. Selection of methodologies happens at this stage of the SDLC.
- **Design and Architecture:** High level design and technical architecture of the solution is developed in conjecture with architects and experts.
- **Development:** The actual developmental work of writing code and integrating it.
- **QA & Testing:** Code and functionality testing, NFR and FEMA analysis, and quality assurance.
- **Delivery/Deployment:** Cutover/deployment of the software and/or delivery to the client and service maintenance.

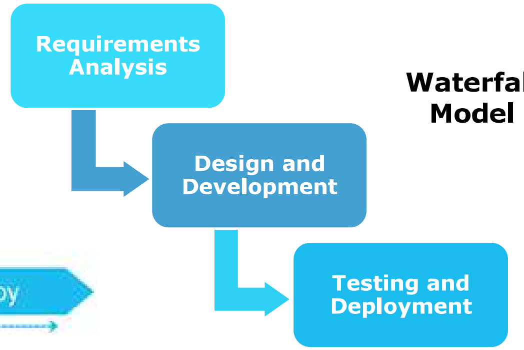
Software Development Methodologies

Waterfall and **Agile** are two of the most popularly used methodologies in the software development and management possesses. The Waterfall method is a traditional **unidirectional flow method** while Agile is a more **adaptive** and **outcome-oriented incremental process** with implementations such as **Scrum**, **Kanban**, **Lean, Scrumban**, and Extreme Programming.

Agile Model



Waterfall Model



Organizations' (Non-Tech) Internal IT Value Chain

(1) Drive the **IT portfolio** to **business needs** and **innovation targets**

(2) Address **accurate business** in a timely fashion – the **what** and **when**

(3) **Catalogue**, **fulfil**, **deliver**, and **manage service** and **product usage**

(4) Anticipate and proactively resolve customer facing **production issues**

Information Technology

Industry Statistics

Market Segment	Size and Revenue Contribution
IT Services	US $97B, ~52%
Business Process Management	US $38B, ~21%
Software Products	US $35B, ~19%
Hardware Products	US $15B, ~8%

- The Indian IT industry contributes about **7.7%** to India's current GDP and is expected to top **25%** by 2025
- The total size is pegged at **US $200B**, with expected growth of **8% CAGR**
- **BFSI** is a major contributor to IT revenues, and accounts for **over 1/3rd** of all major service firms' revenues
- Spending on IT in India is expected to reach **US $144 Billion** by 2023
- India's Digital Economy is expected to reach **US $1 Trillion** by 2025
- The **IT export** values crossed **US $150 Billion** in FY 20, and it expected to grow at **8.3% CAGR**
- **Export revenue** from digital segment forms about **20%** of the industry's total export revenue. The figure is estimated at **US $36 Billion** for '21.
- **Investments in AI** by Indian firms is expected to result in a **2.5%** increase in India's GDP in the immediate future

Industry Trends

- Emerging **SMAC Technologies** are set to transform both the enterprise and personal digital technology space
- **Industry 4.0** and its support ecosystem is expected to add over **100 Million jobs** over the next decade, and generate huge currency flows
- Investments in **Emerging Technologies** – AI/ML, RPA, Edge Computing, AVR, Cybersecurity, Big Data, Additive Manufacturing and Blockchain – are expected to clock over **$100 Billion** in next few years
- **BFSI** is expected to be a key driver across technology and functional innovations
- India's IT Sector is gradually moving from **linear models** (rising head count to increase revenue) to **non-linear growth models**
- Cheap labor, affordable real estate, favorable Government regulations, tax breaks and SEZ schemes are facilitating the emergence of new IT destinations in Europe and Asia
- Delivery models are being altered as businesses are moving to capital expenditure (**Capex**) based models from operational expenditure (**Opex**) models from a vendor's (supplier's) frame of reference

Major Players

IT Services	BPM/CRM	H/W Prod	S/W Prod
▪ TCS	▪ SAP Labs	▪ HP and HPE	▪ Google
▪ Infosys	▪ Oracle	▪ Dell	▪ Microsoft
▪ HCL	▪ Salesforce	▪ IBM	
▪ Wipro			

Pharmaceuticals

Value Chain

R&D → APIs Chemicals → Mfg. & Packaging → Storage & Shipping → Marketing & Distribution

(1) R&D – Research, Pre-clinical Trials, Clinical Trials, Approval, Government Mandates, Regulation and Price Control

(2) Active Pharmaceutical Ingredients (APIs)/Chemicals – Procurement, Suppliers, Inventory Management, and Cold Storage Units

(3) Manufacturing & Packaging – Manufacturing Infrastructure, Technology, License to Produce, Production Planning and Scheduling, Packaging, and Quality Control

(4) Storage & Shipping – Warehousing, Distribution Network, and Out-bound Logistics

(5) Marketing & Distribution – Sales Force, Channels, Stockists, Strategy

Drivers

KPIs

- R&D expenses for new drugs
- Number of new drugs
- TAKT time
- Phase 1/2/3 survival rate

Cost Drivers

- R&D
- Sales and Distribution
- Manufacturing
- Capital Cost

Growth Drivers

- Healthcare & technology convergence
- Rising exports
- Low production cost
- Strategic alliances
- Biotechnology
- Growing urbanization

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ Presence of large-scale & established players as well as numerous small players ▪ Trend of M&A deals absorption of small players by large players – leading to consolidation ▪ Technological advancement in biotechnology & generics – leading to rapid development of niche markets and players
Threat of Substitutes **(Medium)**	▪ Production of generic drugs once the patents expire is not profitable ▪ Alternative medicines & treatments such as Ayurveda and Homeopathy are popular ▪ Emergence of biotech/genomic industries
Threat of New Entrants **(Low)**	▪ Huge up-front costs in R&D, manufacturing, talent and technology know-how ▪ Strong government regulations & complicated process of approvals ▪ High risk of no ROI if the company fails
Buyer's Bargaining Power **(Medium)**	▪ Hospitals & other health organizations which buy in bulk, possess certain bargaining power ▪ High power of manufactures to dictate price until patent expires balances this skew ▪ High cost of switching for dealerships
Supplier's Bargaining Power **(Low)**	▪ Several suppliers are willing to supply raw materials, limiting their bargaining prowess ▪ Lower switching cost for manufacturers ▪ Threat lowered owing to backward integration

Pharmaceuticals

Industry Statistics

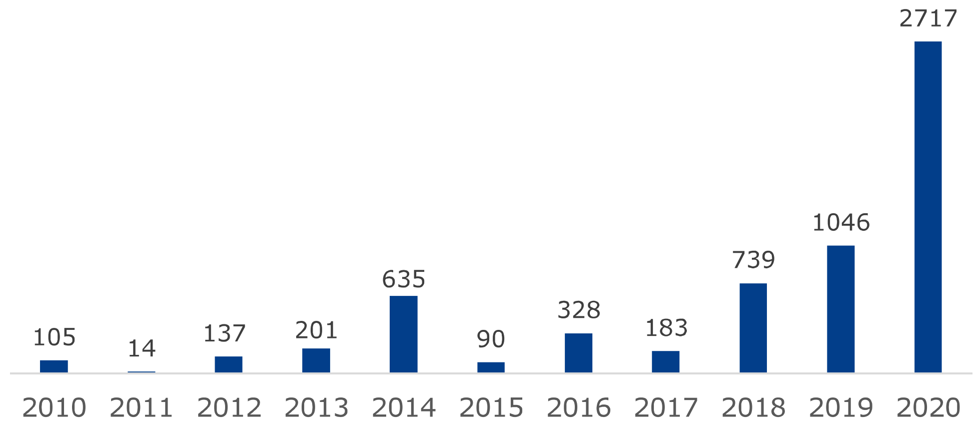
- Indian pharmaceutical industry is expected to grow at a **CAGR 12%** to reach **US $ 130 Billion** by 2030
- India's 2021 Turnover : **US $ 42 Billion**, comprising US $ 24.43 Billion as the domestic turnover and US $ 17.57 as the turnover exports
- The Indian pharma industry has **grown 10 times** in the last two decades driven by its strength in the global generics space
- The Indian pharmaceutical industry supplies over 60% of global vaccine demands and 40% of generic demands in the US
- Indian cost of production is approximately 33% lower than that of US
- Biggest export destination for Indian pharma product is North America (32.1%), followed by Africa (17.96%), and European Union (15.70%)
- India relies on imports to meet roughly **two-thirds** of its intermediates and more than **one-fifth** of its API requirements.

Industry Trends

- Companies are investing in R&D to explore opportunities in biosimilars and NCEs, and expand beyond the generics
- Companies are trying to achieve cost leadership via **vertical integration**
- High M&A activity in the **biotech/genomics** space
- Government **easing the regulatory norms** for pharmaceuticals will greatly boost foreign brands & new startups willing to expand into India
- GoI is planning to set up **mega bulk drug parks** in order to reduce the industry's dependency on raw material imports (APIs in particular)
- Growth in the number of lifestyle diseases in India is likely to boost the sale of drugs in this segment.

Investment Trend in Pharmaceuticals

PE/VC Investments in pharmaceuticals – 2010 to 2020 (YTD Nov) in US $m



Even though there has been an increasing trend in PE/VC investment in Pharmaceuticals, it constituted **only about 3% (US$6.2 b)** of the total PE/VC investments during the period from 2010 to 2020.

Major Players in India

- Sun Pharma
- Aurobindo Pharm
- Lupin
- Cipla
- Cadila Health
- Alembic Pharma
- Dr Reddy's Lab
- Glenmark
- Divis Labs

Telecommunication

Value Chain

Physical Infrastructure and Network Operators → Device Manufacturers → Service and Content Provider → End Users

(1) Physical Infrastructure – Tower Setup and Operations Deployment, Infrastructure Sharing, Switches, Routers, and Firewalls, Integration, and Deployment. Service Portfolio – Voice, Data, Hybrid, and OTT. SIM Operations, Network Protocols, QoS, and Regulatory Compliance

(2) Device Manufacturers – Wireless Technologies and On Device Capabilities, Other Wired and Wireless Devices (IoT/Wearable)

(3) Service and Content Providers – Social Media, Messaging Services, Audio and Video Content, and OTT Services

(4) End Users – Data and Voice, Recharge Plans, Usage Patterns, Promotion & Engagement Portfolio, and Customer Care Centres

Drivers

KPIs

- Average Revenue Per User
- Acquisition Cost
- Minutes of Usage
- Network Operating Cost
- Churn
- Tele Density
- Availability and Utilization

Cost Drivers

- Spectrum Auctions
- Commission Charges
- Network Investments
- Op-Ex
- Customer Costs

Growth Drivers

- Growing Demand
- Mobile Penetration
- The Rise of OTT
- Content Democratization
- FDI Relaxation

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ Fiercely competed industry with a few players ▪ Both private and state owned entities exist ▪ Predatory Pricing has augmented competition
Threat of Substitutes **(Moderate)**	▪ Mobile and Telecom connectivity is not replaceable and hence enjoys dominance ▪ However, cable TV and satellite operators, and are developing their own telecom infrastructure rapidly
Threat of New Entrants **(Low)**	▪ High Entry Barriers – Investment and Regulation ▪ Well financed and well structured companies may pose serious threats (Jio, for example)
Buyer's Bargaining Power **(Very High)**	▪ With a variety of options and negligible switching costs, the buyers enjoy a distinctive advantage.
Supplier's Bargaining Power **(Very Low)**	▪ With an oligopolistic structure, the suppliers' freedom is hamstringed by competitors willing to offer similar services at lower price points.

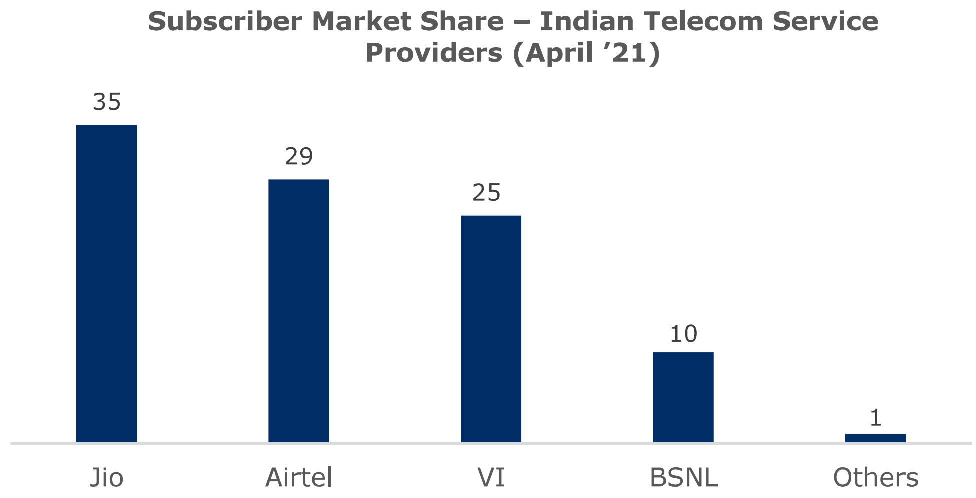
Telecommunication

Industry Statistics

Market Segment	Notes
Mobile (Wireless)	**~98.3%** of the subscriber base; **10.6% CAGR**
Fixed Lines (Wireline)	**1.72%** of the user base – **commercial** & **public**
Internet Services	**560M** active **internet users** in FY 2020

- India is the **2nd largest telecom market globally**; **1st largest growing app market**; **2nd largest** number of telecom **subscriber base**
- Number of internet subscriptions stand at **~745M**, with a **~21% CAGR**
- Total usage of **wireless data** was nearly **23,00,000 TB** in FY '20
- The **Total Smartphones Userbase** in India is about **444 Mn** in FY '21
- As of 2019, India held world's highest data usage per smartphone, averaging **9.8 GB per month.** It is expected to double to **18 GB** by 2024

Major Players and Market Shares



Industry Trends

- The **AGR** headlock, **spectrum** allocation processes, **regulatory** fraud, customer **rates**, and **QoS** will continue to be contentious issues
- **Reliance**'s re-entry into the telecom industry through **Jio** has rapidly changed industry dynamics. Both traditional and OTT services (video streaming, music, payments and shopping) are set to drive the industry
- With breakthroughs in **AVR** technologies, the growth of **IoT** and **wearable** technology, and **on-demand services**, telecom is gearing up to a **golden era**

Policy Support and Government Initiatives

- **Spectrum Assets** Expansion, **Infrastructure Enhancement**, and Increase **Technology Adoption**
- **FDI** cap increased to **100%** (from 74%) and **DoT** allocations worth **66,000 Crore** for FY 20 – 21 (a **184%** increase from the previous year)
- DoT to set-up **1 Million internet enabled service centres** under the **National E-Governance Plan**
- **100 Mbps** connectivity to **250,000 Gram Panchayats** under the **National Optical Fibre Network** (NOFN) project

E-Commerce

Value Chain

Sourcing & Inbound Logistics	Inventory and Warehouse Operations	Sales and Marketing, Customer Engagement	Shipping & Delivery, After Sale Services

(1) Incoming inventory, supplier management, and channel control. B2B and co souring, modular shipping, mass customization propositions

(2) Inventory handling, warehouse operations, segregation, and packaging. Consolidation, pickup, and grouping. Inventory turn and availability

(3) Targeted marketing, dynamic content, promotion, payment, sales, engagement, unified experience, queries, and feedback

(4) Order handling, preparation, invoicing, assignment, dispatch, routing, and delivery. Omnichannel considerations and distribution partners (B2B). Customer experience, complaints and reviews

Drivers

KPIs

- Avg. Order Size
- Cart Abandonment Rate
- Revenue Per Visit
- Hit and Bounce Rate
- First Response Time
- Churn & Time on Site
- Session Duration and CTR

Cost Drivers

- Technology – Development & Maintenance Costs
- Marketing & Promotion Costs
- Inventory Costs
- Logistic Costs
- SGA Costs

Growth Drivers

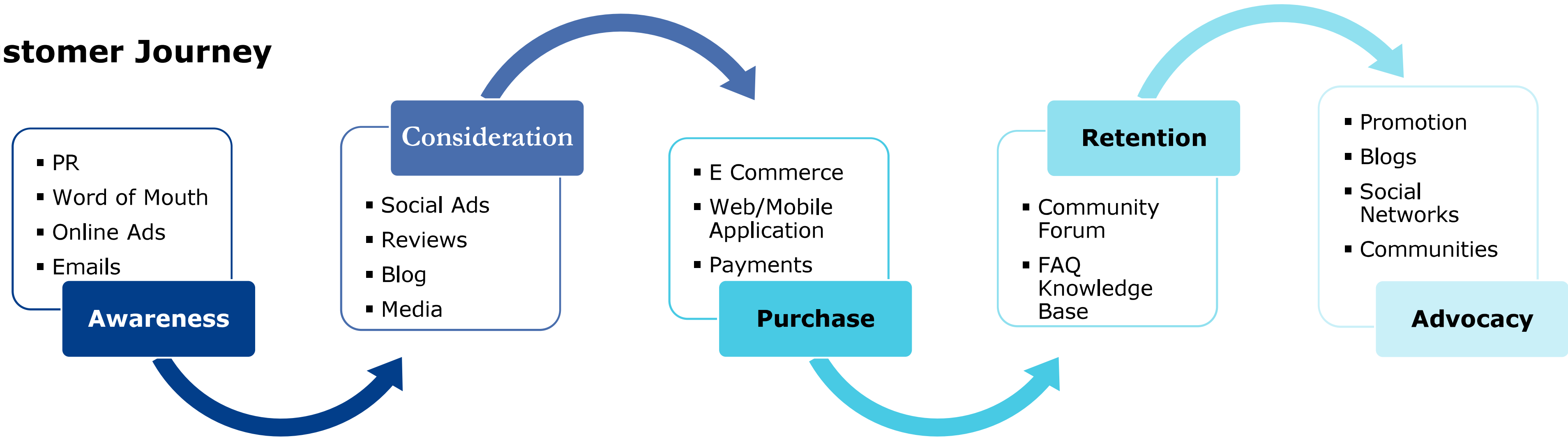
- Growing Demand
- Mobile Penetration
- Increased M&A
- Convenience, Cost, and Variety
- Payment Digitalization (Wallets and UPI)

