CASELETTE

Manual to Acing Consulting Interviews
by the Alumni of
Shaheed Sukhdev College of Business Studies

20 Guesstimates | 20 Cases | Consulting Interview Best Practices

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we dedicate this book to our alma mater, Shaheed Sukhdev College of Business Studies

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Bhavya is currently working at the CEO's office in Samagra. He was a part of the placement cell, where he served as the Head of Corporate Relations, and the Economics Society in college. At the end of his second year, he interned at Ken Research, where he secured a PPO for Research Analyst II.

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Karan is currently working as an Analyst at Everest Group. Having worked with organizations such as Duff & Phelps and Ernst & Young, he carries experience in the sphere of valuations and risk management. He served as the head of internships in the placement cell and was also associated with the finance society in the college.

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We would like to acknowledge the extraordinary debt we owe to everyone who has assisted us in compiling the information for this book; to people who inspired us in our attempt to aid an aspiring consultant in developing a vivid know-how of the consulting world.

This book is a festivity of the insight and experience we gained through everyone we ever came across in our academic and professional stint of life; an accolade for the people who inspired our endeavour which led to the creation of Caselette:

Babita Nawalakha, H.L. Nawalakha, Nandita Nawalakha, Ankita Nawalakha, Saurabh Chhajer, Jasmine Sarna, Ripudaman Sarna, Divjot Singh, Santosh Verma, Dileep Verma and Aishwarya Verma

We would also like to express our sincere gratitude to our peers who gave their valuable contributions in bringing this book to reality and acted as support systems at different points of time in the journey of writing this book. Adding their names, alphabetically:

Arpit Madan, Dhruv Manchanda, Divij Shangle, Govind Gupta, Harshit Yadav, Prateek Agarwal and Satwik Dudeja

Lastly, we are extremely grateful to the existing go-to resources which not only benefited our preparation but also inspired us to create something which can create an impact and further facilitate the preparation of others like us. We hope that this book adds value to the overall concept-building and approach-formulation exercise and enables candidates to create the best blend of this resource, with the existing resources.

We sincerely apologize in case we missed any name(s) of those who feel their contribution was relevant in making this book a success. Thank you!

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The cases and guesstimates in this book have been created in a way that seeks to replicate the actual consulting interview experience for the candidate. Each case is divided into two sections – script and summary. Similarly, each guesstimate has been divided into four sections – clarifications, assumptions, structure and formulas & annexures. The idea is to help candidate understand the different aspects to a case (or guesstimate) in the best possible manner and better understand his/her weak points.

Having said that, *the full potential of Caselette can be realized, not by reading, but by practicing*.

Candidates are suggested to form peer groups of 3-4. Two people assume the role of interviewer and interviewee. Meanwhile, a third person should carefully listen to the interview and give an unbiased feedback on communication and flow of thoughts (as the same differs from person to person and cannot be judged through this book).

Things to look out for in Caselette:

- **Guide to approach formulation: During our practice days, we encountered several challenges, learnt numerous lessons and evolved our own understanding of things. Within this book, we have tried to cover the case interview theory, as a means to help candidates develop better knowledge before entering the caseing arena. In the preliminary theory section, candidates can find the various frameworks as well as evolved approaches to case and guesstimate solving.**

- **Guesstimate datasheet: Key figures, splits and factors to remember during consulting interviews – all at one place.**

- **Unique blend of industry-standard cases: Caselette covers 20 cases across 15+ industries and 6 case categories – profitability, pricing, market entry, growth strategy, mergers & acquisitions and unconventional cases . The book brings forth the best set of cases from diverse consulting firms as well as those curated by the authors from what they deemed best for the candidates. The cases also offer a variety in terms of the caseing style – interviewee led and interviewer led.**

- **Moment-to-Shine: Some cases come with hidden opportunities for candidates to earn some extra brownie points from the interviewer. These are in the form of elements that are hard to identify by an average candidate and therefore, give a competitive advantage to those that identify and call these out during interviews. Readers can find these moments-to-shine in various cases and guesstimates.**

- **Authors' 2 Cents: Wherever the authors felt that a certain section/approach required additional explanation for a thorough understanding of the reader, they have added boxes in the form of 'Authors' 2 Cents' to help the reader get a better insight into the 'why' and 'how' of the proposed approach.**

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GUESSTIMATE DATASHEET

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Area Related Figures

Area (In Sq. Km.)	
India	~3.25 Mn.
Delhi	~1500

Land Use Pattern (India)	
Forest Cover	30%
Cultivable	45%
Waste Land	15%
Residential	5%
Others	5%

Land Use Pattern (Delhi)	
Forest Cover	20%
Commercial	20%
Industrial	15%
Residential	20%
Other Infrastructural Land	25%

Population Related Figures

Urban Rural Population Split	
Urban	30%
Rural	70%

Age Split	
0-18	35%
19-25	15%
26-40	25%
41-60	15%
60+	10%

Gender Split	
Male	50%
Female	50%

Religious Split	
Hindus	80%
Muslims	15%
Christians	2%
Others	3%

Population (In Cr.)	
World	800
India	140
Delhi	2

Economy Related Figures

Sector Split (Urban)	
Primary	10%
Secondary	30%
Service	60%

Sector Split (Rural)	
Primary	65%
Secondary	20%
Service	15%

Formal-Informal Sector Split (Urban)	
Formal	50%
Informal	50%

Formal-Informal Sector Split (Rural)	
Formal	15%
Informal	85%

*all figures relate to the Indian subcontinent

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Income & Expenditure Splits

Household Expenditure Split (Middle Class)	
Post deducting savings @20% of Disposable Income	
Food	30%
Housing & Maintenance	30%
Travel & Conveyance	10%
Healthcare	10%
Education	10%
Clothing	5%
Miscellaneous	5%

Household Expenditure Split (Upper Class)	
Post deducting savings @30% of Disposable Income	
Food	15%
Housing & Maintenance	10%
Travel & Conveyance	20%
Healthcare	10%
Education	15%
Clothing	10%
Miscellaneous	20%

Household Expenditure Split (BPL)	
Assuming savings are negligible	
Food	50%
Housing & Maintenance	25%
Travel & Conveyance	10%
Clothing	5%
Others	10%

Income Split (Urban)	
Below Poverty Line	20%
Lower Middle Class	40%
Upper Middle Class	25%
Upper Class	15%

Income Split (India)	
Below Poverty Line	25%
Lower Middle Class	50%
Upper Middle Class	15%
Upper Class	10%

Income Split (Rural)	
Below Poverty Line	30%
Lower Middle Class	55%
Upper Middle Class	10%
Upper Class	5%

Other Important Splits from Guesstimate Standpoint

Scope	Literacy Rate	Smart Phone Penetration Rate	Internet Penetration Rate
India	75%	55%	50%
Urban	85%	70%	70%
Rural	70%	30%	25%

Scope	Electricity Penetration Rate	Population/ Hospital Bed	Average Household Size	Access to Drinking Water
India	98%	2000	5	70%
Urban	100%	1500	4	100%
Rural	90%	2500	5	50%

*all figures relate to the Indian subcontinent

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Product Related Figures

Product	Average Lifespan (in years)	Market Growth Rate	Average Price/Unit (in INR)
	to be varied as per income level of households/degree of usage as the case may be	it is good to know market growth rates for leading customer products; however in case of alien product one can always discuss with the interviewer, usually GDP growth rate serves as an important benchmark	these numbers would serve as benchmarks to arrive at weighted average figures for different categories of customers based on spending power
Passenger Car	15	10%	1,000,000
Two Wheelers	7	5%	70,000
Air Conditioner	7	15%	30,000
Whitewash (in houses)	3	-	1000/Gallon
Passenger Car Tyres	3	15%	20000/Set of 5
Washing Machine	7	5%	20,000
Mobile Phone	3	15%	10,000
Television	10	10%	30,000
Laptop	5	5%	40,000
Refrigerator	10	10%	20,000

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GUESSTIMATES

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Overview & Clarifications

A guesstimate problem typically entails an open-ended problem requiring a candidate to take relevant assumptions, create an appropriate structure, apply necessary filters and benchmarks, make calculated guesses, and present the same in a manner which is both logical as well as reasonable. It can be something as simple as "*Estimate the consumption of butter*". Here, the interviewer would expect the candidate to ask sensible questions to further narrow down the problem statement. Similarly, another guesstimate can be "*Estimate the number of traffic lights in your city*".

As can be observed, the two guesstimates here are poles apart in their ask and therefore the approach. While the first one is a market sizing problem, the second one is one of those abstract problems that you could be asked every now and then to check how impromptu your thinking could be. The bottom line for both, however, is that your approach and structure will be more important to your interviewer, rather than the final figure you arrive at.

Here is an inexhaustive list of some of the important aspects that might need clarifications in a guesstimate:

- **Clarify the time period, is the problem to be estimated on a spot/daily/weekly/monthly/annual basis?**
- **Clarify the geography, which city/state/country is the estimation based out of?**
- **Clarify the scale, is the final answer expected in unit terms or monetary value?**
- **Clarify the market, is it just primary market or secondary market too? Is it just the existing market or new market too?**
- **Clarify the use case, this is generally asked to narrow down the problem with a vast scope, say in an estimation of petrol consumption in your city it would be important to clarify whether its vehicular usage or industrial usage being sought**
- **Clarify the consumer segment, say in your previous question the interviewer wants you to only look at vehicular usage, your immediate next question should be to clarify if it's passenger vehicle, commercial vehicles or both.**

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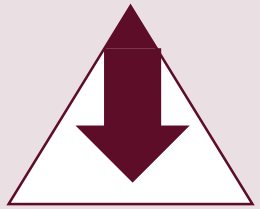
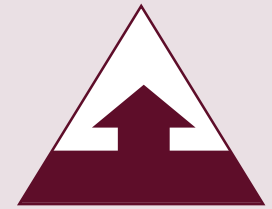
There are primarily two approaches that deal with guesstimates, these are as follows:



Approach to Guesstimates

Top-down

Bottom-up



Approach

<u>Top-down</u>: It starts with taking a macro level figure like population or area and applying necessary filters to arrive at the target segment and hence the desired estimate. Filters can further be subdivided into splits and factors basis the further treatment. When we are concerned with the entire number, but subject to different treatments, we go with a split, whereas when we are looking just at a particular segment of the number, we apply a percentage of factor.

Following are some of the <u>splits</u> you can use to arrive at the final estimate:

1. **Urban-Rural**
2. **Land Use Pattern (Forest Cover, Arable, Commercial, Industrial, Residential)**
3. **Income (Below Poverty Line, Lower Middle Class, Upper Middle Class, Upper Class)**
4. **Age**
5. **Gender (Male, Female, Others)**
6. **Organised-Unorganised Sector**
7. **Religious Distribution (Hindus, Muslims, Christians, Others)**
8. **Household Expenses (Food, Housing, Travel, Education, Savings, Miscellaneous)**

<u>Bottom-up</u>: As opposed to the top-down approach, this approach starts with a low-level statistic, and builds its way up to the final answer. The goal here is to determine a bottleneck that serves as a starting point to help scale up to the required value.

E.g., In a problem that goes like, 'Estimate the number of cars being refilled at a particular petrol pump', the bottleneck or supply side constraint could be the number of refilling stations within the petrol pump. At no point can the petrol pump refill more cars than the number of refilling stations. So, in this case using the bottom-up approach we can determine the number of cars being refilled at different points of the day, subject to occupancy levels and scale it up to the required time frame.

Important steps in bottleneck approach:

1. **Estimate the number of bottlenecks**
2. **Estimate the number of operational hours/days**
3. **Segregate the hours/days into peak and non-peak hours/days**
4. **Estimate the maximum capacity**
5. **Estimate the occupancy levels for different durations**
6. **Calculate the weighted average by applying sum-product**
7. **Scale the figure to the required time frame**

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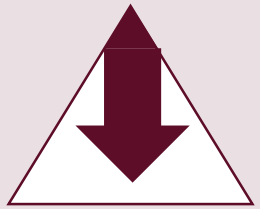
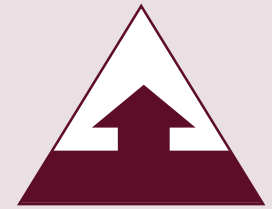
There are primarily two approaches that deal with guesstimates, these are as follows:



Approach to Guesstimates

- Top-down
- Bottom-up



Approach

Similarly, here are some of the <u>factors</u> that may come handy in arriving at the desired figure:

1. **Literacy Rate**
2. **Internet Penetration**
3. **Electricity Penetration**
4. **Product Replacement Rate**
5. **Inoculation Percentage**

<u>Please note</u> that whether a particular filter would be a split or a factor would depend on the treatment the number is subjected to. E.g., Suppose we wish to give different weightage to industrial, commercial and residential areas in Delhi while estimating the total number of trees. Here land usage pattern becomes a split because we are concerned with all components arising from that split, but in different proportions. On the contrary, if a particular problem only requires you to consider the residential area, then it simply becomes one particular percentage (or factor) of the total land. Here, we are completely ignoring all other components of the split and therefore calculating for those would be futile. So, we simply use a factor of the component we are concerned with (here, the residential area).

<u>Note</u>: In order to prevent the calculations from becoming cumbersome and difficult for the interviewer to follow, the best strategy is to first do the peak hour analysis at maximum capacity and highest occupancy. From thereon, factors can be created by multiplying the peak hour level with different occupancy percentages to further multiply them with the number of hours in each category. This way, you would skip repetitive calculations and therefore, reduce calculation errors while also making the guesstimate easier to comprehend.

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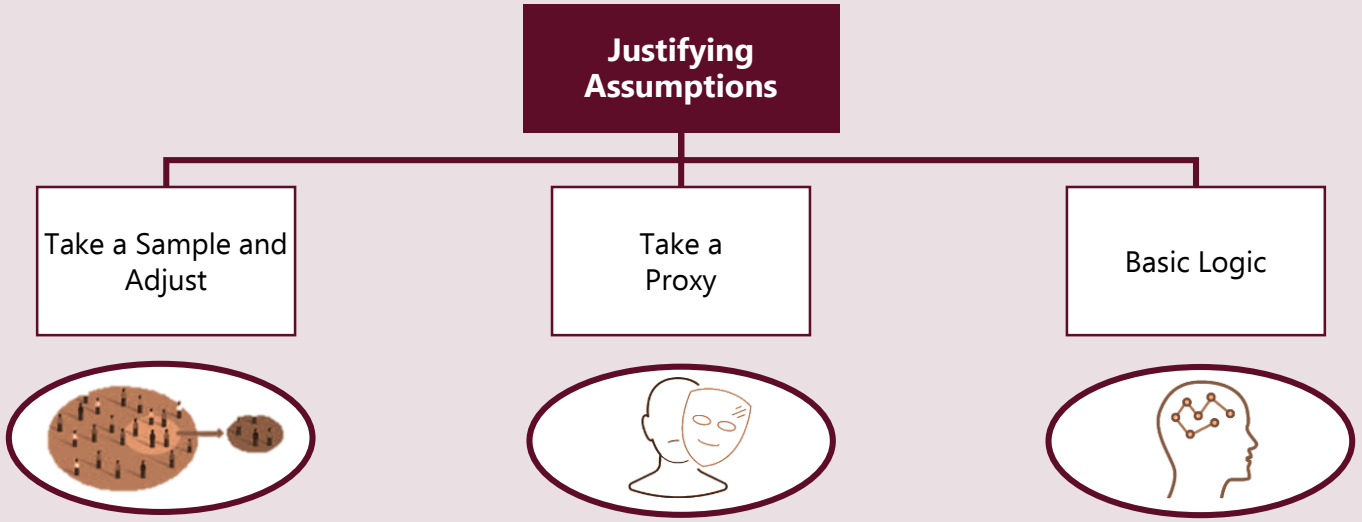
While going through the given guesstimates, you would repeatedly encounter the word 'assumed'. In an interview, just stating this word would not be enough as it would spark a series of questions from the interviewer like 'How did you arrive at this number?', 'Can you justify this number?', 'What makes you settle for this number and not a one above or below it?' etc.

So, in this section of the book, we discuss a set of strategies to counter such questions during the interview:



Assumptions

<u>Start from a small sample</u> from your own experience and use it to justify your assumption. In the process, you might as well want to tell your interviewer that you want to make certain adjustments to your sample figure to make it more accurate to the population figure.

***For example*, in a guesstimate that requires you to use 'lifespan of a washing machine' as one of the components, you may place your assumption at a number (say, 10 years) and justify the same by citing your own experience in the household.**

***Take another example* where you are to estimate the number of ATMs per sq. km. in Delhi. Here, you would want to take a weighted average figure. So, you start by estimating the number of ATMs within one sq. km. radius of your house. Next, you give your reasons to the interviewer to believe which category of area your house belongs to (on the basis of frequency of ATMs per sq. km. i.e., high, medium and low). Once you have the number for one category, it becomes far easier for you to estimate for the other two categories since you now have a base figure to make adjustments to.**

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Assumptions

Take a proxy. Sometimes, you may not have exact information about a particular component but may have information about a close substitute of the same. Here, taking a proxy and making desired adjustments could help you tackle the interviewer's question.

***Taking an example*, in a guesstimate requiring you to take 'population of Mumbai' as a starting point, you may not have information about the same. However, by some logic in the hindsight you can assert that the population of Mumbai would be a very close value to that of Delhi and so you can use that figure as a proxy.**

Apart from these there is also a third situation where both sample approach and proxy approach won't work. Usually, in such cases the interviewer is testing the basic logical mindset of the candidate of whether he/she is able to arrive at the approximate range of the answer. This can be better understood by the following example:

***Suppose*, a guesstimate requires you to use the component 'internet penetration in Delhi'. Now, this can neither be estimated through sample nor with proxy unless you have prior information on the topic. But through logic and basic understanding of telecom and data market of Delhi, you would know that this number would be somewhere in the higher range (80%-100%) and not in the middle (40%-60%) or lower (<30%) range. By taking any round figure in the higher range you implicitly convey to the interviewer that there is sufficient logic in use by you for arriving at this number.**

Note: While approach is an important part of taking assumptions, a proper way of stating them is equally important to get the interviewer to align with your thought process.

For example, stating '40%' directly might invite more doubt from the interviewer than stating something like '2 in every 5' as the latter gives indication that your thought process is operating on a micro-level rather than simply taking a macro figure of 40%.

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Clarifications

For this, are we to consider the length of rail network falling within the physical boundaries of Delhi, or the rail network falling under Delhi Metro Rail Corporation (DMRC); in case of which the metro line falling within the entire Delhi NCR would have to be considered?

Interesting, let's go forward with the latter.

Alright. In addition to that, I was wondering if we are concerned with the overall distance covered by tracks, or just the entire network in general. The difference in the two being, we will have to account for both to-and-fro in the first scenario, unlike in the second.

That's a good observation. Let's stick only to the network for now.

Assumptions

- At its peak, a typical metro train clocks between 70-80 Km/h. However, the halting time at stations and the corresponding acceleration and deceleration brings down the average speed considerably.

Guesstimate #1

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

Curated

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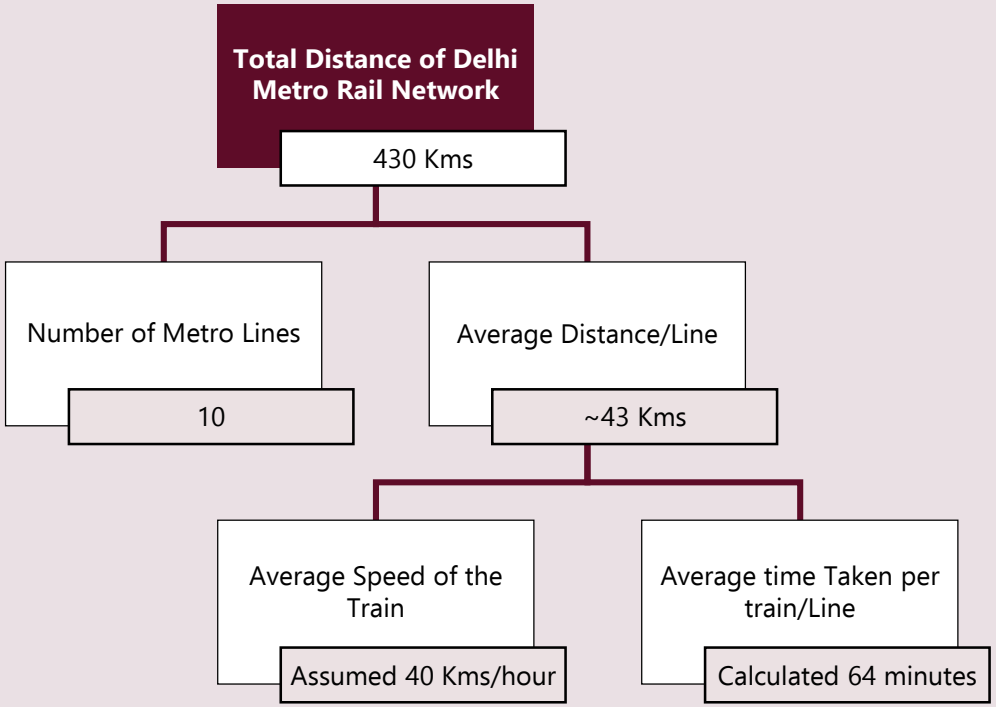
Estimating the Total Distance of Delhi Metro Rail Network

Structure



Formulae & Annexures

$$\textit{Average Distance per Line} = \textit{(Average Speed of the Train)} \times \textit{(Average Time Taken per Train/Line)}$$

$$= \frac{40 \times 64}{60} = \sim 43\ \textit{Kms}$$

$$\textit{Total Distance of Delhi Metro Rail Network} = \textit{(Number of Metro Lines)} \times \textit{(Average Distance per Line)}$$

$$= 10 \times 43 = 430\ \textit{Kms}$$

Line Size	Break-up (%)	Time Taken (minutes)
Long	40	80
Medium	40	60
Short	20	40
Weighted Average		**64**

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Estimating the Revenue of Taj Mahal

Clarifications

What is the time frame we should be looking at?

Let's estimate it for an year.

While estimating for revenue, are we to consider only the direct revenue generated, or also the indirect means?

Interesting, what do you mean by indirect means?

Alright. The presence of Taj Mahal supports a plethora of hotels, restaurants, transporters and tourism business, thereby providing livelihood to a large number of people. This income however, is not going directly to Taj Mahal. Would you like me to account for these?

Good. I believe just direct should be all.

Got it. So within direct revenue streams, ticket sales form the single largest component that there is. Among others I believe, there is the licensing fee charged from various guides and also revenue from some film/documentary shooting happening periodically. Please let me know which of these should I proceed with, and also if there are any other that I have missed?

Let's go ahead and estimate only for ticket sales for now.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- The primary bottleneck for arriving at the number of people going to Taj Mahal would be the total number of security check booths across all entry gates

Guesstimate #2

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

Curated

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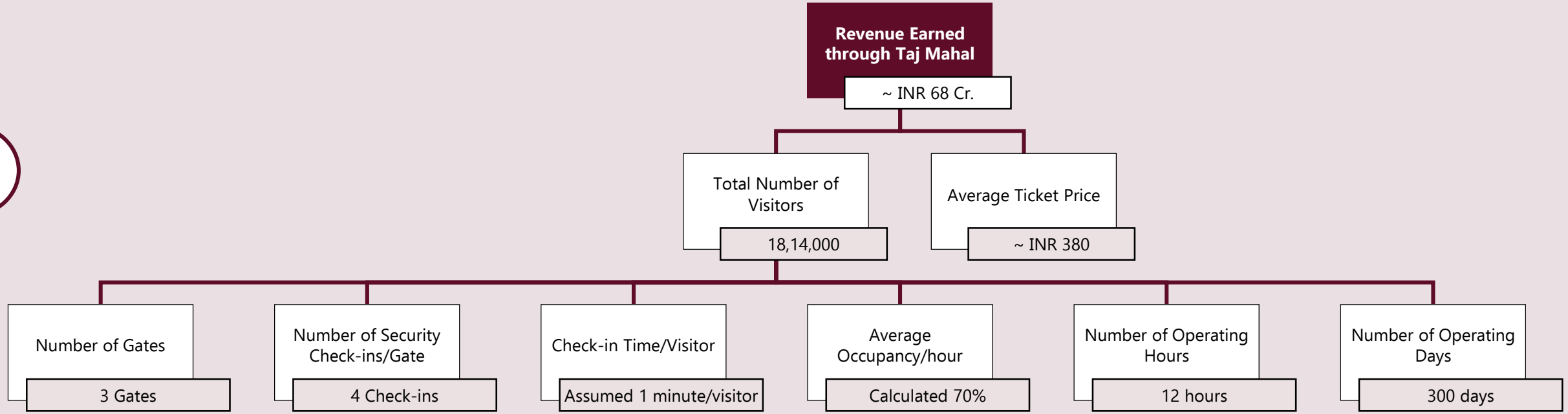
Estimating the Revenue of Taj Mahal

Structure



Formulae & Annexures

Total Number of Visitors = (Number of Gates) × (Number of Security Check-ins per Gate) × (Check-in Time/Visitor) × (Average Occupancy per Hour) × (Number of Operating Hours) × (Number of Operating Days)

$= 3 \times 4 \times 1 \times 0.7 \times 12 \times 300 = 18{,}14{,}000$ *Visitors*

Revenue Earned through Taj Mahal = (Total Number of Visitors) × (Average Ticket Price)

$= 1814000 \times 380 = \sim$*INR 68 Cr.*

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Type of Occupancy	Distribution (in hours)	Occupancy Level
High	4	100%
Medium	4	70%
Low	4	40%
Weighted Average		**~70%**

Formulae & Annexures

Type of Visitor	Distribution (%)	Ticket Price (INR)
Domestic	75	250
Foreign	15	1300
Children	10	0
Weighted Average		**~380**

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Clarifications

What is the time frame to be looked at?

Let's estimate it for a day initially.

Alright. Can I assume it to be a normal day or any special day?

Normal.

Do we estimate it only for incoming or outgoing or both kind of passengers?

Okay, let's do it for both.

And what about international and domestic passengers – that also both?

Yes.

So currently, I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- The primary bottleneck for arriving at the number of people entering IGI airport would be the total number of security check booths across all terminals
- Incoming Passengers are equal to Outgoing Passengers
- Overlapping Factor: It is understood that a particular trolley may be used more than once at different points in a day. We have assumed that at an average, the same trolley would be used 4 times in a day

Guesstimate #3

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

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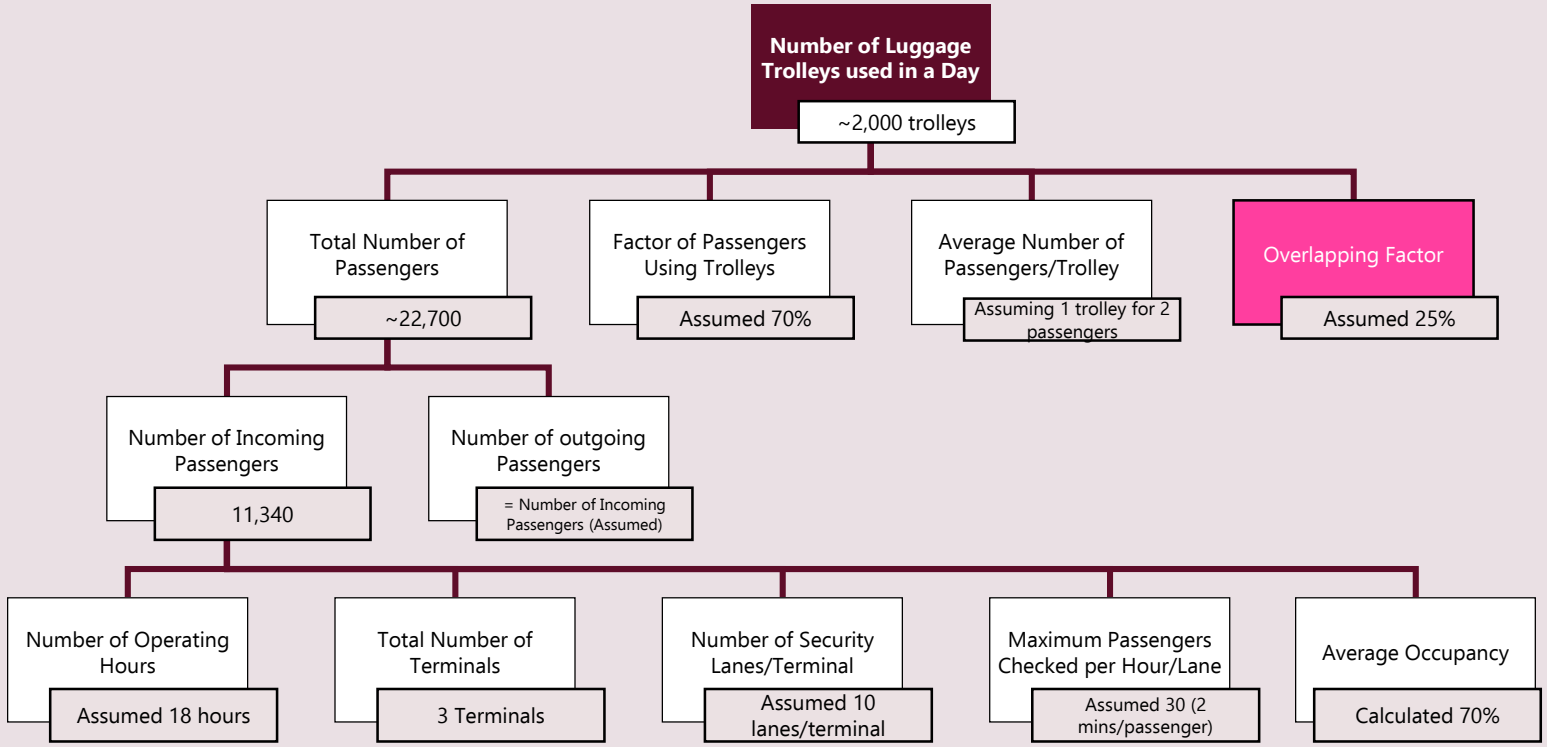
Structure



Moment–to–Shine

Overlapping Factors: One particular trolley maybe used more than once in a day by different passengers. Hence, an overlapping factor helps us in arriving at the Unique Number of Trolleys used

Formulae & Annexures

$$Total\ Number\ of\ Incoming\ Passengers = (Number\ of\ Operating\ Hours) \times (Total\ Number\ of\ Terminals) \times (\text{Number of Security Lanes per Terminal}) \times (Mazimum\ Passengers\ Checked\ per\ Hour\ per\ Lane) \times (Average\ Occupancy)$$

$$= 18 \times 3 \times 10 \times 30 \times 0.7 = 11{,}340 = Total\ Number\ of\ Outgoing\ Passengers^{**}$$

$$Total\ Number\ of\ Passengers = 11{,}340 \times 2 = 22{,}680 = \sim 22{,}700$$

$$Number\ of\ Luggage\ Trolleys\ Used\ in\ a\ Day = \frac{(Total\ Number\ of\ Passengers) \times (Factor\ of\ Passenger\ Using\ Trolleys) \times (Overlapping\ Factor)}{(Average\ Number\ of\ Passengers\ per\ Trolley)}$$

$$= \frac{22700 \times 0.7 \times 0.25}{2} = \sim 2{,}000\ Trolleys$$

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Formulae & Annexures

Occupancy Level	Break-up	Occupancy Percentage
High	1/3	100
Medium	1/3	70
Low	1/3	40
Weighted Average		**70**

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Clarifications

Are we considering just Delhi or the complete NCR?

Let's go with Delhi.

So primarily there are two kinds of trucks – collection trucks, working at a more local level, and dumping trucks, operating at land fills. Which of these would you like me to estimate?

Interesting. Go for the former.

Okay. And while calculating the number of Garbage trucks should we account only for the operational ones or the complete fleet?

Do for the complete fleet.

Assumptions

- The complete area of Delhi can be divided into equi-sized blocks of 5 sq. km. each
- The majority of domestic wastes comes out of residential and commercial areas, with industrial waste accounting for negligible proportion as most of it gets treated or disposed directly into the drains
- The non-operational trucks would be a function of the total operational trucks at a given time
- All collection trucks are assumed to be uniform in size, capacity and functioning

Guesstimate #4

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Everest Group

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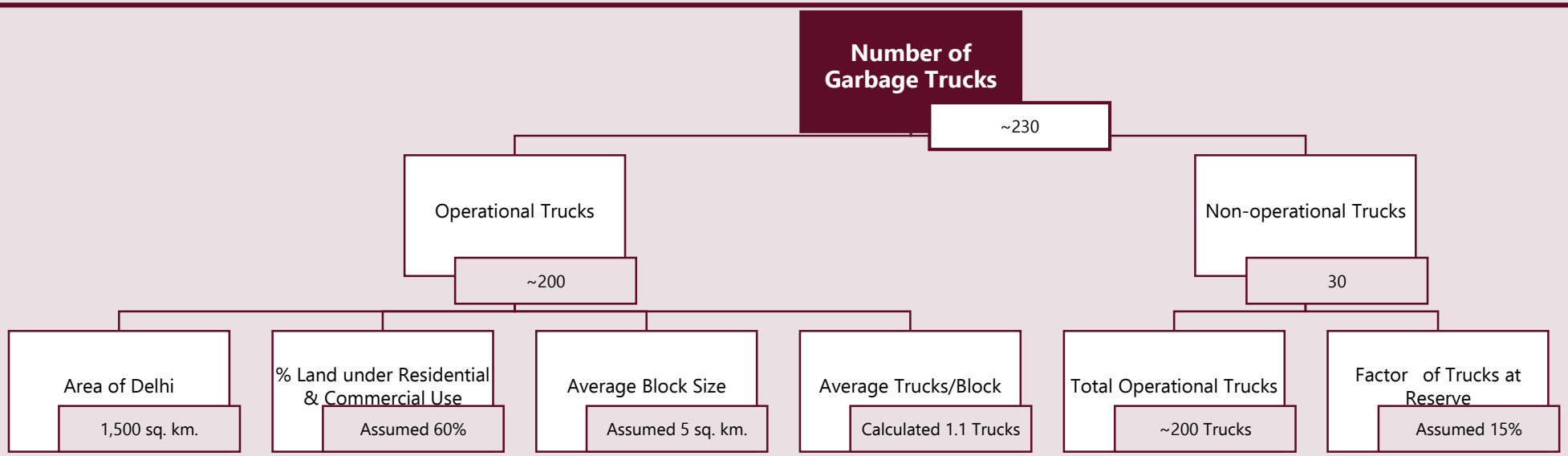
Structure



Formulae & Annexures

$$\textit{Operational Garbage Trucks} = \frac{(Size\ of\ Delhi) \times (Land\ under\ Residential\ \&\ Commericaal\ Use) \times (Average\ Trucks\ per\ Block)}{(Average\ Block\ Size)}$$

$$= \frac{1500 \times 0.6 \times 1.1}{5} = \sim 200$$

$$\textit{Non-Operational Trucks} = (Total\ Operational\ Trucks) \times (Factor\ of\ Trucks\ at\ Reserve)$$

$$= 200 \times 0.15 = 30$$

$$\textit{Number of Garbage Trucks} = (Operational\ Trucks) + (Non\text{-}Operational\ Trucks)$$

$$= 200 + 30 = 230.$$

Concentration of Garbage Truck	Distribution (%)	Number of Trucks
High	20	2
Medium	60	1
Low	20	0.5
Weighted Average		**1.1**

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Clarifications

Haldiram's outlets can be seen in a number of locations ranging from a busy market to a highway to a shopping mall. Is there a particular benchmark that could help me base my assumption on?

Fair. Let's assume the Haldiram's outlet located in Connaught Place market.

Alright. As for revenue streams, Haldiram's has a dine-in facility & take-aways as well as home delivery/online ordering alternatives. Which of these would you like me to consider?

Let's do it for all.

Got it. For the type of week, can I assume it to be a normal week or a special one?

Yes, normal.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- For Haldiram's revenue, primarily two bottlenecks have been identified; first, the counter transaction time and number of counters for offline orders and order processing time for online orders
- The occupancy level and order value differ both with respect to the type of hour as well as the type of day; for simplicity sake, you could discuss with your interviewer and suggest him if you want to consider all 7 days of the week uniform
- To prevent overcomplication, the average occupancy for both online as well as offline revenue streams has been considered alike
- A typical Haldiram's outlet operates 12 hours a day, 7 days a week and with two cash counters

Guesstimate #5

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | KPMG

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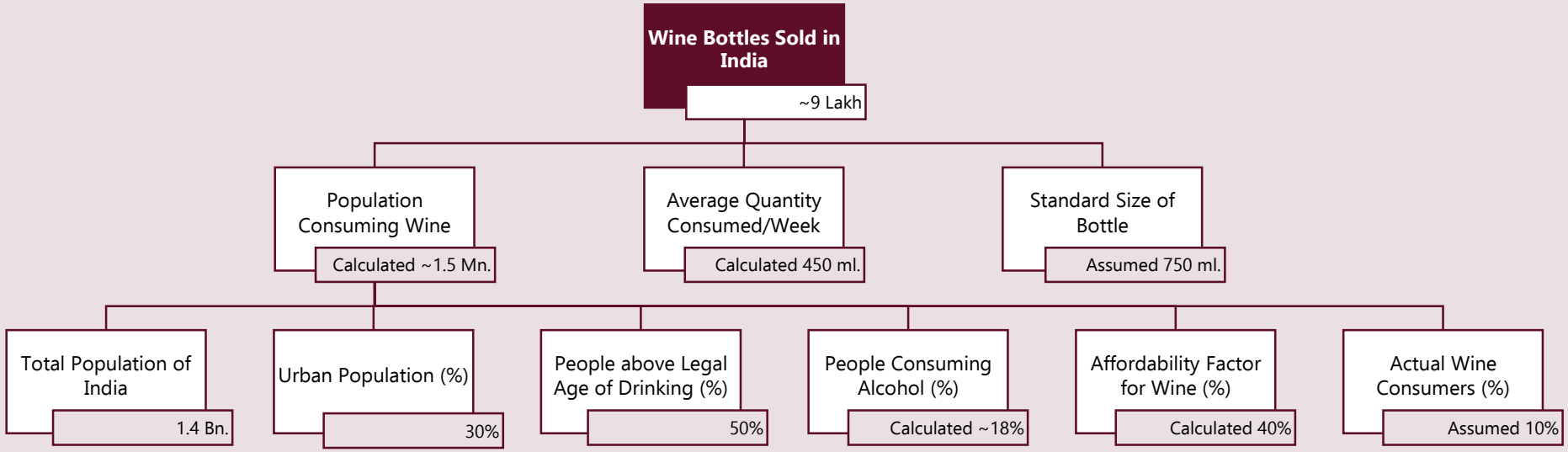
Structure



Formulae & Annexures

$$\textbf{\textit{Population Consuming Wine}} = (Total\ Popultation\ of\ India) \times (Urban\ Population) \times (People\ above\ Legal\ Age\ of\ Drinking) \times (People\ Consuming\ Alcohol) \times (Affordability\ Factor\ for\ Wine) \times (Actual\ Wine\ Consumers)$$

$$= 1{,}400{,}000{,}000 \times 0.3 \times 0.5 \times 0.18 \times 0.4 \times 0.1 = \sim 1.5\ Mn.$$

$$\textbf{\textit{Wine Bottles Sold in India}} = \frac{(Population\ Consuming\ Wine) \times (Average\ Quantity\ Consumed\ per\ Week)}{(Standard\ Size\ of\ Bottle)}$$

$$= \frac{1{,}512{,}000 \times 450}{750} = \sim 900{,}000\ Bottles$$

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Gender Group	Distribution (%)	People Consuming Alcohol (%)
Male	50	30
Female	50	5
Weighted Average		**~18**

Income Group	Distribution (%)	People Affording Wine (%)
Below Poverty Line	20	0
Lower Middle Class	40	0
Upper Middle Class	25	100
Upper Class	15	100
Weighted Average		**40**

Type of Consumer	Distribution (%)	Wine Consumption (ml)
High	10	1000
Moderate	50	500
Low	40	250
Weighted Average		**450**

Formulae & Annexures

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Clarifications

Should we be strictly looking at the rental flats, or also other residential properties that are leased or partially let-out as paying-guest accommodations?

No, we only want rented flats.

Should the final answer be only concerned with occupied rental flats or otherwise vacant flats available for rent as well?

Get me the answer for both.

Assumptions

- The total residential land can be divided into plots, some of which would be vacant, some would have kutcha houses while others would be pucca houses; for our analysis we are only concerned with the third category
- A pucca house can largely be constructed in two ways – bungalow/villa and flats
- A flat is said to be ready-to-move when in addition to exteriors, it also has necessary interiors like wiring, piping, sewage, utilities etc. and only then that flat would be made available for rent
- A percentage of ready-to-move flats would be those that are under builder's possession, or in other words, unsold; these flats would not fall within the purview of our analysis
- Non-owner occupied flats are those that are owned by an individual or a group of individuals but are not occupied by them owing to a variety of reasons like renting, putting for sale, lodging etc.

Guesstimate #6

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Curated

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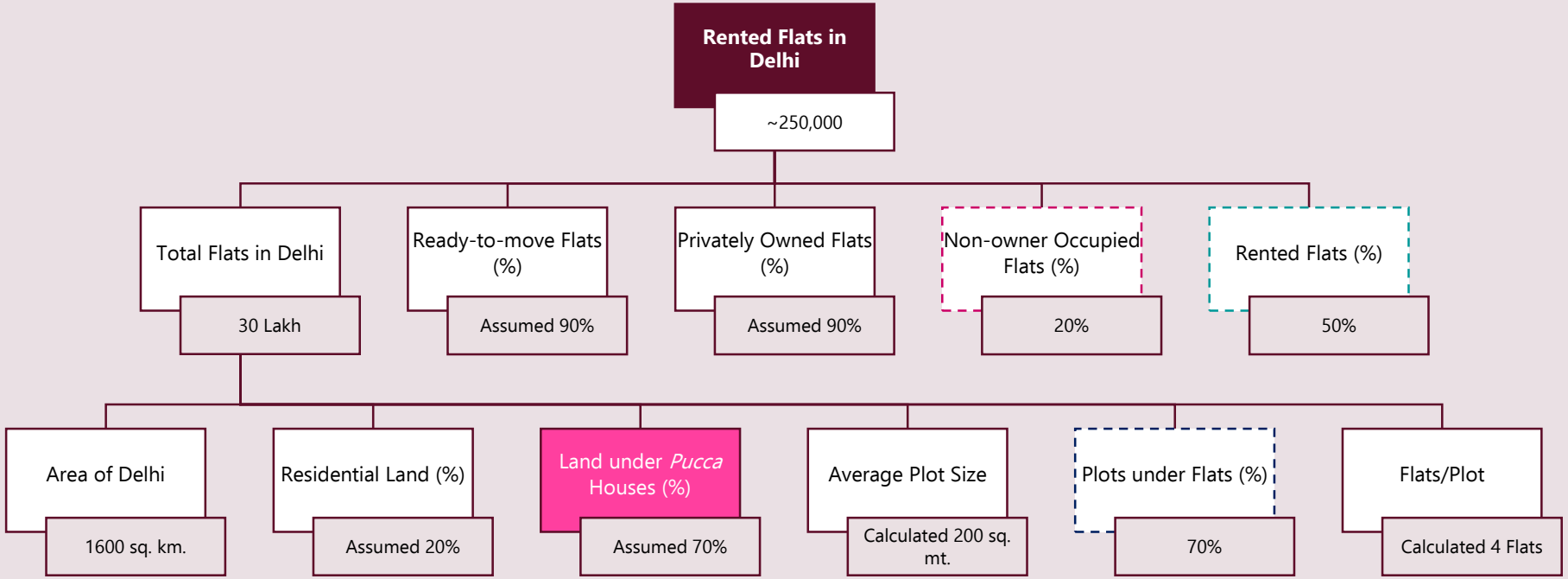
Estimate the Number of Rented Flats in Delhi

Structure



Moment–to–Shine

Land under *Pucca Houses*:

While filtering out land fit for construction of apartments/flats, it is essential that one only includes the land with cemented or *Pucca* house constructions. Inclusion of area not satisfying the criteria of the question can result in flawed answers.

Formulae & Annexures

$$\textbf{\textit{Total Flats in Delhi}} = \frac{(Area\ of\ Delhi) \times (Residential\ Land) \times (Land\ Under\ Pucca\ Houses) \times (Plot\ under\ Flats\ ) \times (Flats\ per\ Plot)}{(Average\ Plot\ Size)}$$

$$= \frac{1600 \times 0.2 \times 0.7 \times 0.7 \times 4}{0.0002} = 3{,}000{,}000$$

$$\textbf{\textit{Rented Flats in Delhi}} = (Total\ Flats\ in\ Delhi) \times (Ready\text{-}to\text{-}move\ Flats) \times (Ready\text{-}to\text{-}move\ Flats) \times (Privately\ Owned\ Flats) \times (Non\text{-}owner\ Occupied\ Flats) \times (Ready\ Flats)$$

$$= 3{,}000{,}000 \times 0.9 \times 0.9 \times 0.2 \times 0.5 = \sim 250{,}000$$

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Formulae & Annexures

Type of Plot	Distribution (%)	Size (sq. mt.)
Big	10	800
Medium	20	300
Small	70	100
Weighted Average		**~200**

Frequency of Flats	Distribution (%)	Number of Flats
High	10	10
Medium	60	5
Low	30	2
Weighted Average		**~4**

Type of Non-owner Occupied Flat	Distribution (%)
Rented/For rent	**50**
For Sale	30
Paying-guest Accommodation	10
Bed & Breakfast	5
Lodging (e.g. Airbnb)	5

Type of Plot	Distribution (%)
Bungalow/Villas	30
Flat	**70**

Type of Flat	Distribution (%)
Owner Occupied	80
Non-owner Occupied	**20**

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Estimate the Quantity of Detergent used in Delhi in a Day

Clarifications

Based on the use case, detergents could be those used washing clothes, cleaning utensils or domestic cleaning. Which one(s) should I account for?

We are primarily concerned with its usage in washing clothes.

Within detergents, there are powdered detergents, detergent bars and liquid detergents prevalent for washing clothes. Which one(s) to consider?

Please focus only on powdered detergents for now.

Alright. Should I only look at household usage or also the part of it used by local washermen and other laundry services?

We can look at household consumption for now.

Usually, the number of clothes being washed differs from season to season, with clothes requiring more frequent washes in hot and humid weather. So, understanding which season we are talking about would be important.

Sure, as you said, summers is the time we want to look at.

Assumptions

Is it a weekday or a weekend?

Weekday.

- There would be a percentage of households that would depend on external services for getting clothes washed
- Of the households where clothes are washed at home, the washing frequency would vary largely i.e., everyday, alternate days and only on weekends
- The size of cloth is the single most important determinant of the quantity of detergent being used per cloth

Guesstimate #7

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Curated

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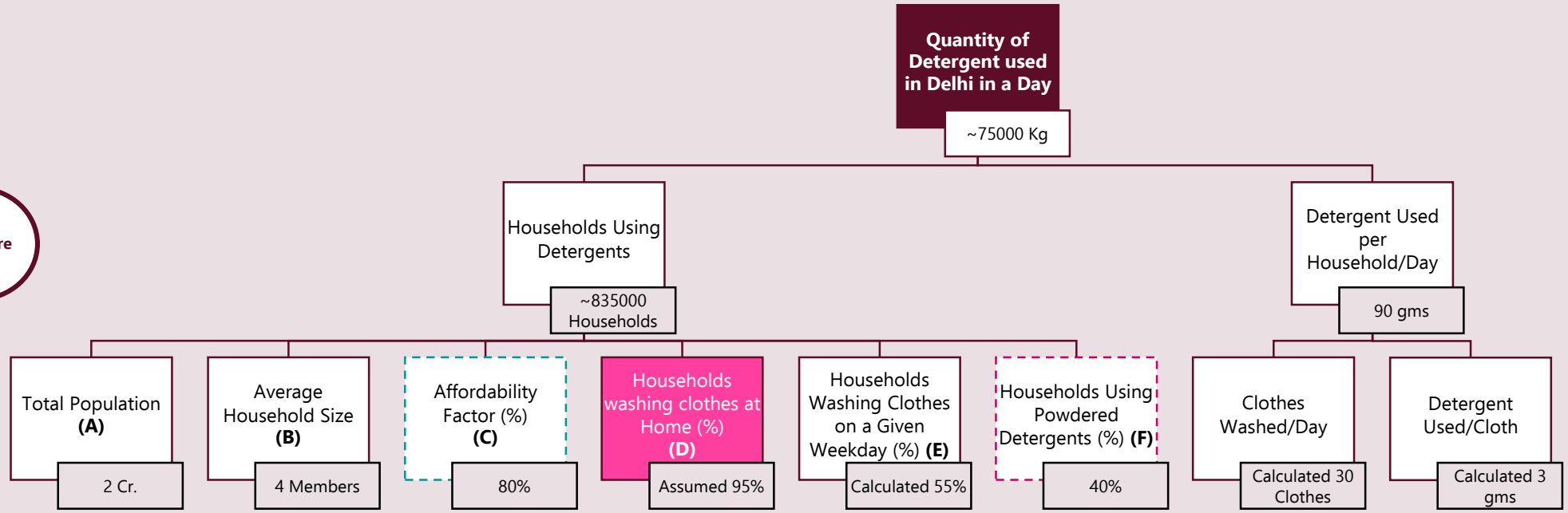
Estimate the Quantity of Detergent used in Delhi in a Day

Structure



Moment–to–Shine

Households Washing Clothes at Home:

As stated in the conversation on the previous page, we are only concerned with the household consumption of detergents. Which makes it imperative for us to remove households who do not wash clothes at home.

Formulae & Annexures

$$\textit{Households Using Detergents} = \frac{(A) \times (C) \times (D) \times (E) \times (F)}{(B)}$$

$$\frac{20{,}000{,}000 \times 0.8 \times 0.95 \times 0.55 \times 0.4}{4} = \sim 835{,}000 \textit{ Households}$$

$$\textit{Detergent Used per Household per Day} = (\textit{Clothes Washed per Day}) \times (\textit{Detergent Used per Cloth}) = 30 \times 3 = 90 \textit{ gms}$$

$$\textit{Quantity of Detergent used in Delhi in a day} = (\textit{Households using Detergents}) \times (\textit{Detergent Used per Household per Day}) = 835{,}000 \times 90 = \sim 75{,}000 \textit{ Kg}$$

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Income Group	Distribution (%)
Below Poverty Line	20
Middle Class	**60**
Upper Class	**20**

Type of Detergent	Distribution (%)
Liquid	10
Powder	**40**
Bar	50

Washing Frequency	Distribution (%)	Household Washing Clothes on a Given Weekday (%)
Everyday	40	100
Alternate Day	30	50
On Weekends	30	0
Weighted Average		**55**

Clothes/Wash	Distribution (%)	Number of Clothes Washed
High	20	40
Medium	60	30
Low	20	20
Weighted Average		**30**

Size of Cloth	Distribution (%)	Detergent Used (gms)
Big	10	5
Medium	60	3
Small	30	2
Weighted Average		**~3**

Formulae & Annexures

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Estimate the Revenue Earned Through Delhi-Gurgaon Toll Plaza

Clarifications

What is the time frame we should be looking at?

Let's estimate it for a day.

Is it a normal weekday or a special occasion of some sort?

No. Let's consider it to be a normal weekday.

Are we considering any specific segment of vehicles such as 4 wheelers, 6 wheelers or should we consider all of them?

Consider all.

While estimating for revenue, are we to consider only the revenue generated through the toll charged from the vehicles passing through or should we look at other means such as advertising as well?

Good. Let's go with former.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

Non-COVID works.

Assumptions

- The primary bottleneck for arriving at the revenue from toll fee would be the total number of toll booths on the highway
- Average passing time per vehicle would differ depending on whether the vehicle has a fastag or not
- There are certain percentage of vehicles which take a to-and-fro pass should they be returning within 24 hours. In this case, the total toll fee would be lesser and so, we count them only once to arrive at 'unique vehicles'. The difference in toll fee in this case would be adjusted during calculation of average toll charge
- The average toll charge would depend on a number of factors such as mode of payment (fastag or not), vehicle type and type of journey. So, here we do a 3rd degree weighted average to arrive at the respective weights and further, the average toll charge. For simplicity, one could do multiple calculations by taking two factors at a time as well.

Guesstimate #8

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

Curated

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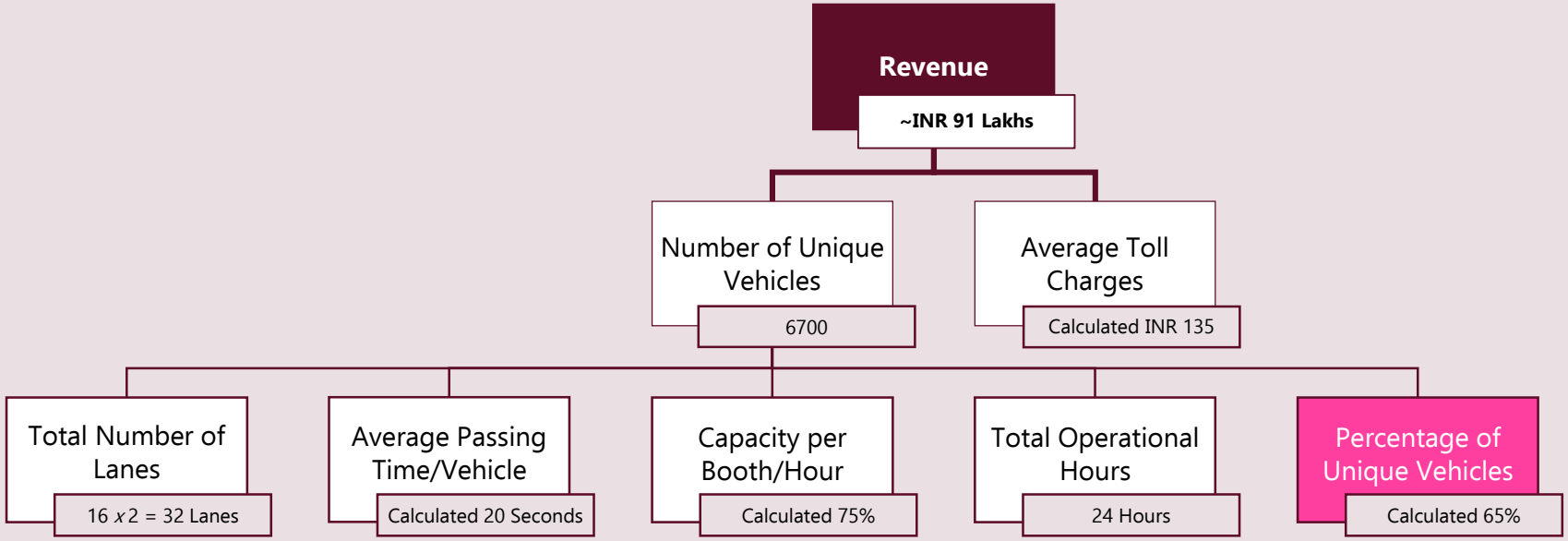
Structure



Moment–to–Shine

Percentage of Unique Vehicles:

At the Delhi-Gurgaon toll plaza, the majority of vehicles would be those doing a round-trip between the two cities, with the vehicles going only one-way occupying a smaller share. Therefore, it is important to consider both the dimensions while solving this guesstimate.

Formulae & Annexures

$$\textit{Number of Unique Vehicles} = \frac{(Total\ Number\ of\ Lanes) \times (Capacity\ per\ Booth\ per\ Hour) \times (Total\ Operational\ Hours) \times (Percentage\ of\ Unique\ Vehicles)}{(Average\ Passing\ Time\ per\ Vehicle)}$$

$$= \frac{32 \times 0.75 \times 24 \times 0.65 \times 60 \times 60}{20} = \sim 5{,}000$$

$$\textit{Revenue Earned} = (Number\ of\ Unique\ Vehicles) \times (Average\ Toll\ Charges)$$

$$= 6700 \times 135 = \sim 91\ Lakhs$$

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Formulae & Annexures

Type of Vehicles	Distribution	Passing Time (in seconds)
Fastag Users	80%	10
Non-Fastag Users	20%	60
Weighted Average		**20**

Type of Trip	Distribution (%)	Unique Vehicles (%)
One Way	30	100%
Round Trip	70	50%
Weighted Average		**65%**

Type of Hour	Distribution	Occupancy Level
High	1/3	100%
Medium	1/3	75%
Low	1/3	50%
Weighted Average		**75%**

Mode of Payment	Type of Trip	Type of Vehicle	Vehicle Toll	Vehicle Distribution [A]	Trip Distribution [B]	Fastag/Non-fastag [C]	Factors [A*B*C]
Fastag	One Way	4 Wheelers	70	90%	30%	80%	22%
		> 4 Wheelers	120	10%			2%
	Round Trip	4 Wheelers	120	90%	70%		50%
		> 4 Wheelers	200	10%			6%
Non-fastag	One Way	4 Wheelers	140	90%	30%	20%	5%
		> 4 Wheelers	240	10%			1%
	Round Trip	4 Wheelers	240	90%	70%		13%
		> 4 Wheelers	400	10%			1%
Weighted Average (Factors x Vehicle Tolls)							**135**

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Clarifications

I am not exactly acquainted with how Dream 11 works. Would it be possible to give me a brief overview of the same?

Dream 11 is a fantasy gaming app that allows users to apply their skills to bet and earn actual money in various ongoing sporting events. Users can make teams, join different leagues and earn from a plethora of different prize pools available.

What is the period we are looking at?

Let's focus on one entire season of IPL.

Alright that helps. So since it's just about IPL, I believe we can ignore all sports other than cricket for the time being.

Yes.

Should we just focus on revenue from core operations i.e., commission charged from winnings, or are there other streams too that you would like me to focus upon?

That's interesting. Why don't we focus only on the core operations as you mentioned.

Sure. Got it.

Assumptions

- A betting pool can be defined as a tournament with a defined number of seats and a defined bet amount per seat; for example, a bet pool of 100 seats with a betting amount of INR200; in this case, the average value of betting pool would be INR 20,000 (i.e. 200*100); in any given match, there are multiple betting pools with different number of seats and betting amount
- Some contests get forfeited because the minimum threshold of fulfillment of spots is not met and so, the bets received have to be refunded by full amount. This is a common phenomenon that happens on routine basis
- The commission charged by Dream 11 is deducted before the pool of winnings is declared. Total Value of Bets – Total Winnings Disbursed = Commission Revenue

Guesstimate #9

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

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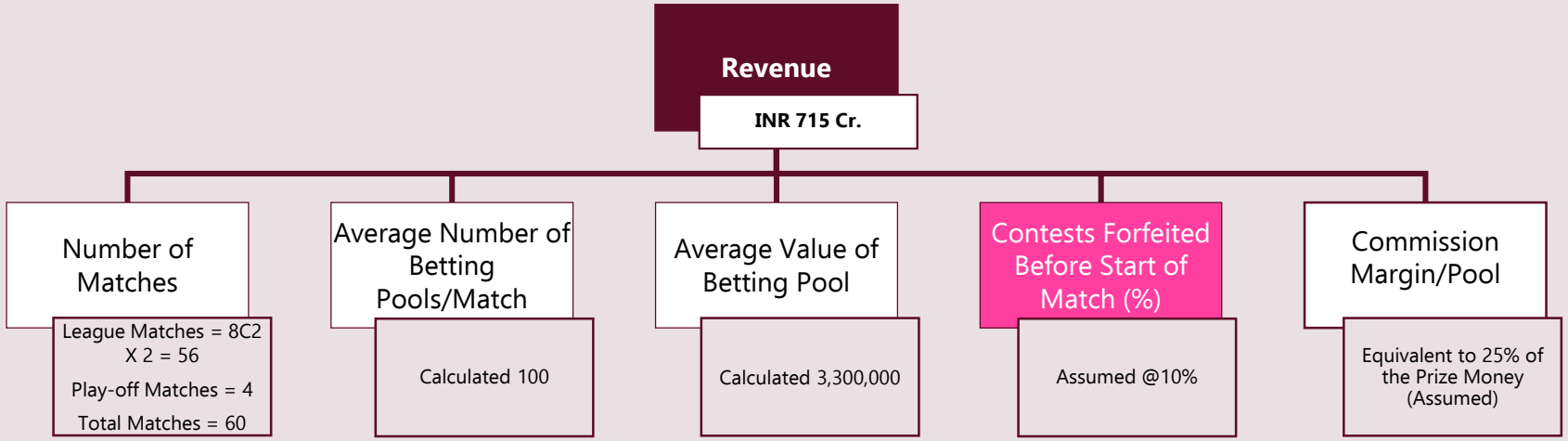
Estimate the Revenue of Dream11

Structure



Moment–to–Shine

Contests Forfeited Before Start of Match: Some contests get forfeited because the minimum threshold of fulfillment of spots is not met and so, the bets received have to be refunded by full amount. This is a common phenomenon that happens on routine basis

Formulae & Annexures

$$\textbf{\textit{Revenue}} = (Number\ of\ Matches) \times (Average\ Number\ of\ \ Prize\ Pools\ per\ Match) \times (Average\ Value\ of\ Prize\ Pool) \times [1 - (Percentage\ of\ Contests\ Forfeited\ Before\ Start\ of\ Match)] \times (Commission\ Margin\ per\ \ Pool)$$

$$= 60 \times 100 \times 3{,}300{,}000 \times (1 - 0.1) \times 0.25 = \sim 715\ Cr.$$

Type of Match (Popularity)	Break-up	Number of Pools
High	25%	150
Moderate	50%	100
Low	25%	50
Weighted Average		**100**

Type of Match (Popularity)	Break-up	Value
Grand Leagues (> 1 Cr.)	5%	50,000,000
Big Leagues (1 Lakh – 1 Cr.)	15%	5,000,000
Small Leagues (< 1 Lakh)	80%	50,000
Weighted Average		**~3,300,000**

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Clarifications

Paint has several use cases. There are wall paints, car & refrigerator paints and even art paints. Which of these should I be considering?

Go ahead with wall paints.

What are the kind of buildings that we are considering? Residential, Commercial or Both?

For the time being let's just focus on the residential aspect.

Alright. Should we consider both the exterior as well as the interior of the building or just interior, considering the exterior of building is not painted as frequently, and many buildings have glass/tile exteriors.

That's fair, let's only look at the interiors.

Sure. Is there a particular unit you would like me to calculate the consumption in? Litres, gallons or any other unit of measurement.

That's a good question. Gallon seems like a good unit to proceed with.

Understood.

Assumptions

- By walls, we refer to both walls as well as ceilings
- Not all walls are paintable; for example, the walls in bathrooms and kitchens are usually tiled while some ceilings could have grid false ceilings.
- Not all paintable walls are fully paintable – these could have doors, windows, skirting etc.
- Whitewashing a wall usually requires more than one coats of paint

Guesstimate #10

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Everest Group

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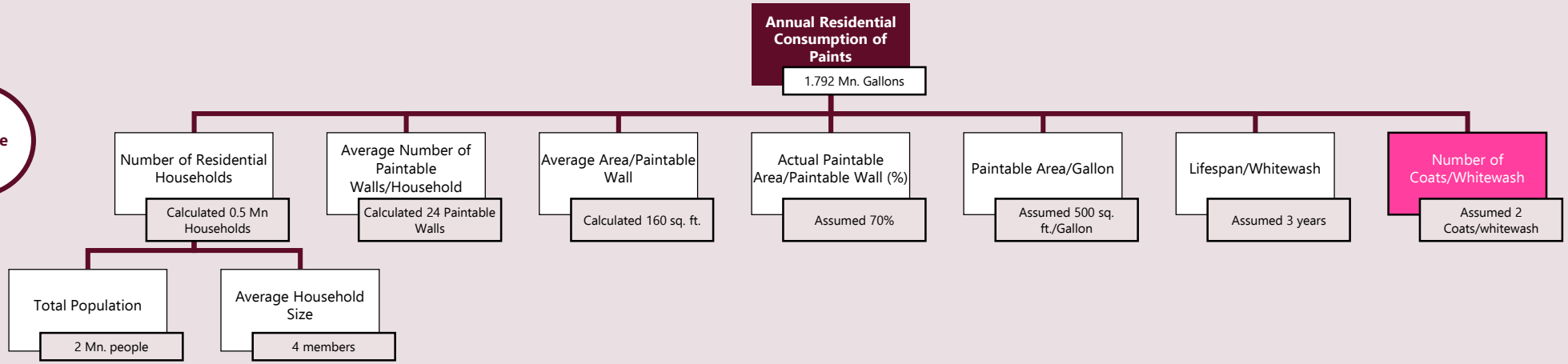
Structure



Moment–to–Shine

Number of Coats/Whitewash: Completely whitewashing a wall usually requires more than one coat of paint. Hence number of coats required per whitewash is an important consideration in determining paint consumption

Formulae & Annexures

$$\textit{Number of Residential Households} = \frac{(Total\ Population))}{(Average\ Household\ Size)}$$

$$= \frac{(2{,}000{,}000)}{(4)} = 0.5\ Mn\ Households$$

$$\textit{Paint Consumption} = \frac{(Number\ of\ Households) \times (Average\ Paintable\ Walls) \times (Average\ Area\ per\ Wall) \times (Actual\ Paintable\ Area\ per\ Wall) \times (Number\ of\ Coats)}{(Paintable\ Area\ per\ Gallon) \times (Lifespan\ per\ Whitewash)}$$

$$= \frac{500{,}000 \times 24 \times 160 \times 0.7 \times 2}{500 \times 3} = 1.792\ Mn\ Gallons$$

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Formulae & Annexures

Types of Houses	Percentage of Houses	Average Paintable Walls/Household
Big	20%	50
Medium	30%	30
Small	50%	10
Weighted Average		**24**

Types of Walls	Percentage of Walls	Average Paintable Area/Wall (in sq. ft.)
Big	20%	250
Medium	60%	150
Small	20%	100
Weighted Average		**160**

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Estimating the Revenue of Consulting Industry

Clarifications

What is the time frame we should be looking at?

Let's go with annual.

Can I go ahead and assume that the geography is India or would you like me to alter the assumption?

No it's fine, we can go ahead with India.

Assumptions

- Consulting firms in India can be segmented into three broad categories on the basis of people employed: Elite, Mid-sized and Boutique
- The elite firms account for the largest share in the total revenues owing to the resources, goodwill and high standards of deliverables
- There are about 30 such firms that employee more than 500 people. Some of these include Big 3, Big 4, IT giants and several other strategic management and social impact consulting firms
- Consulting firms spend enormous amounts of money on their employees, since these firms are highly dependent on the research and judgement of their employees at all levels; which is the key to their money-making, thereby making 'employee costs' as their single largest expenditure head

Guesstimate #11

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

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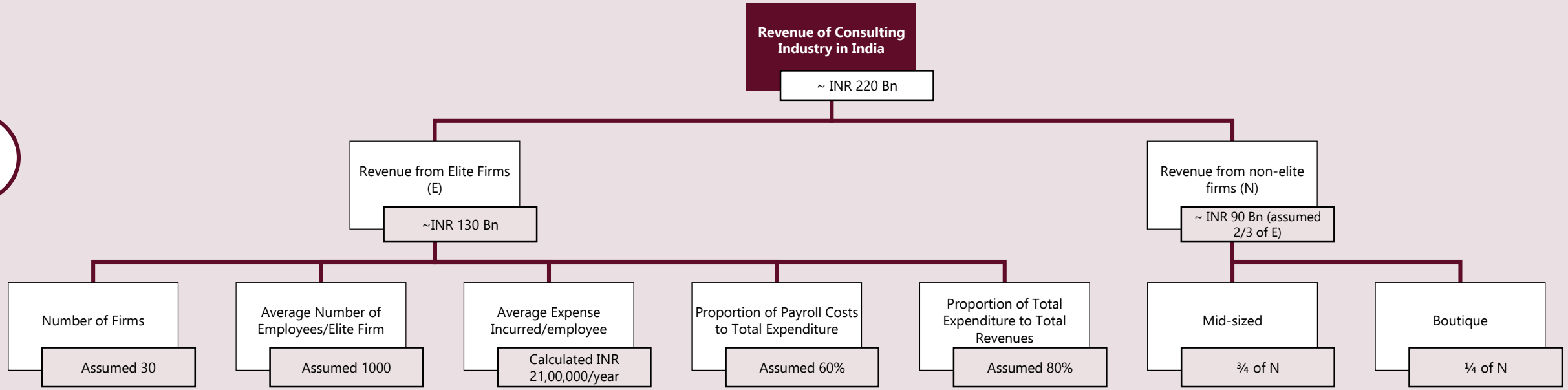
Estimating the Revenue of Consulting Industry

Structure



Formulae & Annexures

$$\textbf{Revenue of Elite Firms} = \frac{Number\ of\ Elite\ Firms \times Average\ Number\ of\ Expenses\ per\ Elite\ Firm \times Average\ Expense\ Incurred\ per\ Employee}{Proportion\ of\ Payroll\ Costs\ to\ Total\ Expenditure \times Proportion\ of\ Total\ Expenditure\ to\ Total\ Revenue}$$

$$= \frac{30 \times 1000 \times 2{,}100{,}000}{0.6 \times 0.8} = \sim \text{INR } 130 \text{ Billion}$$

$$\textbf{Revenue of Non-elite Firms} = \frac{(Revenue\ of\ Elite\ Firms) \times 2}{3} = \sim \text{INR } 90 \text{ Billion}$$

Total Revenue = Revenue of Elite Firms + Revenue of Non-elite Firms = ~INR 220 Billion

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Firm Size	Contribution to Industry Revenue (%)
Elite (>=500 Employees)	60
Non-elite (>500 Employees)	40
• *Mid-sized (100-500 Employees)*	*30*
• *Boutique (<100 Employees)*	*10*
Total	**100**

Formulae & Annexures

Employee Categorization	Distribution (%)	Expenditure Incurred/Employee (INR/Year)
Upper-level	10	8,000,000
Mid-level	20	3,000,000
Low-level	70	1,000,000
Weighted Average		**2,100,000**

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Estimate the Number of Bottled Water Units Sold in Delhi

Clarifications

What is the time frame we should be looking at?

Let's estimate it for a day.

Is it a normal weekday or a special occasion of some sort?

No. Let's consider it to be a normal weekday.

Should we account for both household as well as the commercial purchases or either of the two?

Consider only the household purchases.

Is there a specific unit you would like me to calculate for?

Why don't you estimate for all the units that you can think of?