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ Domestic and international Organizations ▪ Niche and all encompassing service providers ▪ Cross platform partnerships and integrations
Threat of Substitutes **(Moderately High)**	▪ Inhouse E-retail capabilities of manufacturers and producers ▪ Physical outlets and dedicated engagement and delivery centres
Threat of New Entrants **(Moderate)**	▪ Due to high initial investments and operational complexities, entry barriers are strong ▪ M&A activities and the growth of Super Apps may however pose a challenge to pureplay E commerce players
Buyer's Bargaining Power **(High)**	▪ With a multitude of options and low switching costs, buyers have a distinctive advantage
Supplier's Bargaining Power **(Moderate)**	▪ Brand decisions, high competition, and regulatory policies generally limit the aggregator's freedom of pricing and operational decisions

E-Commerce

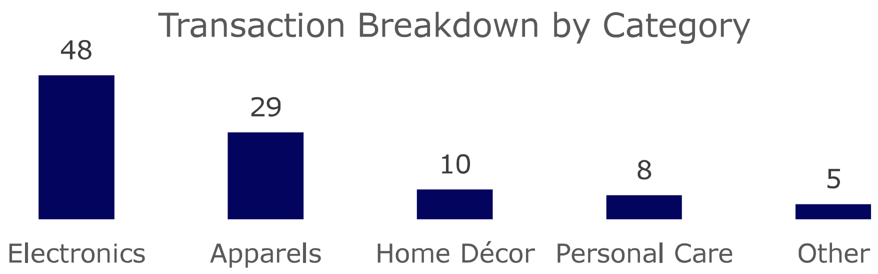
Customer Journey



Stage	Points of Interaction	Organizational Goals
Awareness	Organic Search, Search Ads, PR Feature, Social Media	Information Dissemination, Building Trust, Justification
Consideration	Customization, Re-targeted Ads, Direct Sites, and Review Sites	Positioning, Narrative Development, Development of Interest
Purchase	Website/Mobile App, Email, Customer Care Centre	Timely Information, Selection, Follow Through, Cross Selling Customer Satisfaction, and Recall
Retention	Review Requests, Re-targeted Ads, Email, Communities	Suggestions and Feedback, Engagement, Stimulation
Advocacy	Chat Tools, References, Communities and Social Media	Customer Integration, Rewards, Customer Content

E-Commerce

Industry Statistics

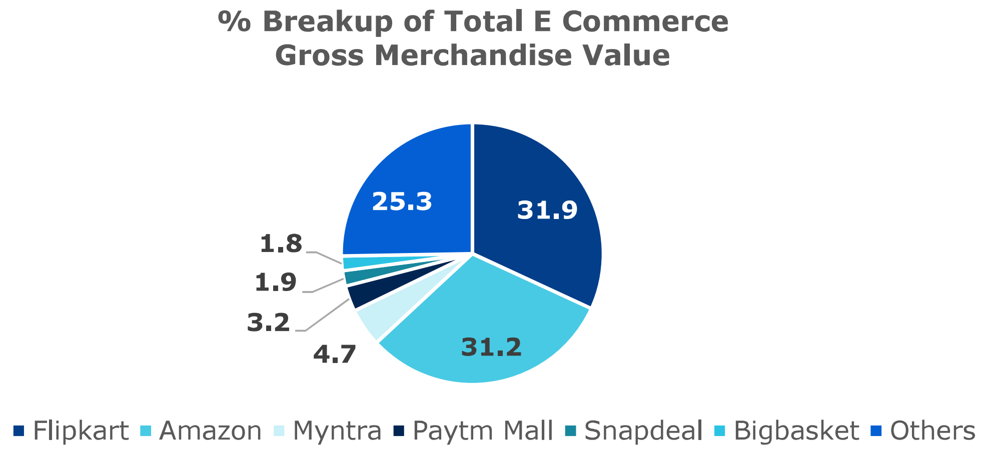


- Indian E-Commerce industry is expected to reach US **$90B** by 2022
- Over **280M** people are expected to shop through E-Commerce by 2022
- The industry is pegged to grow at **25% CAGR** for the next **5 years**
- About **1M jobs** are expected to be created in E-Commerce due to growing demand and 100% FDI approvals in B2B E-Commerce

Industry Trends

- The proliferation of **on-demand** and **aggregation** services in India (and across the globe) has been on the rise, and is expected to grow continuously over the next 5-7 years
- Integration of **physical** and **online** retailers has grown significantly with each leveraging the other's capabilities and strengths – resulting in the emergence of **phygital** services and capabilities
- **Omni-channel** fulfilment, **vernacular content** and search capabilities, customized product portfolios, niche e-tailers, and hyper local commerce are set to be major areas of development

Major Players



Key Developments

- **Amazon** acquired a **49% stake** in the Future Group (Retail Chain)
- **Reliance** has launched its **hybrid retail business - JioMart** in 2021. With diversified investments in Jio, Reliance has build a strong war chest to fight behemoths including Flipkart and Amazon
- As the struggle for dominance continues, experts peg a model based on **low fixed costs, innovative offerings, mass reach,** and **customer first focus** to offer significant competitive advantages to its adopters
- International developments, have temporarily ignited xenophobic tendencies with a focus on **local sourcing** and **consumption**

Aviation

Value Chain

Inbound Logistics → Operation → Outbound Logistics → Sales and Marketing → Services

(1) Inbound Logistics: Route Selection, Scheduling, Crew Scheduling, Passenger Service, Facilities Planning

(2) Operations: Ticket Counter, Aircraft Operation, On board Services, Ticketing, Baggage Handling

(3) Outbound Logistics: Baggage Handling, Flight Connection, Rentals and Hotel tie-ups

(4) Sales & Marketing: Advertising, Promotion, Travel Agent Program, Group Sales, Loyalty Programs, Digital Promotion

(5) Service: In-flight Hospitality, Lost Baggage, Complaints and Feedbacks

Drivers

KPIs

- Revenue passenger miles
- Available Seat Miles (ASM)
- Load factor
- Total cost per ASM

Cost Drivers

- Aircraft & Accessories
- Fuel
- Labor
- Maintenance
- Airport Fees
- Marketing

Growth Drivers

- Growing Demand
- Mobile Penetration
- Increased M&A
- Convenience, Cost, and Variety
- Payment Liberation (UPI)

Porter's Five Forces

Force	Description/Analysis
Industry Competition **(High)**	▪ High no. of large competitors ▪ Low industry growth ▪ Low product differentiation and switching cost for the buyers ▪ High barriers to exit due to high fixed cost and asset specialization
Threat of Substitutes **(Low)**	▪ Substitutes available such as road, rail & water travel, depending upon the route in question and varies according to cost & benefit of the alternative but not preferred for long distances
Threat of New Entrants **(Low)**	▪ High initial capital requirements for buying & leasing planes and fixed cost for purchase & maintenance of slots ▪ Supply and demand side economies of scale ▪ Low product differentiation
Buyer's Bargaining Power **(Moderate)**	▪ High no. of buyers but mostly individuals with low financial muscle ▪ Low switching cost if multiple airlines fly the same route ▪ Highly price sensitive market leading to increase in low-cost carriers
Supplier's Bargaining Power **(High)**	▪ Low number of suppliers ▪ High supplier switching cost ▪ Lack of substitutes ▪ High contribution of Supplier to cost & quality

Aviation

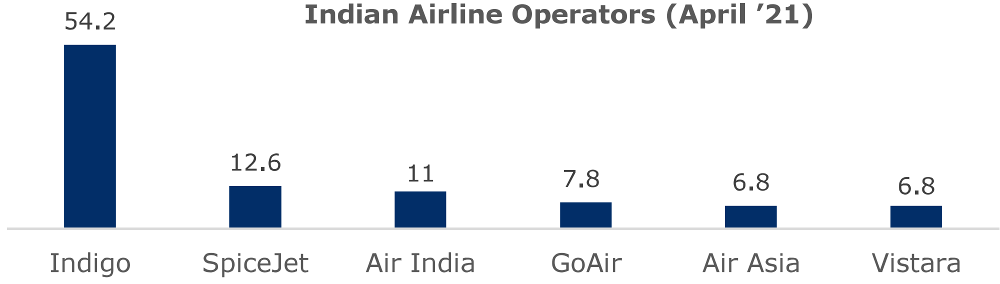
Industry Statistics

- Air passenger traffic for FY '20 stood at **341.05 Million** & grew at a **CAGR of 11.13%** during FY16-20
- India is set to surpass UK and become 3rd largest aviation market by 2024, with nearly US $136 Billion expected in travel expenditure for '21
- Travel and Tourism's contribution towards India's **GDP** is expected grow at ~ **CAGR of 7%** between 2021 and 2028
- Number of Airport and Airstrips : **464**, among which **125** are AAI managed and rest **339** are non-AAI
- In-service fleet size as of July 2021 : **680 Airplanes**
- Domestic passenger traffic in fiscal 2021 is expected to be around 53 million, similar to fiscal 2011 levels, a 62% decline over 2020 levels

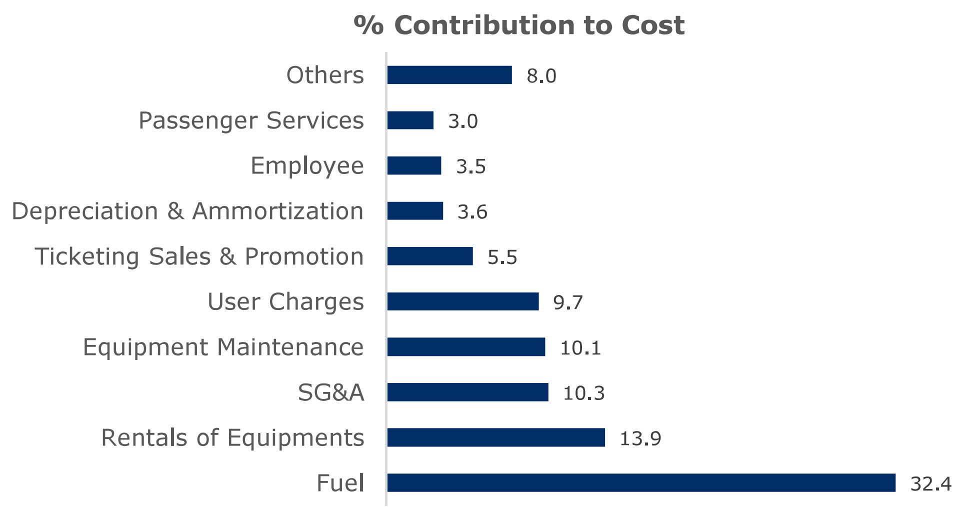
Industry Trends

- Indian low-cost carriers (**LCCs**) are looking forward to increase their **ancillary services** like lounge access, priority boarding, customer loyalty memberships and in-flight hospitality services
- Indian airports are emulating the **SEZ-aerotropolis model** to enhance revenues from retail, branding, and advertising
- The Government has been working on a blueprint to promote **domestic manufacturing** of aircrafts and aircraft financing
- India plans to operationalize **100 additional airports** by 2024
- Post the resumption of services in May 2020, new entrants such as **Vistara**, **AirAsia** India and **Star Air** have been swifter and nimbler in deploying capacity and attracting passengers

Major Players – Domestic Airline Operators



Cost Breakdown of Airline Operations



Common Interview Questions

STRATEGIST
STRATEGY & CONSULTING CLUB OF MDI

Case Based Questions

What are Case Interviews?

The case interview is a simulation of a real-life business problem that the interviewer, and the firm you're interviewing with, might have faced, is currently working on, or can potentially come across. The interviewee is put in the shoes of a consultant and is evaluated on his/her display of core consulting skills. Asking the right questions to seek information from the client (the interviewer, in this case), developing initial hypotheses, quantitative evaluation, brainstorming, and finally communicating the recommendations are some common aspects of both real-life consulting projects and a case interview.

What does the Interviewer look for?

- The approach you take while solving a problem/case
- How analytical, structured, and complete your thinking is
- Your usage of data to quantify your analyses and make final recommendations
- Your communication skills in conveying your ideas
- Your ability in suggesting actionable implementation (on-ground) strategies and evaluating them
- Your ability to handle curveballs and identify what areas to focus on and what to let go

Common Case Question Types

- **Profitability:** Identify the possible reasons behind profitability issues and provide recommendations on improving profitability
- **Market Entry:** Develop a strategy to expand into a new market; typically includes market sizing exercise to quantify the viable market
- **Merger & Acquisition:** Determine whether the client should purchase another business or sell an existing part of the company; due diligence and integration (vertical, mostly)
- **New Product Launch:** Identify whether the client should go ahead with a new product launch; the launch strategy and potential pitfalls
- **Pricing:** Arrive at a rational price range for a product or service based on its cost, value addition, and competitor's pricing

Evaluating Soft Skills

	1 Fit Questions	2 Behavioural Questions
	Very Frequent	**Moderately Frequent**
Rationale	a) Get to know the candidates b) Candidates' ability to drive a conversation c) Candidates' soft skills, interpersonal capabilities and overall personality d) Candidates' interest and fit for consulting and a role with the firm	a) How candidates deal with common situations b) Map role expectations with the candidates' experience c) Candidates' leadership qualities and the ability to work in teams and handle crises d) Candidates' ability in structured story-telling
Examples	a) Tell me a little about yourself. b) Walk me through your resume. c) Why would you like a career in consulting? d) Why do you think yourself to be a suitable candidate for the role? e) Why would you like to work with us? f) What are your strengths and weaknesses?	a) Describe a situation when you led a team. b) Tell me about a situation where you persuaded all stakeholders to achieve a common goal/result? c) What according to you is your biggest failure? What have you learnt from it? d) Tell me about an instance where you worked under pressure. How did you deal with the situation?

Points to Note

- ❑ Recollect critical previous experiences prior to the interview
- ❑ Learn about the firm's technical and functional expertise
- ❑ Give answers keeping in mind the key qualities of a consultant
- ❑ Answers should reflect honesty, positivity, curiosity & passion

Evaluating Hard Skills

	1 Conceptual Questions	2 Guesstimate Questions
	Less Frequent	**Very Frequent**
Rationale	a) Candidates' basic understanding of business processes b) Candidates' functional interests and capabilities c) Candidates' academic aptitude d) Candidates' industry knowledge e) Candidates' ability to apply theory to practice	a) Candidates' Mathematical Aptitude b) Candidates' ability to develop a structured approach c) How well the candidate understands & applies MECE d) Candidates' ability to sift through and select relevant data points from everything presented
Examples	a) Questions on financial ratios and their importance. b) BCG/Ansoff Matrices, Value Chains, Five Forces c) What is a 6 Sigma process? How would you implement it in consulting? d) Trends in a particular industry* e) General questions related to the industry of prior work experience*	a) Estimate the quantity of petrol used per day in Delhi. b) Estimate the number of petrol pumps in Bangalore. c) Estimate the number of Flights Arriving at KIA (Bangalore) Daily. d) Estimate the number of iPhones sold in an year. e) Estimate the annual revenue of a Poha stall outside IIT Delhi campus.