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- Bottled water is sold primarily in two ways – one, local kirana stores and the other, through water suppliers
- Bottled water is purchased by households in 5 major unit sizes – 250 ml, 500 ml, 1,000 ml, 5,000 ml (kirana stores) and 20,000 ml (water suppliers)
- Water suppliers across Delhi use a uniform vehicle with uniform capacity for supplying to households.
- For kirana stores, for every one 5,000 ml water bottle, ten 1,000 ml bottles, twenty 500 ml bottles and five 250 ml bottles are sold

Guesstimate #12

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Bain & Company

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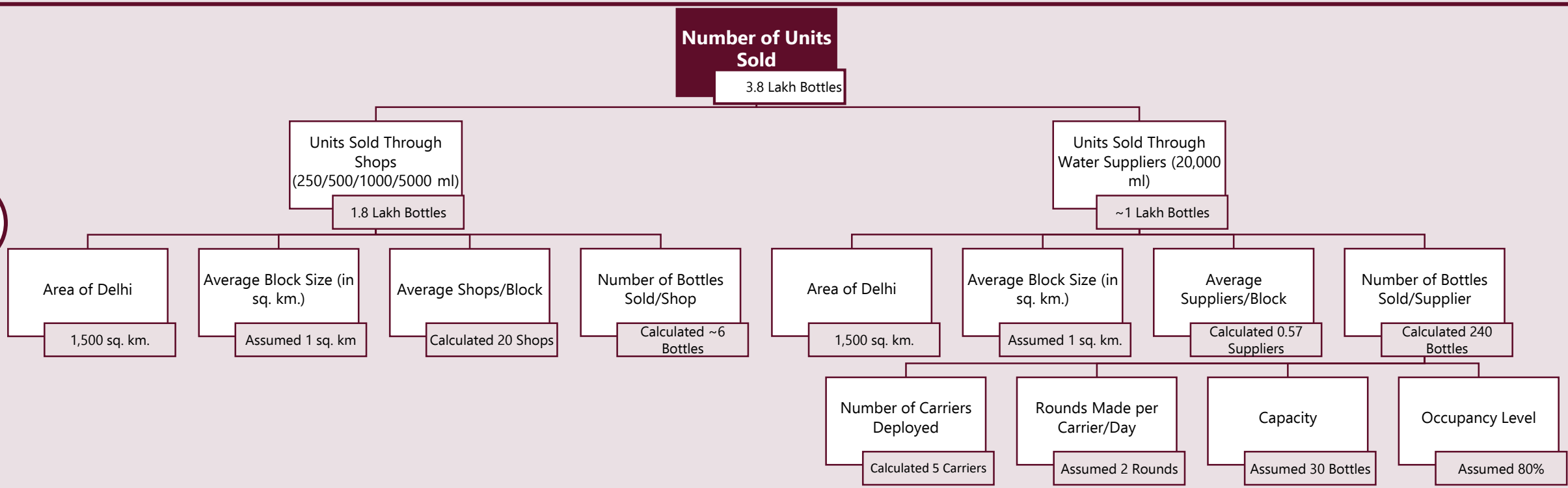
Estimate the Number of Bottled Water Units Sold in Delhi

Structure



Formulae & Annexures

Total Number of Bottled Water Units Sold $= (Units\ Sold\ Through\ Shops) + (Units\ Sold\ Through\ Water\ Suppliers)$

$= 180{,}000 + 200{,}000 = 380{,}000$

Number of Bottles Sold per Supplier $= (Number\ of\ Carriers\ Deployed) \times (Rounds\ Made\ per\ Carrier\ per\ Day) \times (Capacity) \times (Occupancy\ Level)$

$= 5 \times 2 \times 30 \times 0.8 = 240$

Unites Sold Through Shops $= \dfrac{(Area\ of\ Delhi) \times (Average\ Shops\ per\ Block) \times (Number\ of\ Bottles\ Sold/Shapes)}{(Average\ Block\ Size)}$

$= \dfrac{1500 \times 20 \times 6}{1} = 180{,}000$

Unites Sold Through Suppliers $= \dfrac{(Area\ of\ Delhi) \times (Average\ Suppliers\ per\ Block) \times (Number\ of\ Bottles\ Sold\ per\ Supplier)}{(Average\ Block\ Size)}$

$= \dfrac{1500 \times 0.57 \times 240}{1} = \sim 200{,}000$

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Shop Concentration	Distribution (%)	Number of Shops
High	20	30
Medium	60	20
Low	20	10
Weighted Average		**20**

Selling Frequency	Distribution (%)	Number of Bottles
High	30	10
Medium	50	5
Low	20	3
Weighted Average		**~6**

Supplier Concentration	Distribution (%)	Number of Shops
High	20	1
Medium	60	0.5
Low	20	0.33
Weighted Average		**0.57**

Formulae & Annexures

Type of Supplier	Distribution (%)	Number of Carriers
Big	20	10
Medium	40	5
Small	40	2
Weighted Average		**~5**

Unit Size (ml)	Ratio	Number of Units
250	5	25,000
500	20	100,000
1000	10	50,000
5000	1	5,000
Sub-total	**36**	**180,000**
20,000 ml		200,000
Total Units Sold		**380,000**

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Clarifications

Is there a particular differentiating factor per se, may be price or certain product qualities which could define luxury cookies?

Interesting. For the purpose of this guesstimate, let's assume that any brand with a price of at least €1 per cookie can be classified as a luxury cookie.

What is the time frame we should be looking at?

Let's estimate it for an year.

As for units, are we to estimate in money value or the absolute number?

Alright. Absolute number should be fine.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- All countries within Europe use one single currency i.e., Euro (€)
- Income trends and consumption trends are uniform across all European countries
- There are similar price levels within each country i.e., two similar articles would have similar pricing in two different countries
- The market for luxury cookies comprises mainly of high income groups, a large majority of which reside in urban areas; the sales of luxury cookies in rural areas would be negligible

Guesstimate #13

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Bain & Company

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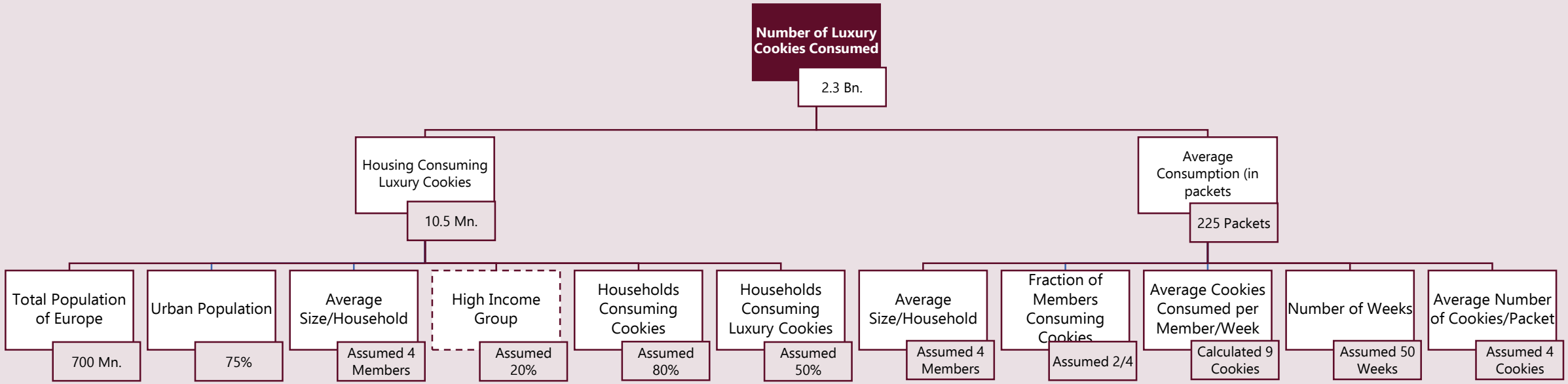
Estimate the Market Size of Luxury Cookies in Europe

Structure



Total expenditure on cookies from second branch comes out to be €900 (225 x 4 x 1). We further assume that a high income household would not spend more than 5% of its allocated expenditure for food and non-alcoholic beverages (F&nB) on cookies.In addition, a typical high income group would spend about 10% of its total income on F&nB. So, the total income of such households should be in the close range of €180,000 [900/(0.05 x 0.1)].It is to further note that a typical household in Europe would earn ~€150,000. So, it is fair to assume that about 20% of European households would be earning €180,000 or above. Reason being, European economies in general have lower income disparities and the majority of people earn close to the national average.

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$$\textit{Households Consuming Luxury Cookies} = \frac{(Popuation\ of\ Europe) \times (Urban\ Population) \times (High\ Income\ Group) \times (Households\ Consuming\ Cookies) \times (Households\ Cosuming\ Luxury\ Cookie)}{(Average\ Size/Household)}$$

$$= \frac{700{,}000{,}000 \times 0.75 \times 0.2 \times 0.8 \times 0.5}{4} = 10.5\ \text{Mn}$$

$$\textit{Average Consumption (in packets)} = \frac{(Average\ Size/Household) \times (Fraction\ of\ Members\ Consuming\ Cookies) \times (Average\ Cookies\ Consumed/Week) \times (Number\ of\ Weeks)}{(Average\ Number\ of\ Cookies/Packet)}$$

$$= \frac{4 \times 0.5 \times 9 \times 50}{4} = 225$$

$$\textit{Number of Luxury Cookies Consumed} = (Households\ Consuming\ Luxury\ Cookies) \times (Average\ Consumption)$$

$$= 10{,}500{,}000 \times 225 = 2.3\ \text{Bn.}$$

Formulae & Annexures

Amount of Consumption	Distribution (%)	Consumption
High	10	15
Medium	60	10
Low	30	5
Weighted Average		**9**

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Estimate the Market Size of Car Tyres

Clarifications

What geography should we be looking at?

Let's estimate for Delhi.

Should we be calculating the same in units or money value?

Alright. Let's go with money value.

Within cars there are of course the passenger vehicles. In addition I can also think of commercial vehicles like taxies. Are we to take either of these or both under consideration?

Good. For now, just the passenger cars.

Alright. As far as I understand the demand for tyres arises in both new vehicles as well as existing vehicles. Is there a particular kind of demand that I should be accounting for?

Do for both cases.

Assumptions

- The passenger car tyre market is divided into two parts: replacement in existing vehicles and assembling in new vehicles
- Each passenger vehicle comprises a set of 5 tyres, 4 active and 1 stepney
- Every existing car would replace all 5 tyres together

Guesstimate #14

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Bain & Company

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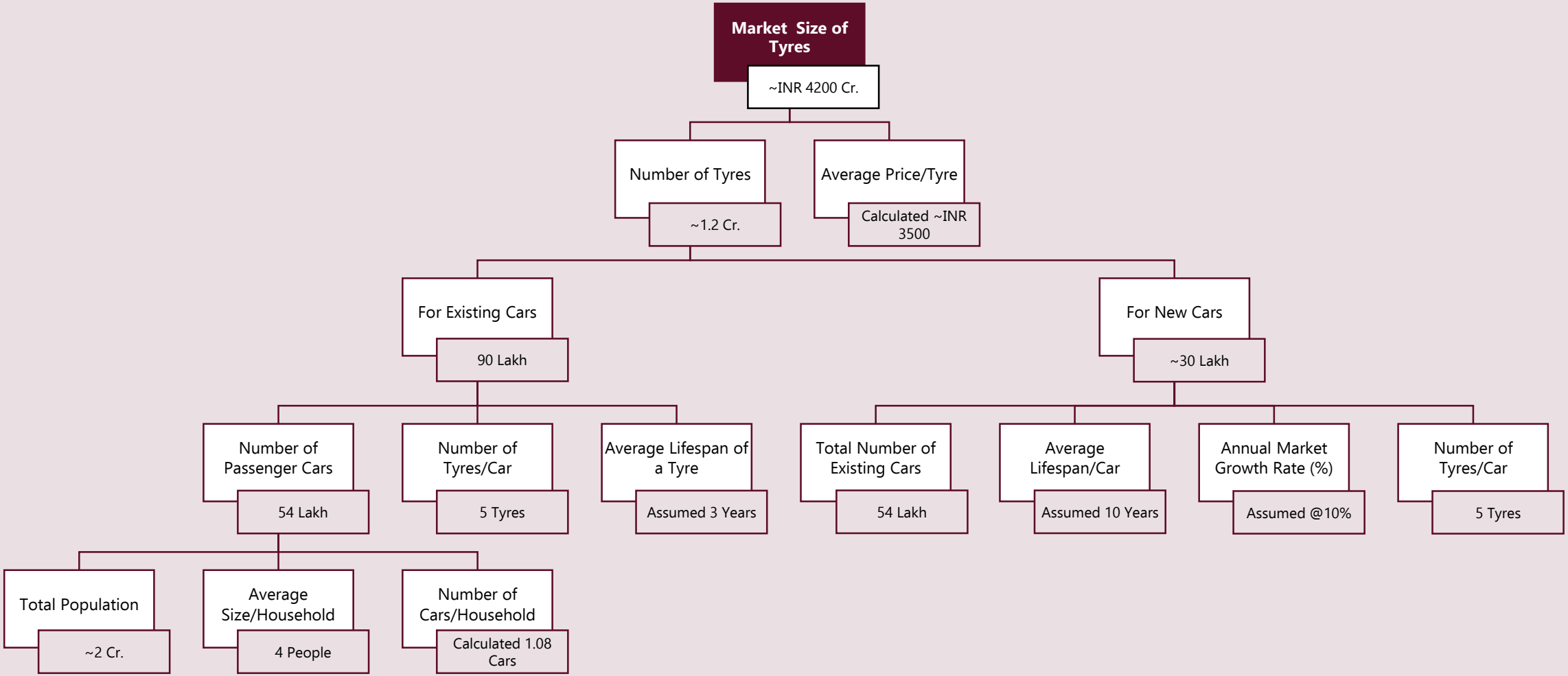
Estimate the Market Size of Car Tyres

Structure



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$$\textbf{\textit{Number of Passenger Cars}} = \frac{(Total\ Population) \times (Number\ of\ Cars\ per\ Household)}{(Average\ Size\ per\ Household)} = \frac{20{,}000{,}000 \times 1.08}{4} = 54\ Lakhs$$

$$\textbf{\textit{For Existing Cars}} = \frac{(Number\ of\ Passenger\ Cars) \times (Number\ of\ Tyres\ per\ Car)}{(Average\ Lifespan\ of\ a\ Tyre)} = \frac{5{,}400{,}000 \times 5}{3} = 90\ Lakhs$$

$$\textbf{\textit{For New Cars}} = \frac{(Total\ Number\ of\ Existing\ Cars) \times (1 + Annual\ Market\ Growth\ Rate) \times (Number\ of\ Tyres\ per\ Car)}{(Average\ Lifespan\ per\ Car)} = \frac{5{,}400{,}000 \times (1 + 0.1) \times 5}{10} = \sim 30\ Lakhs$$

$$\textbf{\textit{Market Size of Tyres}} = (Number\ of\ Tyres) \times (Average\ Price\ per\ Tyre) = 120{,}00{,}000 \times 3{,}500 = INR\ 4{,}200\ Cr.$$

Formulae & Annexures

Type of Tyre	Distribution (%)	Price/Tyre
High Priced	10	7000
Budget	40	4000
Low Priced	50	2500
Weighted Average		**~3500**

Income Group	Distribution (%)	Households Owning Car (%)	Number of Cars per Household
Below Poverty Line	20	0	0
Lower Middle Class	40	20	1
Upper Middle Class	25	80	2
Upper Class	15	100	4
Weighted Average			**1.08**

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Clarifications

Haldiram's outlets can be seen in a number of locations ranging from a busy market to a highway to a shopping mall. Is there a particular benchmark that could help me base my assumption on?

Fair. Let's assume the Haldiram's outlet located in Connaught Place market.

Alright. As for revenue streams, Haldiram's has a dine-in facility & take-aways as well as home delivery/online ordering alternatives. Which of these would you like me to consider?

Let's do it for all.

Got it. For the type of week, can I assume it to be a normal week or a special one?

Yes, normal.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- For Haldiram's revenue, primarily two bottlenecks have been identified; first, the counter transaction time and number of counters for offline orders and order processing time for online orders
- The occupancy level and order value differ both with respect to the type of hour as well as the type of day; for simplicity sake, you could discuss with your interviewer and suggest him if you want to consider all 7 days of the week uniform
- To prevent overcomplication, the average occupancy for both online as well as offline revenue streams has been considered alike
- A typical Haldiram's outlet operates 12 hours a day, 7 days a week and with two cash counters

Guesstimate #15

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Bottom Up

Origin

Adapted | Everest Group

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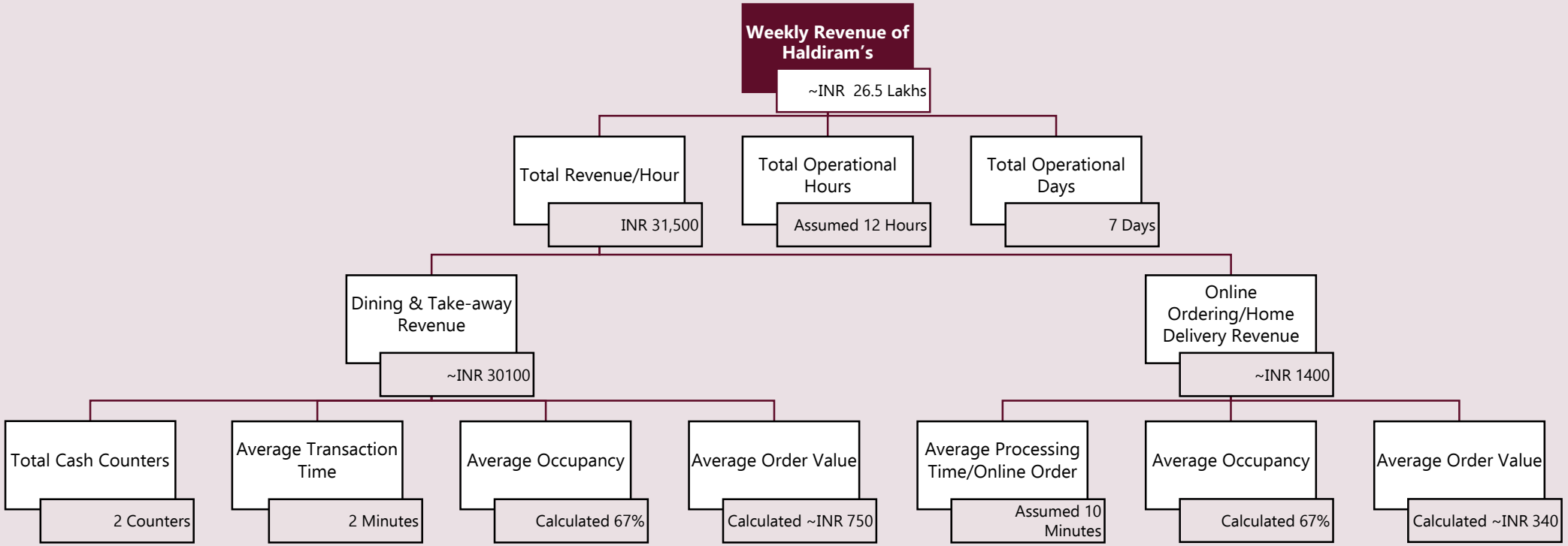
Estimate the Weekly Revenue of a Haldiram's Outlet

Structure



Formulae & Annexures

$$\textbf{\textit{Online Ordering/Home Delivery Revenue}} = \frac{(Average\ Occupancy) \times (Average\ Order\ Value)}{(Average\ Transaction\ Time)} = \frac{0.67 \times 340}{10/60} = \sim INR\ 1{,}400$$

$$\textbf{\textit{Dining \& Take-away Revenue}} = \frac{(Total\ Cash\ Counters) \times Average\ Occupancy) \times (Average\ Order\ Value)}{(Average\ Transaction\ Time)} = \frac{2 \times 0.67 \times 750}{2/60} = \sim INR\ 30{,}100$$

$$\textbf{\textit{Total Revenue per Hour}} = (Dining\ \&\ Take\text{-}away\ Revenue) + (Online\ Ordering/Home\ Delivery\ Revenue) = 30{,}100 + 1{,}400 = INR\ 31{,}500$$

$$\textbf{\textit{Weekly Revenue}} = (Revenue\ per\ Hour) \times (Total\ Operational\ Hours) \times (Total\ Operational\ Days) = 31{,}500 \times 12 \times 7 = \sim INR\ 2{,}650{,}000$$

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Formulae & Annexures

Type of Day	Order Size	Number of Days [A]	Distribution (%) [B]	Order Value [C]	Factors % [A x B]=D
Weekday	Big	4/7	10	700	6
	Medium		30	400	17
	Small		60	200	34
Weekend	Big	3/7	20	700	9
	Medium		40	400	17
	Small		40	200	17
Weighted Average [D *x* C]					**~340**

Type of Day	Occupancy Level	Number of Days [A]	Distribution [B]	Occupancy (%) [C]	Factors % [A x B x C]
Weekday	High	4/7	2/12	100	10%
	Moderate		6/12	70	20%
	Low		4/12	40	8%
Weekend	High	3/7	4/12	100	14%
	Moderate		4/12	70	10%
	Low		4/12	40	6%
Weighted Average					**67%**

Type of Day	Order Size	Number of Days [A]	Distribution (%) [B]	Order Value [C]	Factors % [A x B]=D
Weekday	Big	4/7	20	1500	11
	Medium		40	700	23
	Small		40	300	23
Weekend	Big	3/7	30	1500	13
	Medium		40	700	17
	Small		30	300	13
Weighted Average [D *x* C]					**~750**

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Clarifications

Talking about ties, I am largely aware of two categories – bowties and neckties. Are we considering both?

Let's go just for neckties.

Ties are generally worn by corporate professionals, school students and people attending formal occasions. Which of these use cases would you like me to consider? Also, do let me know if I am missing out on a major use case.

We can ignore the third category for now.

Alright, would only plain red ties be considered, or also those which have other colors and designs?

Consider every tie that has red on it.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- We assume that the population that would form the available labour force (working population) would fall within the age bracket of 20-60 years, whereas the population going to school would fall between 5-19 years
- New York City being a corporate hub in many ways would have the majority of employed people working in the tertiary sector, of which a certain part would be corporate professionals
- Not all school-going children would be required to compulsorily wear uniforms and not all of them wearing would be required to wear a tie as part of it
- There would be a certain percentage of students who would default on uniform by not wearing a tie even if being required to do so

Guesstimate #16

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Bain & Company

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Estimate the Number of Red Ties Worn in New York on a Monday

Structure

- **Red Ties Worn in New York City on a Monday** — 360,000
  - People Wearing Ties — ~900,000
  - Percentage of Red Ties — Calculated ~40%
  - Corporate Professionals — ~575,000
    - Total Population — 10 Mn.
    - Working Population (%) — 60%
    - People Actually Working (%) — Calculated ~70%
    - People Working in Corporates (%) — Calculated ~25%
    - People Wearing Ties (%) — Calculated 55%
  - Students — ~320,000
    - Total Population — 10 Mn.
    - Population within the Bracket of 5-18 — 15%
    - Actual School Going Population — Assumed 90%
    - Students Requiring Uniforms at School (%) — Assumed 60%
    - Students Wearing Ties as Part of Uniform — Assumed 40%
    - Uniform Defaulters of Tie (%) — Assumed 2%

For arriving at New York City's total population, typically you would want to take a proxy and make adjustments accordingly.
In our calculation, we benchmark New York City to Mumbai in that both cities are corporate hubs and pretty similar in size and orientation. But through judgement one can tell that the density of population is undoubtedly much high (almost double) in Mumbai which makes the total population of New York City close to half of that of Mumbai.

Moment–to–Shine

Uniform Defaulters of Tie:

When considering the contribution of students as a potential wearers of red ties, we should be mindful of the tendency of students to default or in other words take a margin representing students who could not adhere to the prescribed dress code for certain reasons.

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Estimate the Number of Red Ties Worn in New York on a Monday

Corporate Professionals *= (Total Population) × (Working Population) × (People Actually Working) × (People Working in Corporates) × (People Wearing Ties)*

= 10,000,000 × 0.6 × 0.7 × 0.25 × 0.55 = ~575,000

Students *= (Total Population) × (Population within the Bracket of 5-18) × (Actual School Going Population) × (Students Requiring Uniforms at School Uniform) × (Students Wearing Ties as Part of Uniform) × [1- (Uniform Defaulters of Tie)]*

= 10,000,000 × 0.15 × 0.9 × 0.6 × 0.4 × (1-0.02) = ~320,000

People Wearing Ties *= (Corporate Professionals) + (School Going Children) = 575,000 + 320,000 = ~900,000*

Percentage of Red Ties *= (People Wearing Ties) × (Percentage of Red Ties) = 900,000 × 0.4 = 360,000 Ties*

Formulae & Annexures

Age Group	Distribution (%)
0-4	5
5-19	**15**
20-60	**60**
>60	20

Age Group	Distribution (%)	People Actually Working (%)
19-30	40	50
30-50	40	90
50-60	20	80
Weighted Average		**~70**

Type of Tie	Distribution (%)	Red Ties (%)
Plain	20	10
Multicolored & Designer	80	50
Weighted Average		**~40**

Type of Job	Distribution (%)	People Working in Corporates (%)
Primary	10	0
Secondary	10	0
Tertiary	80	30
Weighted Average		**~25**

Gender	Distribution (%)	People Wearing Ties (%)
Male	50	90
Female	50	20
Weighted Average		**55**

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Clarifications

Swiggy has a diverse set of users, ranging from customers, delivery agents to food joints. Which of these are we accounting for?

Only the customers would be enough.

Okay. As far as I know, Swiggy has of late ventured into hyperlocal delivery space. So the customers would belong to two categories – food ordering customers and grocery shopping customers. Are we looking at both?

For now, just consider food ordering customers.

Got it. Finally, while calculating users, do we estimate just the active user base or otherwise?

That's a good observation. How would you judge who is an active user?

Right, an active user would be one that has used the app at least once in the trailing 90 days. We can simply apply a filter to the total set of users in our calculations.

Alright. Go ahead and do it.

Assumptions

- Our analysis revolves around the assumption that internet & smartphone (including tablets) are the two key requirements for any individual/household to fall under Swiggy's user base (people ordering through laptops/desktops would be negligible)

Guesstimate #17

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | United Airlines

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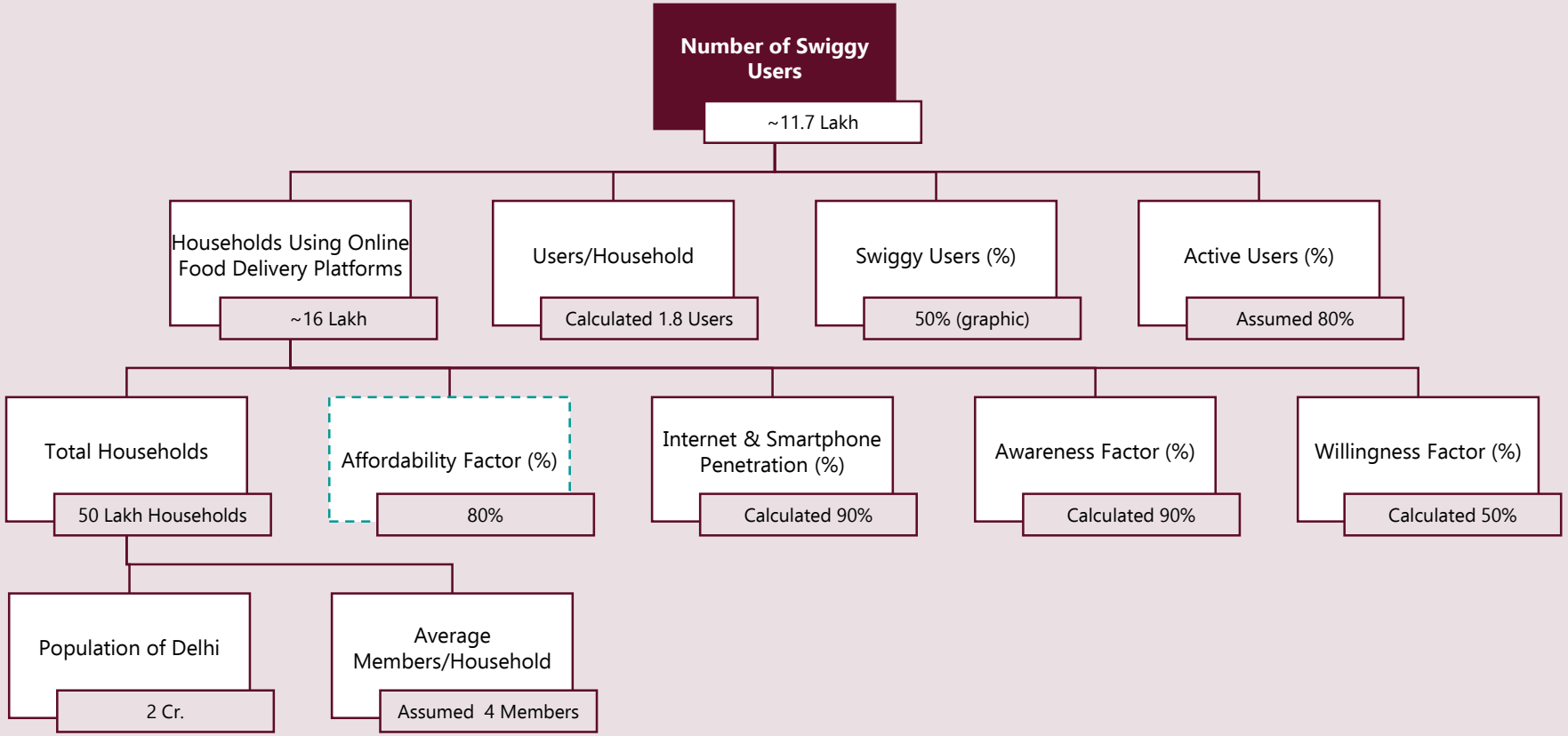
Estimate the Number of Swiggy Users in Delhi

Structure



Formulae & Annexures

$$\textbf{\textit{Total Households}} = \frac{(Population\ of\ Delhi)}{(Average\ Members\ per\ Households\ )} = \frac{20{,}000{,}000}{4} = 5{,}000{,}000$$

$$\textbf{\textit{Households Using Online Food Delivery Platforms}} = (Total\ Households) \times (Affordability\ Factor) \times (Internet\ \&\ Smartphone\ Penetration) \times (Awareness\ Factor) \times (Willingness\ Factor)$$
$$= 5{,}000{,}000 \times 0.8 \times 0.9 \times 0.9 \times 0.5 = \sim 1{,}600{,}000$$

$$\textbf{\textit{Number of Swiggy Users}} = (Households\ Using\ Online\ Food\ Delivery\ Platforms) \times (Users\ per\ Households) \times (Swiggy\ Users) \times (Active\ Users)$$
$$= 1{,}600{,}000 \times 1.8 \times 0.5 \times 0.8 = \sim 1{,}170{,}000$$

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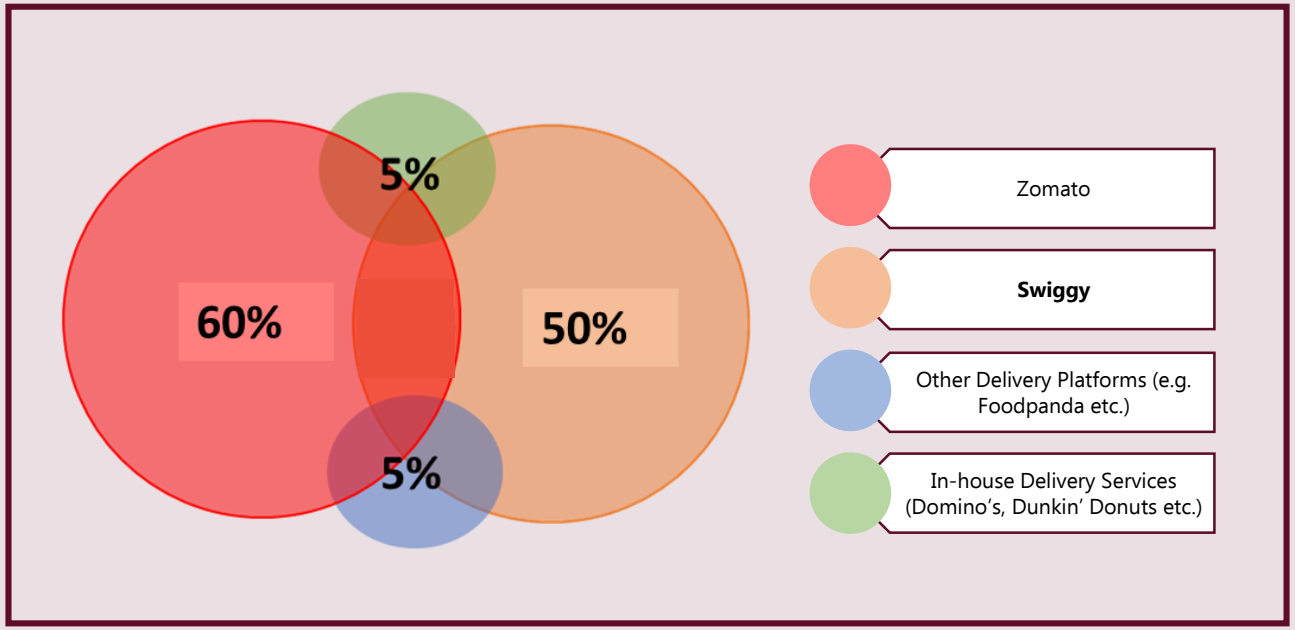
Estimate the Number of Swiggy Users in Delhi



Formulae & Annexures

Income Group	Distribution	Willingness (%)
Lower Middle Class	1/3	20
Upper Middle Class	1/3	80
Upper Class	1/3	50
Weighted Average		**50**

User Frequency	Distribution (%)	Number of Users
High	20	3
Moderate	40	2
Low	40	1
Weighted Average		**1.8**

Income Group	Distribution (%)
Below Poverty Line	20
Middle Class	**60**
Upper Class	**20**

Income Group	Distribution (%)	Penetration (%)
Lower Middle Class	50	80
Upper Middle Class	25	100
Upper Class	25	100
Weighted Average		**90**

Income Group	Distribution (%)	Awareness (%)
Lower Middle Class	40	70
Upper Middle Class	30	100
Upper Class	30	100
Weighted Average		**~90**

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Additional Theory

Additional Theory:

- The concept of multiple factoring: One might observe that the affordability factor, internet & smartphone penetration, willingness factor and awareness factor are all placed around a single criterion i.e., household income. However, the distribution among these keeps on changing as we move to the next factor. This is a concept of multiple factoring wherein the distribution used in the next factor is calculated by placing the weighted average figure of the previous calculation in the denominator and the product of the two columns in the numerator.

  Example: For calculating the distribution of lower middle class households to be used in the calculation of awareness factor we go back to the table of internet & smartphone penetration and apply the following formula:

$$\underset{Awareness\ Factor}{LMC\ Households\ \ Distribution\ for} = \frac{(LMC\ Household\ Distribution\ for\ I\&S\ Penetration) \times (Penetration\ \%\ among\ LMC\ Households)}{(Weighted\ Average\ I\&S\ Penetration\ for\ All\ Households)} = \frac{0.5 \times 0.8}{0.9} = \sim 40\%$$

- In our supplementary graphic depicting the user base segmentation among Swiggy and its peers, one may argue that 'whole is less than parts'. This is because one cannot rule out the possibility of users present on multiple platforms rather than just one. This is why the venn diagrams are collectively exhaustive but not mutually exclusive and hence the overlaps.

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Clarifications

What is the time period we should look at?

One year.

Okay. What if a particular container is making more than one rounds in the given time span? Should we consider it just once or on the basis of number of rounds made?