Points to Note

- ❑ Be thorough with the latest trends in major industries
- ❑ Be clear with basic ideas in business – fin., marketing & ops.
- ❑ Always give logical rationale for your decision in guesstimates
- ❑ Have basic numbers in your head – demographics, distributions

* Frequently asked

Frameworks and Cases

General Guidelines to Approach Case Interviews

General Flow of a Case Interview

Understanding the Case

- Listen to the case carefully and reiterate your understanding
- Ask high level question at this point to have better clarity (you can always ask specific questions as you move along in your analyses)
- Do not arrive at solutions and conclusions at this point

Developing a Framework

- Provide a roadmap to the interviewer before embarking on an in-depth analysis
- Every case is unique and no one perfect framework fits all – commonly used frameworks have been discussed further
- Leverage the MECE principle

Qualitative & Quantitative Analyses

- Structure your analyses well
- Probe for more information and data points through targeted questions
- Talk the interviewer through the calculations and analyses
- Perform sanity checks to avoid calculation errors

Recommendations & Closure

- Summarize the case in the end
- Final recommendation must be specific, feasible, and backed by supportive arguments
- Address the risks & next steps
- Don't give recommendations that severely conflict the company's vision and plan

Dos

- Concentrate on the issues that will create value for the client, and make sure you explain the reasons behind your choices
- Think before speaking; take some time to organize your thoughts and ideas
- Be transparent about your thought process, and think out loud
- Make quick and accurate calculations to swiftly form opinions and guide decisions – do not pore over numbers
- Engage with your interviewer and be yourself; conversational skills matter – practice them well through peer interviews

Don'ts

- Don't rush into the analysis without developing an understanding of the problem at hand
- Don't stick to a standard framework at all times; it may appear relevant but may not hold up after closer consideration
- Don't defend your solution at all costs; consider the interviewer's perspective carefully, and be accommodative
- Don't assume that a case that sounds familiar, perhaps one discussed previously, would be best solved by the same approach; interviewers are experienced and can catch a rehearsed solution

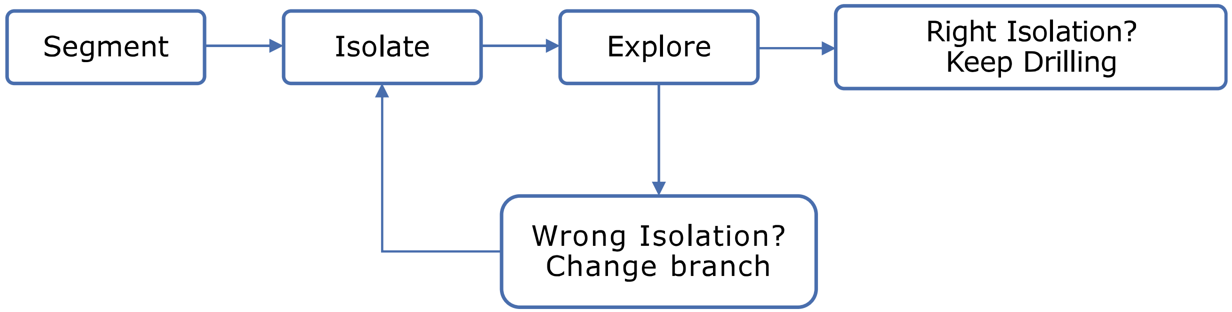
Profitability Framework

Approach

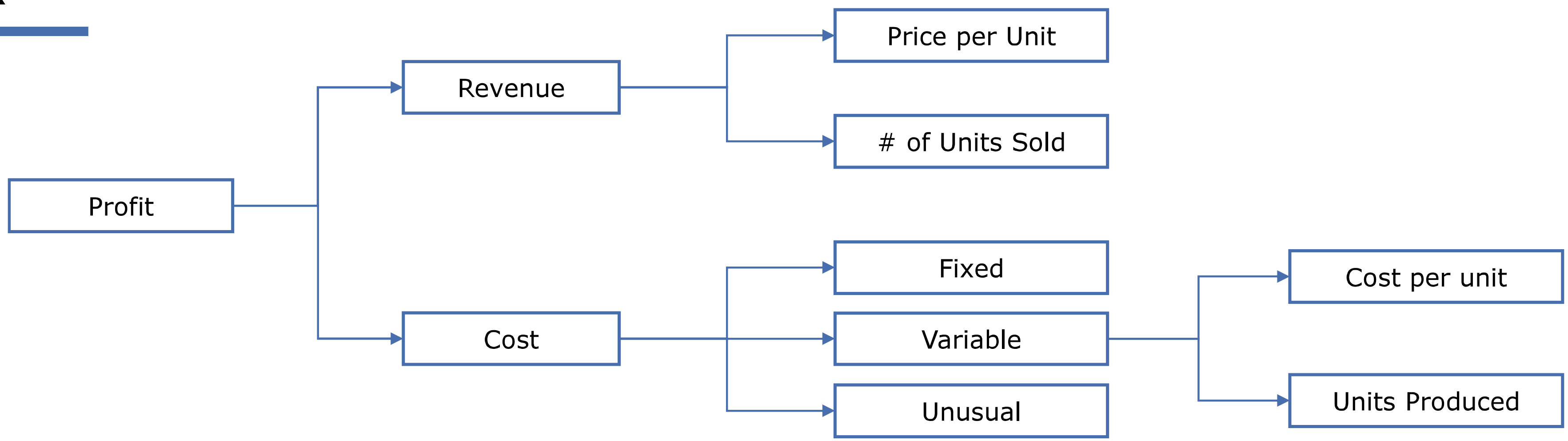
Segment: Segment the profits into revenue & cost; use the below framework for a drill down analysis

Isolate: Ask probing questions to isolate at each stage of branching; use eliminations to move forward

Explore: Explore the isolated branch to identify the root cause; drill down further if required



Framework



Profitability Framework

High Level Analysis

- ❑ Reiterate the problem to have a clear understanding of the case
- ❑ Use the 3C-P framework to develop ideas about the customer, the company and its capabilities, the competitive landscape and product/product portfolio
- ❑ Understand the timelines and context better – Since when is the company facing these issues? Is it an industry wide trend or is it specific to the company?
- ❑ Identify if the case is talking about **profitability** or **profit**
  - Profit: Revenue - Cost
  - Profitability: Profit as proportion of sales

In Depth Analysis

❑ Split Profit into Revenues and Costs as per the framework and dig deeper into each driver

❑ **Revenue**

- Changes in Price
  - ✓ Internal: Increased prices because of increased costs, Transfer pricing considerations
  - ✓ External: Price Wars, Increased Distributor Margins, Regulatory Price Caps, Customer Sentiments, Demand Supply Balance
- Changes in Volume
  - ✓ Internal: Awareness, Accessibility, Availability, Affordability
  - ✓ External: Economic Cycle, Laws & Regulations, Competitors, Industry Trends, Geography

❑ **Cost**

- Clearly lay out the value chain to ensure you do not miss out on any factor
- Types of cost
  - ✓ Fixed: Depreciation, Salaries, Utility Expense, Insurance
  - ✓ Variable: Raw Material, Maintenance Expenses, Fuel Cost
  - ✓ Unusual: Write offs and Stranded Costs

Points to Note

- ❑ Fixed and variable cost based approach might not be MECE, leverage the value chain analysis in such cases
- ❑ Basic accounting principles of costing and allocations might come in handy while analysing costs in detail

Profitability Case 1: Ice Cream Manufacturer

Prompt: Your Client is a Mumbai based Ice-Cream manufacturer. They are struggling with their profitability and have approached you to analyze their problem. You need to identify the key issues and come up with recommendations.

Sure! I would like to start by understand more about the company. Is it only the manufacturer or the seller as well? Is it a franchise or an independent self run business? And what customers does it target?

It is an independent self run business. It is both in the manufacturing and selling business. The target customers can afford mid to premium price range products.

Is the problem specific to the client or is it an industry wide problem?

The problem is specific to the client.

Can I also have an idea about the timelines? Since when are we facing this issue?

The client has observed this issue since past 2 months.

Have there been any price cuts in the product categories?

No. The prices have remained the same.

Okay. My understanding is that there could be two aspects to the issue. One is the demand side that could be affecting the revenue and other is the cost side. Since ice cream has seasonal/cyclic demand, has the profitability issue come up due to these fluctuations? Are we looking at a low demand period?

No, the demand is as expected, like in the previous years. It is the peak of summer, so the demand is high.

Understood. Then it could be an issue with the rising cost of production. I would like to explore the costs. It could be fixed costs like rent of the store, cost of raw materials, cost of new utilities for manufacturing or salaries of the employees. Has any of these increased?

Before I tell you that, could you walk me through the value chain of our client to the best of your understanding?

Sure. The value chain for an ice cream manufacturer could be - Raw Material Procurement & Supplier >> Inbound Logistics >> Manufacturing >> Outbound Logistics >> Distributors >> Retailers >> Customers

That's good. How would you assess the demand for ice-cream?

We can use historical data to forecast the demand, accounting for variations.

And based on this forecast you would be placing your order to your suppliers. Where in the value chain do you think demand forecasting and placement of order would take place?

It would be at the beginning of the value chain.

Yes. It is at the beginning. Go ahead with your analysis.

From supply side, we can consider the issues like availability of raw materials, issues with inventory management, availability of vendors, and capabilities of employees to handle large customer base. The client could have also bought additional utilities for a forecasted rise in demand.

Manufacturing costs have remained the same and employees are able to handle the customer demand.

Okay. I would then start with inbound logistics and move ahead. The major raw material for ice cream is milk. Wrong demand forecast could lead to excess supply of milk. Since the milk has a short shelf life, there could be wastage of milk, leading to additional costs and decreased profits.

Alright. Can you think of other external reasons as why wastage of milk could be on the rise?

Profitability Case 1: Ice Cream Manufacturer

Other reasons could the transportation time of milk being hire – leading to bad product reaching the client. It's also possible that there might be wastage arising out of spillage of milk if the inbound logistics are not robust.

Yes. You have arrived at the solution. Two months ago, the company had switched the milk vendor and it was taking more time for the milk to reach the destination and as a result, the milk was going bad, as you have rightly pointed out. Can you also tell me few KPIs to benchmark the operational capabilities of the client?

Sure. The KPIs could be delivery time, shipping time, shelf life of the product, order accuracy, and inventory turnover.

Okay. Thank you. We can close the case here.

Profitability Case 2: Cooking Oil

Prompt: Your Client is India's major cooking oil processing and packaging company. It has observed a reduction in its operating profits. Can you find out why this is and come up with suitable recommendations.

Sure! I would like to start with few questions to get my understanding right. For how long has the client experienced declining profits?

The company has been seeing a decline since the past 6 months.

Okay. Have our competitors also faced a similar decline in profits? If yes, there could be external factors impacting the profits. Otherwise, it could be an issue specific to our client.

No, only our client is facing this issue.

And what other businesses is the client into? Are those businesses also impacted?

The client is also into other FMCG products. But let us focus on their cooking oil business and the potential problems they are facing.

Okay I will begin my analysis by breaking down profits for the business into its component parts: Revenues and Costs. Based on where the issue lies, I would like to look at various internal and external factors. Does this sound okay?

Yes, sure go ahead.

Have we noticed any declining trend in the revenue?

No. The sales have continued to grow but as sales have increased, the profits have declined steadily.

Okay. So there appears to be an issue with the cost. I will look at the steps in the value chain and narrow down the possible areas where the costs may be rising. For a cooking oil producing company, the value chain can be broken into raw material procurement, processing, packaging, storage, distribution and retail. Additionally, there will be logistics between these processes. Is there any step that I am missing and you would like me to focus on?

No, you've mostly got it covered. You can focus on the packaging aspect because traditionally, the producer has packaged the cooking oil in 1 litre packets. Recently, in response to demand from the market, the producer purchased a machine that packages the cooking oil in plastic gallons of 2 litres each.

Okay, this is interesting. The machine could be a one-time investment which should be recovered with time. However, as you mentioned, we are facing a steady decline in profits with the rise in sales. So, we might not be making profits on the packet of oil we are selling. The contribution margin could be negative. Can I know the price at which we are selling the 1 litre packet and the 2 litre gallon?

For 1 litre packet, the company is charging Rs. 150. For 2 litre gallon, the producer figured he would provide an incentive to buy by selling them at Rs. 270 per gallon.

How was the cost of the new equipment accounted for in the price?

The producer has raised the price from Rs. 120 to Rs. 150 for the one litre packet.

Okay but the increase in price have not impacted the sales. In fact, the sales have increased. What about cost of packaging? Does it cost the same to package the cooking oil in packet as it does in gallons?

Well, not really. For the gallon we use a superior quality and higher quantity of plastic. Also, we had to hire more experienced labour to operate the machine because it is more complicated than the packeting machine. We figured that because the demand was higher for the gallons – we would cover our costs through increased volume.

Profitability Case 2: Cooking Oil

How are we calculating the overhead costs?
All costs for the factory are added together and divided by the number of units produced.
This looks like an issue with cost allocation. The price of the plastic gallons should be higher due to higher costs of packaging. Now we need to see to what extent this is affecting the profits.
Sure. Go ahead with your assessment.
What is the split between sales of 2 litre gallon versus 1 litre packets?
From the time the 2-litre gallon has come into the market, people are preferring that over the packet. Of the overall sales volume, the 2-litre gallon's contribution is 60%.
Even though it costs more to package in the gallons, yet the price is not higher on a per litre basis. In fact, it's lower. Therefore, more the 2-litre gallon we sell, the more would be the decline in profits.
Yes, that is an excellent observation. What do you recommend?
The price on per litre basis for the gallon packaging should be higher than that of packet packaging. The gallon packaging is providing additional value to the customer in terms of storage functionality and people would be willing to pay extra for the same. To arrive at the optimal price points, the company should revisit its cost allocation strategy. Evenly distributing the cost is not the right approach. They should perform activity-based costing and allocate the overheads and direct expenses to both the products separately.
Thank you for your recommendation. We can close the case here.

Profitability Case 3: Chinese Footwear Retailer

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Prompt: Your Client, CSM Sports, is a Chinese footwear retailer attempting to establish a profitable presence in the European market. Since they arrived six years ago, they have struggled to achieve their profitability goals. How can you help them identify the root cause and recommend next steps?

Sure! To reiterate my understanding of the case, a Chinese footwear company is struggling to achieve its profitability goals in the European Market and we have to find the reason for the same and advice on how to go about achieving the desired profitability results. Is my understanding correct?

Yes, absolutely.

I would like to understand more about the products the client sells.

Sports shoes are the client's major source of revenue. They also sell flip flops and sandals.

Where are these products manufactured?

They are manufactured in China itself.

Okay. How are the sport shoes priced? Are they premium products?

The footwear is sold in the European market at an average price of around €50. It is in line with the mid-tier competitors.

I would also like to understand the external factors a little. How is the footwear market doing and if there have been any disruptions in the industry/market?

The market is stable and in recent times there has not been any economic downturn. There hasn't been any disruption in the industry either.

Since we know the average price, I would first like to look at the revenue. Do we have information on how the footwear is sold? Is it sold in online or offline stores?

The footwear is sold only in the offline stores. There are six stores across different cities. Out of the six stores, 4 are located in the malls/supermarkets. The other two stores are flagship stores, located in prime locations with higher footfall. You can do market sizing for the footwear sales. You need not go into the details of the exact locations of these stores.
Average Sales in the Mall/Supermarket based Stores – 1000 items/day
Average Sales in the Flagship stores – 4000 items/day

Based on these data points we can calculate the yearly revenue for the company.
Total Revenue = 365*50*(4*1000 + 2*4000) = €219 Million

Ok, that's good. We already have a number for total yearly cost. It was €225 Million for the previous year. Can you look at the drivers for the cost and revenue one by one to identify the scope for improvement?

I would like to start my analysis with the costs. Per my understanding, manufacturing cost is one of the primary cost. Do we have information if manufacturing processes are efficient? Is there scope for improvement?

The company is manufacturing at the cheapest possible rate. What next?

How about the labour cost? Can we reduce that?

No. Labour in China is already cheap and cannot be reduced further. What next?

Next is the shipping cost. How are we shipping the products from China to Europe?

Currently we are shipping through air.

Can we look at alternative option like shipping through sea routes?

Yes, shipping through waterways will bring down the cost. However, that is not a concern for the company. Can you look at other costs?

Profitability Case 3: Chinese Footwear Retailer

Yes. Next I would like to look at the rent. Since the flagship stores are located in prime locations, the rent must be high. Is this the case? If so, is it possible to shift them to different locations to reduce this fixed expense?

No that is not possible. Those are required for marketing purposes.

Talking about the mall stores, since the sales are lower can we get away with them and have more flagship stores?

No, the mall stores are strategically functioning with expansion plans. We have almost covered the cost. Let's see if we can do anything on the revenue front.

Okay, sure. Revenue consists of price and sales volume. Can we change our price? How price sensitive is the European customer?

No, the company does not want to change the price point. Increasing prices will reduce the sales, while reducing price will not solve the profitability issue.

Looking at the sales volumes, can we have online channels for increasing sales?

The company does not want to invest in online channel, at this point in time.

Alright. How does customer perceive our products? Do they consider them trendy? Since the company is based out of China, there is a possibility that it might not be producing at per the latest trends in Europe.

Yes, recently the company has identified that the European customers feel that the footwear colours are very basic and lack variety.

So this can be a primary reason for not meeting profitability goals. Product innovation needs to be looked at. Another important factor could be the in-store experience of customers. Can the staff be better trained to deal with customers.

They are already well trained. It is the product that needs work. You have nearly covered all the aspects. Can you summarize your findings and recommendations?

Sure. Currently the client is making an yearly loss of €6 Million. To address this, we looked at the costs and revenue. On cost side, I would recommend changing the shipping mode from air to water. Sea routes are less expensive and allow each shipment to carry larger product volumes compared air-routes.

On the revenue front, I would recommend rigorous customer study, R&D and product development. This would help the client increase its sales volume and achieve profitability. The client can also look at online selling and hope to reach a wider customer base.

Excellent! Thank you for your recommendations. We can close the case here.

Market Entry Framework

Entry Considerations

Industry

- What is the overall market size? (Total Addressable Market - TAM)
- Is the market growing? Is it profitable?
- What are the Critical Success Factors? (CSF)
- Are there any barriers to entry?
- Are resources (raw materials, technology) and labour available?

Company

- Do we have the technical, financial, operational, sales & distribution capability to succeed in the new market?
- Are the benefits and positioning of our offerings in line with the needs of the target segment?
- Do we have the expertise to succeed in this market?

Competition

- Number, size, and capabilities of competitors?
- Size and market share of competitors?
- Is the competition reactive through price wars and ad spend?
- Do we have a sustainable advantage over our competitors?

Customer

- Who are our customers?
- Expected customer demand & the market share we can capture?
- What is the customer segmentation in the market?
- What is the overall customer behaviour and is it aligned with our offering? Are customers likely to switch to our brand?

Entry Processes

Entry Options

- Greenfield/Organic
- Mergers & Acquisition
- JV/Strategic Partnership

Operations

- Souring and Inbound Logistics
- Manufacturing & Labour
- Operating Regions and Serviceable Markets

Marketing

- Distribution Channels
- Target Customer Segments
- Marketing Mix (Product, Price, Promotion, Place) and Communication Strategy

Growth

- Long term Growth Plans and financial cost-benefit analysis
- Product Expansion
- Geography Expansion

Market Entry Case 1: E-Commerce

Prompt: Your Client is a US based E-commerce giant and as part of their expansion strategy, they are looking to enter the same business in the Philippines market. You are advising them on this activity. How should they go about it?

Just to reiterate the case understanding, our client is US based E-commerce giant, and they are looking to enter the same business in the Philippines market, and we have to advice them on how to go about it?

Yes, precisely.

Alright. I would like to begin by asking a couple of clarifying questions before I get into the analysis and recommendation.

1) What is our client's business model?
2) Why Philippines?
3) What are their objectives post entering this new market?

Well they are like any other E-commerce chain and have been in business for the last 15 years. Why Philippines, because the market has shown a tremendous growth of 40% in the last 2 years. However not all players have seen the same kind of growth. The primary objective is to breakeven in the first year & then grow in the subsequent years.

Alright, understood. I would break this problem into 3 parts. First, I would check if the entry into the Philippines market makes economical sense or not. Next, if it does, I would like to explore the different entry modes looking at our client capabilities and the country's dynamics. Finally, I would be looking at the go to market strategy for our client.

Alright, that sounds good. So you can begin with your first analysis then.

Sure. So, for assessing whether the entry makes business sense or not, I would like to look at the current market size of Philippines and also the competitive landscape. Do we have some data on that?

Yes, we do have some data related to that (Refer Annexure 1 in the next slide)

Candidate performs the financial analysis and comes to the conclusion that it does makes sense to enter from an economic standpoint.

Alright, that's good. You can proceed and discuss about the modes of entry.

So broadly we could look at 3 ways of entry. Standalone, Merger/Acquisition or a Joint Venture. Has the client performed some primary analysis related to the market dynamics of Philippines?

Yes. So based on the client's primary analysis there are two major barriers to entry. 1) Stiff Competition 2) Govt orders to levy more taxes on non-indigenous companies to give local firms greater operational flexibility.

Alright, that would make a standalone entry difficult to pursue, since we would be at a disadvantage compared to the existing firms and higher tax rates would eat into our profits. Moreover, the client does not have any experience of marketing in Philippines. Do we have data on the possibility of an acquisition or a JV?

Yes. Company PQR is not eager to go into any partnership. They have launched physical e-stores with cashless payments facility and goods takeaway capabilities. Company XYZ has not done much in terms of marketing. It had gained a lot of market share at the time of its advent in Philippines owing to the lower prices offered as compared to Company PQR. However, now they are bleeding money due to lower margins and are open to joint business options.

Alright, so based on the facts you provided it seems that going with company XYZ either through a Merger/Acquisition or JV route makes more sense. They have a strong position in the market with 40% market share but they are bleeding money at the same time and are open to a joint business opportunity. By partnering with XYZ, we can gain a significant market share right away and achieve the breakeven in the first year as we have planned.

Market Entry Case 1: E-Commerce

Alright, point taken. So, what should the go-to-market strategy for our client be?

Okay, sure.

1) First, as discussed, our client should go with either an M&A or a JV based strategy. Company XYZ is an ideal partner for this.
2) Figure out what the consumer needs are and if customers are experiencing any problems/gaps with the existing players' capabilities. The client needs to focus on addressing these pain points.
3) We can market using similar strategies as Company XYZ had done 4 years ago. Leverage 15 years of experience in the business while marketing.
4) Innovate in terms of offerings which are different and better than Company XYZ and any other offerings of any other companies. Market that innovation strongly.
5) Perform cost benefit analysis of opening e-stores similar to those of Company PQR and if it makes sense then subsequently open the stores to grow in the later years.

Alright, good. So, what are your final recommendations for our client, based on all the analyses done so far?

1) Based on the cost-benefit analyses, it is clear that our client will break even within the first year. So the client should go ahead with the launch (as financial break-even is one of the top objectives).
2) Further we looked at various mode of entries and conclude that going with a joint business operating model with the company XYZ is the best possible option at hand. There we would need to further look at integration challenges and other gaps that could arise.
3) Finally, talking about the go-to-market strategy, our client should leverage their 15 years of E-commerce business experience and innovate in terms of offerings so as to gain competitive advantage over PQR and other players.

Okay that's good. We can end the case discussion here. Thank you.

Market Entry Case 1: E-Commerce

Annexure 1

Potential Market Size

Philippines has a population of about of 100 Million and an internet penetration of 60%

Market Size of the competitors in the industry

Competition	Market Size (in revenue terms)	Competitor Origin	Operation duration in Philippines	Remarks
PQR	60%	Philippines	8 years	Rise in Profits
XYZ	40%	China	4 years (Total 12)	Decline in Profits

Revenue & Profit margin of the competition in this industry

Competition	Annual revenue ($)	Avg. Profit margin (Last year)
PQR	600 Million	30%
XYZ	400 Million	20%

The overall market (in revenue terms) is expected to **grow by 40% in the next year**. And the client is expecting to capture **20% market share** this year

Price of products across all goods segments has been same for both competitors. For a start, the client can operate with a minimum of **20% profit margin**. Fixed investment cost for the client is **$50 Million.**

Candidate's Calculations

Since the current market size in terms of revenues is $ 1000 Million and it is expected to increase by 40% in the next year.

Therefore, total revenue for the next year => 1000 x 1.4 = $ 1400 Million

Client's expected market share = 20%

Client's expected revenue in the next year = 1400 x 20% = $ 280 Million

Now to calculate the breakeven :

Fixed cost = $ 50 Million

Variable cost (Considering 20% profit margin) = 280 x (100% - 20%)

= $ 224 Million

Total Cost = Fixed cost + Variable Cost

= $ 50 Million + $ 224 Million

= $ 274 Million

Since the **Total Revenue is greater than the Total Cost in the first year**, the client would be able to achieve breakeven in the first year itself.

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Market Entry Case 2: Luxury Yacht Manufacturer

Prompt: Your Client is an Italy based multi billion-dollar luxury yacht manufacturer. Their business is majorly based in Italy, but they are seeing a decline in profitability over the past 3 years. The client has been planning to enter a new market for a while and now with this profitability problem, they have decided to enter one of the following countries: Netherlands, France, or Taiwan. The client would like you to evaluate which of these countries it should enter. How would you assist them with this exercise?

Just to reiterate the case understanding, our client is an Italy based luxury yacht giant and they are looking to enter a new market – either Netherlands, France or Taiwan owing to a decline in profitability in their domestic market, and we have to advice them on how to go about it?

Yes, that's right. Please proceed.

Alright. I would like to have a few clarifications first.

1) Why are our client seeing a decline in profitability in the Italian market? 2What is the basis for choosing the 3 specific countries? 3) What are their objectives post entering this new market?

Well as far as the decline in profitability is concerned,

1. The overall economic downturn in Italy has caused the luxury yacht market to shrink from €4B to €2.5B over the last five years.
2. Italy implemented a new tax on luxury boats 2 years ago that has increased the costs for the client.

Each of the 3 proposed countries has a huge market for luxury yachts, similar to that of Italy, and they show good growth prospects.

Coming to objectives, there are no fixed objectives, the clients just wants to increase their overall revenue as well as profitability.

Alright, understood. I would like to analyse the three potential markets both from a quantitative as well as qualitative point of view. Quantitively speaking, I would like to analyse the market size as well as potential revenues that our client could generate in these 3 markets, and on the qualitative front I would like to analyse these 3 markets in terms of barriers to entry and the competitive landscape.

Alright, that sounds good. Go on!

Do we have any data on the market size in these 3 countries, the growth potential and what percentage the client is likely to capture?

Yes, we do have some data on this. (Refer Annexure 1)

So upon calculating the revenue over 3 years we see that even though Taiwan has the biggest luxury auto market, the client's potential market share is highest in the Netherlands, and the revenues are highest in France.

Alright, that's good. So would you recommend that the client enter the France market then?

Not yet, now since we are done with the economical analysis, I would like to analyse the market entry scenario based on the qualitative aspects.

Yes, sure. Go ahead.

Alright, so I would break down the qualitative analysis in 3 aspects for each of the target countries.

1) I would analyse any barriers to entry from regulatory and legal points of view.
2) I would like to look at the competitive landscape and map out the players.
3) I would analyse the labour market in each of the countries, since the auto industry requires both highly skilled as well as cheap semi-skilled labour

Market Entry Case 2: Luxury Yacht Manufacturer

Alright, that's good enough for now. Do you have anything else to add?

Well, our primary analysis tells us that the client should enter the French luxury yacht market for two main reasons: first, the client's potential revenues in France are higher than either of the other two countries.

Next, on the qualitative side, we would have to analyze the factors that we just discussed. Taiwan is geographically isolated from Italy, increasing operational complexity and adding to costs. Cultural imbalance is a challenge too. So, at this point if I were to make a recommendation, the client should target the French market.

And once if we have established that entering France makes the most sense, then we could look at various modes of entry and how operational efficiency can be established.

That's a very good analysis. Alright, I think we can stop the case here. Well done!

Annexure 1

Market	Luxury Yacht Market Size	3 year growth predictions	Potential Market share	Increase in market share/yr. (Absolute)
Netherlands	€2B	5%	15%	5%
France	€3B	10%	10%	7%
Taiwan	€5B	10%	5%	6%

Candidate's Calculations

Market	Market Size * Growth Rate * Potential Market Share	Revenue (3 years)
Netherlands	€2B * 15% + €2B * 1.05 * 20% + €2B X 1.05 * 1.05 * 25%	€1.271B
France	€3B * 10% + €2B * 1.10 * 17% + €3B * 1.10 * 1.10 * 24%	€1.545B
Taiwan	€5B * 5% + €5B * 1.10 * 11% + €5B * 1.10 * 1.10 * 17%	€1.279B

Market Entry Case 3: Li-Ion Batteries

Prompt: Your Client is an Indian renewable energy company that primarily operates in Solar and Wind Energy. They are the fastest growing private player in this market and to further expand their portfolio they are thinking of entering the Li-ion battery business. Should they enter this business and if yes, how should they go about it?

Just to clarify my understanding of the case, our client is an Indian renewable energy company that primarily operates in Solar and Wind energy. They are the fastest growing private player in this market & they are thinking of entering the Li-ion battery business. So, we need to advise them on whether they should they enter this business or not?

Yes. And also if they do decide to enter, then how should they do about that.

Alright, understood. I would like to begin by asking a few clarifying questions

1) What is the client's current business model?
2) Why are they thinking of entering the Li-ion battery business ?
3) What are their objectives & success criteria post entering this new market?

Our client builds, owns and operates utility scale solar and wind projects that generate energy for commercial and industrial customers. As far as diversifying into the Li-ion business is concerned, our client believes that Li-ion storage solutions are the future with high integration capabilities with EVs. Their objective is to gain considerable market share (at least 20%) in the next 5 years.

Alright, understood. So, to begin with I would to like to understand more about the current Li-ion market in India. There, I would look at the areas where Li-ion batteries are being used, market size, market growth and competitive landscape. Further, after assessing whether this is a good market to enter or not, I would like to explore the various modes of entry and see which would make the most sense in order to achieve the targets set by our client. Does this sound right to you? Or would you like me to explore any more domains?

Alright, that sounds good. We can proceed with this.

As I understand, in India Li-ion batteries are primarily used in EVs and as a storage solution for renewables energy such as wind & solar. Do we have data regarding the current market size of Li-ion batteries in India and its growth rate?

Yes, you're right and we do have some data regarding that. I would like you to calculate the addressable market size of Li-ion for the year 2021 based on the following data. (Refer Annexure 1)

As per my calculation, the addressable market size for the year 2021 is approximately US $ 4.7 Billion & 39 GWH. (Please refer to Annexure 2 for candidate's calculation)

The growth prospects looks promising. The renewable energy market is expected to grow by 10% Y-o-Y and the expected growth in the share of EV mix is 75%. Therefore, this look like a promising market to enter and if our client can strategically enter and expand in this market, it could turn out to be a profitable venture in the long run.

Alright, now that we have established the addressable market size and proposed that the client should enter the Li-ion battery market, what would the client strategy be for this exercise?

To analyse different entry strategies, I would like to know more about the current capabilities of our client in the battery space and what part of value chain they are looking to enter?

Market Entry Case 3: Li-Ion Batteries

Our client does not have any know-how related to Li-ion battery business as of now, and Li-ion batteries being a relatively complex business in terms of technology capabilities required, our client is looking to enter the final battery pack assembly stage of the value chain to start with, and not the cell manufacturing or RM formulation business.

Has our client performed any market study to assess the entry strategies in terms of a greenfield venture or strategic alliances/JVs?

Yes, based on the primary analysis done by our client we have two observations:

1. If they decide to enter the market organically, it will take 3 years to develop the expertise and then 1 year after that to set up an assembly plant.
2. If they decide to enter the market through an acquisition or a strategic alliance, they can essentially hit the ground running based upon the partnership.

Okay. According to me, there are 3 ways the client could enter this new business.

Option 1 – Enter organically through developing own expertise and manufacturing plant. This is going to have a long gestation period for the business.

Option 2 - They can acquire a company with the required expertise & capabilities and hit the ground running after the deal finalization.

Option 3 - They could go through with Joint Venture and look for a partner having the technical know-how, with our client providing their expertise in renewables and a strong brand name in the market.

Right. What are the advantages and risks associated with each of these options?

Sure, so we can discuss these three options one by one and see which one makes the most sense.

Option 1 (Organic Growth): The client would have the most control over their operations and better understanding of the on-ground issues. But, because it would take our client 4 years to start selling in the market, it could lead to a substantial market share loss, as we had seen previously that the market is growing rapidly.

Option 2 (Acquisition): The client would get the head start by leveraging the target's capabilities, knowledge and supplier base and would be able to enter the market right away, thus reducing the risk of losing the market share. But initial capital cost might be high, and there are possibilities of a buying the liabilities of the target company. Other risks associated M&A are also significant.

Option 3 (Joint Venture): The client could join hands with an international player with technical expertise on Li-ion batteries and save on the 3 years development time. But, acquiring the technology and recalibrating it to the Indian market would require time and capability building exercises. Moreover, there are possibilities of conflicts in operation, and growth would be slower compared to the acquisition route.

That is a comprehensive analysis. Which option would you recommend?

Looking at the potential and growth prospects of the Li-ion battery business, waiting for another 3-4 years and losing out on the market would not be advisable. Our client should therefore go with the acquisition route in my opinion.

And what should be the go-to-market strategy and what would the roadmap look like for next 10 years if the client decides to go through the acquisition route?

Going with the acquisition route, it could take one year to look for a potential target, finalize the deal, and implement it. The client could then start the production. For the initial 4-5 years, they should leverage their own expertise in the renewable energy sector, being the leaders, and focus primarily on renewable integration to gain market share and a competitive advantage. At the same time, since we have seen massive growth in the 2 & 3 wheeler EV segment in recent times, the client could focus on providing battery solution for that segment.

After gaining enough market share and brand recognition in 5 years or so, the client should expand their portfolio and enter into other applications such as the 4 Wheeler market, telecom, IOT devices an so on.

Finally in the long run, the client should look at the possibility of backward integration and develop expertise in the cell manufacturing stage as well.

That's a very good analysis. Alright, I think we can stop the case here. Well done!

Market Entry Case 3: Li-Ion Batteries

Annexure 1 – Key Data Points

Renewables integration market	
Large-scale renewable energy capacity in India as of January 2021 (GW)	150
Annual growth of renewable energy capacity starting January 2022	10%
Percentage of renewable energy capacity linked to 2-hour battery systems	10%
Per kWh rate of battery, capex, in 2021 (USD/kWh)	$120
Annual per kWh price reduction in battery capex	10%
Electric Vehicles market	
Number of automobiles manufactured in India	30 million
Percentage of automobiles that are 2 and 3-wheelers	80%
Percentage of automobiles that are 4-wheelers1	20%
Average battery size of 2 and 3-wheelers (kWh)	10 kWh
Average battery size of 4-wheelers (kWh)	35 kWh
Annual growth in the automobile manufacturing sector in India	3%
Percentage EV sales in 2021	2%
Annual growth of EV share of automobile mix	75%

Annexure 2 – Candidate's Calculations

Renewables integration market	Unit	2021
Renewable Energy Capacity	(GW)	150
Percentage of renewable energy capacity linked to 2-hour battery systems (10% of 150)	(GW)	15
Renewables' integration battery storage market size (15GW * 2Hr)	**(GWH)**	**30.00**
Per kWh rate of battery, capex, in 2021	(USD/kWh)	$120.00
Renewables' integration battery storage market size (30 GWH*120$/KWH)	**($)**	**$3,60,00,00,000**

Electric Vehicles market	Unit	2021
Number of automobiles manufactured in India	(million)	30
No. of 2 and 3-wheelers (80% of 30M)	(million)	24.00
No. of 4-wheelers (20% of 30M)	(million)	6.00
Share of EV in the automobile mix		2%
No. of EV 2 and 3 wheelers (2% of 24M)	(million)	0.48
No. of EV 4 wheelers (2% of 6M)	(million)	0.12
Battery storage market 2&3 wheelers (0.48M*10KWH)	(GWH)	4.80
Battery storage market 4 wheelers (0.12*35KWH)	(GWH)	4.20
Electric Vehicles' Battery storage market size	**(GWH)**	**9.00**
Per kWh rate of battery, capex, in 2021	(USD/kWh)	$120.00
Electric Vehicles' Battery storage market size	**($)**	**$1,08,00,00,000**

Total addressable market size	(GWH)	39.00
Total addressable market size	($)	$4,68,00,00,000

Pricing Framework

Pricing Models

1 Cost Based Pricing

- Cost of Goods Sold (COGS) - Fixed Costs and Variable Costs
- Expected break-even Point
- Profit Margin over Break-even
- R&D Expense – Does the company plan to recover it or is it a sunk cost?
- **Price = COGS + Profit Margin**

2 Competitive Pricing

- Availability of Substitutes
- Competitor's Price Points
- Company's positioning – Premium or Economy
- Company's vision – Profit Margins vs. Market Share
- **Price = ~ Competitor's Price** (in line with organization goals)

3 Value Based Pricing

- Value proposition of the Product
- How much does the customer spend on a similar utility? Supply and Demand
- How much is the customer willing to pay for such a product? Can a higher value be appropriated through product and marketing investments?
- **Price = Value Appropriate to the Product**

Step by Step Approach

Understand the objective → Develop a framework → Cost Based Pricing (Min. Price) → Value Based Pricing (Max. Price) → Competitors' Price & Impact → Determine the Optimal Price → Recommend a Price Range

Pricing Case 1: Fertilizers

Prompt: Your Client is a US based chemicals manufacturing company and wants to launch a new fertilizer brand in the Indian market. You are required to suggest an optimal price point for this product. How would you go about it? What are your considerations?

I would like to start with a few questions. I would like to know more about the client. What is the main business of the client? What are its products?