Take it to be latter.

Right. Is it a fair assumption that all fruits and vegetables being exported are from current year's produce and not from preceding stock?

Yes.

Got it.

Assumptions

- Agricultural land can be put to several uses such as producing food crops, commercial crops, fallow land etc.
- Usually, vegetable grow on ground whereas fruits grow on trees, so directly taking a percentage of the agricultural land used for growing fruits and vegetables may not be a good strategy; it would be better to first arrive at the average yield per hectare and then take a percentage of the yield attributed to growing fruits and vegetables.
- Some fruits and vegetables may have more than one harvesting cycle per year
- Mostly, large sized fruits and vegetables have large weight and small sized fruits have smaller weight; this means that mostly, volume and weight of fruits/vegetables go hand-in-hand; so, we can roughly assume that for a said volume per container, the weight of fruits/vegetables that can be loaded would also remain more or less constant; on the basis of this assumption, we can arrive at capacity per container in terms of kgs of fruits/vegetables it can carry

Guesstimate #18

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Approach

Top Down

Origin

Adapted | Bain & Company

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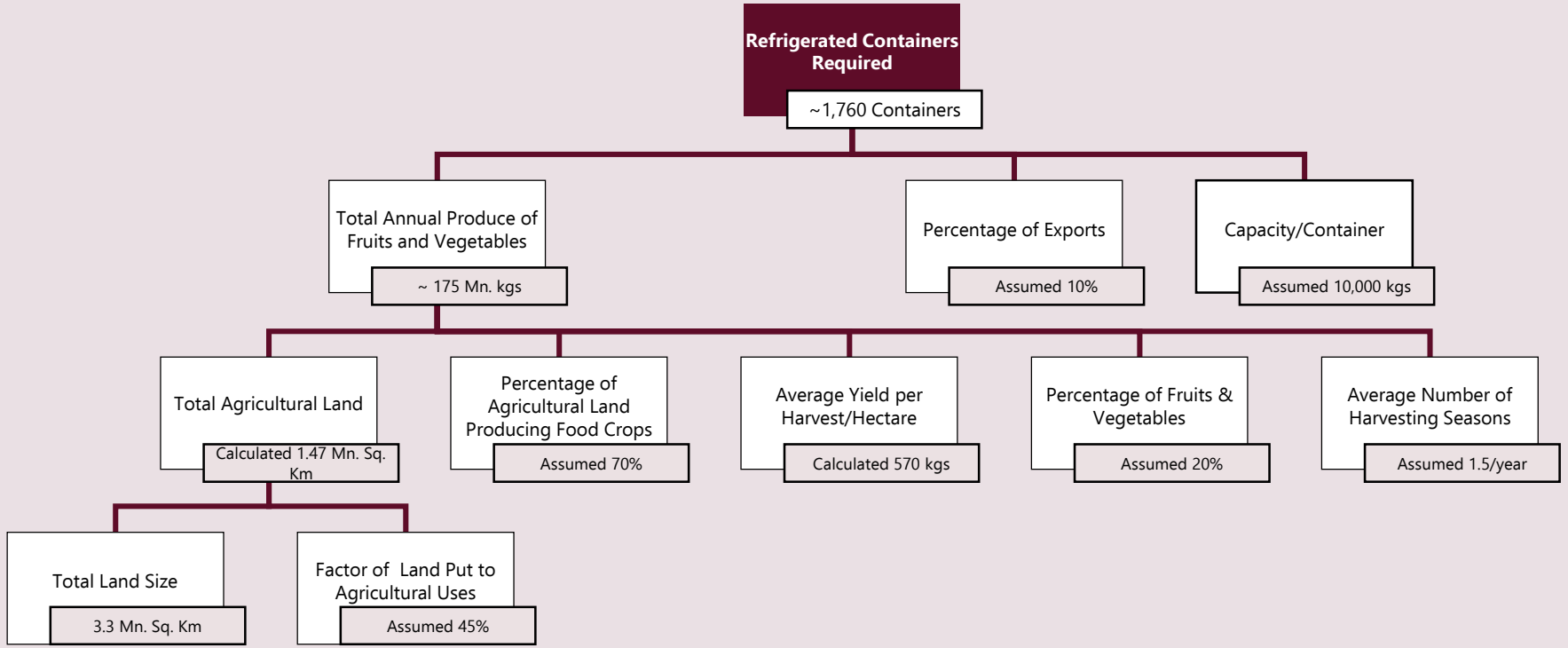
Structure



Formulae & Annexures

$$Total\ Annual\ Produce\ of\ Fruits\ \&\ Vegetables = (Total\ Agricultural\ Land) \times (\%\ of\ Food\ Crop\ Land) \times (Average\ Yield\ per\ Harvest/Hectare) \times (Percentage\ of\ Fruits\ and\ Vegetables) \times (Average\ Harvesting\ Seasons)$$

$$1.47 \times 10^6 \times 0.7 \times 570 \times 0.2 \times 1.5 \sim 175\ Mn\ Kgs$$

$$Number\ of\ Refrigerated\ Containers = \frac{(Total\ Annual\ Produce\ of\ Fruits\ \&\ Vegetables) \times (Percentage\ of\ Exports)}{(Capacity/Container)}$$

$$Number\ of\ Refrigerated\ Containers = \frac{175 \times 10^6 \times 0.1}{10{,}000} = \sim 1760\ Containers$$

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Formulae & Annexures

Level of Productivity	Distribution (%)	Yield per Harvest/Hectare (Kgs)
High	20	900
Moderate	50	600
Low	30	300
Weighted Average		**570**

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Clarifications

As for the day, would it be normal or a special one?

Normal.

Selfies are of various types – primarily there are individual and group selfies. Is there a particular preference for this guesstimate?

Yes. We want you to estimate just the individual ones.

Typically, a shopping mall complex would entail, in addition to main building, an exterior compound and a parking lot as well. Should they be taken into consideration as well?

Take only the building.

Okay. Also I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. I guess Non-COVID works.

Assumptions

- The primary bottleneck for arriving at the number of people going to CityWalk would be the total number of security check booths across all entrances
- The basic and key requirement for a selfie would be a smartphone, and therefore, arriving at the total number of smartphones would be a decisive figure in arriving at the total number of individual selfies taken
- Empirically, when it comes to taking photographs, it is more commonly observed that the younger people among all age groups, and females over males have higher tendency to take photographs; the calculation here is based on a generalization which may tend to not hold true under every circumstance

Guesstimate #19

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Very Hard

Approach

Bottom Up

Origin

Curated

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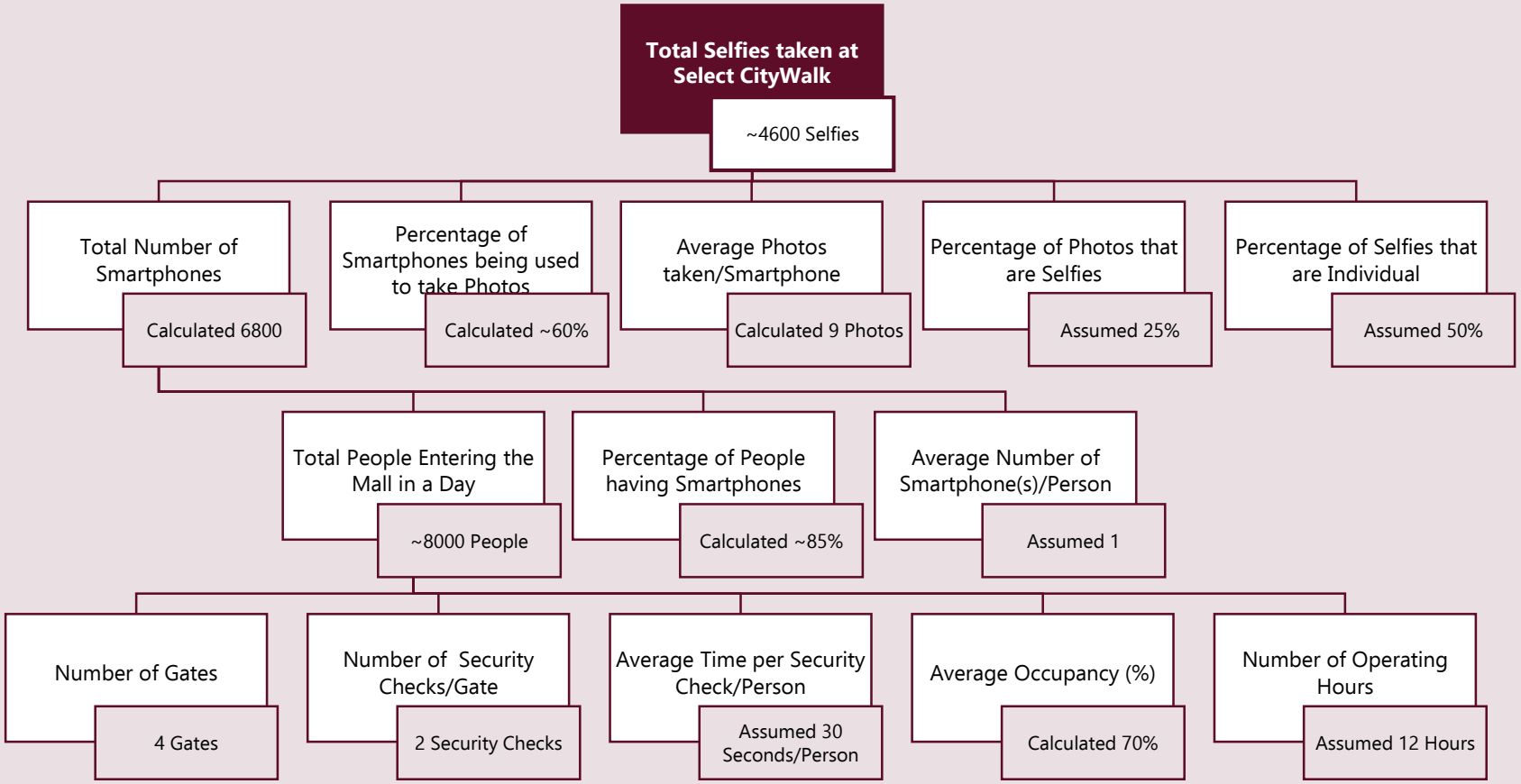
Estimate the Number of Selfies taken at Select CityWalk in a Day

Structure



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$$\textit{Total People Entering the Mall in Day} = \frac{(\textit{Number of Gates}) \times (\textit{Number of Security Checks per Gate}) \times (\textit{Average Occupancy}) \times (\textit{Number of Operating Hours})}{(\textit{Average Time per Security Check per Person})}$$

$$= \frac{4 \times 2 \times 0.7 \times 12 \times 60 \times 60}{30} = \sim 8{,}000$$

$$\textit{Total Number of Smartphones} = \frac{(\textit{Total People Entering the Mall}) \times (\textit{Percentage of People Having Smartphones})}{(\textit{Average Number of Smartphones per Person})}$$

$$= \frac{8000 \times 0.85}{1} = 6{,}800$$

$$\textit{Total Selfies taken at Select City Walk} = (\textit{Total Number of Smartphones}) \times (\textit{Percentage of Smartphones being used to take Photos}) \times (\textit{Average Photos taken per Smartphones}) \times (\textit{Percentage of Photos that are selfies}) \times (\textit{Percentage of Selfies that are Individual})$$

$$= 6800 \times 0.6 \times 9 \times 0.25 \times 0.5 = \sim 4{,}600$$

Formulae & Annexures

Selfie per Individual	Distribution (%)	Number of Photos/Smartphone
High	20	15
Moderate	40	10
Low	40	5
Weighted Average		**9**

Type of Occupancy	Distribution (in hours)	Occupancy Level (%)
High	4	100
Medium	4	70
Low	4	40
Weighted Average		**70**

Age Group (in years)	Distribution (%)	Percentage having Smartphones (%)
Children (0-12)	5	0
Adults (13-60)	90	90
Senior Citizens (>60)	5	50
Weighted Average		**~85**

Gender	Age Group	Distribution (%) [A]	Distribution (%) [B]	Picture-taking Smartphones (%) [C]	Factor (%) [A x B x C]
Male	12-25	50	40	60	14
	26-59		55	30	11
	>60		5	10	0.25
Female	12-25	50	40	90	18
	26-59		55	50	14
	>60		5	20	0.5
Weighted Average					**~60**

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Clarifications

What is the time frame we should be looking at?

Let's go with annual.

Should we look just at the domestic earnings or the overseas earnings as well?

For now, I think domestic suffices.

Within domestic, there is the Hindi Film Industry or Bollywood, and also a number of regional film industries. Would you like me to account for all of them?

Good observation. Just Bollywood.

So primarily, what I can think of is that the film industry explicitly earns through two major streams: Box office sales and broadcasting & streaming rights. Do you think I am missing out on any other major stream?

I don't think so. Let's proceed with these two.

So currently, I am supposing it's a Non-COVID period. Would you like me to assume it any differently?

No. Non-COVID works.

Assumptions

- While estimating the movie theaters for Urban India, we go by the assumption that the total movie theaters in tier 1 & tier 2 cities come somewhat equal to those in the rest of Urban India. Further, while estimating for tier 1 & tier 2 cities, we use Delhi as a benchmark for arriving at indicative numbers for other cities.
- Every movie, in recent times, has about 2 partners – one, the broadcasting partner having the television rights and the other, the OTT partner having the streaming rights. Both partners have separate contracts and purchase deeds.
- In rural India, a large percentage of theaters tend to showcase either old movies or project pirated versions of latest movies, both of which do not contribute to the film industry's revenue. Hence, these would not be included within 'legitimate theatres'.

Guesstimate #20

Guesstimates are not usually categorized under specific buckets (e.g. Industry, type, etc.). Stick to the basics – clarify well, think thoroughly, validate assumptions, develop MECEs and prevent calculation errors!

Very Hard

Approach

Top Down

Origin

Curated

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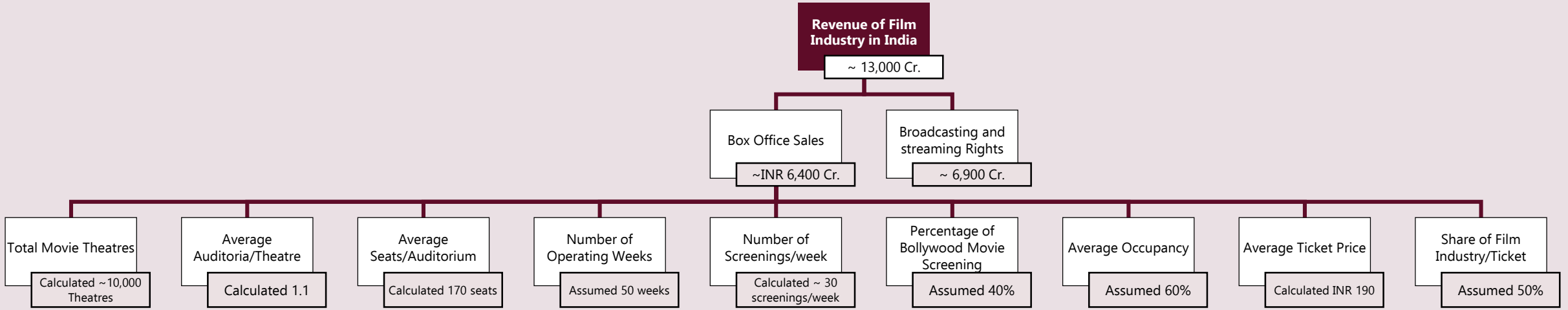
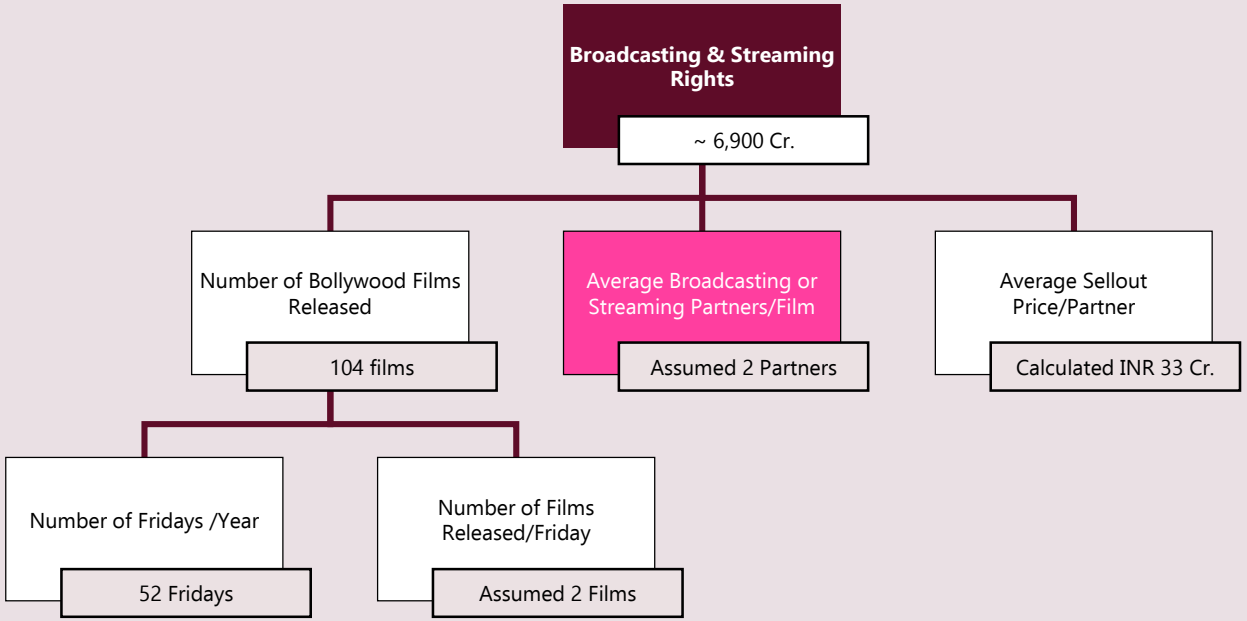
Estimating the Revenue of Indian Film Industry



Structure



Moment–to–Shine

Average Broadcasting or Streaming Partners/Film: A single film may have more than one Broadcasting Partner

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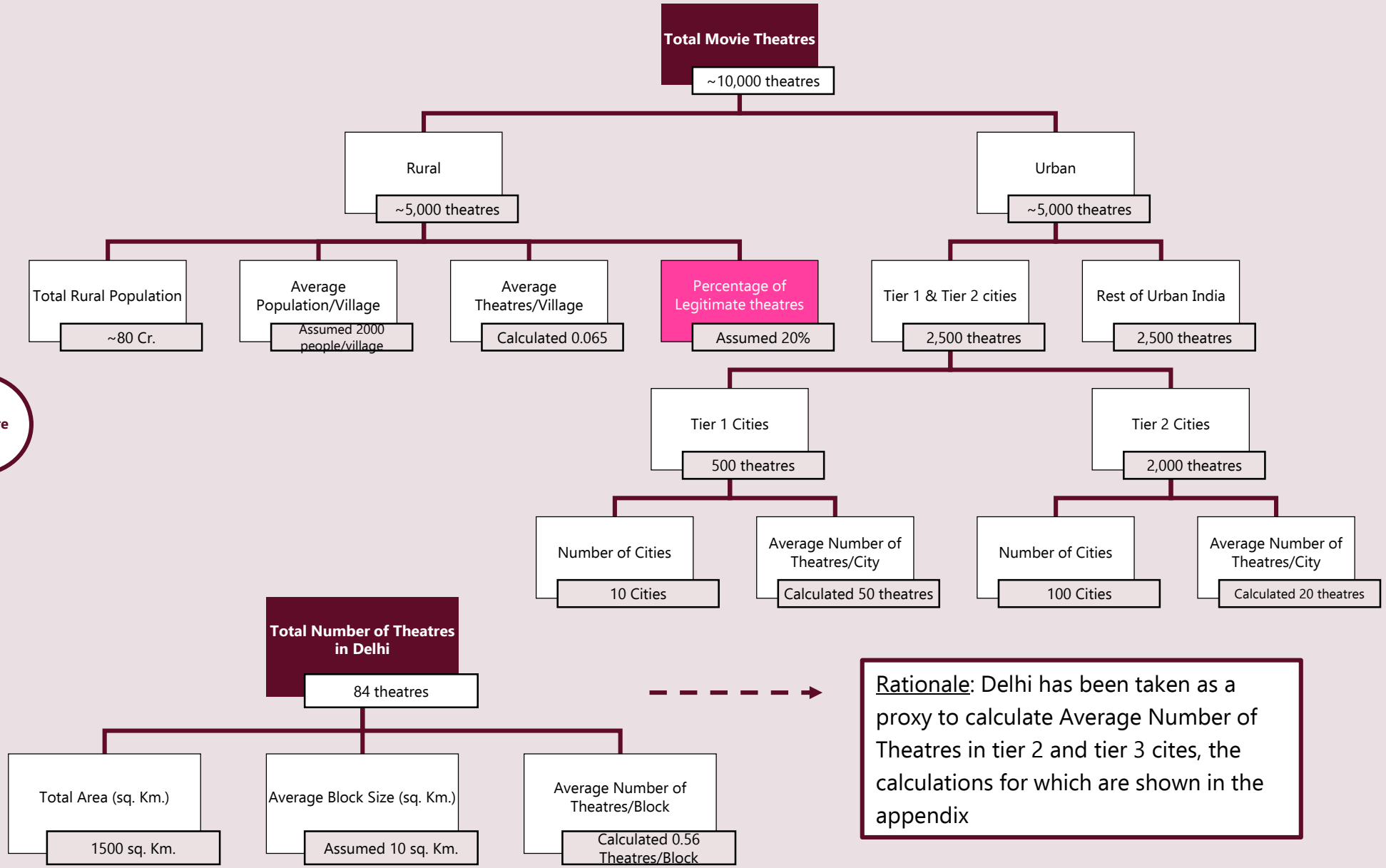
Estimating the Revenue of Indian Film Industry

Structure



Rationale: Delhi has been taken as a proxy to calculate Average Number of Theatres in tier 2 and tier 3 cites, the calculations for which are shown in the appendix

Moment–to–Shine

Percentage of Legitimate Theatres: In rural India, a large percentage of theaters tend to showcase either old movies or project pirated versions of latest movies, both of which do not contribute to the film industry's revenue.

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Formulae & Annexures

$$\text{Theaters in Delhi} = \frac{(\text{Total Area}) \times (\text{Average Theaters per Block})}{(\text{Average Block Size})} = \frac{1500 \times 0.56}{10} = 84$$

$$\text{Theaters in Tier 1 Cities} = (\text{Number of Cities}) \times (\text{Average Theater per City}) = 10 \times 50 = 500$$

$$\text{Theaters in Tier 2 Cities} = (\text{Number of Cities}) \times (\text{Average Theater per City}) = 100 \times 20 = 2000$$

$$\text{Theaters in Rest of Urban India} = (\text{Theaters in Tier 1 \& Tier 2 Cities}) = 2500$$

$$\text{Theaters in Urban India} = (\text{Theaters in Tier 1 \& Tier 2 Cities}) + (\text{Rest of Urban India}) = 2500 + 2500 = 5000$$

$$\text{Theaters in Rural India} = \frac{(\text{Total Rural Population}) \times (\text{Average Theaters per Village}) \times (\text{Percentage of Legitimate Theaters})}{(\text{Average Population per Viillage})} = \frac{800{,}000{,}000 \times 0.065 \times 0.2}{2000} = \sim 5000$$

$$\text{Total Movie Theaters} = (\text{Theaters in Rural India}) + (\text{Theaters in Urban Area}) = 5{,}000 + 5{,}000 = 10{,}000$$

$$\text{Box Office Sales} = (\text{Total Movie Theaters}) \times (\text{Average Auditoria per Theater}) \times (\text{Average Seats per Auditorium}) \times (\text{Number of Operating Weeks}) \times (\text{Number of Screenings per Week}) \times (\text{Percentage of Bollywood Movie Screening}) \times (\text{Average Occupancy}) \times (\text{Average Ticket Price}) \times (\text{Share of Film Industry per Ticket})$$

$$= 10{,}000 \times 1.1 \times 170 \times 50 \times 30 \times 0.5 \times 0.6 \times 190 \times 0.5 = \sim \text{INR } 6400 \text{ Cr.}$$

$$\text{Number of Bollywood Films Released} = (\text{Number of Fridays per Year}) \times (\text{Number of Films Released per Fridays}) = 52 \times 2 = 104$$

$$\text{Revenue from Broadcasting \& Streaming Rights} = (\text{Number of Bollywood Films Released}) \times (\text{Average Broadcasting or Streaming Partners per Films}) \times (\text{Average Sellout Price per Partners})$$

$$= 104 \times 2 \times 330{,}000{,}000 = \sim 6900 \text{ Cr.}$$

$$\text{Revenue Earned by Film Industry} = (\text{Box Office Sales}) + (\text{Broadcasting \& Streaming Rights})$$

$$= 6400 \text{ Cr.} + 6900 \text{ Cr.} = \sim \text{INR } 13300 \text{ Cr.}$$

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Type of Day	Distribution	Screenings/Day
Weekday	4	4
Weekend	3	5
Weighted Average		**~30**

Size of Auditorium	Distribution (%)	Seats/Auditorium
Big	10	300
Medium	50	200
Small	40	100
Weighted Average		**170**

Ticket Price	Distribution (%)	Amount (INR)
High	10	500
Medium	50	200
Low	40	100
Weighted Average		**190**

Formulae & Annexures

Type of Theater	Distribution (%)	Auditoria/Theater
Single Screen	95	1
Multiplex	5	3
Weighted Average		**1.1**

Theater Concentration	Distribution (%)	Theaters/Village
High	10	1
Medium	50	0.5
Low	40	0.25
Weighted Average		**0.45**

Theater Concentration	Distribution (%)	Theaters/Block (in Delhi)
High	20	1
Medium	60	0.5
Low	20	0.33
Weighted Average		**0.56**

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Formulae & Annexures

Theater Concentration	Distribution (%)	Theaters/Village
High	5	0.2
Medium	15	0.1
Low	80	0.05
Weighted Average		**0.065**

Theater Concentration	Distribution (%)	Theaters/Tier 1 City
High	20	70
Medium	60	50
Low	20	30
Weighted Average		**50**

Theater Concentration	Distribution (%)	Theaters/Tier 2 City
High	20	30
Medium	60	20
Low	20	10
Weighted Average		**20**

Type of Film	Distribution (%)	Amount (INR Cr.)
Commercial	30	60
Mid-sized	40	30
Parallel Cinema	30	10
Weighted Average		**33**

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Cases

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Profitability

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Clarifications

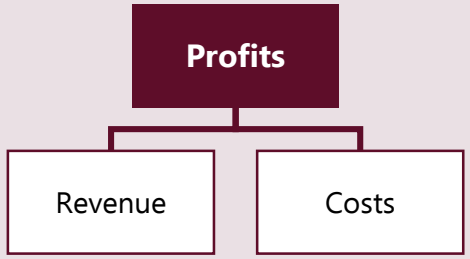
Some preliminary questions can be asked for a profitability case are:

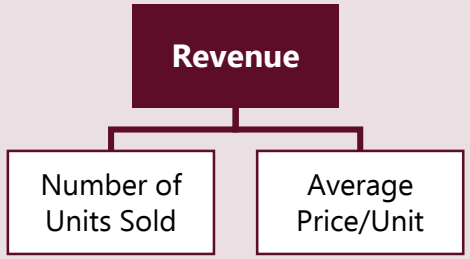
- **Duration and quantum of falling profits**
- **Client-specific questions: Geography, value chain, revenue streams**
  - **Clarify whether any particular geography/outlet/product line/customer segment is facing problem**
- **Whether industry-wide or client-specific**
- **Is the problem located in pre-covid, covid or post-covid scenario?**

Framework

Profit = Revenue - Costs

Revenue = Number of Units Sold × Average Price/Unit





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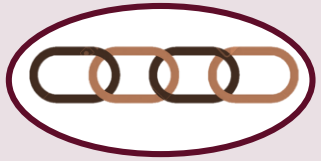
Framework

Units Sold

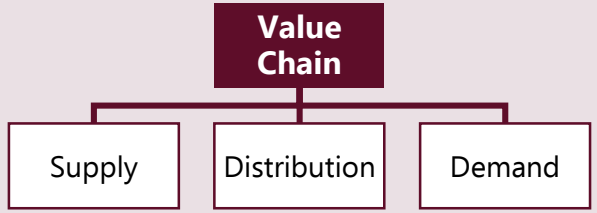
Value Chain: Supply > Distribution > Demand

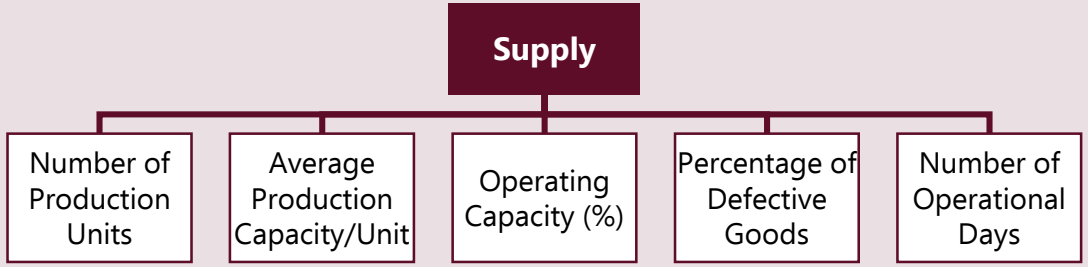
Note: It is always advisable to ask the interviewer if there is a segmentation already available for units sold. Usually, the interviewer might himself/herself want to lead you to the root cause. However, if the interviewer insists on developing a structure, we advise you to take the value chain approach.

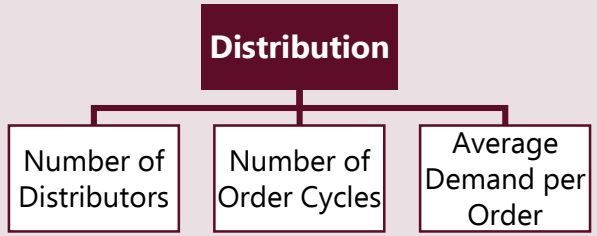


Supply = *Number of Production Units* × *Average Production Capacity per Unit* × *Operating Capacity* (%) × [1 − (**Percentage of Defective Goods**)] × *Number of Operational Days*

Distribution = *Number of Distributors* × *Number of Order Cycles* × *Average Demand per Order*







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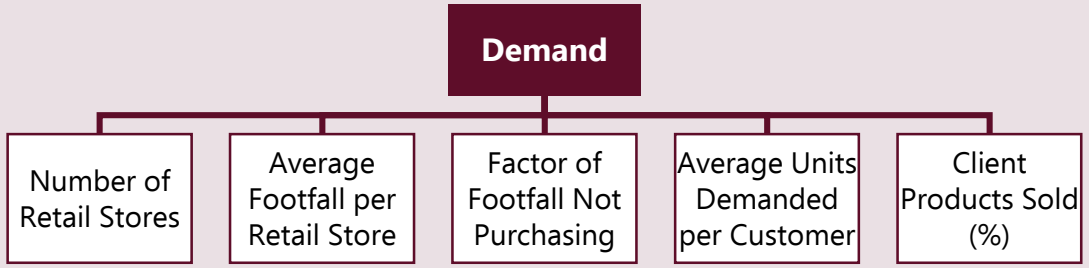
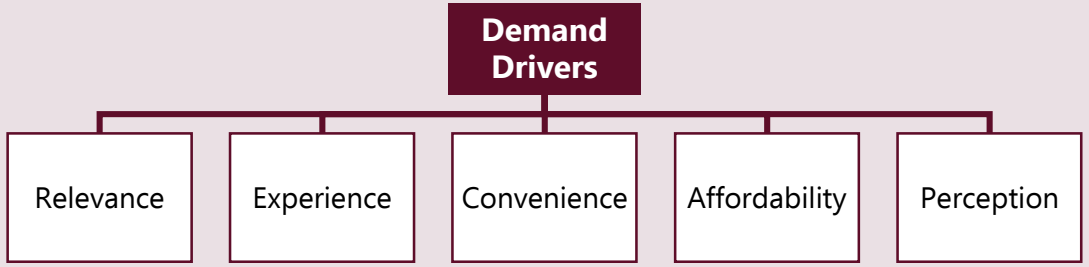
Framework

Demand = *Number of Retail Stores* × *Average Footfall per Retail Store* × [1 − (*Factor of footfall not purchasing*)] × **Average Units Demanded per Customer** × **Percentage of Client Products Sold ($)**

$: Not applicable if client is selling through its exclusive retail stores



Demand Drivers (RECAP): **R**elevance, **E**xperience, **C**onvenience, **A**ffordability, **P**erception



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Costs = Fixed Costs + Variable Costs

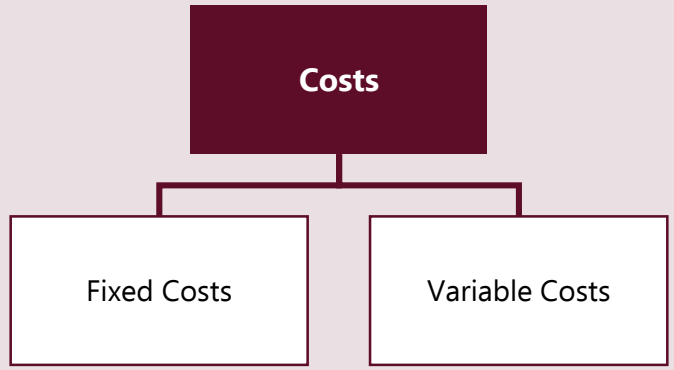
Framework

<u>Fixed costs or overheads</u> are business expenses that are not dependent on the level of goods or services produced by the business.

Some of the most common type of Fixed Costs are – Land & Building, Rent, Interest, Salaries, Selling Expenses, General & Administrative Expenses, Licensing, Plant & Equipment, Furniture & Fixtures, Maintenance, R&D

<u>Variable Costs</u> i.e., costs that change as the quantity of the good or service that a business produces changes

Variable Costs (*inexhaustive*): Raw Material, Labour Costs, Power & Fuel, Transportation, Return Inwards, Storage, Packaging, Processing & Assembling, Ordering, Material Losses (breakage, spoilage, leakage, damage, pilferage etc.), After-sales



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Script

Profits of a leather garment company are diminishing. Identify the possible reasons.

To begin, I would like to understand more about our client, the geographies operated in, product information, value chain etc.

The client is a leading manufacturer and retailer of western clothing, particularly leather. The company has over a 100 stores across tier 1 & 2 cities of India. Last year, it was ranked as the 'Most Fashionable Brand' of India by India Times.

So clearly, the brand enjoys a good position in the Indian market. I am interested to know more about the quantum and duration of diminishing profits.

Despite performing well in the market, the brand has failed to show robust numbers when it comes to the bottom line. Trends show that the profits have been falling short by 15-20% from the expected figures every quarter.

Interesting. Since you mentioned that the client has been performing well in the market, it puts me into hypothesizing that the problem lies in the cost side rather than revenue.

Yes. Revenues have in fact shown a consistent uptrend.

Great. To analyse it further, I wish to segregate costs into fixed and variable and understand if a particular branch has been showing has been contributing to the decline in profits.

Well, our client has been effective in regulating the fixed costs within permissible range. The variable costs, however, have gone out of hand in the recent past.

Got it. Now, since the problem is with variable costs, I would like to segregate them further.

And how would you do that?