The client manufactures chemicals and fertilizers. They currently operate in the US and now have come up with a new type of fertilizer for the Indian market.

Okay. Is there any particular customer segment in India that they are targeting?

They are targeting Punjab and Haryana based farmers, as this fertilizer is for rice and wheat farming.

Is it different from the fertilizers people generally use in Punjab and Haryana?

Yes. It enhances the growth by 20% and there are no similar products in the market – either locally or globally produced.

Understood. So, there are three ways we can approach the pricing exercise – a cost-based model, a competitor driven pricing model, and a values-based pricing model. We can start with cost-based pricing as it will act as a benchmark.

Sure. Sounds good. Please start with cost-based pricing.

I expect there were R&D costs in development. Do we have any data for the same?

While this is a good point to start with, I would like you to consider R&D and product development costs to be sunk costs for time being.

Alright. I would then like to focus on the value chain of the fertilizer. I would assume it involves the same steps to deliver a packet of fertilizers as any packaged product. Do we know if we are going to be manufacturing in India? And what would be the cost of the product?

Yes we will be manufacturing in India. The cost of 1kg packet of the fertilizer is expected to be Rs. 400. Assume a 20% post break-even profit margin.

Okay. So, at 20% margin over the break-even, the price of the produce would be Rs. 480. Now to check if this price is viable, I would like to do a competitor benchmarking exercise. Do we have any data on the competitors in this market – their products and price points?

Competitors' products sell for an average price between Rs 500/kg to Rs 600/kg. But let's look at the value that the client's product creates.

Okay. How much area of land does the 1 kg packet of fertilizer cover?

1 kg packet of the fertilizer can be used over 1000 sq. ft area of land. Also, do note that for one cycle of crops, the fertilizer needs to be used twice.

Noted. I'd like to quantify the value addition that our product is capable of. Wheat and rice are sown in different seasons. I'll assume the entire period from sowing to harvesting to be 5 months for both rice and wheat. Since our fertilizer enhances growth by 20%, the total cycle time of 10 months will reduce to 8 months. So we have farming land available for an extra 2 months. Suppose, the area of land is 1000 sq. ft. for one cycle of wheat and rice farming, in one year we would need 4 kg of the fertilizer.

4 kg of fertilizer is equivalent to 1000 sq. ft. land for two months. 1 kg would be equivalent to 250 sq. ft. land for 2 months. We could calculate the value created out of 250 sq. ft. of land for two months. Farmers can use this land for farming crops with shorter cycle times. Is there any data on this monetization capability?

That's good. Assume the value to be Rs 100 for 250 sq. ft of land for 2 months.

Okay, thank you for that data. So we can sell the product for a premium. My recommendation for price would be between Rs. 650 to Rs. 700. This takes into account the premium quality of our product and extra value that it is creating.

Okay. That helps. Thank you. We can close the case here.

Pricing Case 2: Multipurpose Furnitures

Prompt: Your Client is a major steel manufacturer. The company plans to expand its business and move into the home furnishing space. It wishes to launch a multipurpose furniture – a bed cum sofa and a workstation, all in one. At what price point should the company launch this product?

Sure. I'd like to ask a few preliminary questions to understand the situation and the requirements better. How exactly does the product function? What other utility does it have?

It is a modular system. It is a sofa with workstation capabilities that can be extended to form a single bed. The value proposition is that it is multipurpose and provides space saving. The product is made up of 70% steel and 30% wood.

That's interesting. What geographies is the client targeting?

Our client is based out of India and we are targeting Indian market. Since it is a premium product our target customer belongs to tier 1 cities in India.

Okay. Who are the competitors? Does this kind of multipurpose furniture exist in the market?

The furniture industry is 20% organised retail and while 80% of it is unorganised. We have one major competitor who enjoys a market share of ~60% in organized retail. The others are small players. No one among the major players have introduced this kind of furniture. However, furniture makers in the unorganised sector have made such product based on customer's demand.

Alright. There are three ways we can approach the pricing exercise – cost-based pricing, competitor driven pricing, and values-based pricing. I would first like to start with the cost-based pricing because it will give me a minimum price point. Can I get an idea about the COGS?

The cost of the product is Rs. 10,000 for one set. The company has spent Rs 1,00,00,000 on R&D and Product Development.

Does the company plan to recover the R&D cost through its pricing? If so over how many years?

Yes. The client wants to recover the product development costs. They wish to do so in 2 years or earlier. You can assume break-even as both necessary and sufficient.

Alright, thank you. So there are both fixed and variable costs that have to be recovered. However, since break-even is sufficient over two years, only the fixed costs will have to be recovered over this time period. I'm assuming the contribution margin to be zero. Do you have any data points on how many such sets the client is expected to sell this year and the one that follows?

For the first two year, the client will only be selling in the NCR region. Initial research shows that the client will be able to sell about 150 of these units in the first. Assume a 10% Y-O-Y on the sale volume for the subsequent year.

Okay. That's helpful. I've assumed the Contribution Margin (Selling Price/Unit – Variable Cost/Unit) to be zero. Year 1 Sales = 150 Units. Year 2 Sales (@10% growth) = 165 Units. Total = 315 Units. Cost to be Recovered = 1,00,00,000.

Per Unit Selling Price = Rs. 32,000. Per Unit Variable Cost = Rs. 10,000. Total Sale Price for a 2-year Break-even = Rs. 42,000

So, the client can look at pricing the product between Rs. 40,000 and 45,000. I'd like to do a sanity check at this point. What are the price points at which our competitors sell their products?

Pricing Case 2: Multipurpose Furnitures

Our major competitor sells single metallic bed for Rs. 20,000 and the sofa set for Rs 25,000.

Alright, that helps. We have a multi-purpose convertible product. Basis the competitor's price we can price the product between the price of the more expensive product (the sofa set) and sum of both products. So, we should consider pricing it between Rs. 25,000 and Rs. 45,000.

However, there are two reasons why the price should be on the higher end of the price range. First, it is offering a unique value proposition (saving space) which the competitor is not offering. Further, it is a premium product targeted only towards the tier 1 city customers. This pricing is also in alignment with the price points we arrived at to recover the R&D costs.

Yes, that makes sense. Good. What is your final recommendation? Anything you'd like to call out explicitly?

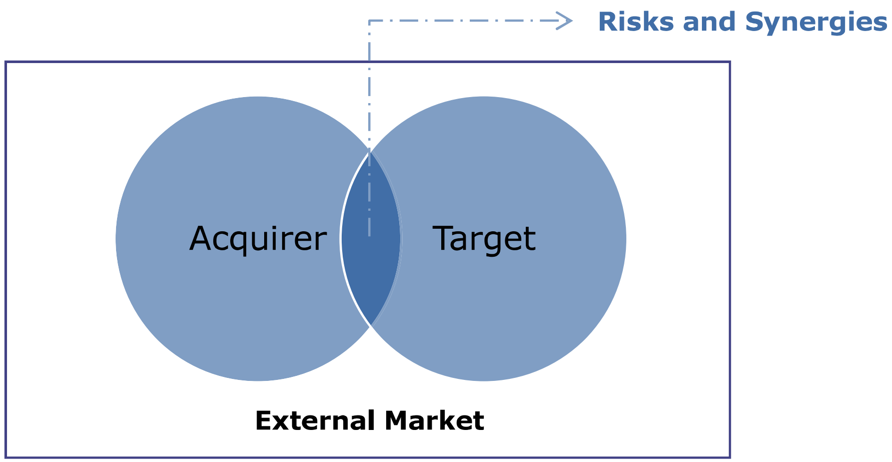
The client can look at pricing the product between Rs. 40,000 and 45,000. This is in line with both the analyses – recovering R&D costs and value based pricing. However the client needs to run an initial analysis to understand the willingness of the customer to pay this amount for such a product. Off the bat, it seems reasonable, but further analysis will be needed. Accordingly, recovery periods and profit margins may have to be adjusted. The client can also look at other selling opportunities and use cases for this product – such as hotel chains, airport lounges, SPAs and so on. These B2B sales may have higher revenue generating potential for the client.

Great. That's a good analysis. We can stop here. Thank you!

Merger & Acquisition Framework

Framework Overview and Structure

The M&A Framework is a structured approach towards solving interview cases pertaining to M&A transactions – opportunity analyses, due diligence, and implementation. Typically the M&A framework is applied when the case requires a MECE analysis of all stakeholders and processes in an M&A (or equivalent) transaction, and a recommendation on a final go/no-go strategy.



The M&A Stakeholder View and Interaction

Each component in the above representation needs to be analysed exhaustively before arriving at a recommendation and defining an implementation strategy.

Step 1 : M&A Process Flow and Stakeholder MECE Analysis

Internal Need Analysis → Target Screening → Due Diligence → Deal Execution → Impl. And Post Deal

Component	Questions and Considerations
Acquirer	Deal Rationale, Deal Financing, Deal Structure
Target(s)	Financial Position & Growth, Capabilities, Management Potential, and Culture
Synergies and Risks	Individual and Combined Value, Revenue/Cost/Other Synergies, Risks, and Regulatory Limitations
External Market & Environment	Business Overlap in the Market, Market Size, Growth, Profitability, and Competition

Step 2 : Execution and Beyond – Functional Overview

Due Diligence
- Strategic
- Operational and Technical
- Legal and Regulatory

Execution
- Nature of M&A
- Supporting Financial Activity
- E2E Integration Plan & Execution

Exit Strategy
- Holding Period
- Exit Criteria
- Exit Options
- Impact Analysis

Merger & Acquisition Framework

Key Questions and Considerations at Step 1

Acquirer

- What is the acquisition rationale? Undervaluation, Control, Synergies or a combination?
- Can the buyer finance the acquisition independently? Or will it need to borrow money?
- Does the buyer have experience in integrating companies? Was it successful in the past? Or will it be the first M&A transaction?
- Is this the right time for the buyer to acquire another player? What are the internal risks and how severe are they?

Target(s)

- What is the current and future financial position of the target (e.g.: revenues, profits, etc.)? Is it under/over valued?
- Does the target own any assets (e.g.: technology, brands, etc.) or capabilities (e.g.: manufacturing know-how) that are strategically important to the buyer (client)?
- What's the quality of the current management? Does the buyer (client) believe that we can add value by getting control and running the company better?

Synergies & Risks

- What is the value of the individual and combined entities?
- Are there revenue synergies such as product cross-selling capabilities, using the target's distribution channels, shared customer bases?
- Are there cost synergies such as operational integrability, sourcing commonality, duplication of roles, stronger buying power?
- What are the biggest risks that could severely fail the acquisition (e.g.: culture fit, regulation, etc.)?

Market

- Are both companies (buyer/target) in the same markets (e.g.: geographies, products, customers, etc.)?
- How big is the market? Is it profitable? How fast is it growing?
- How intense is the competition? How will competition react?
- Are regulations a limitation?
- How will customers perceive the deal?

Merger & Acquisition Case 1: Airline Acquisition

Prompt: Your Client is a major airline operator and has been doing well financially in the recent past. The management is looking at potential M&A activities to grow the company's business. You've been on-boarded as a consultant and they client wants you to advice them on their M&A plans.

Sure. So, the client is looking to grow their business and wants to see if M&A is the right way of going about it. When client says that the wants to grow, I am assuming that focus is on augmenting revenues. Is that right?

Yes, the focus is on revenue growth.

Thank you. Now, I would like to break the analysis into two sections – a) I'd like understand if M&A is the right strategy for growth, and b) If so, what are the potential targets we can look at.

Yes, that's a good structure. Please proceed.

Okay, sure. First I'd like to understand a little about the client. What does the business look like? What are the services provided, and where does the client operate in?

The client offers passenger – economy & executive – and cargo services and operates on multiple international routes. US, Europe, and Asia-pacific are the primary focus areas for the client. In Asia, the client primarily offers connectivity to tourist destinations from the US and Europe.

Okay. Since our focus is on improving top line for the client, I would like to breakdown the revenues and the competitive landscape by these parameters. Do we know the channel split for revenues by service (passenger/cargo) and geography? Besides, from a competitive perspective what are the clients' market shares by the same parameters?

You can ignore the service variants for now. Let's focus on geography of operations. 60% of our revenues flow in from US operations, 30% from European operations, and only 10% from operations in Asia-pacific. You can assume a similar distribution for the market share in the three geographies.

That's helpful. Going by this, I suggest the focus for the client should be on growing the market share and correspondingly revenues in the Asia-pacific region. An acquisition certainly would help achieve these targets quickly. Do we have any data about potential targets that can be acquired and their capabilities.

That sounds logical. Yes, the client is looking at 3 potential companies to acquire.

Target 1 is an established airline operator in Asia, and provides luxurious passenger services and operations across major Asian destinations and own 30% of the market share in Asia.

Target 2 is an emerging airline operating out of Australia and provides connectivity between Eurasia and Australia. They have a strong cultural fit with the client and would be the easiest to acquire.

Target 3 is a disruptive airline operating in Asia, and has grown rapidly and captured 20% of the Asian market over the past 3 years. This airline does not offer any luxury travel and operates between select destinations.

You can assume all of them are profitable operators and have strong financial positions.

Based on the client's requirements, Targets 1 and 3 look to be good options. Target 2 may however provide greater operational flexibility and ease of integration. Based on the client's requirements, Targets 1 and 3 look to be good options. Target 2 may however provide greater operational flexibility and ease of integration. I would like to explore synergies and risks associated with acquiring each of these companies, and then make a suggestion. Let's start with revenue and cost synergies. I would like to know by how much the client's revenue and cost margins would change by acquiring each of these targets. Do we see significantly different operational synergies with each of these targets?

Merger & Acquisition Case 1: Airline Acquisition

For the sake of simplicity, assume revenue contributions would only be marginally different in each of the cases. From an operating perspective our assets and capabilities align most with Target 1. Target 3 has a much leaner operating model, and Target 2 fits in between.

Alright. Looks like Target 1 might be an ideal acquisition at this stage. Finally, I would like to look at the Asian air travel market to understand how it's shaping up and what forms of travel are taking precedence. Insights on customer behaviour and preferences would help make a final recommendation.

Excellent point. Recent trends have revealed that air travel has been on the rise in Asia, as more people enter higher income groups. Trends also suggest that passenger traffic is the highest between a select few destinations in Asia – India and China particularly. Efficient low cost air travel is expected to grow at 13% CAGR.

Noted. This significantly changes the dynamics of our proposal. The client is already a major airline operator in the US and Europe with flights connecting major tourist destinations in Asia to both these continents. While Target 1 seems to be a good acquisition based on overlap of operating models and cost synergies, it would appear that acquiring Target 3 would provide the client with flexible operating options, help cater to a large and rapidly growing market. Target 3's operations also complement the client's routes and help develop a more exhaustive network of operations, without any redundancies. The lean operating model would offer several advantages that the client may carry back to their operations in US and Europe. With marginally different revenue contributions, the focus shifts to the cost of acquisition. Acquiring a new airline operator with a lean operations would seemingly cost less than acquiring an established airline with massive assets. The client can also maintain a lean workforce that overlooks operations of the acquired company, providing the client with greater managerial control. With this segment of travel up and coming, the client can also expect to grow the business rapidly with investments out of US and Europe.

That's very good. So, what is your final recommendation?

Based on the client's current revenue and market share structure across geographies, Asia should be focus area for the client.

Among the proposed targets, Target 3 offers the greatest growth potential, complementing the client's current operations. While Target 1 seemed to be a good option, Target 3 offers several advantages and brings in new operational capabilities. Based on this, the client should consider acquiring Target 3.

Excellent. That will be all. Thank you.

Merger & Acquisition Case 2: Brand Integration

Prompt: Your Client, say X, is a high-end manufacturer of leather-based luxury goods. They are unable to keep up the with demand for alligator-skin products – handbags, belts, and wallets. Besides the shortage, the price of alligator-skin has gone up by 70% in the past nine months, squeezing otherwise fat margins. The client is considering buying company A, one that sources, tans, and processes alligator leather. What are your considerations while deciding on a go/no-go strategy?

First I would like to establish a deal rationale and validate it before proceeding further. Acquiring company A would guarantee an uninterrupted supply of alligator-skin based leather, it would help restore margins by cutting costs and establishing operational synergies, and finally it would enable the client to pre-empt competition and diversify holdings. Anything that I am missing here?

No. That's excellent. Please proceed.

Sure. I'd like to break down the analysis into the following buckets – the client (company X), the target (company A), the luxury leather industry, acquisition costs and risks, and finally an exit strategy. As we are clear about the client and the current situation, I would like to start with the target – company A. I would like to understand the target's revenues and profits over the past 3 years, who its suppliers and customers are, and what are it's operating margins and capabilities.

Alright. Company A has seen a 15% growth in its revenues each year over the past 3 years. Margins have also seen a steady growth with the current number sitting at nearly 40%. The company primarily sells to the client's competitors. The target also has strong supplier relationships, and enjoys a good position in the market.

That's great. The target company seems to be in an excellent position both financially and operationally. Besides developing a steady flow of raw materials, the client will also enjoy ancillary revenues by selling alligator-skin. A significant competitive advantage can be developed by cutting off supplies to competitors based on a cost benefit analysis. Besides, I am also assuming sale of by-products would help augment revenues for the client.

Yes, that's good. What next?

In this particular case, I feel external factors – operating conditions, animal treatment, ethical considerations, and regulations would be critical. It is important that the client thoroughly analyses these considerations and map out any risks associated with it that might hamstring the acquisition.

Very valid points. The target company has well established operating practices that adhere to all regulations and guidelines. So, these considerations, while extremely valid are not potential risks. What else would you look at?

I would like to understand how the market for animal skin based luxury products is evolving. With a focus on sustainability and emergence of better materials, the market might not have great potential in the long run. So, it would be important to establish that the client actually sees growth potential in the market and can capitalize on it. Do we know the current size of the market, the profit margins, and expected rate of growth/contraction? I would also like to understand the expected competitive response a little and how best we can tackle it.

Okay. The global leather goods market is valued at US $430 Billion. This is expected to grow at a CAGR of 4%. Fashion contributes to nearly 60% of all products. Some new applications in design and decoration have come up, and these are expected to add to the growth.

Okay. That's a good sign. So, even from the market perspective, there's enough potential for the client to pursue this opportunity. I would finally like to look at the financial viability of the acquisition. The cost of the acquisition, the financial alternatives, the client's capability to fund it, and the nature of the transaction.

Good. That's an exhaustive analysis. Let's stop here. Well done.

Merger & Acquisition Case 3: Buy-side DD

Prompt: Your Client is a large PE firm, based out of India. It focuses on firms in the home utility and consumer durables' space. The client has identified a company (referred to as the Target) in the second-hand furniture space (C2B and B2B), that it wants to invest in. They want us to conduct a due diligence study of the furniture re-commerce market and the target capabilities. How would you approach this engagement? What would your considerations be?

Sure. So, to clarify the objective, the idea is to develop a structure for the due diligence activity – covering both the furniture re-commerce space and the Target. Is that right? Are we also expected to come up with recommendations on the investment strategy?

Yes, that's right. No, recommendations are not needed. I only need you to structure the due diligence activity.

Sure, understood. I'd like to breakdown the analysis into 3 sections – The Furniture Re-commerce Market, The Target, Client (PE) Capabilities and Synergies.

Let's shelve the client analysis for now. Focus on the market and target analysis.

Okay. I'd like to start with the market. There are 2 aspects that I want to look at as a part of the market analysis. a) I want to do a sizing activity to gauge the second hand furniture market size in India; b) Next, I'd like to look at the growth drivers of this market to understand how the market will grow over the next 4-5 years (typical investment period for a PE firm)

Okay. That's a good start. Go ahead. I have some data points to help you get started. All datapoints are for FY 21. You can assume a 10% CAGR on the top-line.

Total Furniture Userbase in India ~ 450 Mn

Total Annual Furniture Shipments ~ 250 Mn

Average Furniture Replacement Cycle ~ 3 Years

% of Furniture Exchanged Commercially ~ 30 (Buy Back/Exchange/Re-sale)

% of Second-hand Furniture Exchanged in P2P Mode ~ 90

Okay, thank you. Let me take a minute to understand the data.

Sure, take some time and let me know how you would go about it.

Since we are looking at how many second hand furniture pieces are exchanged (bought/sold), I'd like to look at the number of furniture pieces shipped on an annual basis. From this total number, I would look at the number of new and second hand furniture pieces that are shipped. Finally, I would like to look at the number of second hand furniture pieces exchanged through organized C2B platforms (such as the Target and its competitors).

Total Furniture Userbase = 450 Mn
Average Furniture Replacement Cycle = 3 Years
Number of New Furniture Sold/Shipped Annually = 450/3 = 150 Mn
Number of Second-hand Furniture Transactions = 250 – 150 = 100 Mn
Number of Second-hand Furniture Shipped Commercially = 0.3*100 = 30 Mn
Number of P2P Second-hand Furniture Shipments = 0.9*30 = 27 Mn
Organized Exchange of Second-hand Furniture = 30 – 27 = 3 Mn (FY '21)
So the current market size for organized second hand furniture market is about 3 Mn units annually. Do you want me to project these numbers for a 5 year period assuming 10% CAGR on the top line?

Good! The market size estimation is indeed accurate. Well done. No, we can leave the projections be for now. Let's move ahead. What do you think would be the growth drivers for this market? Would you expect the market to grow or shrink?

Major macroeconomic factors indicate that real estate and home furnishing businesses in India will continue to be on the rise over the years to come. Growing GDP, higher per capita income, the growing demand for smart homes, IoT enabled furnishings, and rural adoption of basic furniture point towards a strong growth potential. New business models such as organized P2P renting, refurbishing, and customization will drive business in the Target's niche. As customers also realize the monetary potential of used furniture, the market is likely to boom and prospects look good over the next 5 years.

Merger & Acquisition Case 3: Buy-side DD

Alright. That's a fair justification. Let's move on to the analysis of the Target. What are your considerations?

In looking at the Target, I would first want to understand the core business proposition – what is it that the business does? Does it operate in a niche market or is it a general proposition? If need be I would also look at riper international markets to understand how they have evolved, how the players have consolidated themselves and get a sense of where the Indian market may be headed.

That sounds good. So, the target primarily has capabilities in furniture repair and refurbishment and they sell primarily to businesses (OMs and Retailers). They source used furniture sets from users, undertake refurbishment activities and further sell these units. In terms of volume, the Target is the 3rd largest player in the market and handles about 23% of all second hand furniture exchanged.

Thanks for the information. I want to start with a competitive benchmarking exercise, to understand and map competitor and Target capabilities and USPs. This would help identify approximately what portion of the growth pie the Target can internalize. Creating this market map would also help identify market niches and extend the Target's business portfolio.

A thorough competitive benchmarking is indeed the next logical step that we'd adopt. Good! Let's move on. You spoke about wanting to look at international markets. Why would you do that? And if you had to pick one market that's closely related to the Indian marketplace, which would it be? And why?

The Indian market for consumer durable re-commerce is still nascent and studying a mature international market would help us understand how a transformation might occur and serve as a base for identifying the common challenges. From a PE perspective as well, it would help the client understand what they can expect over their investment period and how they can plan for suitable exit options.

In terms of market relevance, I would say China is closely related to the Indian market. The market size, structure, buying patterns, and consumer mindsets of the two countries are largely similar. Further, India's start-up revolution has been largely inspired by the Chinese market and that is good reason to believe that any transformation in India is likely to be inspired by the Chinese market

Makes sense. Good. To bring this to a logical closure, can you list down the top 4 exit options that you think would be plausible for the client.

Sure. The most likely exit options for the client involve the buy-out of the client's stake by larger entities.

a) Client stake buy-out by a larger global PE firm
b) Client stake buy-out through the Target's acquisition by an Indian ecommerce giant or a large furniture manufacturer/assembler
c) Client stake buy-out through the Target's acquisition by a larger global firm in the furniture re-commerce space
d) Client stake buy-out through an IPO for the Target

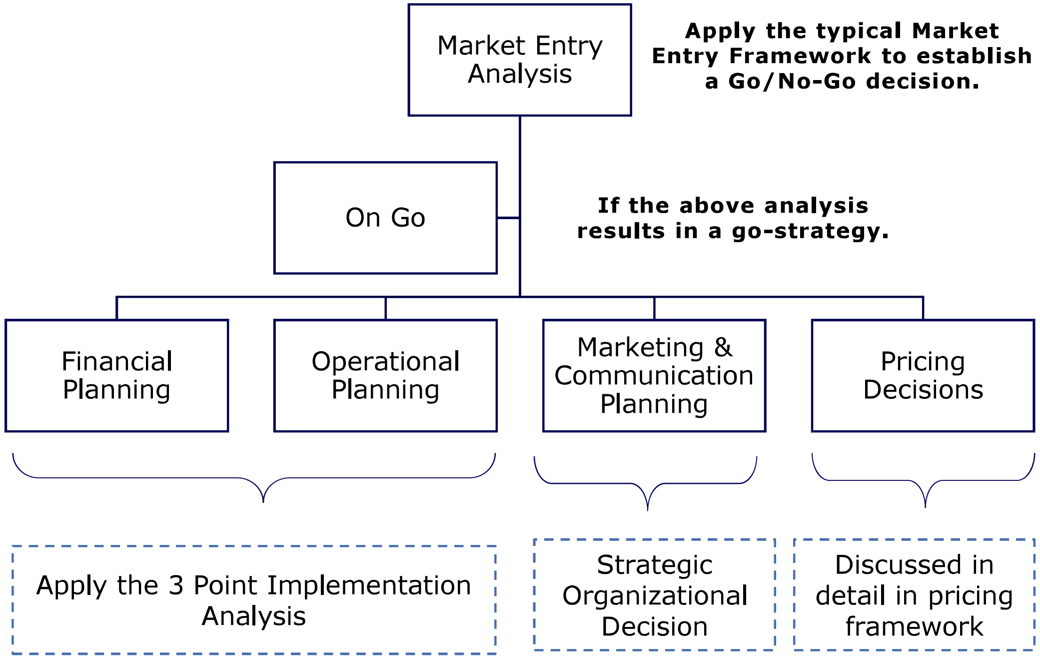
Additionally, it's also possible that strategic partnerships are formed with niche industries such as IoT, Home Automation, Insurance and Technology Services. The exit in these situations would have to be looked at on a case by case basis.

Alright. That's a very good analysis. We can stop at this point. Well done. Thank you.

New Product Launch Framework

Framework Overview and Structure

The new product launch framework is a structured approach towards developing an analysis and implementation plan for **introducing existing product lines in new markets.** It is a hybrid structure that brings together the market entry framework, the pricing framework, and conceptual business considerations.

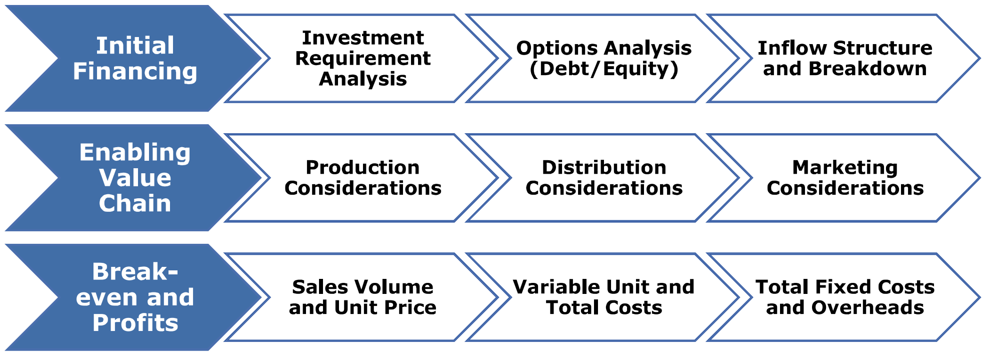


Aggregated Flow for New Product Launch

Key Considerations and Analyses (Go Strategy)

Considerations	Analysis
Segmentation	Demographic, Geographic, and Psychographic
Product/Service	Features, Packaging, SKUs, Differentiation
Operations Strategy	Inbound – Production/Ship/Import; Inventory Management; Outbound – Channels, Margins
Pricing and Communication Decisions	Price Selection – (In)Elasticity and Positioning, Communication – Marketing Strategies, Advertising, Promotion, Sales, and Service Initiatives

3 Point Implementation Analysis



New Product Launch Case 1: Nicotine Gums

Prompt: Your Client is a manufacturer of Nicotine Gums. They have been successful in the US market and are now considering entering the Indian market. They want you to suggest if and how they can enter the market and also determine an appropriate price point of the product. How would you go about it?

Sure! I would like to breakdown the analysis into two sections. First, I'd want to understand if entering the Indian market is a feasible option, and if so how. Second, I'd like to look at how the product can be launched, and then address the financial, operational, marketing, and pricing considerations in that order.

That's a sound approach. Please proceed.

I'd like to understand a little about the company and the product itself. What differentiates the product? Are there any characteristic features for these gums? Does the client manufacture the product inhouse?

Yes, the company owns the patented formula for the gum, and has a fully integrated manufacturing setup. The product has the lowest nicotine content among competitors and clinical trials have proven that it is able to hold off cravings for longer than other products. The client has strong financials as well and can invest as needed.

Okay. So, we have a highly differentiated product and strong financial and operational capabilities. That's a very good sign. I would now like to look at the Indian market and estimate the potential user base for such a product. Can I proceed with a numerical analysis for this? I'd also like to understand our profit margins to decide on a price point.

The product has high profit margins in the US. It is a premium gum, and earns nearly double what it costs. The focus for the client is on entering the Indian market and capturing the right user base. Profitability is of primary importance to the client. For the analysis, start with 120 Million smokers in India.

Noted. Since the product is a premium one, we should try and target the mid to higher end of the smokers' pyramid. That would allow us greater price flexibility.

Do you think smokers of hand rolled cigars and premium cigarette brands would be willing to switch to Nicotine Gums? Assume that the 120 Million people are equally distributed among 3 income classes. Can you arrive at the number of potential customers for this product?

Right. The product should indeed be targeted at the lower and mid sections of the smokers' pyramid, where smoking is an addiction, and people might be willing to quit. With the upper sections, it could be a pleasure and status symbol. They may never consider switching to Nicotine Gums. Assuming 40 Million smokers each in the mid and low income segments, at 20% quit potential, and 80% & 30% affordability respectively, we have a TAM of 9 Million people. With high product performance and efficacy, we should expect to achieve 60% penetration in one year. That will give us ~5.5 Million users. A 10% CAGR can be expected in the near future, and that gives us a sizable market.

Okay. That's a fair analysis. Convinced by the size and potential, the client has decided to enter the Indian market. You are required to suggest an operational strategy and also help the client identify the right price point for the product.

I would like to look at the price points first. Assuming that the median cost of a cigarette is Rs.10, and on average people smoke 4 cigarettes a day, monthly spending comes out to Rs.1200. Given the higher efficacy of the product, an average smoker would chew 2.5 gums per day. Monthly consumption would be 75 gums. Assuming that gums are sold in packs of 25 each, each pack can be priced at Rs.350. (1200/(75/25) + 50*). *Premium for the health benefits over cigarettes.

New Product Launch Case 1: Nicotine Gums

That's a good analysis. Can you quickly go over the client's strategies from an operational and marketing perspective?

Sure. The client can either consider setting up a manufacturing unit in India, or choose to import the products from it's manufacturing plants in the US. Since the product has the potential to grow rapidly and entails repeat purchases, it may be more efficient to setup an integrated manufacturing unit in India.

Okay. That's reasonable. What would your recommendations be for promoting and selling the product?

The two most prominent challenges for the client are –

a) Creating an effective and consistent communication strategy that clearly articulates the product capabilities and develops a compelling narrative for usage

b) Developing a robust salesforce and employing an omnichannel distribution strategy to ensure that the product is available at every location where it may be potentially demanded.

With restrictions on direct advertising, subtle product placement and promotion will be critical. The client has to focus on developing distribution channels that cater both to the organized and unorganized retailer segments. Joint promotions can be explored to improve brand awareness and perception.

Yes, that is a good analysis. Do you see any risks for the client in entering the Indian market? If so, how do you suggest they be tackled?

From a product perspective, the client runs the risk of loosing out on its advantage of holding the unique formulation, as reverse engineering and development of alternatives can happen rather quickly, given India's poor protection of IP. With a number of low cost alternatives readily available, successful differentiation will be critical for market success. Without a distinctive brand preference, the client risks speeding the commoditization of the market.

To mitigate these risks, the client will have to seek strong protection of its IP and lobby with the state to bring in stringent regulations. This might eventually be the most critical aspect differentiating a go/no-go strategy.

The client will have to focus on a brand first marketing strategy, and create a unique proposition for its product, effectively differentiating itself from competition.

That's right. We can stop here. Well done!

New Product Launch Case 2:EV Manufacturer

Prompt: Your Client is the largest global manufacturer of EVs. The firm invests heavily in R&D and its advanced battery technology has enabled it to penetrate the mid and upper strata of the US automobile (car) industry. The firm sees opportunity to enter the Asian markets – particularly India. They want to understand what the strategy should be to enter this market. Assume that the decision to enter has been made. What would your product strategy look like?

Sure. I'd like to clarify the objectives before I begin. The idea is to develop a strategy for the client to enter the Indian market. Is that right?

Yes. But, I'd like you to focus on the product strategy and the company for now. Let's assume that the market, regulation and all such external factors are favourable. The client is looking at fat margins in India.

Understood. I'd like to structure my analysis in 2 segments. First, I'd like to start off with the client – the current financial position, top and bottom lines, operational capabilities and organizational flexibility. This would help gauge the client's ability in entering new markets, to sustain and drive growth. Next, I'd like to look at the client's product portfolio, the market segments they serve and their suitability for the price sensitive Indian market. This analysis would help gauge the fit of the current product mix to the Indian market, and make decisions pertaining to new product development.

That's a good start. You can assume that organizational capabilities are high and the as-is operational and financial outlook is positive. From the product portfolio perspective, the client has 3 best selling models – one each at 3 different price points, serving the luxury, mid-commercial, and affordable segments.

Do we have information on the price points for these models and on the suitability of these models to the Indian market – both from the customer perspective and capabilities for Indian conditions – roads, driving patterns, and performance?

Yes. The price points for these models are $200,000, $90,000 and $40,000 respectively. You can assume that the models are capable of serving the Indian conditions. As far as the customer fit is concerned, there is no data available.

Alright. Before I develop a product strategy, I would want to understand the costs involved. Is the client looking at setting up a manufacturing plant in India?

The client will set up production & assembly capabilities in India, source components from suppliers to it's US facilities, assemble and sell cars locally.

Understood. What are the costs involved in this process? Both fixed and variable? You also mentioned that the client is looking at fat margins in India. What are the profit margins that the client expects?

The one time fixed costs are expected to be US $ 2 Billion, and variable production costs are about 70%, 75%, and 70% of the selling price for the affordable, mid-commercial and luxury models. The client is looking at 30-35% ROI on it's fixed investment in the near future.

This helps. I would like to look at the price points of each model and analyse if the client's options are comparable with regular fuel-based cars at the same price.

Luxury Variant: It costs at nearly INR 1.5 Crore, and is likely to be a comparable option with other luxury cars at that price point. High end, environmentally sensitive customers are likely to pay for this model as it is likely to match regular cars in terms of features and drive capabilities.

Mid-commercial Variant: It costs nearly INR 70 Lac and seems to be a model for nothing in the Indian market. The features, brand perception and value from a regular car at this price point are definitely much better than what the client has to offer. So, this model may not be a viable option in the Indian market.