Summary

You earlier specified that the client is both manufacturer and retailer. So, it would be incurring a number of variable costs at each step of value chain. If we can somehow get to that part of value chain where costs have increased in excess, we would then be able to drill down to the root cause much more easily.

Fine. What do you want to know?

The brand's value chain can be divided into three major buckets – supply side, distribution and demand side. Do we know, if costs for any of these have grown disproportionately per unit?

Case #1

Category
Profitability

Type
Interviewee Led

Industry
Fashion

Origin
Adapted | Bain & Company

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Script

Summary

Here's some data:

Particulars	As a % of total costs	
	2018	2021
Pre-Production Costs	20	15
Processing Costs	30	50
Distribution Costs	30	20
Selling Costs	20	15

From this data, it can be inferred that the relative proportion of pre-production costs, distribution costs and selling costs has gone down. However, the processing costs have shown a spike in their share of total costs from 2018-2021. I would further like to identify the possible processing costs to see what has been causing the problem.

Alright. Go ahead

Sure. Some of the processing costs that I can immediately brainstorm are:

1. **Labour costs;**
2. **Power & Fuel Costs**
3. **Losses by Defects**
4. **Packaging & Labelling Costs**

Spot on. We have gathered that the client has been incurring an increasing number of losses over the past 7 quarters due to manufacturing defects caused during production process. Our research indicates that the defect percentage has gone up from 0.5% in 2018 to almost 2.5% in 2021. This has indeed resulted in loss of raw materials, labour time, power and other company resources in totality. What all do you recommend to the client to bring profits back on track?

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Script

On the basis of given information, I would like to list down a set of recommendations, both short and long term, to help our client reduce such losses in the coming future:

Short term:

- **Identifying ways of realizing (higher) salvage value on defective products**
- **Improving supervision over the production process**
- **Reducing the number of short runs, i.e., turning the machines on and off at short intervals**
- **Improving workmanship standards through labour training**

Long term

- **Replacing existing technology with newer, more efficient one**
- **Improving product designs and production flow that minimize such defects**

synthesis

Summary

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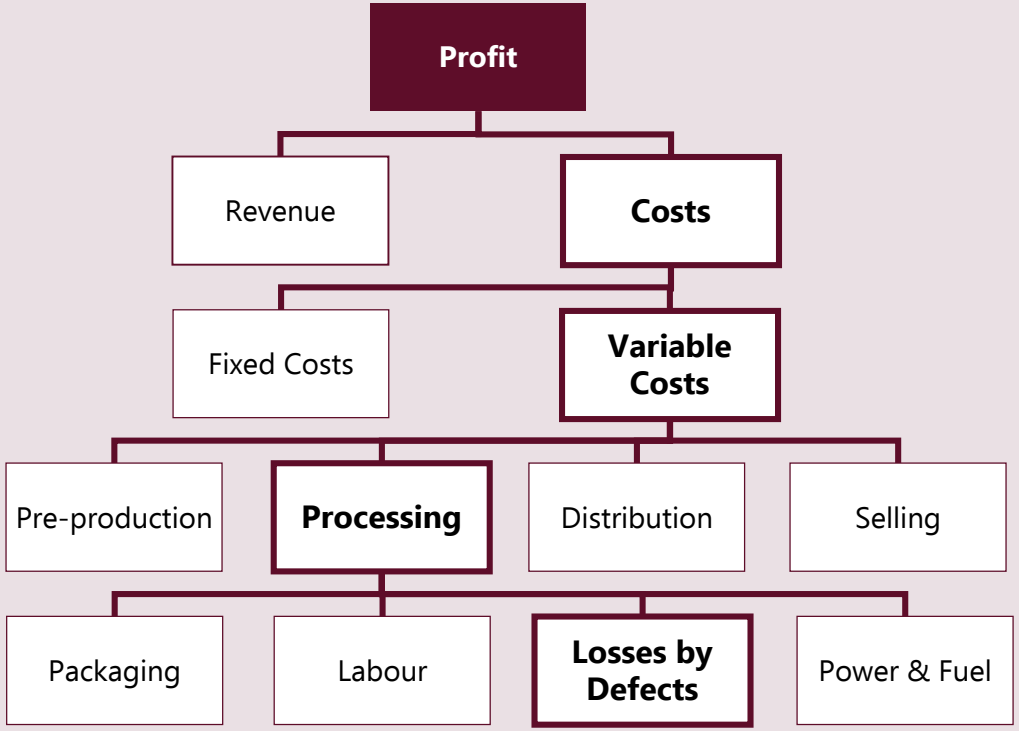
Script

Summary

Structure



Moment–to–Shine

Number of Short Runs: Generally, short runs lead to higher wastage as there are additional efforts and resources attached with discontinuing and re-continuing production process again and again

Authors' 2 Cents

When it comes to variable costs, it is always a good strategy to confirm the value chain first and identify the costs within each step of the value chain

Recommendations

Short-term	Long-term
1. Identifying ways of realizing (higher) salvage value on defective products 2. Improving supervision over the production process 3. Reducing the number of short runs, i.e., turning the machines on and off at short intervals 4. Improving workmanship standards through labour training	1. Replacing existing technology with newer, more efficient one 2. Improving product designs and production flow that minimize such defects

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Script

A private taxi driver's net income is declining, He has approached you to help him out with the same.

If I have gotten it right, we are to assess the possible causes for the declining net income of a driver driving a private taxi.

Yes. That's right.

Before I start, I wish to have more details of the taxi being driven.

Suresh drives a Hyundai Xcent, and can be found each morning at the pre-paid taxi stand of IGI Airport, Terminal 1. Last year, he decided to convert his petrol car to CNG post completion of almost 3 years of his purchase. He typically starts his day at 10 AM and sometimes even drive till 11 in the night.

Sure. Do we have information on the ownership details of the vehicle?

Right. Although the vehicle is owned by Suresh himself, he had to take a 7-year car loan from Lakshmi Vilas Bank to fund his purchase.

And for how long and by how much has the net income been declining precisely?

Every month, Suresh has consistently been able to take home a net income of at least Rs. 40,000. However, for the last 3-4 months he has been regularly failing to achieve the threshold.

Essentially, any decline in net income is characterised either by a fall in revenue or a rise in cost, which further puts me to question if either of these has seen any change?

Summary

Both revenue and cost have in fact increased during the tenure under consideration.

Interesting. What this should mean is that the magnitude of increase in cost must be greater than that of revenue for net income to decline. Clearly, it is a cost side problem.

Do we have details of costs incurred by the driver?

How about you help us identify them?

For a taxi driver per se, there would be, in addition to a set of fixed and variable costs, certain miscellaneous costs which fall within neither of the former two categories.

Case #2

Category
Profitability

Type
Interviewee Led

Industry
Transport

Origin
Curated

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Script

Okay. Go on…

The fixed costs that the driver would be incurring would include:

1. **Vehicle Maintenance Cost**
2. **Auto Insurance Premium**
3. **EMI**
4. **Taxi Stand Charges**

Similarly, when it comes to variable costs, the single largest component would be fuel & gas cost.

Lastly, the miscellaneous costs would include incurs on:

1. **Fines & Challans**
2. **Parking & Toll Charges**
3. **Compliance Costs (recurring costs on licensing, regulations and passenger safety)**

Good. There has in fact been a significant rise in fixed costs incurred primarily due to a simultaneous surge in two components: EMI and taxi stand charges.

Okay. Please excuse my lack of information on this, but I am just curious to know how EMI can be increased mid-term?

Well, Suresh had opted for a car loan under floating interest rate wherein the interest rate keeps floating within a defined range based on market parameters. Due to recent developments in capital markets, Suresh has been charged with higher interest rates in the near past.

That said, let's now move to the recommendations.

Summary

Right, I would like to list down following four recommendations keeping in mind the causes for surge in Suresh's costs:

For EMI costs:

- **Debt Consolidation, i.e., repaying costlier loan by taking fresh, cheaper loan ((**for example, switching from fixed to floating rate or vice versa)
- **Loan Restructuring, i.e., increasing the total number of installments so as to reduce fixed installment charges**

For Taxi Stand Charges:

- **Shift to other alternate taxi stands that are more economical and yet busy**
- **Look to partner with cab aggregators like Uber, Ola etc.**

Fair. We can end it here.

synthesis

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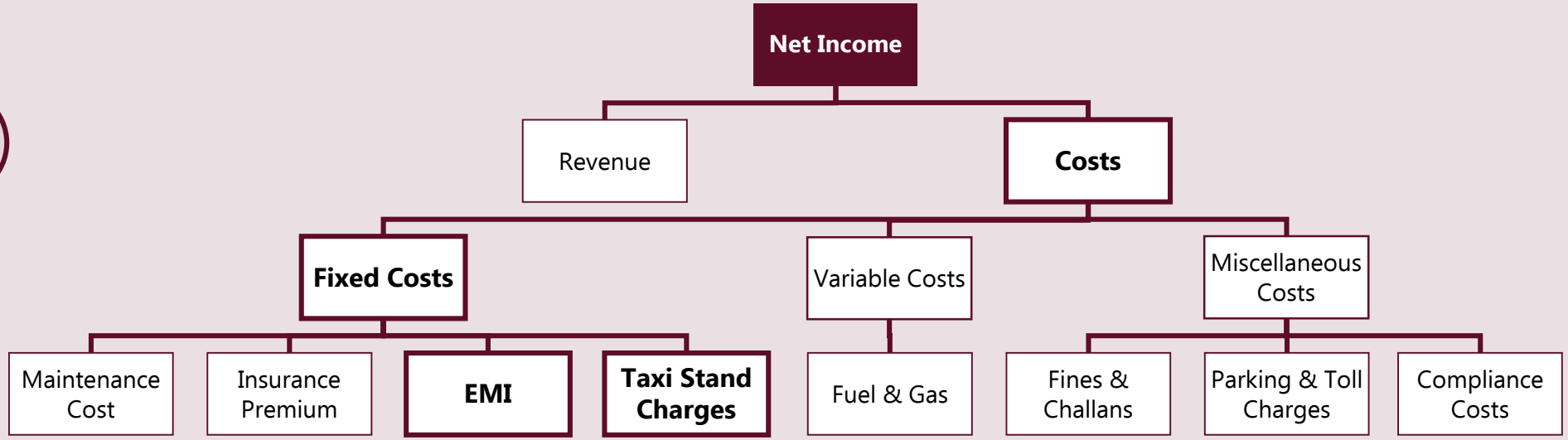
Script

Structure



Authors' 2 Cents

Miscellaneous Costs: In many cases, there are costs that are non-routine in nature and are not mandatory business expenses; however, these costs can have significant impact on bottom line. It is advisable to mention these briefly to the interviewer.

Summary

Recommendations

Reducing EMI Cost	Reducing Taxi Stand Charges
1. Debt Consolidation, i.e., repaying costlier loan by taking fresh, cheaper loan (for example, switching from fixed to floating rate or vice versa) 2. Loan Restructuring, i.e., increasing the total number of installments so as to reduce fixed installment charges	1. Shift to other alternate taxi stands that are more economical and do good business 2. Look to partner with cab aggregators like Uber, Ola etc.

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Mirchi Ram is a Vegetarian restaurant chain. They have seen a 900% growth in terms of number of stores from 2008 till 2020. The brand is witnessing a profitability dilemma. In 2008, 80% of their stores had either broken even or were profitable but after expanding only 40% stores were profitable by Mar 2020. What are the possible causes for this? Suggest measures for a turnaround strategy considering, the brand can either stick to its current locations and existing portfolio or expand to other markets.

Script

Before I get down to the problem, it would be helpful for me to understand whether this non-profitability has hit indiscriminately across all kinds of stores or only those which have opened up in the post 2008 expansion? The idea is to know whether the stores which were earlier profitable have now turned into loss making ones or is it that the new stores haven't reached a break-even phase yet.

Our client tells that it is only the new stores that largely haven't shown profits.

Got it. I would like to understand more about the offerings and the background of Mirchi Ram.

Mirchi Ram primarily deals in Indian traditional cuisine, Indian sweets and packaged namkeens. The franchise has grown monstrously over the last 30 years and is synonymous to quality and hygienic Indian vegetarian food both in India and abroad.

Since you mentioned that Mirchi Ram has international presence as well, it makes me curious to ask if there are specific locations/regions which have been reporting non-profitability?

Out of the 52 odd loss making restaurants, 40 are in India, 2 in Middle-East, 1 in the US, 1 in Bangladesh, 5 in Europe and 3 in Russia.

Summary

Alright, so this means our immediate focus should be on the restaurants in India as these form the largest proportion of these 52 loss making restaurants. We can surely figure out for others as well once we are done with this.

Alright. How would you approach it?

I want to benchmark these loss making Indian restaurants with the profit making ones on the basis of their revenues and costs to understand which of these components is actually leading to non-profitability.

Case #3

Category

Profitability

Type

Interviewee Led

Industry

Hospitality

Origin

Adapted | Silver Piston

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Script

We know for a fact that the cost structure for both profit making and loss making restaurants is pretty similar.

Okay, so this looks more like a revenue problem. I further hypothesize that since the revenue problem is across as many as 40 restaurants, the problem has to be with the primary revenue stream i.e., receipts from food & beverages and not from any secondary revenue stream.

Good. What do you want to do next?

Within food & beverages as well, there can be dine-in, take-away, online-delivery etc. Have all these segments been accumulating losses?

Our client tells us that the take-away and online orders have been some what similar for the profit making restaurants as well.

Great. So the problem clearly is with dine-in. I want to try and list down the various key revenue drivers for dine-in and see where the problem lies. Largely there are 5 that I can think of:

1. **Seating-capacity**
2. **Average occupancy level**
3. **Dishes ordered/Customer**
4. **Average Price/Dish**
5. **Table Turnover Time**

Our analysis tells us that occupancy rate has been a major set back for these restaurants because of which the seating-capacities of these restaurants are constantly being under utilised.

Interesting. The next logical thing to do for me should be to break-down occupancy into its key contributing factors. This way I'll be able to judge what can be changed/repaired. Occupancy could be a function of:

Summary

1. **Food (Quality/Taste & Hygiene)**
2. **Cuisine**
3. **Ambience**
4. **Accessibility**
5. **Affordability**

What's your hypothesis?

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Script

Since, it's a restaurant chain, the food & pricing standards should be more or less same. So, food, cuisine and affordability should not be what we are searching for. The problem should lie either with ambience or accessibility, i.e., there might be certain patterns in outlet locations that haven't been going well as compared to others.

You're right with the former case. The problem is actually with the ambience. Can you go a step forward and help us understand where exactly should the problem be?

Sure, so when I think of ambience some of the things that immediately cross my mind include: the theme, the layout, lighting, odour, temperature and music. Please let me know if I have missed on any.

You are right with the theme part. Post the 2008 expansion, the newly opened restaurants of Mirchi Ram were given a more westernised look and feel to attract the more posh segments of consumer groups. This however, did not go well with the existing customers who attributed high value to the Indian feel that Mirchi Ram restaurants were known for.

Makes sense. Do you want me to look at some of the possible recommendations now?

No, that'll be all.

synthesis

Summary

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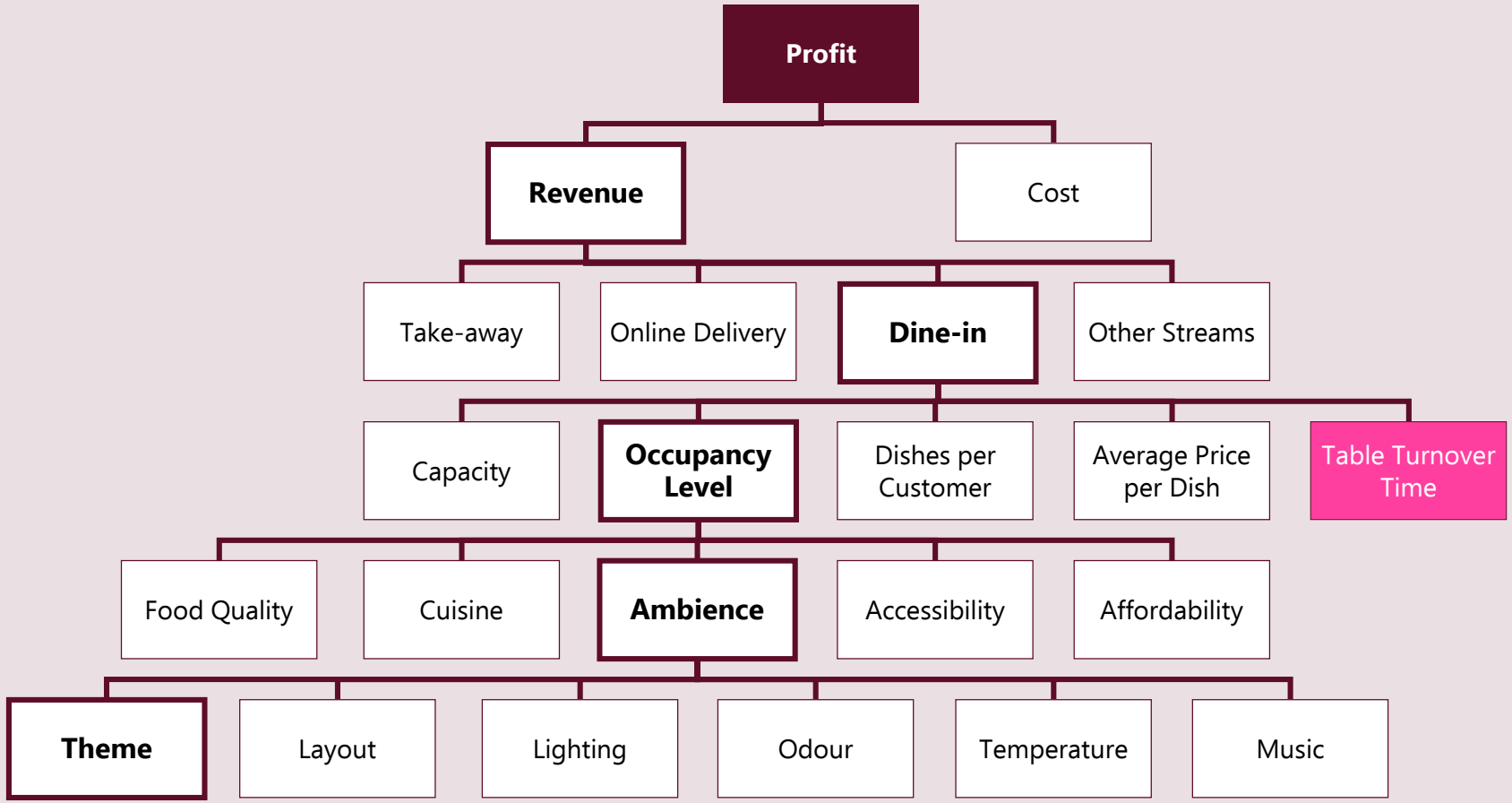
Script

Summary

Structure



Moment–to–Shine

Table Turnover Time: For the same number of tables, if customers are occupying them for a larger period of time, it will reduce the overall capacity, and therefore dine-in revenues

Authors' 2 Cents

Table Turnover Time: For the same number of tables, if customers are occupying them for a larger period of time, it will reduce the overall capacity, and therefore dine-in revenues

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Profitability Problem in an Insurance Company

Data Intensive

Script

Your client, an insurance company, has noticed a ~12% drop in their profits. What could be the possible reasons?

To begin with do we have some information on our client? As to what geography it operates in, its revenue streams etc.

Okay. Our client is an Indian origin insurance company which has been operating for over 15 years. Two years back, it was a acquired by a Britain based banking giant at a huge valuation, counting on its continuously growing cash-inflows in the Indian market. The primary revenue stream for our client is the steady income from insurance premiums, which also happens to be the site for the 12% drop.

Right. And what on the duration for the said decline?

10 months.

And if I may ask, has such decline been seen across the industry or only with our client?

Well, there has certainly been a decline for many of our competitors too, but the magnitude of the drop has been rather high for us.

Got it. Since you mentioned that the problem has been seen in income from insurance premiums, and it explains for the entire 12% drop, is it a fair assumption to keep aside costs from the analysis for now?

Yes, you can focus on revenues.

Great. I want to start by segmenting revenues in terms of number of policy holders and the average premium paid by each. Has there been a perceived decline in any of these?

Summary

We have a few data visualizations for you to analyze in order to help the client:

rest of the page intentionally left blank

Case #4

Category

Profitability

Type

Interviewee Led

Very Hard

Industry

Insurance

Origin

Curated

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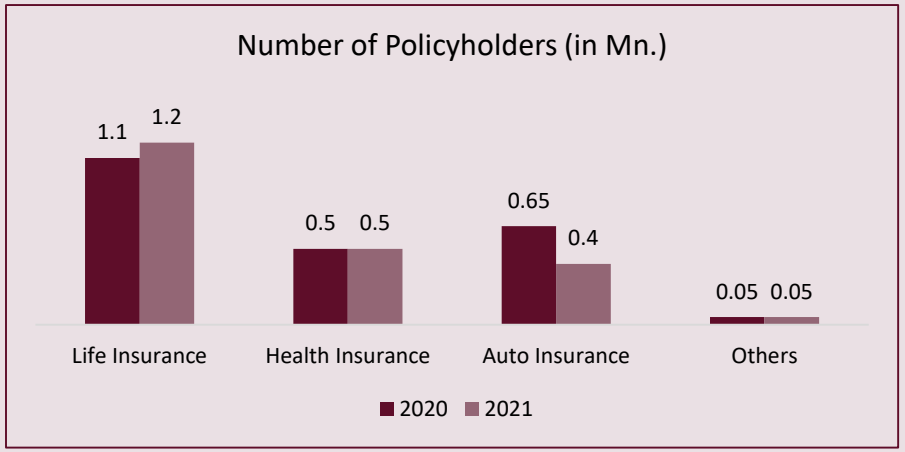
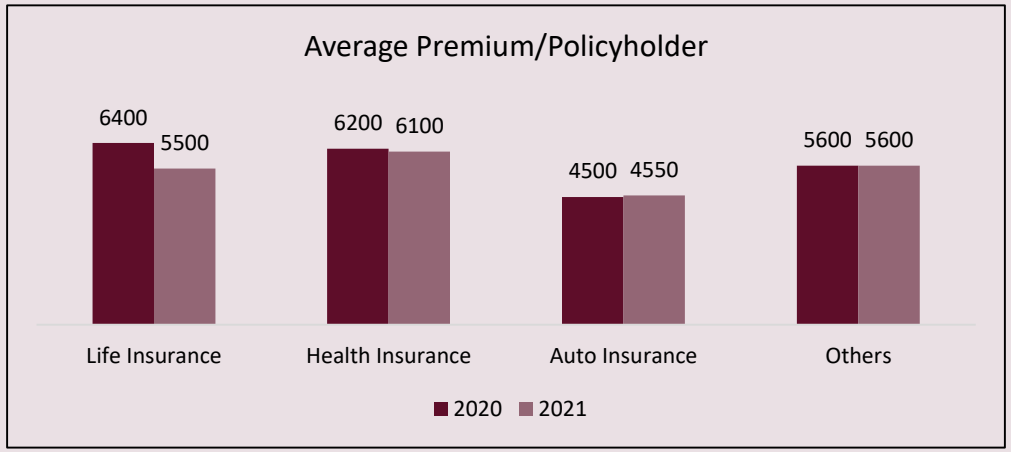
Script





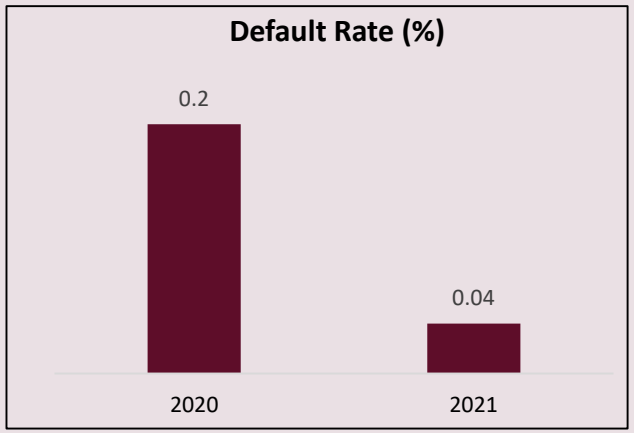
What I can infer from the given visualization is that the decline in revenues is guided by two mutually exclusive factors: an almost 250,000 decline in policyholders of auto insurance as well as more than 14% fall in the average premium received per life insurance policyholder.

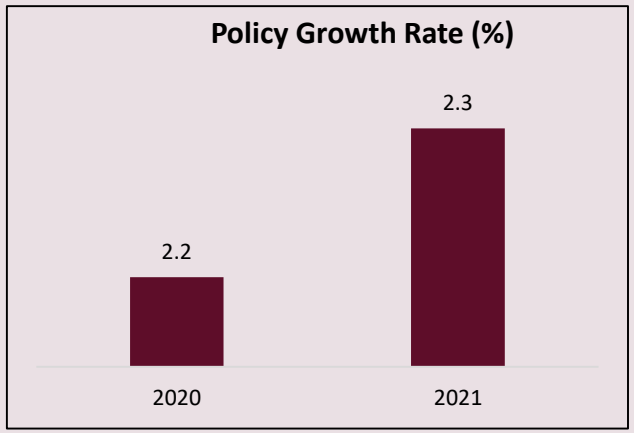
Good. Which of these do you want to analyse first?

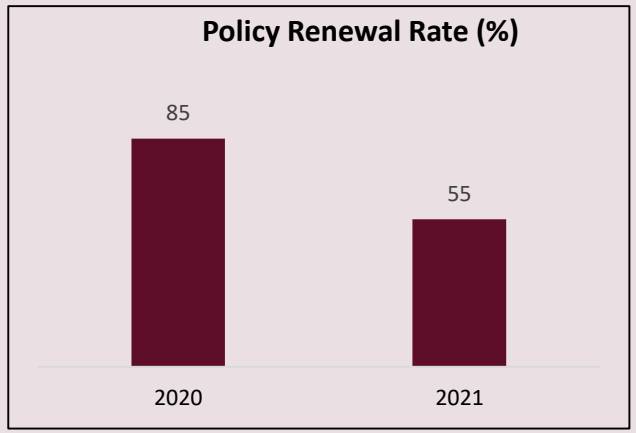
We can start by looking at the drop in auto insurance policyholders. I would like to understand if the drop has been alike across all consumer categories or not.

Here is some more data:

Summary







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Script

Both, reduction in default rate and increase in growth rate are favourable and therefore require no attention. It is however, the significant dip in renewal rate that, in my opinion, is bringing down the policyholders.

Okay. How do you wish to go about it?

Any reduction in policy renewal rate would mean that consumers are not buying any more, or not buying from our client. This can be an outcome of one or a combination of following factors:

1. **Shift in Customer Demographics/Preferences**
2. **Better Offerings/Strategies by Competitors**
3. **Deterioration in Product Quality**
4. **Tarnished Company Image**

Spot on. Tokyo Insurance Company, a leading Japanese insurance provider has recently entered the Indian market. The company has been successful in pushing its policies, particularly auto-insurance policies which carry low term durations, by way of distributing high commissions to policy dealers, who have further pushed their policies over those of other players. Alright. Let's now look at the other side of the problem.

Before starting to analyse the problem, I would like to understand the various life insurance policy schemes along with their annual premium.

The company operates four life insurance policies – W, X, Y, Z. The insurance premium ranges from INR 6,000/year to as high as INR 17,000/year.

Summary

Policy Name	Policy Premium (2021)
W	6000
X	8000
Y	12000
Z	17000

Interesting. Do we also know the composition of each of these in the total number of life insurance policyholders?

Here is something you might want to go through:

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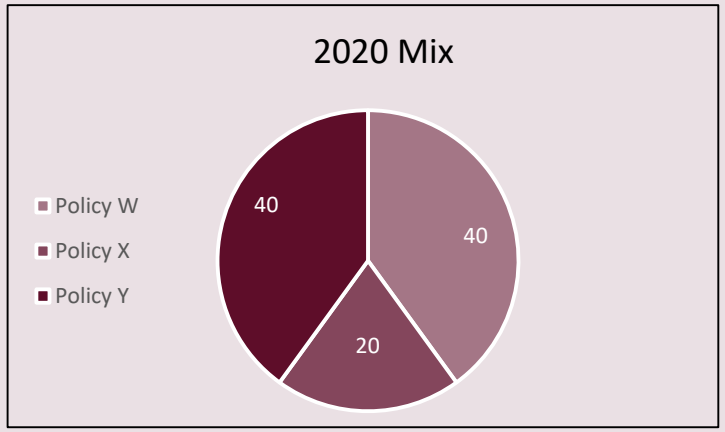

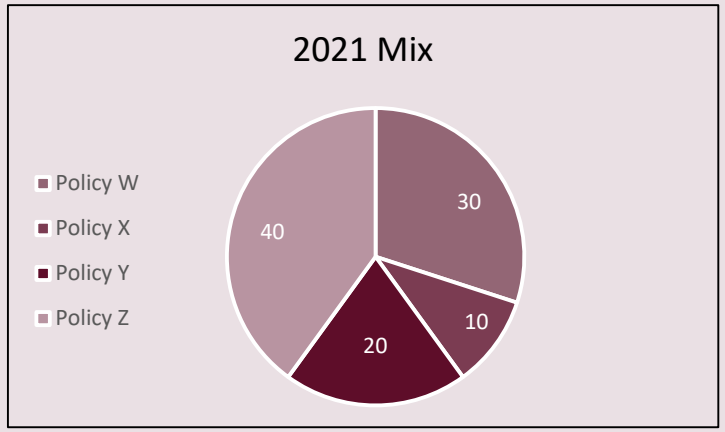

Script

What I can infer from these is that there is newly introduced policy – Policy Z – which in fact carries the largest premium and has also been able to shift the mix in a manner that it has become the most popular of all. Since, the policy premium is highest and still the average life insurance policy premium is falling, there must be one of the following reasons:

- **<u>More Insured People per Policy</u>: Policy Z might be covering more members at one definite cost which there by pushed the average premium per insured person down**
- **<u>More Riders per Policy</u>: Riders are the extra benefits that a policyholder can buy to add on to a life insurance policy. It might be so, that the earlier policies did not allow as many add-ons which meant policyholders had to opt for multiple policies to have the same number of benefits as policy Z allows in a single cover**

Summary

That's right. As part of Prime Minister's Insurance Scheme, the client brought out a single scheme for entire family i.e., Policy Z. The policy allows up to 5 family members to get covered within one single policy. As a result, the average premium per life insurance policyholder took a hit.

Got it. Would you like me to look at some of the recommendations?

We are good for now. Thanks!

synthesis

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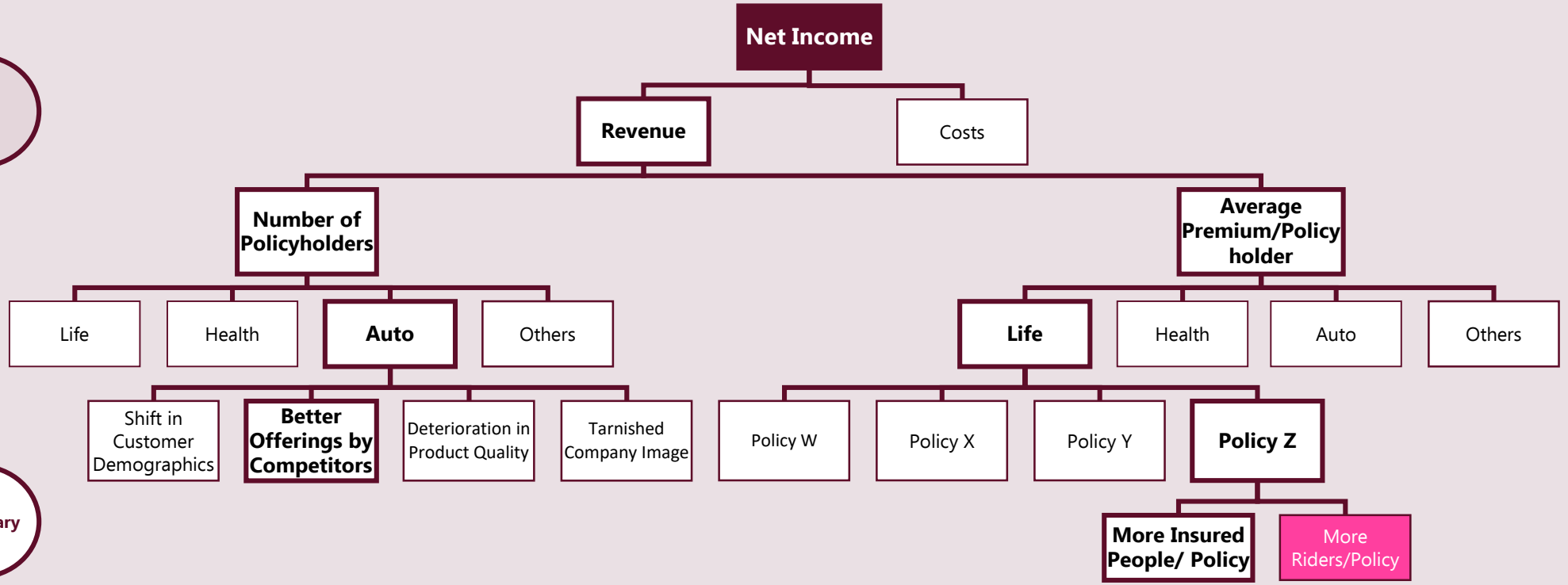
Script

Summary

Structure



Moment–to–Shine

Riders per Policy: Usually you would not be expected to know the nitty-gritties like riders/policy during case interviews unless you have explicitly mentioned about your experience in a certain industry. However, knowing anything extra may fetch you few plus points.

Authors' 2 Cents

Don't go for sanity check: Cases like this are flooded with visualizations and numbers only to make them seem intimidating; but most of the times, the expectation is only to gather logical qualitative inferences from the charts. Candidates may confuse themselves in focusing too much on the numbers or doing sanity checks.

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Market Entry

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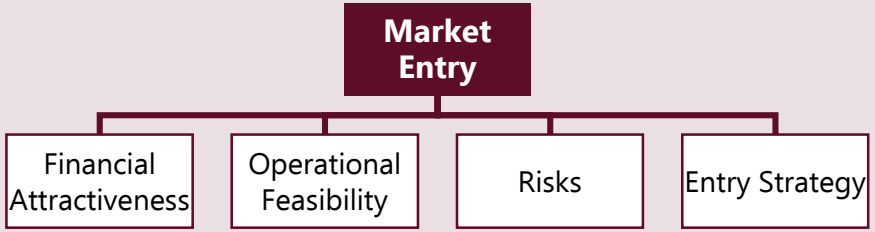
Clarifications

Some preliminary questions that can be asked for a market entry case are:

- **Product-related Questions: Usage, target customers, is the product unique or has close substitutes**
- **Company-related Questions: Current location, existing revenue streams, value chain, reason to venture out**
- **Geography-related Questions: Particular reason to select the said geography? Whether client is open to alternatives or not**
- **Client Objective: Target Profit Level? Target Market Share in a particular time period? Break-even in a particular time period? Maximizing Revenues?**
- **Expected time horizon for entering market**
- **Is the problem located in pre-covid, covid or post-covid scenario?**

Framework

Market Entry (FORE): **Financial Attractiveness, Operational Feasibility, Risks, Entry Strategy**



Financial Attractiveness

Key questions to be addressed:

- **Is the market profitable?**
- **If yes, are the profits adequate?**
- **Can the profits be sustained and grown for a foreseeable future?**

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Framework

Expected Profits

Expected Profits (for the first year) = $(Market\ Size \times Market\ Share \times Profit\ Margin) - Initial\ Investment$

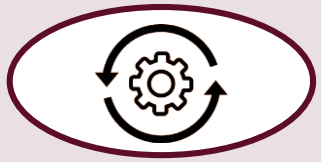
Expected Profits (for first n years) = $[(Market\ Size \times Market\ Share \times Profit\ Margin) - Initial\ Investment] \times (1 + Market\ Growth\ Rate)\text{^}n$

Profit Margin (or contribution) = $Selling\ Price\ per\ Unit - Variable\ Cost\ per\ Unit$

Operational Feasibility:
Here, we suggest that a proper value chain be made for the concerned product and be presented to the interviewer to discuss if the proposed arrangement would be feasible for client to pursue or not.