Affordable Variant: It costs nearly INR 30 Lac and has a similar limitation as the mid-commercial model. At this cost, the middle class Indian expects the car to be feature rich and have unique capabilities. Regular fuel based cars are likely to be more feature rich than the client's model. So, it wouldn't make financial sense – given that the sale volumes have to be very high in order to achieve the desired profit margins – to introduce the low end model either.
Does this sound right? Or am I missing something here?

New Product Launch Case 2: EV Manufacturer

That's an interesting approach. Our initial research has also suggested that the high end luxury model is best suited among the 3 alternatives for the Indian market. How long would it take to break-even and achieve the desired profits? Would it be possible to reach these numbers in the Indian market?

Sure. Let me work out the math to understand the required sale volumes.
One-time Fixed Investment = $ 2 Billion
Selling Price of Luxury Model = $ 200,000
Per Unit Variable Manufacturing Cost = $ 140,000 (@70% Variable Costs)
Contribution Margin = $ 60,000
Break-even Sale Volume = 33,334 Units
Similarly, for 30% return on the fixed investment (At the same contribution margin), Sale Volume = 43,334 Units

I'm assuming that the production set-up will have the capabilities to meet this demand. Do we have data on how many units are expected to be sold in the first year, and what the subsequent year on year growth is expected to be?

Alright. Those numbers make sense. In the US market, the client had sold nearly 500,000 vehicles in the past year in a 50-40-10 split between the affordable, mid-commercial and luxury models. Based on these numbers, can you forecast the numbers for the Indian market? Do they make sense?

Sure. So, out of the 500,000 units sold, 50,000 units were the luxury variant. To get the corresponding volumes for the Indian market, I would like to use the PPP adjusted per capita GDP ratios. India's PPP adjusted per capita GDP is about 10% of that of the US. From that we project the sales in India to be 5000 units in the upcoming year. However, this number seems to be rather high. I'd like to do a sanity check on this number.

Yes, makes sense. Go ahead.

Less than 0.001% of India's population falls under the super rich category. Among these people, less than 20% are likely to consider the decision to go for the luxury electric vehicle, and less than 5% of those in the final consideration are likely to actually make the purchase.

That sounds right. So, what is the number you are going to arrive at?

Assuming India's current population to be 1.4 Billion, the number of luxury electric cars expected to be sold are 140 per year. Accounting for under accommodations and impulsive purchases, I would ceil the number at 200.

Perfect. That number makes better sense. This is a very strong analysis. So what would your final client recommendations be?

We started out on the premise that the client has decided to actually enter the Indian market. So my recommendations to the client would be two fold:

First, the current Indian market for EVs is in a very nascent stage, and it might be a little early to enter the market and setup operations at scale. So, the first suggestion is that the client should not enter the Indian (and other Asian) markets at this point in time.

Second, if the client still chooses to enter the market, they need to embrace the fact that their expected return on Fixed Investments (~30%) in the near future is certainly impossible. The mere break-even, even with full scale operational setup, is expected to take well over a decade. Additionally, the client will only be able to manufacture and sell the luxury model, if any at all. So setting up its own production capabilities in India would be a very risky strategy for the client – with almost no payoff potential.

A reasonable alternative for the client is to consider exclusive partnerships and JVs with established OEMs in India. The client can enable the technology, set production and quality standards, offer manufacturing expertise, and lend it's strong brand. In partnership with Indian (and established foreign) OEMs and assemblers, the client may consider entering the Indian market with co-branded EVs. While challenges such as marketing communications, adoption, and after sale service will continue to exist, it is financially much more easier for the client to implement.

Wonderful. That is a very good analysis. We can close the case here.

New Product Launch Case 3: Autonomous E Bike

Prompt: Your Client is a manufacturer of novel Autonomous Self-balancing Electric Bikes. A functional prototype is ready, and they want you to help develop a product launch strategy for the right markets. How would you go about it?

That's a very interesting product. Can you please tell me a little more about the Autonomous Self-balancing Electric Bike? What is this product? And what are its features?

The Autonomous E Bike is a novel 2 wheeled, self balancing vehicle that users can ride on (standing). It is a dock based electric commute option that serves users on-demand, through a mobile application. It has an expected range of 2 km, and can navigate independently from and to its closest dock stations.

That's very interesting. Per my understanding, the product would serve requirements in last mile commute and micro mobility. However, the range limitations and autonomous features greatly limit the product's applicability and we may have to look at niche use cases. Is the client willing to change some of the product features, and build a model that supports operations similar to that of Yulu, Bounce, or Vogo, for example?

Yes. Micro-mobility is the client's focus area. Autonomy and Electric Drives are the key differentiators for the client's product and these features can not be compromised upon.

Okay, I understand. So, I'm assuming that the prototype has been promising, and the client wants to know where and how to introduce the product. Is that right? Are there any other technology or business constraints that I should consider?

Yes. The prototype has been promising. However, the autonomy of the bike is not advanced enough for it to navigate open urban environments. The bike can navigate through fairly complex environments where there are no sudden disruptions. Besides, remember the fact that the bike is a dock based commute option.

Okay. Let me get my thoughts together and develop a framework.

Sure, go ahead.

I would like to look at this like a new product launch and analyse 3 segments –

a) the markets to enter – if and how,

b) the business operating model and scalability, and finally

c) supporting financial and marketing strategies for the client.

That sounds like a good approach. Please go ahead.

I'd like to start with the suitable markets to enter, and see if they have enough financial and growth potential. Given the product's capabilities, use would be restricted to controlled residential and commercial environments, where micro mobility has significant potential. Some applications that I can think of include large apartments, gated housing communities, SEZs and technology parks, large corporate and academic campuses. Would you like me to do a numeric analysis of one of these segments?

That's a good start. The client is indeed keen on starting with gated communities and large campuses. Can you estimate the number of such bikes needed to serve the community at MDI Gurgaon?

Sure. The average batch size at MDI is about 650 across the all programs. At any given time the number of students on campus is approximately 800. Given the size of MDI's campus, there would less than 10% unique users from the student community. Among the 30 faculty members and 20 administrative and support staff, there are likely to be less than 1% unique active users at any given time. In all, I would say 70 bikes would suffice for the MDI campus here in Gurgaon.

New Product Launch Case 3: Autonomous E Bike

However, to have maximum usage and on-demand availability of the E-bikes, it would be important to strategically place the docking stations. Based on mobility between commonly visited locations on campus, I recommend that 4 docking stations be installed – one each at the entrance, the hostel block, the academic block, and the canteen/mess area.

Okay. That's a good analysis. Can you recommend an integrated communication and pricing strategy for the product? How should the client go about selling the offering and how should it be priced?

Sure. Again, I would like to highlight the importance of launching the product in a controlled environment, and offering an integrated service portfolio with it. Marketing and communication efforts need to be directed towards commercial and retail builders, with a focus on developing an integrated technology hub/township/apartment complex that has state of the art capabilities in micro mobility. Further, large corporate and academic campuses should be targeted with the central idea of providing convenience, and making these campuses eco friendly with zero vehicular emissions. Extensive opportunities exist across the spectrum. IIT and IIM campuses, the Infosys campus in Mysore, and TCS campus in Siruseri offer great potential for such products.

Yes. That sounds right. Can you talk me through your approach for helping the client determine and adopt a pricing strategy ?

Definitely. I would like to look at the 3 standard pricing models and suggest the right strategy based on which model makes financial and strategic sense – a) Cost +Margin Model, b) Value Model, and c) Competitive Pricing Model. Based on our targeted selling markets, competition is a critical factor. Providers like Yulu and Ofo, have alternatives such as pedal bikes and electric scooters. To be able to sell our products and services, we will need to price them competitively. So, I recommend that we adopt a competitive pricing strategy, even if it means that we will have thin (or even negative) margins initially. Do you want me to conduct further analysis of such a strategy?

That's a good suggestion. No, let's stop here. It was good interacting with you.

New Product Launch Case 4: Anti Depressant

Prompt: Your Client is the US pharmaceutical division of an MNC. In 2 months, the division expects to receive the FDA's approval to launch an anti-depressant drug. The division, however, has concerns over the market potential for this drug and its ability to reach the key prescribers in this therapeutic category. We have been asked to help determine whether they should – a) launch independently, b) co-market with a partner, or c) sell, license or swap the drug. How would you go about it?

Sure. Sounds quite interesting. Before I proceed, I would like to understand what the client's primary apprehensions are. Any specific aspects that the client is concerned with?

The concerns over market potential center on whether the drug can gain adequate competitive advantage in a market having two dominant, patent-protected competitors and nearly 100 generic competitors. Additionally, a higher technology antidepressant, which appears to offer therapeutic advantages, was recently introduced by a competitor.

Alright, noted. To understand profitability potential, I'd like to explore the market attractiveness and our competitive position within that market in order to determine the market size we can target. Next, I'll explore the major cost drivers and how they impact the entry decision.

Alright. That sounds fair. Please proceed.

Starting with the revenue, I'd want to understand first what the overall market revenue opportunities are for this type of drug and for our product specifically. The client has expressed concern over the market potential for this drug. How big is the market and what is its potential growth rate?

The overall antidepressant drug market is relatively attractive at $1.1 Billion per year and is growing well in excess of the population growth rate.

So, the overall antidepressant market is attractive at $1.1 Billion, but within that market, there are segments based on different types of technology that may or may not be attractive. Does that sound right? What is the technology associated with our client's product? And how fast is this segment growing?

Yes, that's right. The client's technology is based on tricyclic formulations. The existing competitive environment in this segment is very intense and will only increase if the segment shrinks – which is likely to happen.

That drives me towards concluding that the overall segment is not very attractive. What percentage of the market share by volume do the competitors have?

In our own technology segment, the leader has approximately 10% and the number two player has about 4%. The rest of the 100 competitors each has less than a 2% market share. By comparison, the new technology has captured a 20% market share of the total antidepressant market.

Sure, noted. How much will our client's product be able to differentiate itself within our technology segment?

Not much. In a market research study we commissioned, the product was perceived to be very similar to the next best product in our technology segment, slightly inferior to the number one product, and slightly better than the generic products. The new technology introduced by the competitor was viewed as far better due to a lower level of sedation.

So, to summarize the market environment, although the anti-depressant market is attractive, the segment that we would be participating in is relatively unattractive and runs the risk of becoming smaller and more competitive over time. Additionally, within this unattractive segment, we have limited ability to differentiate ourselves relative to our competitors, and thus, will not be able to charge a premium price.

New Product Launch Case 4: Anti Depressant

Yes, that is right. So, what next?

I would think that this unattractive market and relatively undifferentiated position within that market would translate to a low market share. I would estimate that our share might be lower than either of the branded products given our new presence in the market, say maybe a 2-4% share and this, like the rest of the segment, would probably decline over the next couple of years.

Okay, that makes sense.

Knowing that our revenue potential is relatively low puts more pressure on minimizing the costs if we were to market the drug. I would want to see what area within the cost structure impacts profitability the most. What percent of net sales is COGS? Further, who would we be selling to?

COGS is about 20% of net sales, and most other expenses are SG&A. Good point on the customer. For such a drug, we would be selling directly to doctors – Psychiatrists and General Practitioners. It is the Psychiatrists that determine the success of failure of such a drug.

Sure. COGS seems to be reasonable and is not of concern at this point. SG&A are regular expenses and would be at realistic levels. I'd now like to focus on the people we sell to – the physicians. Do we have expertise in pharmaceutical sales? Do we have good relations with doctors?

Yes, that's right. No, we do not have any experience with pharmaceutical sales. We neither have relations with the doctors nor a trained salesforce that can do it. We will have to build those capabilities ground up.

Okay, noted. In undertaking this exercise, there would be significant costs that would have to be incurred. Further, pharmaceutical sales work based on good relationships between manufacturers and prescribers. This would take time and efforts to work, and given the already bleak state of the market segment, the client does not have the leg room to incur higher costs or the benefit of building relations over long time periods. They need to act now if all their R&D is to yield some tangible benefit to the company.

Yes, that's absolutely right.

So, that eliminates the option of directly launching the product. Co-marketing and branding with a partner in the space would be a good option for the client.

Okay. Can you walk me through that thought process?

Sure. By entering a co-marketing agreement, the costs of the sales force is spread across several products of the two companies. As we would choose a partner who does not have a competing product, our drug would get the appropriate selling attention warranted. The partner is likely to have existing relationships with the psychiatrists and doesn't need to take time to further establish these relationships. This might help the sales of our product might peak sooner. So, all in all, I would think that if we were to market this product, it would be a less costly and higher value option to enter into a co-marketing agreement rather than go at it alone.

That makes sense. So, is that your final recommendation?

Not yet, I'd like to look at the final option of selling/licensing or swapping out the drug. Do we have any information pertaining to this? Are there companies who we can potentially sell to, or those that would want to use our formulations?

What in your opinion would be the reasons to go for any of these alternatives?

The client would want to choose the option that is the most value creating. There could be several reasons for going with this alternative. a) We might sell our drug because the sum of the promotional or overhead costs may make it unprofitable for us to market whereas a company having a similar product line might be able to carry this product at a very small incremental cost. b) We might license it for the same reasons we would sell it. c) We might swap it if we could find a company in need of this type of drug while having an innovation that might fit more with our existing infrastructure.

To evaluate these options, we might look at projected cash flows and discount them backwards to see which of them is the most value creating alternative.

Perfect. That's good. We can stop here. Thank you for your time.

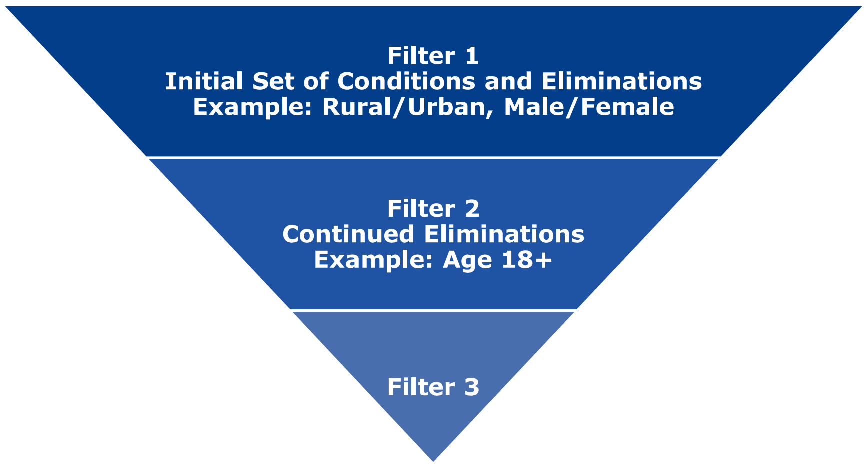
Guess Estimates

Approaching Guesstimates

Top Down Approach/Supply Side Approach

- Start with the broadest possible universe of which your guesstimate is a fraction, and then keep applying a set of filters (eliminations) or conditions to break it down and arrive at the solution

Starting Universe



Required Guesstimate

Segmentation Basis:

- Demographics (Age, Sex, Income, Ethnicity etc.)
- Psychographics (Attitudes, Behaviours, Values)
- Geography (City/Country/Continent, Urban vs. Rural etc.)
- Channels (Offline vs. Online, TV vs. Radio etc.) and others – each varying as per the case at hand

Bottom Up Approach/Demand Side Approach

- Start from the bottom – some low level statistics such as 'Revenue per customer' or 'Fuel consumption per vehicle', which would be same across your universe or a sub-set, and build your way up to the answer.

Identify the lowest level statistic that is replicable

Revenue per User
Cost per Unit

Estimate the required metric for the lowest level of statistic

Profit per User
Margin per Unit

Build up to the universe to arrive at the required answer

Profit across India
Channel Margins

The Bottom-Up approach is **particularly suitable for market sizing questions**: How many cell phones are being bought everyday in India? Estimate the total revenue of a telemarketing firm? And so on.

Tip: The choice between top-down and bottom-up approaches is subjective and has to be made on a case-by-case basis. As a rule of thumb, the bottom up approach can be used when consistent lower level metrics can be established.

Guesstimate Data Points

World Data

Total Population 7.8 Billion

Gender	
Male	50%
Female	50%

Rural-Urban	
Rural	45%
Urban	55%

Continent Median Age	
Asia	31 Years
Africa	19 Years
Europe	42 Years
Latin America	31 Years
North America	35 Years
Australia	33 Years

Continent Population	
Asia	60%
Africa	17%
Europe	9.5%
North America	5%
Latin America	8%
Australia	0.5%

Population Density (per km^2)	
Asia	150
Africa	45
Europe	34
Latin America	25
North America	28
Australia	5

India Data

India's Population 1300 Million

Rural-Urban	
Rural	70%
Urban	30%

Gender	
Male	52%
Female	48%

Note

Urban Population: Settlements having more than 5,000 people, population densities greater than 400 persons/km^2 , of which 75% of male workers are involved in non-agricultural pursuits

Rural Population: All non-urban population is considered rural.

Distribution by Religion				
Religion	Hindu	Muslim	Christian	Others
Population	80%	15%	2%	3%

Approximate Population for Indian Cities	
Mumbai	20 Million
Delhi/Kolkata/Bangalore (Metros)	15 Million
Chennai/Hyderabad	10 Million
Lucknow/Patna/Jaipur/Bhopal	3 Million

Age Distribution	
0-15	30%
15-35	40%
35-60	25%
60+	5%

Note: Median Age of India's population can be taken as 25 Years

Note: The data-points mentioned are approximate figures, and are to be used for the purpose of guestimates only.

Guesstimate Data Points

Additional Data for India

Land Distribution (in thousand km^2)	
Total Area = 3300	
Land	70%
Water	10%
Forest	20%

Area of major cities (in km^2)	
Delhi	1500
Mumbai	600
Bangalore	700
Hyderabad	625
Chennai	425
Kolkata	200

Household Size	
No. of household = 250 Million	
Rural	5
Urban	4

Marital Status	
Married	50%
Unmarried	50%

Household Income Distribution		
Category	**Annual Household Income (in INR)**	**%**
Elite	greater than 20 lakh	3%
Affluent	10 lakhs - 20 lakhs	7%
Aspirers	5 lakhs - 10 lakhs	15%
Next Billion	1.5 lakhs - 5 lakhs	45%
Strugglers	less than 1.5 lakhs	30%

Miscellaneous Data	
Average literacy rate of India (age 7 and above)	77%
Percentage of Internet Users	50%
Percentage of Smartphone Users	40%
India's population density (people per sq. km)	500
India's fertility rate (children born per woman)	2.17
India's Mortality rate (deaths/1000 live birth)	29.94
Divorce Rate in India	1%
Life Expectancy (in years)	70
Birth Rate*	22
Death Rate*	7.5
Population Growth Rate	1.25%

*Annual number of births/deaths per 1000 total population

Note: The data-points mentioned are approximate figures, and are to be used for the purpose of guestimates only.

STRATEGIST
STRATEGY & CONSULTING CLUB OF MDI

Guesstimate 1: Fuel Consumption

Question: Estimate the quantity of petrol used per day (in litre) for transportation in Delhi.

Approach : Bottom Up (Demand Side)

Assumptions

- Diesel and CNG is majorly used by public transport and commercial vehicle (busses, vans, and trucks)
- Average distance travelled by each vehicle (per day) = **20** km
- Mileage (in km/litre) : 2 Wheeler = **50**, 4 Wheeler = **10**

Methodology

- Calculate the Number of households
- Calculate Vehicles per household
- Calculate the consumption by each vehicle.
- Scale up the consumption to the entire population

Solution

- Distance travelled by the 2 wheeler = 20*(7,50,000 + 7,50,000 + 2,25,000) = 3,45,00,000 km
- Litres of Fuel Used by 2 wheeler = **6,90,000**
- Distance travelled by the 4 wheeler = 20*(5,62,500 + 2,25,000) = 1,57,50,000 km
- Litres of Fuel Used by 4 wheeler = **15,75,000**
- Total Fuel Used = **22,65,000** Litres

Assuming the 20% consumption is of diesel,

- Petrol Used in Delhi (by Delhi People) =0.8 * 22,65,000 = 18,12,000

Assuming 10% consumption is by non residents of Delhi,

- The quantity of petrol used per day (in litre) for transportation in Delhi = 1.1 * (18,12,000) **≈ 2 Million Litres**

Delhi Population
15 Million

Average Household size = 5

Delhi Total Household
3 Million

Poor (20%) **6,00,000**	Low Class (50%) **15,00,000**	Middle Class (25%) **7,50,000**	Upper Class (5%) **1,50,000**
Avg. No. of Vehicles possessed by household			
2 Wheeler: 0 4 Wheeler: 0	2 Wheeler: 0.5 4 Wheeler: 0	2 Wheeler: 1 4 Wheeler: 0.75	2 Wheeler: 1.5 4 Wheeler: 1.5
Total No. of Vehicles			
2 Wheeler: 0 4 Wheeler: 0	2 Wheeler: 7,50,000 4 Wheeler: 0	2 Wheeler: 7,50,000 4 Wheeler: 5,62,500	2 Wheeler: 2,25,000 4 Wheeler: 2,25,000

Guesstimate 2: Petrol Pumps

Question: Estimate the number of Petrol Pumps in Bangalore

Approach : Top Down (Supply Side)

Assumptions

- 3 Traffic Zones (**High**, **Moderate**, **Low**)
- Avg. Distance between Petrol Pumps in these zones is **1.0 km** for HTZs, **2 km** for MTZs, and **4 km** for LTZs

Methodology

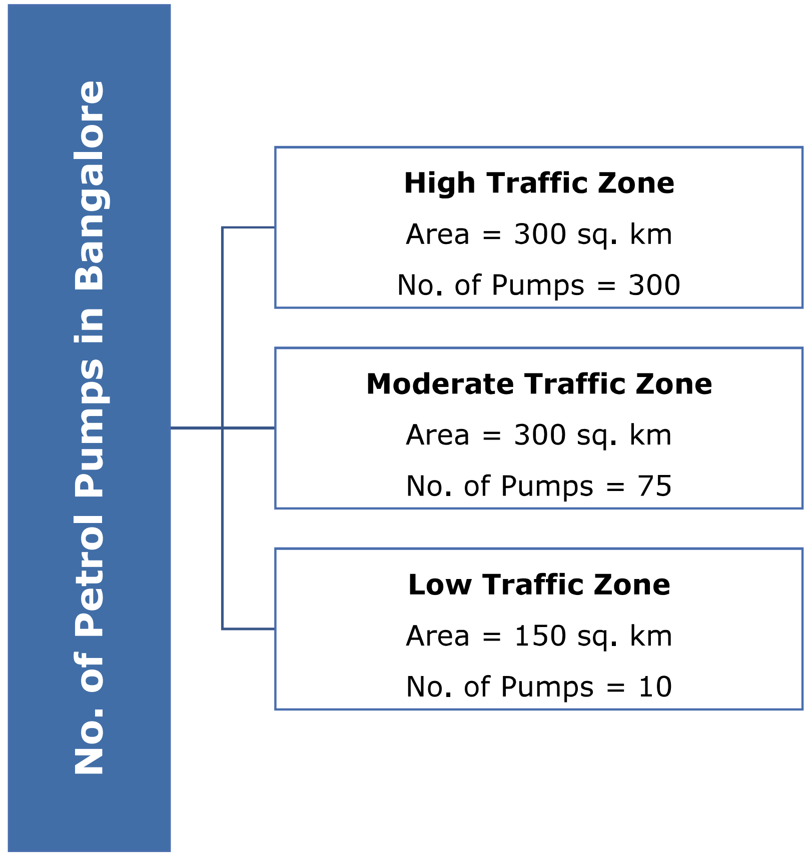
- Calculate the area of Bangalore
- Divide the area into the 3 traffic zones
- Allocate the area served by one Petrol Pump in each of the zones
  - High Traffic Zones : 1.0 * 1.0 = 1.00 sq. km
  - Moderate Traffic Zones : 2.0 * 2.0 = 4.00 sq. km
  - Low Traffic Zones : 4.0 * 4.0 = 16.00 sq. km

Solution

- Area of Bangalore = 25*30 = 750 sq. km
- High Traffic Zones make up 40% of the total area = 300 sq. km
- Moderate Traffic Zones make up 40% of the area = 300 sq. km
- Low Traffic Zones make up the other 20% of the area = 150 sq. km

- No. of Petrol Pumps in **HTZ** = 300/1.00 = **300**
- No. of Petrol Pumps in **MTZ** = 300/4.00 = **75**
- Not of Petrol Pumps in **LTZ** = 150/16 = **10** (approx.)

- Total number of Petrol Pumps **= 300 + 75 + 10 = 385**
- Rounding up, accounting for all under allocations, Total = **400**



Guesstimate 3: Number of Flights at KIA

Question: Estimate the number of Flights Arriving at Kempegowda International Airport (Bangalore) Daily

Approach : Top Down (Supply Side)

Assumptions

- 2 Categories of Flight Arrivals: Domestic and International
- Number of Domestic Terminals: 6
- Number of International Terminals: 6
- Turn Around Time (TAT) International: 3 Hours
- Turn Around Time (TAT) Domestic: 1 Hour
- Number of Peak Hours: 8 (100% Utilization)
- Number of Non-Peak Hours – I: 10 (70% Utilization)
- Number of Non-Peak Hours – II: 6 (30% Utilization)
- Number of Hangars per Gate/Terminal = 2

Methodology

- Calculate the **number of Domestic Flight Arrivals**
  - Max Capacity = (24/TAT) * No. of Terminals * No. of Hangars
  - Number of Incoming Flights = Max Capacity * Avg. Utilization
- Repeat the process for **International Flight Arrivals**
- Add the 2 values to obtain the **Total Number of Incoming Flights**

Solution

- Maximum Domestic Capacity = 24/1 * 6 * 2 = 288
- Maximum International Capacity = 24/3 * 6 *2 = 96
- Average Utilization = ([8*1] + [10*0.7] + [6*0.3])/24 = 70%
- Total Number of Flight Arrivals = (288+96) * 70 ~ **270 Flights**

In this problem, it is assumed that within a 24-hour window, every flight that arrives will depart.

No. of Flight Arrivals at KIA, Bangalore

- International Arrivals (70% Avg. Util)
  Max Capacity = 96
  Actual Arrivals ~ 68
- Domestic Arrivals (70% Avg. Util)
  Mas Capacity = 288
  Actual Arrivals ~ 201

Terminal Utilization

- **Peak Hours** : 6 AM to 10 AM and 6 PM to 10 PM (8 Total Hours)
- **Non-Peak Hours I** : 10 AM to 6 PM and 10PM to 12 AM (10 Total Hours)
- **Non-Peak Hours II**: 12 AM to 6 AM (6 Total Hours)

Guesstimate 4: A GPS Tracker

Question: A company has developed an innovative GPS tracking mechanism for tracking school buses in India. It is priced at Rs 1,000 per unit and two units are required per bus. Identify the potential addressable market size for the device in the first year of its launch.

From an affordability and feasibility perspective the company should only target the urban population which is ~30% of the total population.

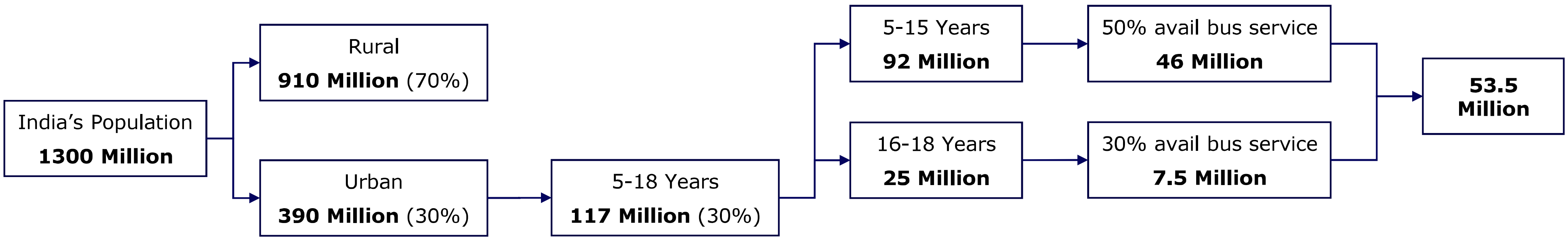
Assumptions

- School going students availing the bus service are from the age of 5 years to 18 years
- 5 to 15 Years: 60% of all students would avail the bus service
- 16 to 18 Years : 30% of all students would avail the bus service

Rationale for assumption

As the students move to higher classes, they seek more flexibility – in timings, mode, and places they commute to and from

Calculation for No. of Students Availing the Bus Service



- Assume that the average bus has roughly 15 rows on each side and can seat 2 students per row = 15 * 2 * 2 = **60 students per Bus**
- Number of school buses = # students availing bus service / (# students per bus) = 53.5 Million/60 ≈ **890 K**
- Total Potential addressable market size = Rs. 1,000 * 890 K * 2 = **Rs. 178 Crore**

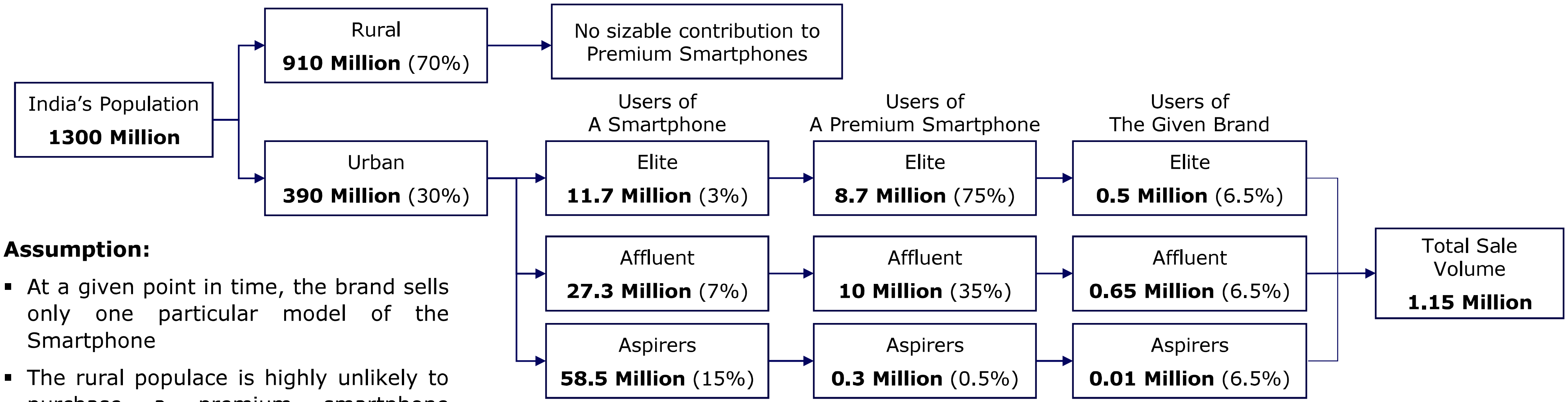
Guesstimate 5: A Cash-back Offer

Question: A premium smartphone brand in India wants to reward the first time buyers of its latest model, with promotional cash-back offers. Based on the current market size, growth rates, and operating margins, identify the ticket size of the cash-back per device sold.

Given Data

- Selling Price of the Latest Model : Rs. 60,000
- Market Share among Premium Phones by Volume (Price>50k): 6.5% ; Expected Growth for the Next Year: 4.5%
- COGS as a % of Net Sales = 70 & SG&A as a % of Net Sales = 15
- Minimum Operating Margin Requirements as a % of Net Sales = 6% (Note: This is for each category of users – New and Returning, separately)

A) Estimate Current Year Sale Volume (No. of Devices Sold)

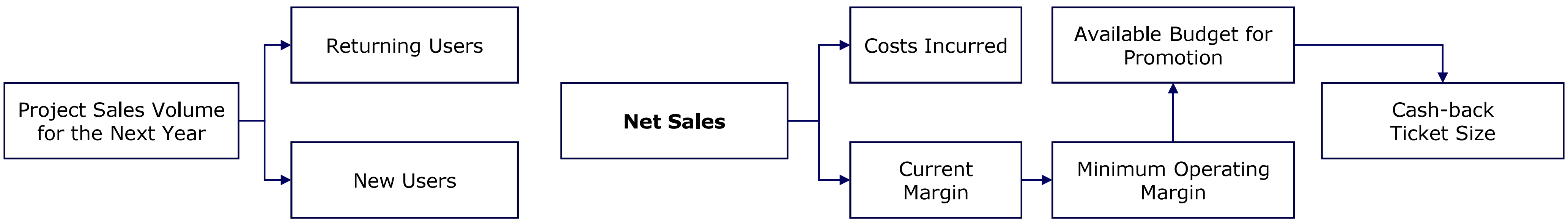


Assumption:

- At a given point in time, the brand sells only one particular model of the Smartphone
- The rural populace is highly unlikely to purchase a premium smartphone (>50k) irrespective of the income level

Guesstimate 5: A Cash-back Offer

B) Project Sales Volume and New Users for the Next Year and Compute the Cas-back Ticket Size



- Project Sales Volume (Next Year) = 1.045*1.15 Million = **1.2 Million** (4.5% Growth)
- Assuming the Average Lifecycle of a Phone to be 3 years, and ~80% customer retention, the number of Returning Users = (1.2/3)*0.8 ~ **0.30M**
- Number of New Users = 1.2 – 0.3= **0.9 Million** Users; Net Sales = 0.9 Million * 60,000 = **54 Billion**
- Costs Incurred = 0.85 * 54 Billion = **46 Billion** (At 70% COGS and 15% SG&A); Current Margin (Value) = 54B – 46B = **8 Billion**
- Minimum Desired Margin = 0.06 * 54B = **3.3 Billion** (At 6% Min. Operating Margin); Promotional Budget Available = 8B – 3.3B = **4.7B**
- Ticket Size of Cash-back per Device sold to New Buyers = 4.7B/0.9M = **Rs. 5,200**

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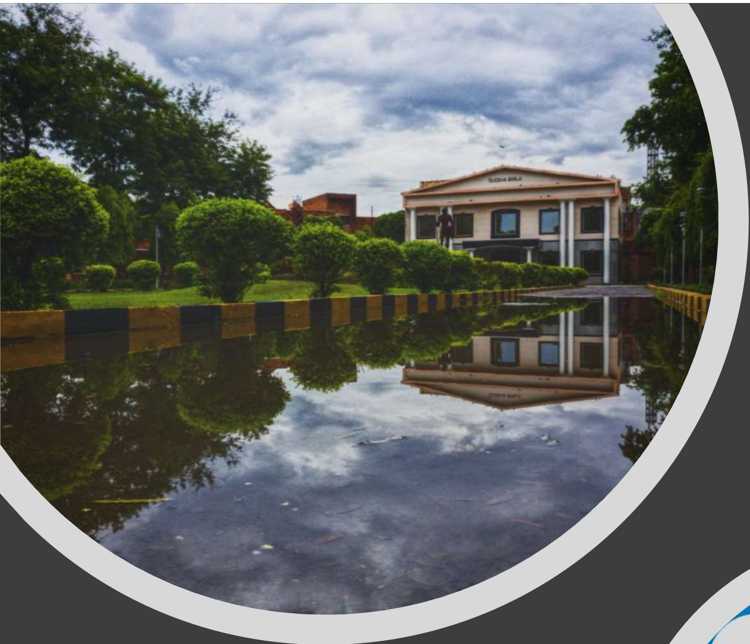

All the very best!

For queries, suggestions, and feedback, write to us at strategist@mdi.ac.in

Connect with us!

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