For example, for a client entering the telecom industry in India, a typical value chain would include the following steps:

1. **Obtaining Licenses**
2. **Setting up Office(s)**
3. **Hiring Personnel**
4. **Setting up Towers & Supporting Infrastructure**
5. **Distribution & Retail Channels**
6. **Promotion**
7. **After-sales**



Risks:
Contingent upon the case, one can use different already established frameworks to approach the associated risks.

Here is an inexhaustive list of some of the frameworks we have used personally to approach our cases:

- **PESTLE (Political, Economic, Social, Technological, Legal and Environmental risks)**
- **Porter's 5 Forces (Threat of New Entrants, Threat of Substitutes, Bargaining Power of Buyers, Bargaining Power of Suppliers, Existing Competition)**
- **Risks Across Value Chain (Supply-related Risks, Distribution-related Risks, Demand-related Risks)**
- **3C1P (Customers, Competitors, Company, Product)**

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Framework

Entry Strategy

Some of the following avenues can be used for an entry strategy in a particular market:

- **Greenfield Investment**
- **Direct Exporting**
- **Licensing**
- **Franchising**
- **Merger**
- **Acquisition**
- **Joint Venture**
- **Partnering & Collaboration**

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EWS pure water solutions manufacturers of custom-made mineral water bottles (like Bisleri) is currently operating in Alwar, while it has been catering to the retail segment, it now plans to enter the hospitality sector of the area. You are required to suggest if the client should go ahead with this strategy or not.

Script

When we begin to think about the hospitality sector, it is largely constituted by hotels and restaurants. Is there a specific category that we are targeting?

Primarily we are concerned with tapping the hotel industry at this point.

Alright. And what exactly would be the client's objective? Is it to maximise profits or capture a larger market share?

Profitability.

Okay. For any company looking to enter a new market, it should broadly look at the following 4 aspects:

1. **Financial Attractiveness**
2. **Operational Feasibility**
3. **Risks Involved**
4. **Entry Strategy**

I would first like to look at how attractive this proposition can be from the financial point of view. Next, I'll be exploring any supply side constraints that our client may face. If both of these make sense, we can move to secondary factors – risks involved and entry strategy.

Summary

Alright. What do you need?

Profits are a function of units sold and the profit margin per unit, I will now try and list down the components that we need for each of these.

*Units Sold = Total Number of Hotels * Capturable Hotels * Average Rooms/Hotel * Average Occupancy * Average Consumption/Day * Number of Operational Days*

*Profit = (Price/Unit – Variable Cost/Unit) * Units Sold – Fixed Cost*

Case #5

Category
Market Entry

Type
Interviewee Led

Industry
Water

Origin
Adapted | Bain & Company

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Script

Approach seems good. Our team has gathered all these components already. You can note them down:

Total Number of Hotels	125
Capturable Hotels (%)	40
Average Rooms/Hotel	110
Average Occupancy (%)	75
Average Consumption/Day (units)	2
Number of Operational Days	365

Price/Unit (INR)	5
Raw Material/Unit (INR)	2
Manufacturing Cost/Unit (INR)	.5
Distribution Cost/Case (INR) *(1 Case = 12 Bottles)*	12
Machinery (INR) (*expected life - 10 years*)	250,000

Basis these numbers, my calculations show that the expected units sold would come down to around 300,000. At the same time, the variable cost per unit would be at INR 3.5. Once we factor in the fixed cost, our profits for the first year would be around INR 200,000. So, we can conclude that the proposition is financially attractive and can therefore, move to our next branch i.e., operational feasibility.

Alright. How are you going to approach that?

We know that in pursuit of making a profit of INR 2 lakh, we would have to make and sell about 300,000 units of water bottles. I wish to know if we have the raw materials, labour force and infrastructural bandwidth to produce and distribute these units and only then can we conclude that the business is operationally feasible.

Spot on. Our team examined the client's production facility and concluded that the current machinery is capable of producing only 15,000 units a year as against our demand of 300,000 units.

Summary

Got it. Before arriving at my conclusion, I would like to run our numbers again on this capacity to see if we are still profitable.

Go on.

At a price per unit of INR 5 and variable cost per unit of INR 3.5, we will make a contribution of INR 22,500. If we further subtract the fixed cost per year of INR 25,000 (250,000/10), we in fact make a loss of INR 2,500 as against our initial estimate of a profit of INR 200,000. Clearly the business is not operationally feasible with our current capacity.

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Script

Alright. The calculations seem logical. What recommendations would you want to give to our client on the basis of your analysis?

Here are some recommendations that our client can possibly consider before planning to enter the market:

1. **Attempting to improve the existing production capacity by either adding new machinery or optimising existing one, which may in turn lead to reduction of variable costs by achieving economies of scale**
2. **Analysing scope for increasing marked price (based on price elasticity)**
3. **Pivoting from manufacturing to trading business by partnering with other local plants and white labelling them under EWS**

synthesis

Summary

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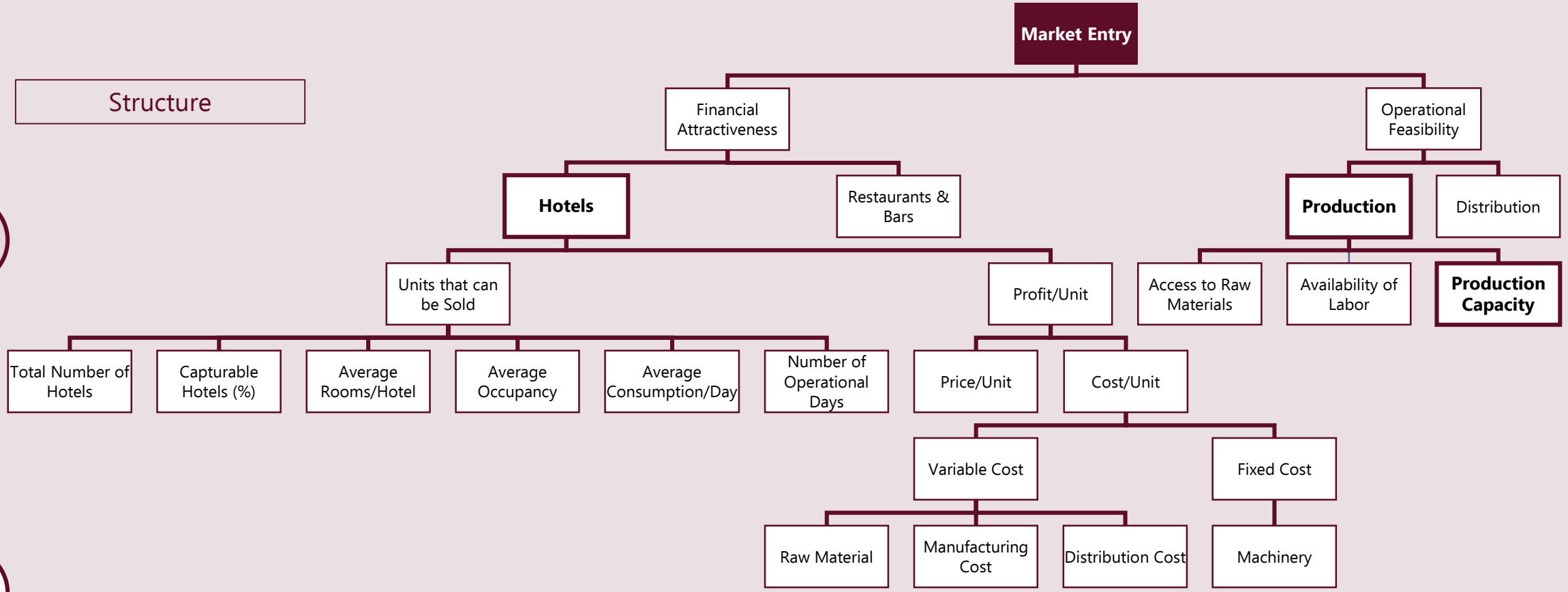
Script

Summary

Structure



Recommendations

1. Attempting to improve the existing production capacity by either adding new machinery or optimising existing one, which may in turn lead to reduction of variable costs by achieving economies of scale
2. Analysing scope for increasing marked price (based on price elasticity)
3. Pivoting from manufacturing to trading business by partnering with other local plants and white labelling them under EWS

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Script

Sicilian Cosmetic Co. is a global brand dealing in organic cosmetics. It has recently come up with an environment-friendly range of lipsticks that, it claims, lasts 50% longer than other competitive products, is smudge-free, lead-free and 100% safe if consumed. The company now plans to enter the Indian market with this 'hero product'. You are required to assess if this proposition is desirable for the client.

I want to start by knowing a little about the background of our client and as such, its rationale to particularly enter the Indian market. Further, if there are certain specific geographies within India where our client plans to enter first?

SCC is currently the world's fourth largest cosmetic brand with its presence in more than 100 countries across the world. It is the oldest cosmetic brand in Europe. With its constant innovations and impeccable sense of evolving fashion, SCC has earned a distinct name for itself and has grown 80,000x since its year of inception to date.

SCC knows that India is one of the largest markets of the world, where middle-class population is constantly expanding and so is the per-capita expenditure on lifestyle products. Moreover, many of its competitive brands like Maybelline and L'Oréal have made it big in the Indian market, which gives all the more reasons to SCC to enter. From geographical standpoint, SCC has signed contracts with several online marketplaces and offline retail chains which would help it get good access to the urban Indian market.

Got it. Since SCC plans to enter the market with its range of lipsticks, and considering these lipsticks have a strong differentiation from the competitive products, I would like to know how this product is positioned in comparison.

Summary

Good question. According to our client's research, these lipsticks can command anywhere between 20-40% premium over competitive products. However, since India is a price sensitive market, our client has decided to keep it at the lower end of 20% for India so as to maximise sales.

That makes sense. If I may know our client's expectations from the market entry so as to formulate the case better?

Maximizing profits.

Case #6

Category

Market Entry

Type

Interviewee Led

Industry

Beauty

Origin

Curated

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Any company's decision to enter the market primarily depends on the following four crucial factors:

- **Financial Attractiveness**
- **Operational Feasibility**
- **Risks Involved**
- **Entry Strategy**

Script

We know that our client has already entered into collaborations with online market places and several retail chains in modern trade which would enable larger market access and bigger trade volumes to our client. This means that our goal now should be to look at the first three factors since the entry strategy is already decided upon and as such, seems good.

Alright. Go on.

In order to assess the financial attractiveness, we will need to understand the market size, acquirable market share and the profit margins our client enjoys per unit.

How about you help us arrive at the market share?

Sure. We know that our client is targeting urban markets with more focus on upper middle class and upper class segments (benchmarked on the basis of competing brands i.e., Elle & L'Oréal). We also know that lipstick market is largely driven by adult female customers. In addition, lipsticks also have close substitutes like lip-liners. On the basis of these filters we have arrived at a total market size of 10.5 Cr. units *(refer summary page).*

Do we have any estimates on the market share that our client can capture as well as the profit margins earned?

Sure. Here you go:

Summary

Acquirable Market Share (1st year)	10%
Average Price per Product	INR 500
Net Profit Margin	7%

Based on this information, we can conclude that SCC would be selling about 1.05 Cr. lipsticks while reserving INR 35 for every unit sold, thereby earning a profit of about INR 37 Cr. In the first year itself based on our projections. Therefore, it would be okay to conclude that the opportunity is financially attractive.

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Script

Okay. What do you want to do next?

Next, we should be looking at the operational capabilities that our client would require and if at all it has the viability for the same. For this, I would be listing down the chain of steps that our client would have to go through in order to start operations:

- **Statutory Compliances – The laws of land that need to be complied with to operate in that area**
- **Setting up Offices – The decisions to set up headquarters, regional offices, warehouses etc. at different locations**
- **Production Decision – Whether to produce within India, import from a foreign factory or give out production contracts**
- **Hiring Personnel – Hiring high quality staff in different managerial and operational domains**
- **Distribution – Developing channels to supply our products to retail chains and online marketplaces**
- **Marketing – Improving customer awareness and pushing sales through constant promotion, discounts, sponsorships etc.**

Let's assume that all these decisions can be met by our client.

Great! In that case the proposition is operationally feasible as well. Can we now move on to the risks?

Yes please.

From an entry standpoint, our client could possibly encounter one of the following risks:

- **Customer Risks – An apparent change in the disposable income, taste & preferences or customer demographics leading to fluctuations in product sales**
- **Competitor Risks – Risks entailing improved competitor goods, reduced competitor pricing, more aggressive marketing by competitors or threat of new entrants**
- **Value Chain Risks – These include risks related to production/import/contracts, distribution and other collaborations with retail chains and online marketplaces**

Summary

Interesting. Can you list down a few collaboration risks for our client?

Sure. Some of these risks would include:

- **any such trends that eventually lead to tarnishing goodwill of our partners**
- **a change in their company policy that adversely affects our client (e.g., a policy to charge higher commission on online sales of cosmetics)**
- **any contractual terms that forbid our client from entering into contracts with other market players**

That'll be all. Thanks!

synthesis

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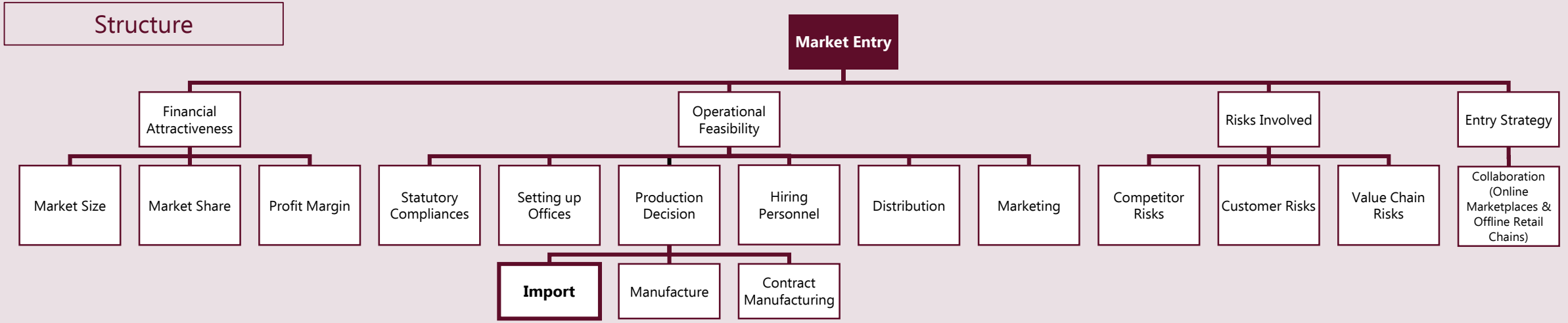
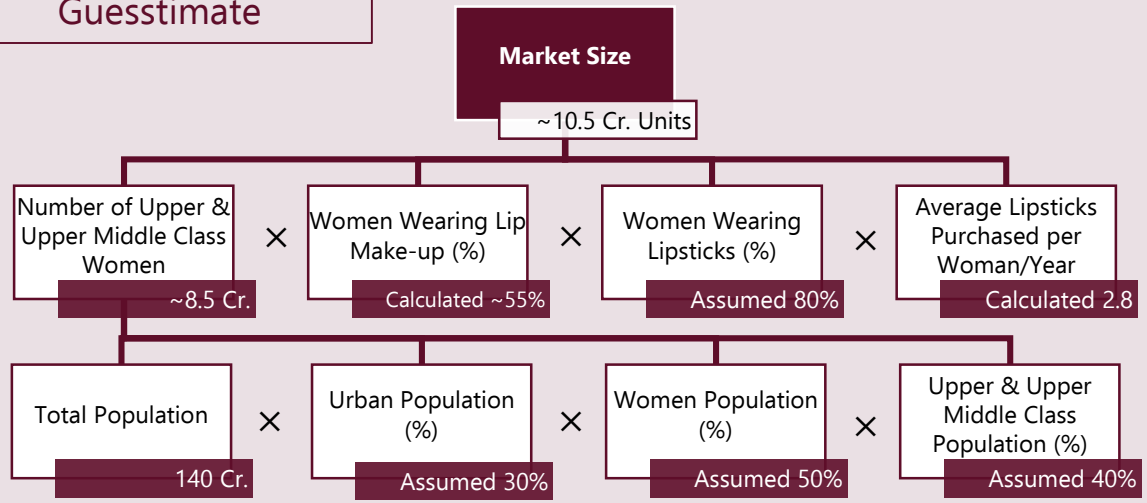
Script

Structure



Summary

Guesstimate



Age Groups	Distribution (%)	Women Wearing Lip Make-up (%)
0-18	35	10
18-40	40	90
40-60	15	80
60+	10	40
Weighted Average		~55

Buying Frequency	Distribution (%)	Number of Lipsticks
High	20	5
Medium	50	3
Low	30	1
Weighted Average		2.8

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Script

Bharat Supermart is an Indian retail brand that runs chains of consumer retail supermarkets and convenience stores with a strong presence in the northern region (Delhi NCR, Haryana, Uttar Pradesh) of India. A shift of consumers to online grocery platforms in the wake of the recent pandemic has brought down the top line of the company. Foreseeing a myriad of opportunities and an adequate prospect for growth, it is planning to venture into the online space. You are required to assess if the maneuver would be financially sustainable and operationally viable for the client.

The retail industry entails a variety of products, ranging from daily household groceries to electronic products. What all products does Bharat Supermart intend to include in its product portfolio for the online platform? Moreover, what all geographies does it plan to target through this venture?

Initially, our client is planning to cater to the daily household needs of their consumers by providing grocery and dairy products through its online channel focused primarily in the urban part of the northern region where it has its existing operations.

Do we have an intimation on how this platform would function and what would be the prerequisites for the consumers in order to access and use the platform?

The platform would be accessible via a website or an application, which would require the customer to have a personal computer or a smartphone (Android or IOS) at his/her disposal.

A company, planning to venture into a new sphere, should contemplate upon the following key aspects:

- **Financial Attractiveness**
- **Operational Feasibility**
- **Risks Involved**
- **Entry Strategy**

Summary

To begin with, it would be imperative to understand the proposition from a financial standpoint. Further, we can evaluate the elements which would be involved in setting up the venture and constraints associated in the due process.

Alright. Go ahead.

In order to assess the financial attractiveness, we will need to understand the market size, acquirable market share and the profit margins that our client enjoys per unit.

How about you help us arrive at the market size?

Case #7

Category

Market Entry

Type

Interviewee Led

Industry

Retail

Origin

Curated

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Script

Sure. Accessing the platform would essentially require a personal computer or smartphone from the consumer's end, which would in turn require internet connectivity, which in most cases are available in the urban part of the region. Moreover, the budgetary constraints and discounts provided by the local shops would more or less lead to no shift of lower middle class households towards the online platform of Bharat Supermart. After applying the necessary filters we have arrived at a market size of INR 10,400 Cr.

Do we have any estimates on the market share that our client can capture as well as the profit margins earned?

Sure. Here you go:

Acquirable Market Share (1st year)	2%
Gross Profit Margin	55%

As per the given information, it would be fair to conclude that in its first year of operation, Bharat Supermart would be able to make a gross profit of ~INR 115 Cr. Do we have any established benchmark or client's expectation which could help us know whether this figure seems financially attractive or not? (*refer summary*)

We can surely check with our client on that. How about you move forward?

An indispensable part of setting up a new business is ascertaining, whether the business is operationally conceivable or not, that requires a critical analysis of all the activities involved in the process, ranging from its establishment to end deliverable which in this case is delivery of goods and customer retention. For this, I would be listing down the chain of steps that our client would have to go through in order to start operations:

Summary

- **Statutory Compliances – The laws that need to be complied with such as trade licenses, GST etc.**
- **Website/Application Development – Developing the website or mobile application and using customer feedback to constantly improve the user interface and customer focus through specialized algorithms**
- **Hiring Personnel – Hiring high quality staff in different managerial and operational domains**
- **Supply Chain Decision:**
  - **Product Sourcing Decision – Using the existing suppliers for sourcing goods or finding new ones to optimize the cost**
  - **Warehousing Decision - Developing new warehouses or using existing offline stores as distribution centers**
  - **Distribution – Setting up door to door delivery services with minimum transit loss**
- **Marketing – Improving customer awareness and pushing sales through constant promotion, discounts, sponsorships etc.**

These points seem quite exhaustive; our client can take good cues from them. We can end the case now.

synthesis

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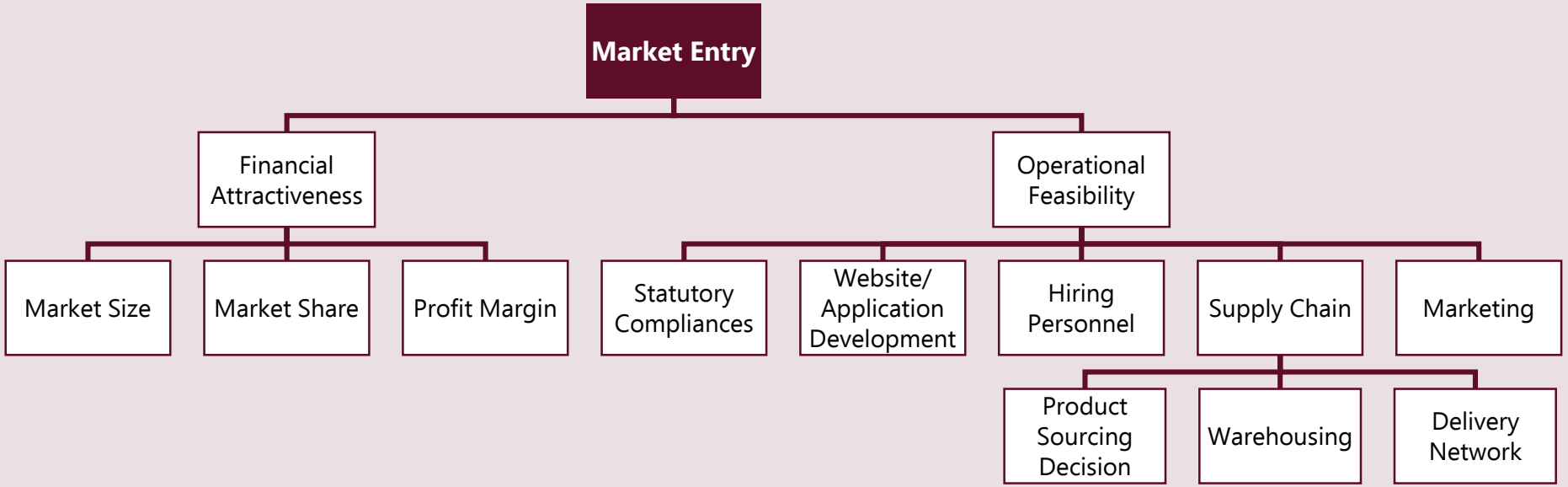
Structure

Script

Summary



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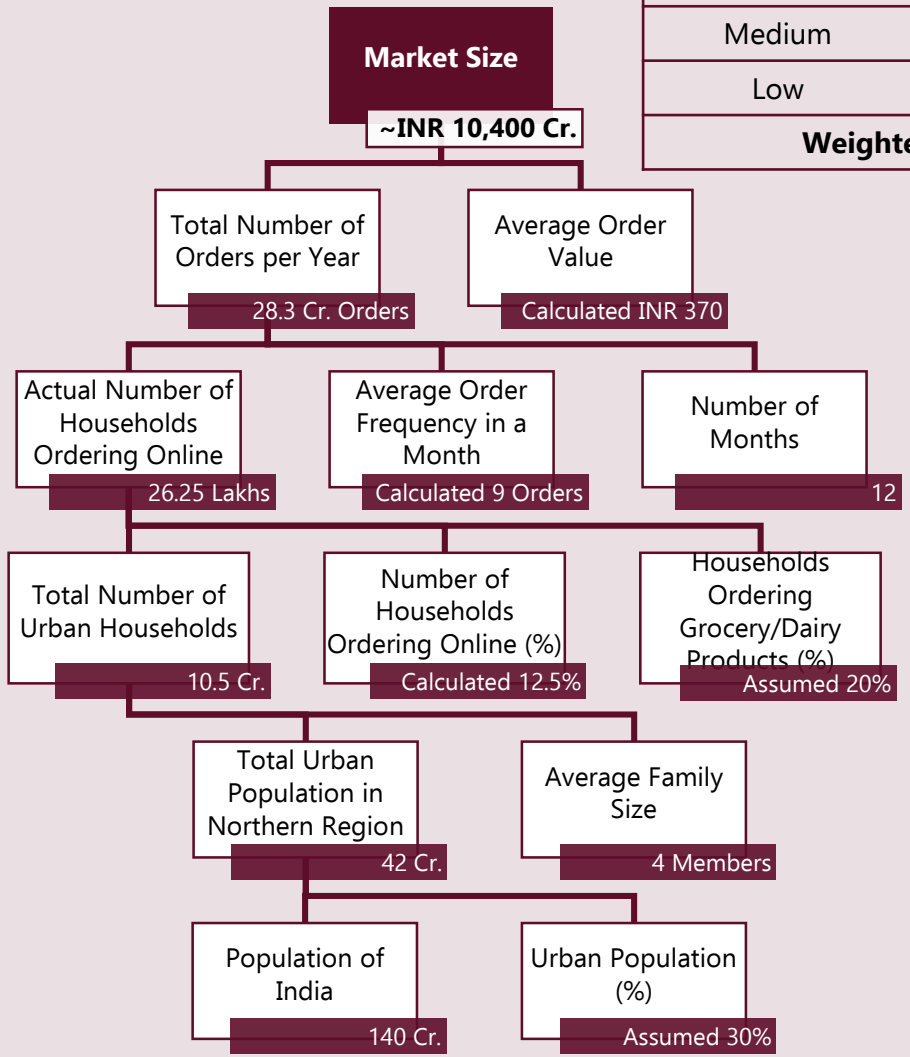
Script

Summary

Guesstimate



Order Value	Distribution (%)	Amount (INR)
High	10	1000
Medium	30	500
Low	60	200
Weighted Average		**370**

Order Frequency	Distribution (%)	Number of Orders
High	20	15
Medium	40	10
Low	40	5
Weighted Average		**9**

Income Group	Distribution (%)	Ordering Online (%)
Upper Class	15	50
Upper Middle Class	25	20
Lower Middle Class	40	0
Below Poverty Line	20	0
Weighted Average		**12.5**

Note: Since we are dealing with urban upper class and upper middle class population, there is no problem in assuming that each of these households would have the means to order online i.e., a mobile phone/laptop and an internet connection.

$$\textit{Market Size} = (\textit{Total Number of Orders per Year}) \times (\textit{Average Order Value}) = 283{,}000{,}000 \times 370 = \sim 10{,}400\ \textit{Cr.}$$

$$\textit{Total Number of Orders per Year} = (\textit{Actual Number of Households Ordering Online}) \times (\textit{Average Order Frequency in a Month}) \times (\textit{Number of Months}) = 2{,}625{,}000 \times 9 \times 12 = \sim 28.3\ \textit{Cr.}$$

$$\textit{Actual Number of Households Ordering Online} = (\textit{Total Number of Urban Households}) \times (\textit{Number of Households Ordering Online}) \times (\textit{Households Ordering Grocery/Dairy Products} = 105{,}000{,}000 \times 0.125 \times 0.2 = 26.25\ \textit{Lakhs}$$

$$\textit{Total Number of Urban Households} = \frac{(\textit{Total Urban Population})}{\textit{Average Family Size}} = \frac{420{,}000{,}000}{4} = 10.5\ \textit{Cr.}$$

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Apex Supply Chains is an Indian freight and fleet management platform with a considerable market share in the market. Having achieved its target revenue with a sustainable growth rate in the India, it now plans to venture into a new geography and requires your suggestions regarding the same.

Alright. Before determining the possible alternatives at our client's disposal, I would like to know about how our client operates and what are its expectations from this expansion?

Script

ASC is an online logistics platform, connecting businesses with truck owners and freight operators while facilitating payments, insurance and other operational requirements involved in the due process. It provides businesses, a wide variety of options with respect to price, tentative delivery date & time and payment options. Additionally, freight operators get their preferred load type & routes. It aims at maximising the profits by the end of the 3rd year of its operations.

Interesting. Are there any geographies that have been finalised by ASC, or is it up to us to ascertain which location it should venture into?

There are 3 countries that have been shortlisted by ASC as part of its expansion plan, these are Malaysia, Saudi Arabia and Canada.

While providing necessary recommendations, it is imperative that we look at the problem from a financial and operational standpoint. I would first like to analyse, if the alternatives available with us are financially feasible or not, post which we can move on to examining the operational viability of the propositions. Moreover, we can have a look at the possible risks involved while setting up the venture and also the entry strategy that should provide us with a more advantageous position in the market.

Go ahead.

Summary

To evaluate which country is financially most attractive, we would need data on the prospective profits we can make in each of these markets.

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Case #8

Category
Market Entry

Type
Interviewee Led

Very Hard

Industry
Supply Chain and Logistics

Origin
Curated

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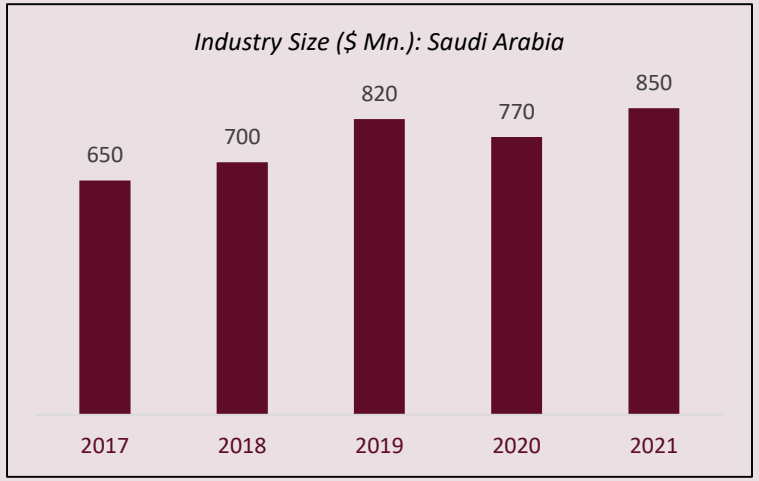
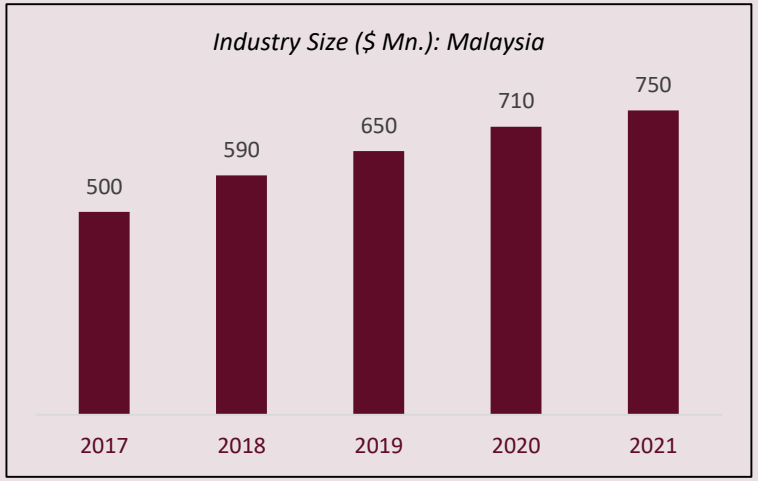
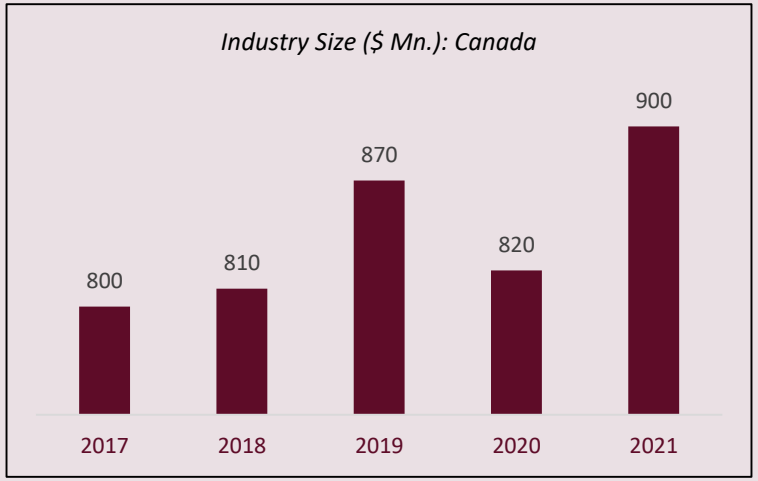
Script

We have some data for your reference:







Countries	Acquirable Market Share (%)	Net Profit Margins (%)	Capital Expenditure ($ Mn.)
Canada	7	10	8
Malaysia	10	14	18
Saudi Arabia	8	12	12

Summary

Our research team has intimated us that the industries in all the countries would grow at CAGRs based on their past performance.

The market growth rate for the industry in each country comes out to be 3%, 11% and 7% for Canada, Malaysia and Saudi Arabia respectively based on the previous numbers. We can arrive at the prospective market size for the industry in each country by using the market growth rate. Further, we can compute the market share which ASC can acquire in the next 3 years using the given data. After arriving at the net profit (market share*net profit margin), we can deduct the capital expenditure required for the expansion to determine the expected cash inflow, which can then be compared to determine the financial attractiveness of the available alternatives.

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Seems good.

After the necessary calculations we have arrived at the following data:

Canada			
Year	2022	2023	2024
Industry Size	927	955	983
Growth Rate %	*3*	*3*	*3*
Market Share (7%)	65	67	69
Net Profit (10%)	6	7	7
Total Profit in 3 Years	20		
Capital Expenditure ($ Mn.)	8		
Total Inflow in 3 Years ($ Mn.)	12		

Malaysia			
Year	2022	2023	2024
Industry Size	830	919	1017
Growth Rate %	*10.7*	*10.7*	*10.7*
Market Share (10%)	83	91.9	101.7
Net Profit (14%)	12	13	14
Total Profit in 3 Years	39		
Capital Expenditure ($ Mn.)	18		
Total Inflow in 3 Years ($ Mn.)	21		

Saudi Arabia			
Year	2022	2023	2024
Industry Size	909	972	1039
Growth Rate %	*7*	*7*	*7*
Market Share (8%)	73	78	83
Net Profit (12%)	9	9	10
Total Profit in 3 Years	28		
Capital Expenditure ($ Mn.)	12		
Total Inflow in 3 Years ($ Mn.)	16		

Basis the data we have analysed, we can conclude that the most attractive to least attractive markets for our client to enter from profitability standpoint would be: Malaysia, Saudi Arabia and Canada

What do you want to pick up next?

It would be crucial to apportion appropriate weight to how the available geographies perform in terms of operational viability. Therefore, I would like to analyse all the necessary steps involved in setting up the venture in the given environments.

Sure.

Summary

Setting up a business in a new geography which is synonymous to that of ASC would require discretion on the following factors:

- **Statutory Compliances – Complying with the laws such as incorporation, licensing, road transportation, insurance, service tax etc.**
- **Platform Development – Developing the platform to cope up with the requirements of the new environment and incorporating new elements to match the expectation of new customers**
- **Ancillary Service Partners – Securing support services such as insurance and payment gateways at ideal terms and conditions to minimise cost and optimise operations**

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Script

- **Setting up Offices – Establishing corporate offices and headquarters to manage the operations and other backend services**
- **Hiring Personnel – Hiring efficient personnel, acquainted with the geography for better customer acquisition and feedback services**
- **Marketing & Promotion – Improving customer awareness and pushing sales through constant promotion, discounts, sponsorships etc.**

Great. Here we have a qualitative data on countries which are most to least attractive for the most essential operational functions:

Function	Most Attractive	Moderately Attractive	Least Attractive
Compliances	Saudi Arabia	Malaysia	Canada
Product	Canada	Saudi Arabia	Malaysia
Partner Services	Saudi Arabia	Malaysia	Canada
General Administration	Malaysia	Saudi Arabia	Canada

Interesting. In order to evaluate the countries most effectively, I wish to convert this qualitative data into quantitative one. Considering each of these function are almost equally essential to the success of our business, I plan on assigning equal weights to each of these four functions. Further, I want to assign each of these countries a score of 1 – 3; 3 being most attractive. After assigning weights, we can add them up to arrive at our rankings.

Summary

Function	Canada	Malaysia	Saudi Arabia
Compliances	1	2	3
Product	3	1	2
Partner Services	1	2	3
General Administration	1	3	2
Total	6	8	10

Hence, our analysis shows that on the basis of operational feasibility, Saudi Arabia will rank first followed by Malaysia and Canada.

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Good. What according to you can be the possible market entry strategies that could be undertaken by ASC?

A business which is planning to venture into a new country can choose among the following entry strategies:

- **Direct Investment – Solely developing the entire value chain and undertaking all the capital expenditure; acquiring the market share; heavy expenditure on marketing & promotion**
- **Joint Venture – Partnering with an existing player in the market with terms & conditions tailored to best suit the interest of both the parties involved with less capital expenditure and benefit from existing market share; appropriation of profits as agreed**
- **Merger/Acquisition – One time expenditure to gain leverage out of an existing business with no requisite of expenditure on marketing, promotion, hiring of personnel etc.**

We have identified that market access to Malaysia has been restricted by its governments in order to safe guard the interest of the native industry players. To enter the market a company should get into a joint venture of equal share with a native company. Wherein, both the companies would be entitled to 50% share in the profits in return of 50% of the total capital expenditure.

The information brings down the total inflow to ~$11 Mn. which is less than what ASC can earn from Saudi Arabia. Considering the barrier to free entry in Malaysia, it would be a better opportunity for ASC to setup its new venture in Saudi Arabia.

Alright. We can end the case here.

synthesis

Summary

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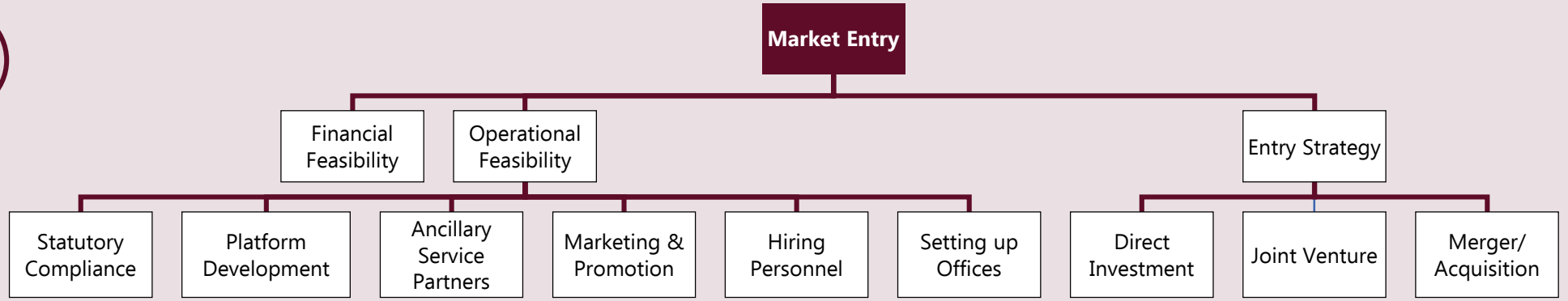
Script

Structure



Authors' 2 Cents

Operational Feasibility: In market entry cases, checking whether a geography/avenue is operationally viable is as important as checking whether it is financially attractive or not. One of the ways to check for the operational feasibility of a given geography is to assign scores to the given parameters of operational viability

Summary

Calculations

$$CAGR = \left(\frac{Final\ Value}{Initial\ Value}\right)^{\left(\frac{1}{Time\ Period}\right)} - 1$$

$$Canada = \left(\frac{900}{800}\right)^{\left(\frac{1}{4}\right)} - 1 = \sim 3\%$$

$$Malaysia = \left(\frac{750}{500}\right)^{\left(\frac{1}{4}\right)} - 1 = 10.7\%$$

$$Saudi\ Arabia = \left(\frac{850}{650}\right)^{\left(\frac{1}{4}\right)} - 1 = \sim 7\%$$

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Growth Strategy

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Clarifications

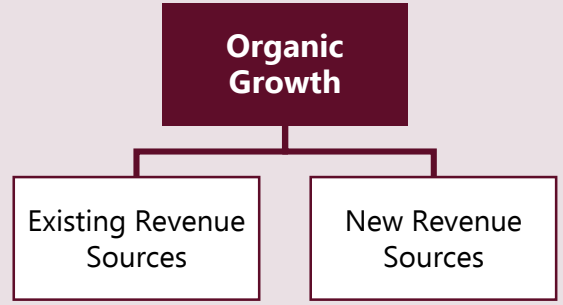
Some preliminary questions that can be asked for a growth strategy case are:

- **Product-related Questions: Usage, target customers, value chain**
- **Company-related Questions: Operating geography, revenue streams, budget constraints**
- **Client Objective: Quantum and duration of expected growth, scale of measurement (eg, growth in revenue/profit/market share etc.)**
- **Is the problem located in pre-covid, covid or post-covid scenario?**

Framework

Growth Strategy : Organic or Inorganic

Organic Growth



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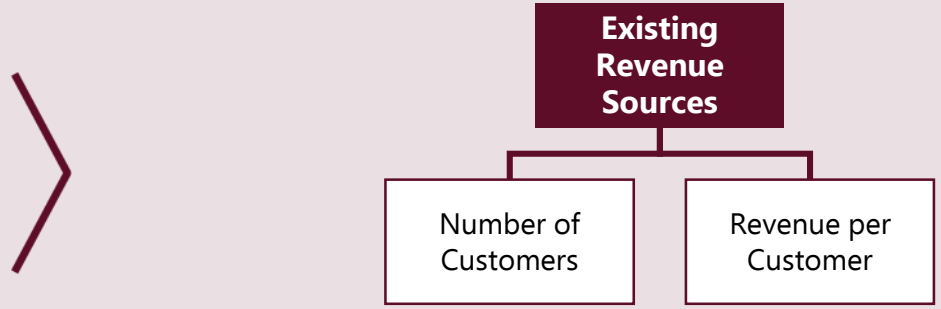
Framework

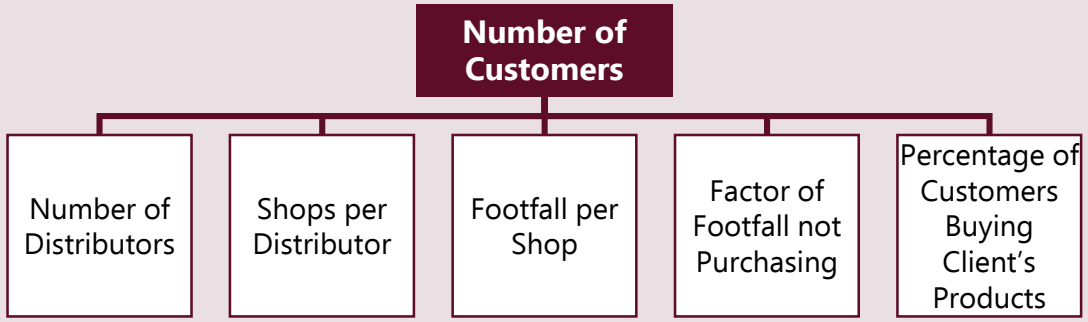
Existing Revenue Sources = Number of Customers × Revenue per Customer

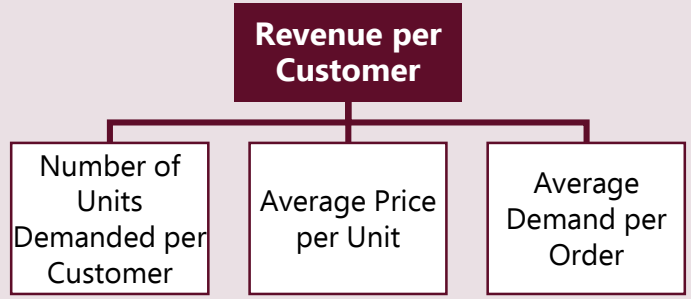
Number of Customers = Number of *Distributors* × *Number of Shops per Distributor* × *Footfall per Shop* × [1−(*Factor of footfall not purchasing*)] × *Percentage of Customers buying Client's Products*

Formula may vary slightly as per client's value chain

Revenue per Customer = (Number of *Units demanded per Customer* × *Average price per unit*) / (*Lifeecycle of Product*)







***Moment to Shine**: While talking about scaling up demand, it is always recommended to check with your interviewer if there is enough capacity to meet the corresponding hike in demand by scaling up supply*

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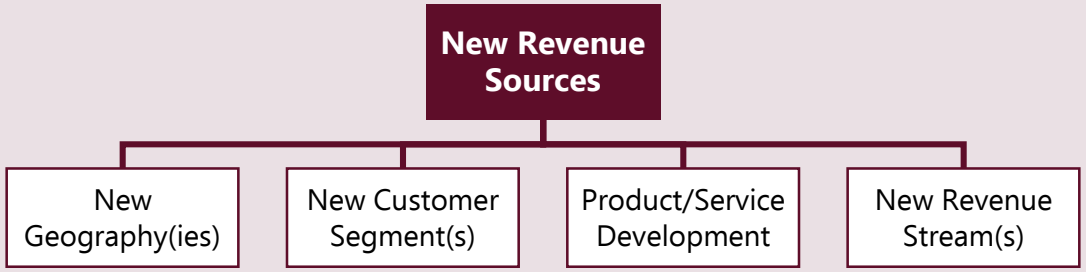
Framework

New Revenue Sources: New Geography(ies), New Customer Segment(s), Product/Service Development, New Revenue Stream(s)



For example, all of us are well-acquainted with Uber, which is synonymous to cabs in almost every major metropolitan city of India. Let's see how Uber facilitated growth by employing all of the aforementioned strategies at different points of time.

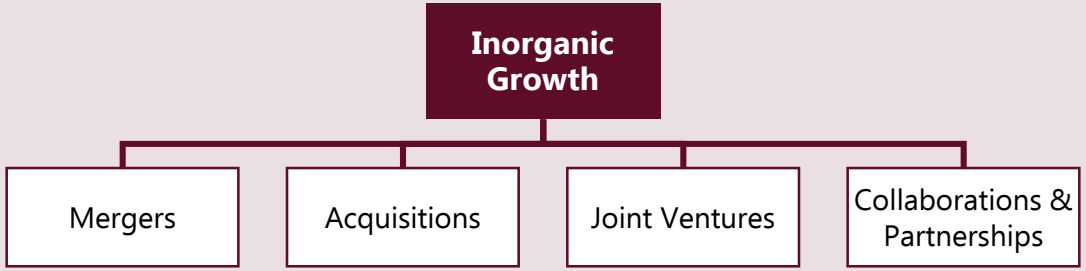
New Geographies: Being a company of American origin, Uber was quick to identify the vast market that India had to offer for a growing middle-class population

New Customer Segments: Uber introduced different categories of cabs to appeal to different consumer groups with the motive of inculcating them all under its customer base. Eg., Uber has different categories of cabs ranging from UberGo to UberSedan to UberBlack and so on.

Product/Service Developments: To serve the demand of the lower income segments and increased consciousness for eco-friendliness, Uber made improvements to its existing cab service model by introducing UberPool which is its carpool cab service.

New Revenue Streams: With the growing popularity of online food delivery, Uber jumped on the bandwagon and introduced UberEats, its own food delivery app.

Inorganic Growth



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Script

Your client is a book store owner. He wants to grow his revenues and has reached out to you for advice.

Alright. I would like to gather more information about the client. Where is his book store located? How many book stores does he own? Exactly what kind of services and/or products does the client offer?

The book store is located right in the middle of Khan Market, which is a very lively place for leisure activities in Delhi. The client currently owns only one bookstore. The client owns and sells limited editions, first hand and second hand books in his store. The client enjoys a good reputation in the area due to his bookstore's competitive prices and availability of books across genres.

Okay. Also, is there a particular timing and/or days the book store functions? Is there any particular segment of people who purchase books from our client's store and what kind of competition does out client have in the area? Does our client also have an online presence and does he also deliver books directly to people's home?

The client operates his book store from 10 AM to 6 PM on weekdays and 12 noon to 8 PM on weekends. There is no specific customer segment that our client caters to, he has customers across different demographics who visit Khan Market. There are 3 more similar bookstores in the area, which are spread across Khan Market. And no, our client does not have an online presence and does not offer delivery services.

Got it. Is there any information by how much does our client want to increase his revenue and by when? What kind of market share does he have in his area? How has been the revenue growth rate for our client and for the other book stores in the area? Are there any budgetary constraints for our client?

Our client wants to increase his revenues by 25% in the next year. You can assume that he has a market share of about 50% in Khan Market. Our client's revenues have been constant for past six months, whereas the revenues for the other book stores from sales of books in the area have increased. There are no specific budgetary restrictions.

Summary

Thank you. I would now like to move on with my solution. An increase in revenues can be achieved by the following two ways:

1. **<u>Organic means</u> i.e., Existing Revenue Sources and New Revenue Sources**
2. **<u>Inorganic means</u> i.e., M&A, Joint Ventures, Collaborations, etc.**

Okay. Let's look at the first method for the time being.

Case #9

Category

Growth strategy

Type

Interviewee Led

Industry

Retail

Origin

Curated

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Script

Sure. In Organic Means, I would like to analyse the existing revenue sources and then assess the possibility of adding new ones.

Our client's only existing source of revenue is selling books at his store to the customers. Revenue from sale of books can be broken down as *Number of Customers*Average Revenue per Customer*.

Would you like me to look at either of these or both factors?

Yes. Please look into both.

Okay. Number of Customers can be defined as the following function:

Number of Customers = Total number of Walk-ins ×Customer Conversion Rate (%)

Our Client's total number of walk-ins are fine. Let's look at the conversion rate.

Alright. It is possible that our client has enough customers in his shop, but some customers may not end up buying anything. We could look at the following factors to try and understand why that is happening –

1. **<u>Affordability</u> – Client's books are priced higher than those of other bookstores**
2. **<u>Suitability</u> – Maybe the books our client is offering are not relevant for the customers**
3. **<u>Environment of the Bookstore</u> – Perhaps the customers are not having a good experience in the bookstore, because of which they end up buying nothing**
4. **<u>Ease in buying books</u> – Perhaps everything is going right, but just the simple process of buying books from the bookstore is difficult because of certain reasons**

Summary

Is there anything in particular I should look into? My sense is that affordability may not be a problem as our client has competitive prices and holds 50% of the market share.

Yes. Please look into Environment of the Bookstore and Ease in buying. According to you, what can our client do for the same.

Okay. According to me the two factors are affected as follows:

1. **<u>Environment of the Bookstore</u> – Our client should make sure it is offering basic facilities such as air conditioning and general cleanliness. Additionally, the owner should make sure that the staff present at the bookstore are treating the customers in a respectful manner.**

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2. **<u>Ease in buying</u> – As mentioned earlier, our client closes his shop on 6 PM on weekdays and 8 PM on weekends. A common habit of prospective customers is to check out various stores and buy from the one with best prices. Maybe customers do want to buy from our client, but since our client closes his store by evening, customers may end up going to another bookstore. Hence our client can consider keeping his bookstore open till late, to allow more customers to buy books. Also, the owner can think of categorizing his books in a particular manner if he is not doing so yet. This will help the customers identify the books they want easily.**

This is fine. Let's move on to the next factor.

Script

Sure. *Average Revenue per Customer* can be defined as the following function:

Average Revenue per Customer = Average Number of Books bought per Customer ×Average Book Price

For *Average number of books bought per customer*, our client start giving out offers on buying multiple books in a single purchase. He can bundle books basis a similar genre, storyline, author, academic courses etc. to entice customers into buying more books.

For *Average Book Price*, since our client has 50% of the market share, he may be able to increase the average price he charges for a single book, keeping in mind that such an increase should not lead to a drastic fall in number of customers.

Should I now move onto revenue from new revenue sources?

Go ahead. Please suggest all the possible sources.

When we think about new sources of revenues, the following avenues come to mind for our client to explore –

1. **New Customers Segments – Introducing his books to customers segments he hasn't been catering to earlier**
2. **New Geographies – Opening up a store in new geography where demand for bookstores is high**
3. **Product/Service Development – Making improvements to existing revenue model to churn out greater revenues**
4. **New Revenue Streams – Introducing new products or services to complement his existing revenue stream**

Summary

According to you, is there any specific factor I should look at? Since our client already has customers across various demographics, I don't think there is any specific customer segment he can target.

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Script

Yes, our client doesn't need to look at a particular customer segment. Our client can look into the possibility of opening up a store in another geography. What are the important factors he should consider for the same? Also, what are some new revenue sources our client can look into?

Okay. For exploring new geographies, our client should keep the following factors in mind –

1. **<u>Available Market Size</u> – There should be a sufficient and growing market available for our client to cater to**
2. **<u>Competitors in the Market</u> – In case there are many competitors in the market, our client may not be able to acquire a sufficient market share in the new market**
3. **<u>Barriers to Entry</u> – Our client may face certain problems such as high investment costs, legal disputes, etc. while setting up a store in a new market**
4. **<u>Profitability</u> – Our client should check whether or not he can maintain his profit margins in a new market**

Now, moving onto new revenue sources, our client can consider the following avenues –

1. **<u>Charging Fees for Events</u> – He can conduct signings and readings by authors for their new releases**
2. **<u>Sales for Collectibles</u> – He can conduct sales for popular collectible items from TV shows/movies to attract more customers**
3. **<u>Offering Cyber Café Services</u> – He can offer services such as photocopying documents, printouts, scanning etc.**

Would you like me to look at any more factors or should I move onto Inorganic means?

Yes. Let me know what opportunities according to you are available for our client in this avenue.

Summary

In Inorganic Means, our client can explore the following avenues to increase revenues –

1. **<u>Merging with or Acquiring other Bookstores</u> – Our client can identify bookstores in or outside Khan Market which have been showing high growth potential and merge with them or fully acquire them which will allow our client to increase his available resources, number of customers and consequently his revenues**
2. **<u>Joint Venture/Collaboration with Bookstores</u> – Our client can join hands with another bookstore owner to open up a new bookstore. Additionally, he can enter into partnerships with another existing bookstore where both parties can share their resources and customers with each other.**

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Script

This seems fine. Our client has been thinking of acquiring one of the competitors which are present in Khan Market to increase his overall revenues. Please list down what factors our client should consider to decide which competitor he should acquire?

Sure. For acquiring a competitor, our client should take into account the following factors –

1. **The willingness of the competitor to be acquired and our client's willingness and financial capability to acquire**
2. **The current market share of the competitor**
3. **The offerings of the competitor and where it is located in the market**
4. **Fair Valuation of Business**
5. **Potential reaction of the competitor's customers about the acquisition**

Is there anything else I should look at?

No that's okay. We can end the case now.

synthesis

Summary

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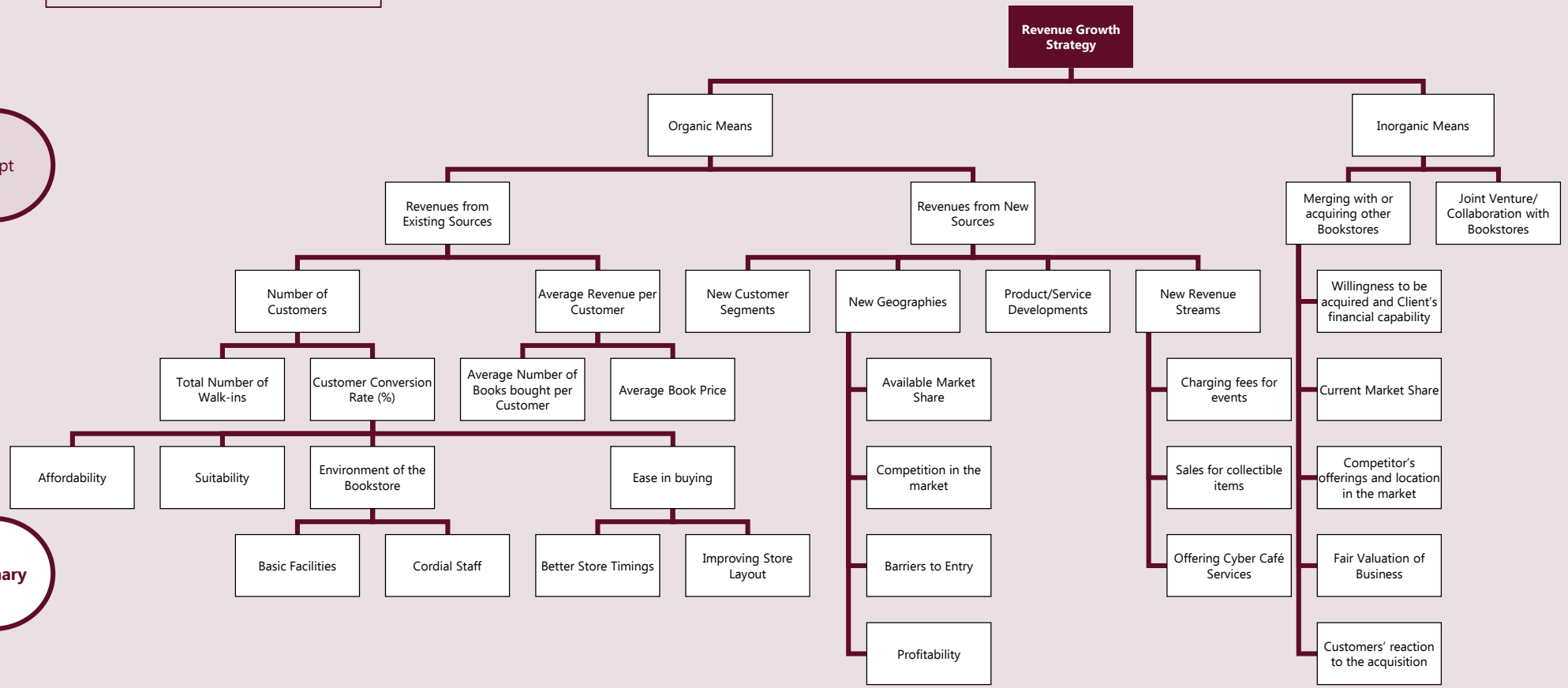
Script

Summary

Structure



Authors' 2 Cents

Identifying the most important sources of revenues: Rather than analyzing all the factors affecting different sources of revenues, an interviewee should aim to identify the most important sources and further break them down. For example – in this case, Revenues from New Sources contained 'New Customer Segment', but it was not explored further as it not as important to the case as 'New Geographies' and 'New Revenue Streams'.

Hence, one can always ask the interviewer in times of doubt whether a particular source should be further analyzed or not

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Your client is an Indian test-prep company, which caters to school going students. It wants to grow its business and has come to you for advice.

Alright. I would like to get more information about our client. Since when has our client been operating? What kind of services does our client offer to students and through what mediums? Is there any particular segment in school going students that the client caters to?

Script

Our client offers test-prep services to students wanting to appear for science stream competitive entrance exams such as IIT JEE, NEET, BITSAT, etc. Our client started its operations in 2019 with a single branch in New Delhi. It now has 20+ centres across metro cities in India from where it offers classroom coaching to students in 9th – 12th classes. Our client's classes have been deeply revered by past students and thus our client is quickly making a name for itself in this industry.

Understood. Is there any information as to how much our client is looking to grow and by when? Do we have any data about our client's and the industry's growth rate in the last few years? What kind of market share does our client currently hold in this industry? Are there any budgetary constraints we need to be aware of?

Our client wants to increase its revenues by 30% in the next 2 years and has reached out to us for recommendations. You can assume that the industry has grown at an average rate of 15%-20% p.a. in the last 3 years. During the same period, our client has grown at a rate of 30% year on year. Our client holds about 5% of the market share in the cities it is present in. There are no constraints for the time being.

Got it. This means that our client has been doing fairly well. What are our client's sources of revenue? I am assuming that most of its revenues must be coming from fees for classes and partnerships with institutes (if any).

Summary

Our client does not have any revenues from partnerships.

Got it. I will now move on with my solution. Revenue growth can be achieved by the following two ways –

1. **Organic means i.e., Existing Revenue Sources and New Revenue Sources**
2. **Inorganic means i.e., M&A, Joint Ventures, Collaborations, etc.**

Seems good. Let's keep the solution limited to the former.

Sure. In terms of Organic means, we should explore the client's existing sources of revenues and potential sources.

Case #10

Category
Growth Strategy

Type
Interviewee Led

Industry
Education

Origin
Curated

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Alright. Go on.

Revenues from Existing Sources will be a function of Number of Students Enrolled*Revenue per Student. Therefore, an increase in either or both factors will lead to an overall increase in revenue.

Number of Students Enrolled is a function of the following factors:

*Number of Students Enrolled = Number of Centres * Number of Classes per Centre * Capacity per Class * Average Occupancy (%)*

Script

It is entirely possible that our client has sufficient demand for its classes but is not able to accommodate all the students. Hence, it can open more centres over the 2-year period in those areas where it does not have a presence to increase the number of students enrolled. Additionally, it can increase the number of classes per centre by opening new batches at night and employing more teachers for such batches.

Furthermore, our client can undertake extensive marketing and promotions to create awareness about its brand to increase footfall.

Interesting points. You can move forward to the second factor.

We can define Revenue per Student as follows:

*Revenue per Student = Number of Courses * Fees Charged per Course*

Our client can give the students offers to enroll for multiple classes at a discounted total price. It can even offer free/demo classes to students for classes which the students aren't enrolled in to get the students to enroll in more courses. Additionally, it can look into the possibility of increasing its fees for certain courses, should the price elasticity permit so.

If these points seem fine, I would like to move on to revenues from new sources.

Summary

Sure. Please go ahead.

When we think about new sources of revenues, the following avenues come to mind for our client to explore –

- **<u>New Customer Segments</u> – Since our client is only catering to students in Classes 9th - 12th, it can consider offering its classes to students in junior classes (6th – 8th). Many companies in the industry have already started to cater to these students and chances are that if students are onboarded early in their school life, they will stay with a company throughout their school tenure. Additionally, they can look to collaborate with schools to offer their classes to students in the school itself. Thus students who are apprehensive of enrolling in coaching institutes can take such classes in their schools only.**

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Script

- **<u>New Geographies</u> – Since the client currently only has centres in metro cities in India, it can look to expand its presence in India by opening Centres in rural India and Tier 2& 3 cities. Additionally, it can consider opening up centres outside India as well.**
- **<u>Diversifying Current Services Offered</u> – As the client is currently offering only live classes, it can expand its product portfolio by offering recorded courses or online classes. It can also start offering Test Series to students preparing for such entrance exams. This will allow our client to reach out to a broader customer base whom it was not able to enrol earlier**
- **<u>New Revenue Streams</u> – Our Client is currently offering services for very limited number of competitive entrance exams. It can consider offering classes for entrance exams in other fields such as CLAT, SAT, ACLAT, etc. This will allow our client to reach out to more number of students. Additionally, it can even start catering to college-going students by offering coaching classes for exams such as UPSC, CA, CAT, etc.**

Is there any other factor you would like me to consider?

This seems comprehensive. We can end the case now.

synthesis

Summary

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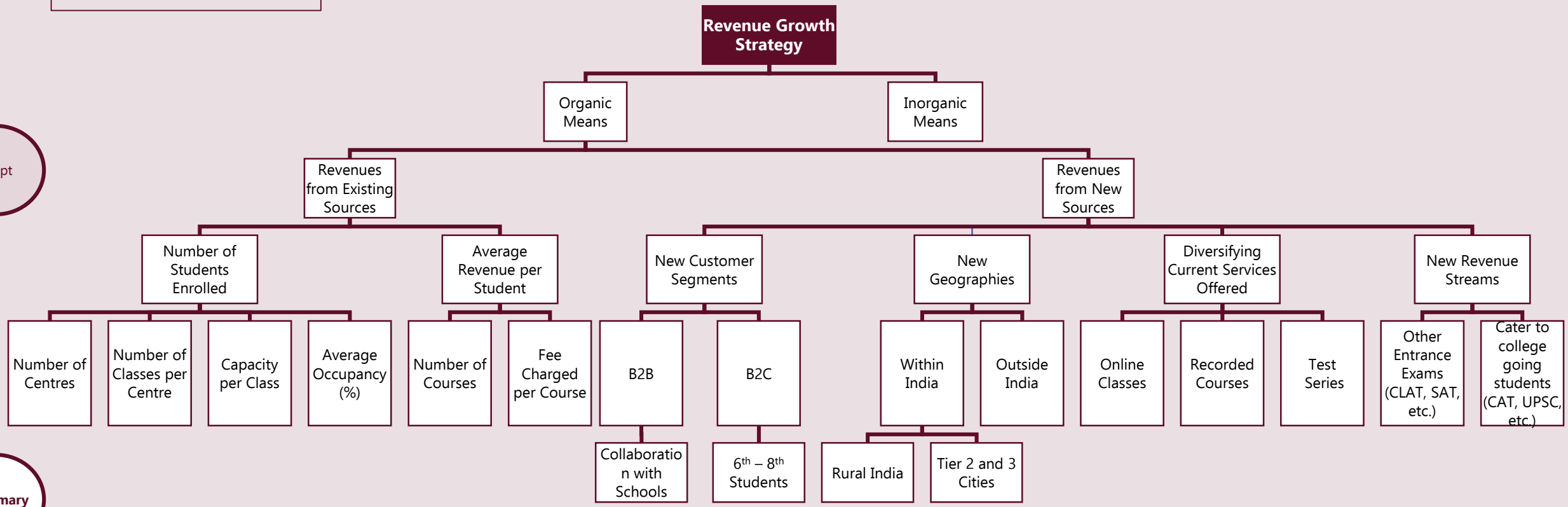
Structure

Script

Summary



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Artemis diagnostics is a leading Indian diagnostic service. It is witnessing a stagnant growth in terms of revenue and requires you to recommend and analyse the available alternatives to deal with the problem at hand.

Before determining the possible course of action and devising a growth strategy, I would like to know more about Artemis's business i.e., the services it provides and the geographies it operates in?

Script

Artemis is an Indian service provider of diagnostic and related healthcare tests. The main operation of Artemis deals with the performing of diagnosis and testing, including routine tests (including blood tests), specialized tests (e.g., viral and bacterial infection tests) and preventive screenings. It is present in 100 cities with 270 collections centers.

What is the magnitude of growth that Artemis has witnessed till now and is it consistent with the industry growth rate? Additionally, what are its expectations from this growth strategy?

Our client's revenue from operations has grown year on year by an average of 15% which is a notch higher than what the industry is experiencing. It intends to double this number by the end of 5th year post the implementation.

Since our client's projections are spread across the time span of 5 years, we could consider the following avenues for achieving our target growth rate:

- **Organic Growth (i.e., existing revenue sources, new revenue sources)**
- **Inorganic Growth (i.e., merger, acquisitions, joint venture)**

Let's focus on organic growth for now.

Summary

When it comes to the organic methods of growth, our major focus should be to expand the current stream of revenue and explore the sources having potential to generate additional revenue.

The current revenue of Artemis can be broken into the following components:

Revenue = Total Number of Patients x Average Revenue per Patient

Case #11

Category

Growth strategy

Type

Interviewee Led

Industry

Health Care

Origin

Curated

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Going a step further, we can disintegrate each of these elements one by one and scope out which factors our client should have its primary focus on.

Go ahead.

Total number of patients which Artemis currently serves could be depicted using a function encompassing all the necessary independent constituents:

Total Number of Patients = Number of Cities with Current Operations x Test Centers per City x Average Patient Walk-ins per Center/Day x People Actually Taking a Test (%) x Number of Operating Days

Script

With a time span of 5 years lying ahead of Artemis, it can make use of it to expand its current operations to more cities, in case the demand in the current cities has stagnated. Further, it can open more testing centers in cities where the gap between the demand and supply of services is relatively wider. Furthermore, our client can undertake extensive marketing and promotions to create awareness about its brand to increase the number of walk-ins. To reduce the walk-out rate arsing out of insufficient number of tests available, our client should make sure it has sufficient equipment to meet any unexpected demand. Also, it can undertake installation of additional equipment for the existing portfolio of tests to enhance the existing capacity to fill in the gap between demand and supply, if at all it exists. Further, attempts can be made at improving customer experience by undertaking staff training, providing public conveniences and improving existing infrastructure.

Good. You can analyze the next element as well.

Average revenue per patient is an intermix of Average Tests per Patient and Average Price Charged per Test. An increase in either of the two factors will yield a higher revenue for Artemeis. Periodic subscription plans or health packs comprising multiple tests at a price lower than the price charged for an individual test can not only increase the average test per patient but can also result in higher customer loyalty.

Additionally, it can look into the possibility of increasing the charges for certain tests, should the price elasticity permit so.

Interesting. What would you like to pick up next?

Summary

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Script

Apart from optimizing the existing setup, it would be imperative to explore some fresh avenues in order to certain a perennial growth in terms of revenue. We can consider the following determinants while devising a strategy for the same:

- **<u>New Customer Segments</u> – In order to cater to a bigger segment of patients and to increase the number of tests taking place in any Artemis diagnostic center, it can have collaborations with hospitals, clinics and nursing homes in cities where it operates, this will enable a major segment of patients to visit Artemis's center if they are required to undergo any test or screening. Initial discounts and offers can be provided in order to attract and retain customers.**
  Major corporate firms recommend and in most instances ask their employees to undergo health check-ups after fixed intervals. Collaborating with these firms in cities having corporate hubs can help Artemis secure a fixed set of customers.
- **<u>New Geographies</u> – Artemis's operations are based out of the urban region of the country, it can expand to certain rural regions in order to expand its customer base. But, since the spending capacity and awareness regarding diagnosis and medical treatment is relatively low in the rural areas, it should be mindful of where exactly it should open these centers and in what quantum. Establishing auxiliary diagnostic units in developing countries with growing healthcare awareness and medical infrastructure can provide Artemis with an initial mover advantage.**
- **<u>Diversifying Existing Services</u> – Due to a change in lifestyle and long working hours urban families have to withstand the paucity of time. They tend to trade off money in return for convenience. Artemis can make use of this convention by introducing door to door sample collection service for basic tests which do not require sophisticated equipment. Additional fee can be charged for the service at a later stage.**
- **<u>New Revenue Streams</u> – Having established operations across the country with 270 centers, Artemis can move a step backward in the value chain and utilize its credibility and infrastructure to venture into the space of medical consultation with services including offline and online consultation.**

The recommendations seem quite exhaustive. We can end the case here.

Summary

synthesis

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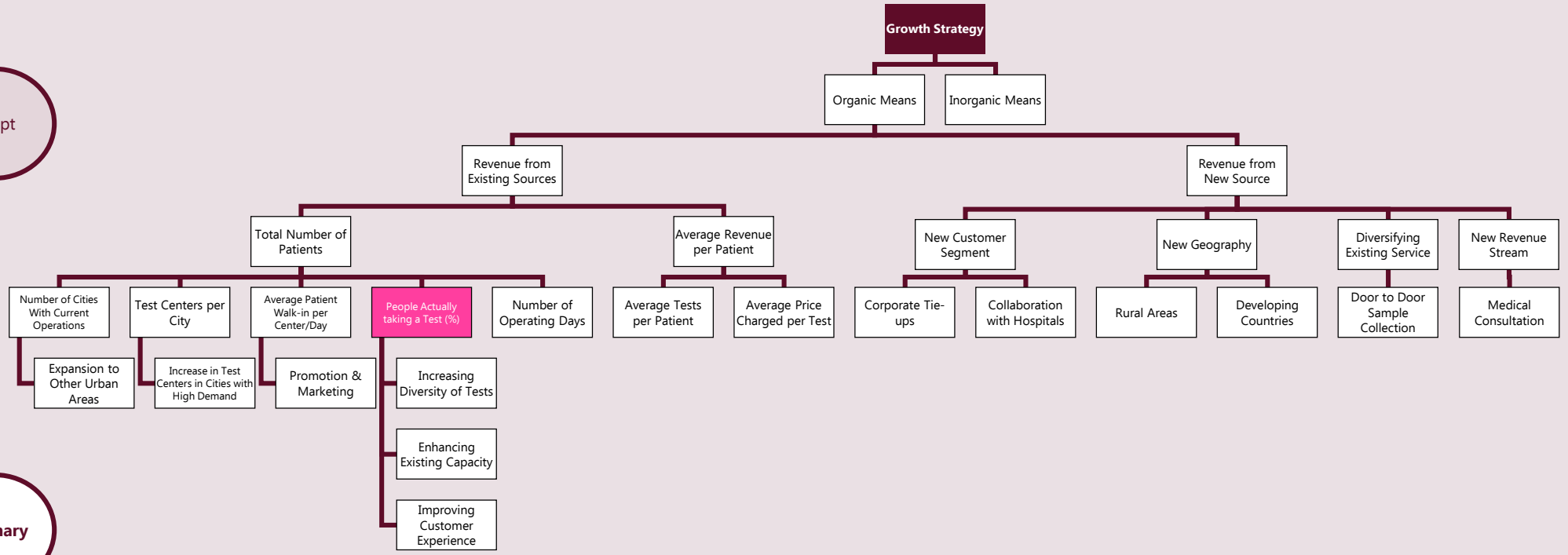
Script

Summary

Structure



Moment–to–Shine

People Actually taking a Test (%): Keeping all other things constant, if % of people who come to a center but do not get tested increases, it leads to a fall in Total number of patients and subsequently Total Revenues

Authors' 2 Cents

Breaking down a Growth Problem: In a Growth Strategy Case, breaking down a component into further smaller parts is helpful as it allows the interviewee to identify the primary drivers of different sources of revenue and come up suggestions on how to better the efficiency or capacity of such drivers

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Pricing

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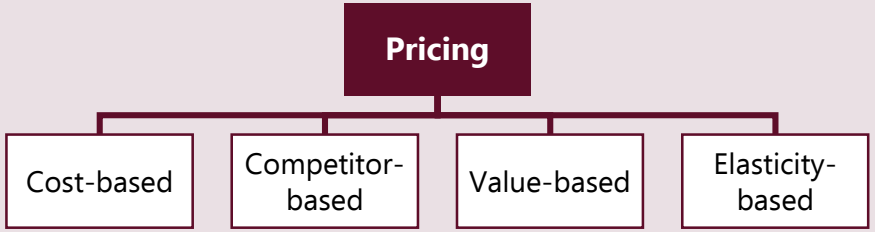
Clarifications

Some preliminary questions that can be asked for a pricing case are –

- **Product-related Questions: Usage, target customers, is the product unique or has close substitutes, normal product or luxury product**
- **Company-related Questions: Operating geography, existing revenue streams**
- **Client Objective: Target Profit Level? Target Market Share in a particular time period? Break-even etc.**
- **Is the problem located in pre-covid, covid or post-covid scenario?**

Framework

Pricing Strategy : **Cost-based, Competitor-based, Value-based, Elasticity-based**



Cost-based: The lower limit or the floor of the price that the client must charge to at least break-even. Under this approach, you identify all the costs (both variable and fixed) that constitute the cost structure of the concerned product.

Total Cost/Unit = $Variable\ Cost\ per\ Unit + \frac{Total\ Fixed\ Cost}{Expected\ Sales\ (in\ units)}$

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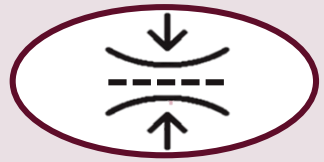
Framework

Competitor-based: It seeks to give an idea of the ballpark within which the price should be typically falling. If the product is differentiated in nature that gives the client, a monopolistic power; or in case where there are no close substitutes, a premium can be charged over and above the price of the competitive goods.

Value-based: The approach aims to determine the proportion of income a customer is willing to spend on a product/service basis the utility it would serve to the consumer. The approach usually starts with segmenting the consumers on various income groups and understanding the proportion of expenditure spent on fulfilment of the particular need. Next, we try to benchmark it on the basis of a distant substitute that may be put to use for the fulfilment of that need. Many a time, a product/service is highly differentiated from its substitutes and therefore commands a certain monopolistic power within the market. This approach is highly useful in assessing the additional value it offers or the market power it enjoys.

For example, the money spent by a health-conscious customer on buying artificial health supplements could be a good benchmark to price a natural diet plan service by a nutritionist.

Elasticity-based: In this approach, we analyze the different inflection points where the price/unit and the quantity demanded are expected to show a major change. It seeks to identify the price-elasticity of the product at different levels. If, per se, at a particular point, an increment of 10% in the price/unit only loses out on 5% of the customers (or the quantity demanded), then the client gains by 4.5% despite the reduced customer base. Here, the approach should be to maximize the revenue/profit even if it is at the cost of market share, unless stated otherwise.



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Script

Your client is an online cab aggregator. It is planning to venture into the electric vehicle segment. They have reached the conclusion of manufacturing an electric two-wheeler, which can be a close substitute to the existing Honda Activa, Suzuki Access etc. You are required to suggest an appropriate price for the same.

I would like to start by trying to understand more about the product: charge time, range, compatibility with existing charging infrastructure and any other key differentiators from the competitive products.

The electric two-wheeler, CTX-100, is the first of its kind manufactured and distributed by Oda Cabs India. The vehicle, with a 180 Km range can be charged from 0 to 100% in slightly more than 3 hours. It can be charged at home or at any public charging port, with the charging time slashing by about 40% in the latter case. CTX-100 comes in a sleek, smart design which has already received patent rights.

That helps. It would also be important for me to know the launch plan: tentative launch date and initial geographies where the launch is planned.

The product is expected to be at our dealerships in less than 3 months from now and the initial plan is to cater to those cities that have shown strong stimulus to electric four-wheelers and would therefore have an easier acceptance for electric two-wheelers. These cities are: Delhi NCR, Mumbai, Pune, Hyderabad, Bangalore and Chennai.

Alright. There are broadly 4 ways to gauge the approximate pricing for the product under consideration. These are:

Summary

- **Cost Based**
- **Competitor Based**
- **Value Based**
- **Elasticity Based**

Sure, go ahead. What do you need?

In order to arrive at the lower limit of pricing range i.e., the amount we must cover so as to break-even, I would like to understand the various cost inputs gone into production of one unit of CTX-100.

Case #12

Category

Pricing

Type

Interviewee Led

Industry

Automotive

Origin

Curated

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Here you go.

Labor & Input Costs/Unit	INR 55,000
1 Production Cycle	5,000 Units
Fixed Cost/Production Cycle	INR 70,000,000
Dealership Margin	10% on Ex-showroom Price

Script

Based on these figures, 76,500 INR is the minimum price that Oda must set to at least break-even on the sale of product. Next, I would like to look at the upper limit that can be set on the price of the two-wheeler.

How would you do this?

Going by the value based approach, I would like to estimate the additional value derived by any customer purchasing a CTX-100 over any other competitive product. This would be a factor of the total savings accumulated over the lifespan of the product, which can be charged up-front in our price. For this, I would like to understand the overall lifespan of our product along with the number of units (kwh) needed for one full charge.

CTX-100 has an average lifespan of 50,000 kms with an average requirement of 4 units per full charge. However, the lifespan can be increased by another 25,000 kms by replacing the battery which would cost another INR 25,000.

Summary

We know that the range of our product is 180 kms which takes approximately 4 units to cover this distance. A lifespan of 75,000 kms would mean about ~420 full charges. Cost of each full charge is INR 40, assuming cost of one unit of electricity is INR 10. Therefore, the overall running cost throughout the lifespan of CTX-100 is ~INR 17,000, plus a battery replacement cost of INR 25,000 making the cost add up to INR 42,000.

On the other hand, for the same 75,000 kms, a competitive scooter would have a much higher cost. Assuming the average milage to be 60 kms/litre and price of petrol at INR 100/litre, we get the running cost for competitive scooters to be INR 1,25,000.

Therefore, over the same lifespan, CTX-100 offers savings of almost INR 83,000. *Assuming hikes in petrol price and tariff escalation of electricity to be growing proportionately in subsequent times.*

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Despite the enormous savings generated, CTX-100 has a lower lifespan, and as such a higher maintenance cost. In other words, a customer who purchases CTX-100 will compromise on the lifespan and at the same time spend a certain part of the savings from running costs in maintenance of the vehicle, which means his/her actual realised savings would be lower than INR 83,000. Therefore, Oda must charge only a small percentage of the savings its product offers, somewhere in the band of 20-30%. Therefore, the upper limit for our product would be existing cost/unit (i.e., INR 69,000) plus maximum possible premium of ~INR 25,000 (i.e., 30% of INR 83,000) which equals to INR 94,000 to which dealership margin is added to arrive at INR 1,05,000 (INR 94,000/0.9).

Script

Interesting. So now that we have both the upper and lower limits, how would you finalise the price for the product?

For this, I would like to move to the third pricing strategy i.e., competitor based pricing. Do we have any data with respect to the pricing of our competitive products?

Here is some data that the team has collected. What can you make of this?

Substitute Product	Ex-showroom Price (in INR)	Gross Margin (%)
Honda Activa	72,000	14
Hero Pleasure	71,500	12
TVS Jupiter	77,000	15

Looking at this data, we can infer how our competitive products are priced in the early-to-mid range of seventy thousands while also enjoying a gross margin of about 15%.

Summary

In our analysis we saw how our product has the ability to command even as high as 30% of the savings it generates over its lifetime. My recommendation is that we set our margin at 20% of the savings, which would mean a gross margin of almost 25% on the cost price. This is because of the following reasons:

- **By keeping it at 20% of savings (a tad lower than 30%), we can maximize our sales by giving more value for money to consumers**
- **At the same time, we would enjoy a 25% gross margin, which is higher than those of our competitive products which can be treated as a reward for innovation and first mover advantage**
- **One lakh is more of a psychological figure which positions the product into a high-end product category rather than an economical, massy segment. By bringing our product in mid-ninety thousands, we can market it in the upper-end of the budget category rather than the premium segment**

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Script

That's fair. So what should be the final price according to you?

At a 20% margin over our cost price of INR 69,000, our price to dealership would be INR 82,800. Adding another 10% margin for our dealerships, we arrive at an ex-showroom price of INR 92,000.

Next, I would like to use the final approach: the elasticity based approach which would validate for us those critical points in our pricing strategy wherein profits could be maximised.

We don't require that for now. That'll be all.

synthesis

Summary

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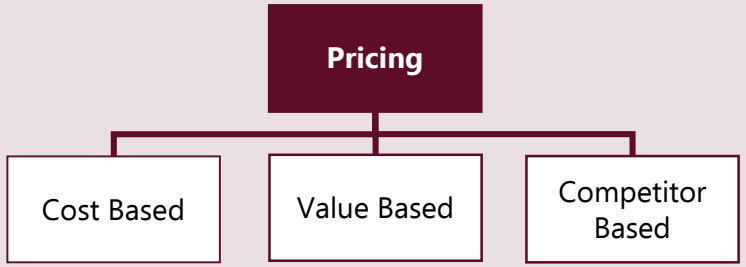
Script

Structure



Summary

Notes

Cost Based (lower limit)

Labor & Input Costs/Unit (A)	INR 55,000
1 Production Cycle (B)	5,000 Units
Fixed Cost/Production Cycle (C)	INR 70,000,000
Dealership Margin (E)	10% on Ex-showroom Price

$$Cost\ of\ Production\ per\ Unit\ (D) = (A) + \frac{(C)}{(B)}$$

$$Cost\ of\ Production\ per\ Unit\ (D) = 55{,}000 + \frac{70{,}000{,}000}{5{,}000} = 69{,}000$$

$$Ex\text{-}showroom\ Price\ (F) = \frac{(D)}{(1-E)}$$

$$Ex\text{-}showroom\ Price\ (F) = \frac{69{,}000}{(1-0.1)} = 76{,}500$$

Value Based (upper limit)

Known	
CTX-100 Lifespan (i)	50,000 + 25,000 Kms
Battery Replacement Cost (ii)	INR 25,000
Range (iii)	180 Kms
Electric Consumption/Full Charge (iv)	4 Units (kwh)
Assumed	
Average Mileage of Petrol Two-wheelers (v)	60 Km/litre
Price of Petrol/litre (vi)	INR 100
Price of Electricity/Unit (vii)	INR 10

$$Running\ Cost\ of\ CTX\text{-}100(viii) = \frac{(i)\times(iv)\times(vii)}{(iii)} + (ii)$$

$$Running\ Cost\ of\ CTX\text{-}100(viii) = \frac{75{,}000\times 4\times 10}{180} + 25{,}000$$

$$= \sim 42{,}000$$

$$Running\ Cost\ of\ Petrol\ Two\text{-}wheeler\ (ix) = \frac{(i)\times(vi)}{(v)}$$

$$Running\ Cost\ of\ Petrol\ Two\text{-}wheeler\ (ix) = \frac{75{,}000\times 100}{60} = 125{,}000$$

$$Savings\ (x) = (ix) - (viii) = 83{,}000$$

Factor of Savings that can be charged up-front as premium: **30%**

$$Premium\ (xi) = (x)\times 0.3 = \sim 25{,}000$$

$$Upper\ Limit\ (xii) = \frac{(D)+(xi)}{(1-E)} = \frac{69{,}000 + 25{,}000}{(1-0.1)} = 1{,}05{,}000$$

Competitor Based (relative pricing)

Substitute Product	Ex-showroom Price (in INR)	Gross Margin (%)
Honda Activa	72,000	14
Hero Pleasure	71,500	12
TVS Jupiter	77,000	15

Recommendation: Setting gross margin at **20%** because of the following two reasons:

- Maximizing sales by giving more value for money to consumers
- Enjoying a margin higher than those of our competitive products which can be treated as a reward for innovation and first mover advantage
- Bringing our product in mid-ninety thousands, so as to market it in the upper-end of the budget category rather than the premium segment

$$Gross\ Margin(xiv) = \frac{0.20\times(x)\times 100}{(D)}$$

$$Gross\ Margin(xiv) = \frac{0.20\times 83{,}000\times 100}{69{,}000} = \sim 25\%$$

$$Final\ Price(xiii) = \frac{(D)\times(1+xiv)}{(1-E)}$$

$$Final\ Price(xiii) = \frac{69{,}000\times 1.25}{(1-0.1)} = \sim 96{,}000$$

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Script

After the enormous success of ALT-Balaji and EROS Now, Dharma Productions has recently decided to venture into the OTT space. Being one of India's largest production houses, Dharma has been at the forefront of producing quality Hindi and regional content across various categories and multiple genres. Dharma has come to you to help them set the right subscription price for their platform.

Creating an independent OTT platform requires a somewhat large content library as well as a steady inflow of new content for subscribers from time to time. Is Dharma in such a position that it can offer new content as regularly as other large competitors do?

Right from the first day, Dharma plans to make all its 50 films available on the platform. In addition to that, Dharma has bought OTT rights for another 50 movies in different languages including Hindi, Tamil, Telugu, Malayalam, Kannada, Punjabi and Gujarati. It has also shook hands with some of the well known production houses in India such as Excel Entertainment, Red Chillies Entertainment, Emmay Entertainment and Anand L Rai to name a few. Adding to all of that, Dharma has planned to rollout 3 movies and 2 web-series this year exclusively for OTT. The long-term plans of Dharma is to provide every possible cinematic experience to the Indian audience by producing English movies, animations, documentaries and even reality shows.

Alright. A little on the platform front, what are the different subscription plans and inclusions of each of these? Secondly, when is the platform expected to launch, and whether or not it is at par with competitors when it comes to user interface and algorithm?

Answering the second question first, the platform is expected to launch in 2 months from now and its beta version is already being used by 500 customers who have so far reported the platform well.

Summary

With respect to the subscription plans, there would be 3 options: monthly, quarterly and annual. The number of screens for each of these would be same i.e., 3 and so will be the access to the content.

That helps. Do we have insights on what expectations our client has from pricing strategy – is the objective to maximise profits or subscribers?

Our client definitely wants to maximise subscribers but in that pursuit they at least want to recover 20% of the money spent on content in the first year itself.

Case #13

Category
Pricing

Type
Interviewee Led

Very Hard

Industry
Entertainment

Origin
Curated

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Alright. There are broadly 4 ways to gauge the approximate pricing for the product under consideration. These are:

- **Cost Based**
- **Competitor Based**
- **Value Based**
- **Elasticity Based**

Script

Sure, go ahead. What do you need?

In order to at least set a minimum threshold, I would like to know the cost inputs that have gone or are expected to go into this platform this year.

Here are our estimates:

Content Production Costs	INR 95 Cr.
Content Rights Purchase Costs	INR 220 Cr.
Platform Building & Maintenance Costs	INR 25 Cr.
Marketing Costs	INR 50 Cr.

Got it. Since, the objective is to cover at least 20% of the money spent on content, is it a fair assumption that Dharma would be satisfied if it recovers INR 63 Cr. (20% of 315 Cr.)?

Yes. Go ahead.

Summary

Alright. Now that we have the minimum cost that we must seek to recover, I would like to move to the next approach: value based. Through this approach, I would try to estimate the value that customers can derive from our platform so as to set an upper-limit, which is the highest that we can charge from our customers.

Okay. How would you do that?

In today's world OTT is seen as a strong substitute of both set-top box and cinema. With their on demand content offerings, ad free entertainment and liberty to play, rewind, fast-forward, OTTs have given the control of what, when and where they want to watch back to the audience. This trend has further received the push with the universalisation of internet in the post Jio India.

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Script

Summary

I want to start by segregating, on the basis of monthly income, the different types of households that would purchase our subscription.

Expenditure	Upper Class (> INR 40,000)	Upper Middle Class (INR 20,000 - 40,000)	Lower Middle Class (INR 10,000 - 20,000)	Below Poverty Line (< INR 10,000)
Food	20%	30%	40%	60%
Housing	10%	15%	20%	25%
Education	10%	15%	15%	5%
Health	5%	5%	10%	5%
Transportation & Communication	10%	5%	5%	5%
Discretionary (Entertainment, Clothing, Gadgets, etc.)	50%	30%	10%	-

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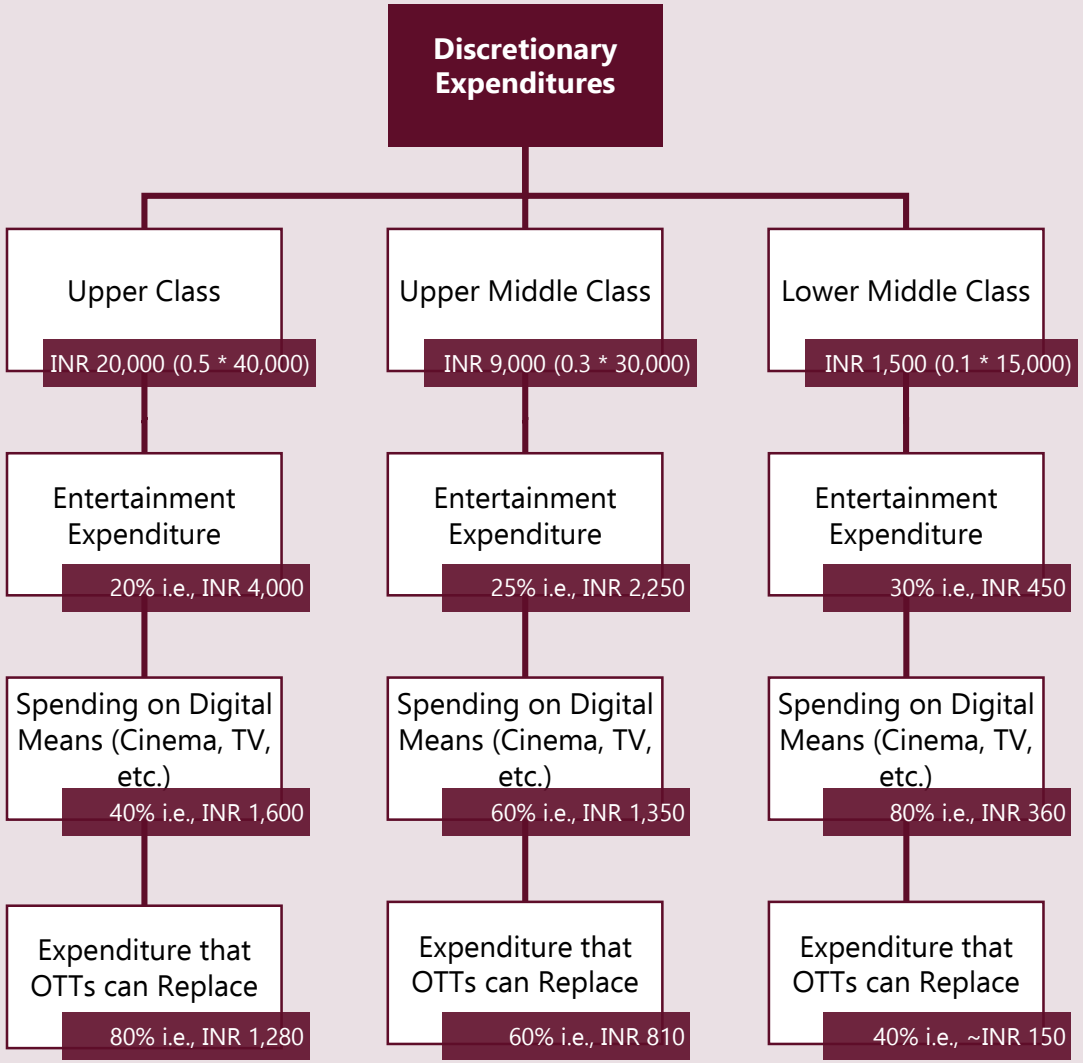
Script

Summary



Assuming number of OTT subscriptions per household:

- **Upper Class – 4**
- **Upper Middle Class – 3**
- **Lower Middle Class – 2**

Therefore, amount spent by each of these would be:

- **Upper Class – INR 320 (INR 1280/4)**
- **Upper Middle Class – INR 270 (INR 810/3)**
- **Lower Middle Class – INR 75 (INR 150/2)**

This gives us three cases and thus, three upper limits based on the market that we target:

- **Upper Class Only – INR 3,840/year (INR 320 * 12)**
- **Upper Class & Upper Middle Class Only – INR 3,240/year (INR 270 * 12)**
- **Upper Class, Upper Middle Class & Lower Middle Class – INR 900/year (INR 75 * 12)**

Okay. What's next?

If we were to simply maximize the number of subscribers, we could have gone with INR 900, but since we also have to cover INR 63 Cr. In the first year, we must identify critical points in demand to settle for a single upper limit.

How are you going to do that?

I'll start by estimating, based on income, the number of households that are likely to subscribe to a platform within each category and further check with upper limits of each of the three cases to check which of these would surpass the INR 63 Cr. figure.

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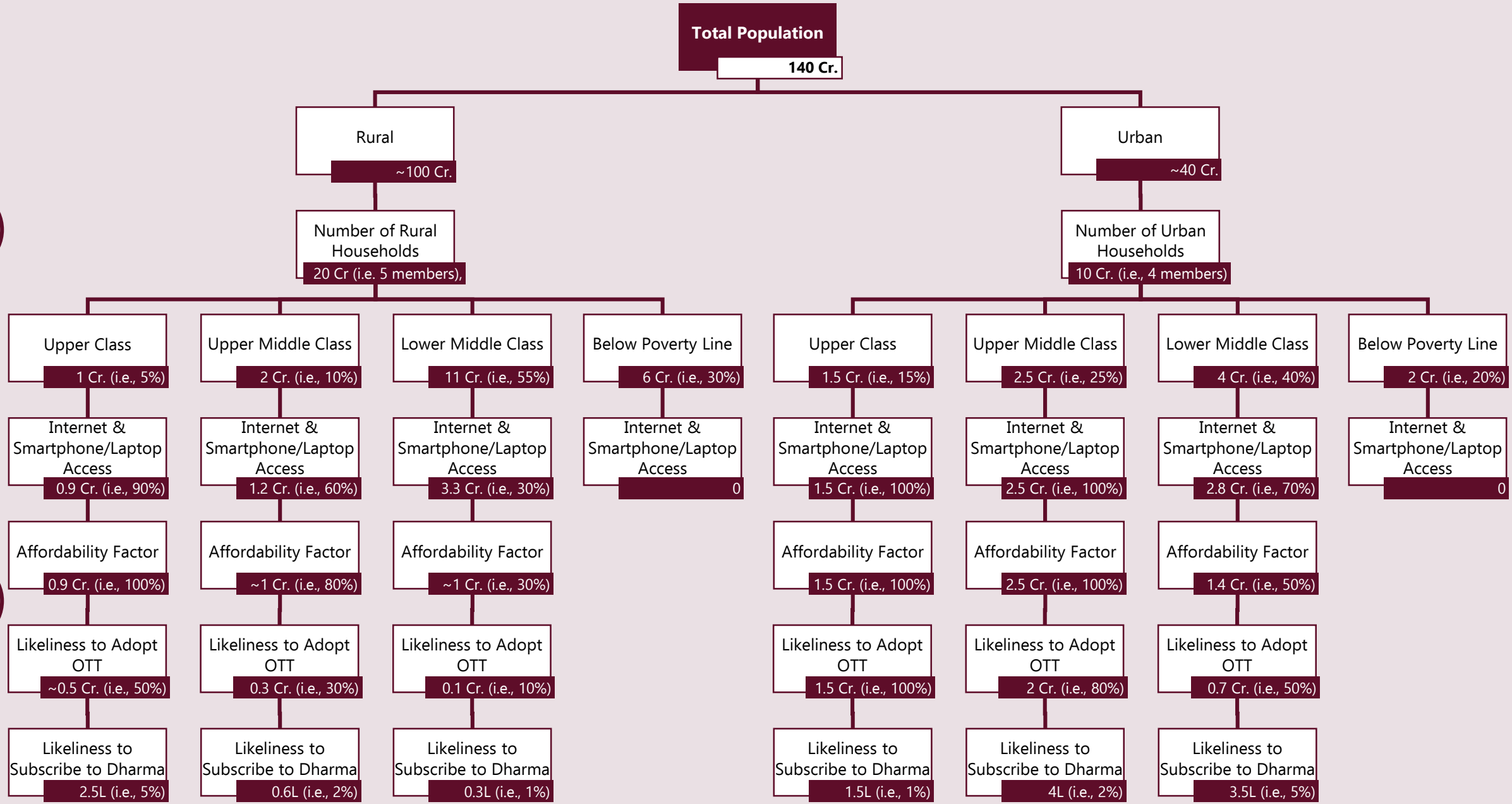
Script

Summary



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- **So we arrive at a total subscriber count of ~1.25 Mn. in the first year. Splitting these into three categories of subscribers:**
- **3 month subscribers accounting for 50% or ~0.63 Mn.**
- **6 month subscribers accounting for 20% or 0.25 Mn.**
- **12 month subscribers accounting for 30% or 0.37 Mn.**
- **We have set the annual rate at INR 900. On the basis of this, we can set semi-annual rate at INR 525 (rate of 7 months) and a quarterly rate at INR 330 (rate of 4.5 months).**

Script

Got it. So what is your final call?

Right. So now that I have all three required components i.e., expected subscriber count, different price levels and the minimum cost that we must sought to cover, I will quickly do the calculations to arrive at the final decision.

Total Expected Revenue = (0.63 Mn. * 330) + (0.25 Mn. * 525) + (0.37 Mn. * 900) = INR 67.2 Cr. > INR 63 Cr.

Since, we are able to cover our minimum threshold at the current pricing, we can go forward with these. Would you like me to look at the subscription models of our competitors to assess where we stand in the market with respect to our pricing structure?

No, we can leave that be.

synthesis

Summary

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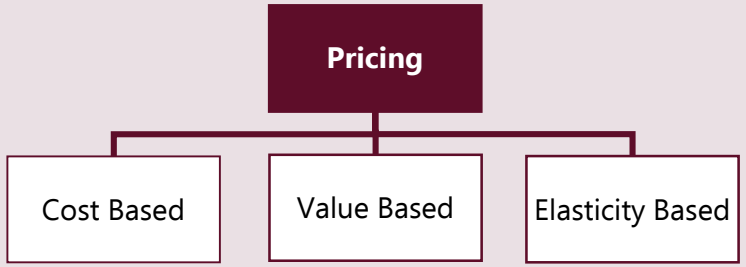
Pricing Subscription Fee for a Newly Launched OTT Platform

Script

Structure



Summary

Notes

Cost Based (lower limit)

Content Production Costs (A)	INR 95 Cr.
Content Rights Purchase Costs (B)	INR 220 Cr.
Platform Building & Maintenance Costs (C)	INR 25 Cr.
Marketing Costs (D)	INR 50 Cr.

Spendings on Content (E) = A + B = 95 + 220 = INR 315 Cr.

Minimum Threshold (F) = E 0.2 = 315 * 0.2 = INR 63 Cr.*

Value Based (upper limit)

Approach: Estimate incomes & expenditures for each economic category and drill down to arrive at the maximum that can be spent by household under each category on platform subscription.

Three cases and thus, three upper limits based on the market that we target:

- Upper Class Only – INR 3,840/year (INR 320 * 12)
- Upper Class & Upper Middle Class Only – INR 3,240/year (INR 270 * 12)
- Upper Class, Upper Middle Class & Lower Middle Class – INR 900/year (INR 75 * 12)

At INR 900 per year level, our pricing structure for the three proposed subscription models – annual, semi-annual and quarterly – would have been:

- Annual subscription – INR 900
- Semi-annual subscription – INR 525 (rate of 7 months)
- Quarterly subscription – INR 330 (rate of 4.5 months)

Note: Since, our client has a two-fold aim to cover minimum threshold and at the same time maximize subscribers, we start by testing for the last case involving all three categories and only move to the next upward category if the minimum threshold is not met. If however, the objective would have been to maximize revenue, we would have had no other option but to check for each category.

Elasticity Based (demand - supply analysis)

Approach: Estimate the total number of expected subscribers from each income category for each subscription duration. Multiply the proposed pricing for each duration with the respective expected number of subscribers to check whether or not, the minimum threshold is met.

We arrive at a total subscriber count of ~1.25 Mn. in the first year. Splitting these into three categories of subscribers:

- 3 month subscribers accounting for 50% or ~0.63 Mn.
- 6 month subscribers accounting for 20% or 0.25 Mn.
- 12 month subscribers accounting for 30% or 0.37 Mn.

Total Expected Revenue = (0.63 Mn. * 330) + (0.25 Mn. * 525) + (0.37 Mn. * 900) = INR 67.2 Cr. > INR 63 Cr.

Note: Here, in our lower most case only, we were able to meet the minimum threshold and therefore, did not have to check for other cases. However, if the revenue would have been less than INR 63 Cr., we would have tested for the next case involving upper class and upper middle class households.

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Mergers & Acquisitions

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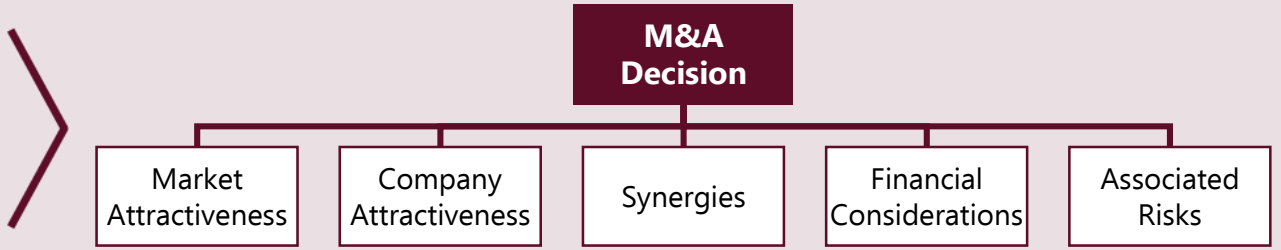
Clarifications

Some preliminary questions that can be asked for a mergers & acquisition case are:

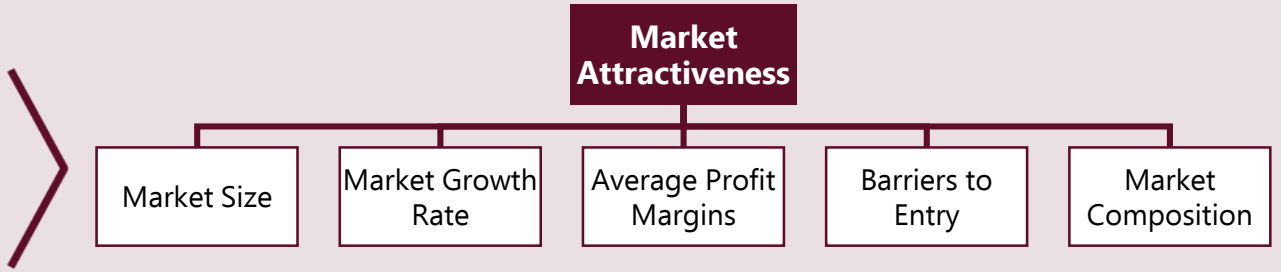
- **Client-related Questions: Operating geography, revenue streams, value chain**
- **Target company-related questions: Operating geography, revenue streams**
- **Client Objective: Any particular reason to choose that particular company over other players, when is the client planning to enter into the transaction, budgetary constraints, expectation from acquisition**
- **Is the problem located in pre-covid, covid or post-covid scenario?**

Framework

M&A Decision: **Market Attractiveness, Company Attractiveness, Synergies, Financial Considerations, Associated Risks**



Market Attractiveness: **Market Size, Market Growth Rate, Average Profit Margins, Barriers to Entry, Market Composition – Concentrated or Fragmented**



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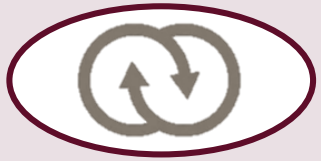
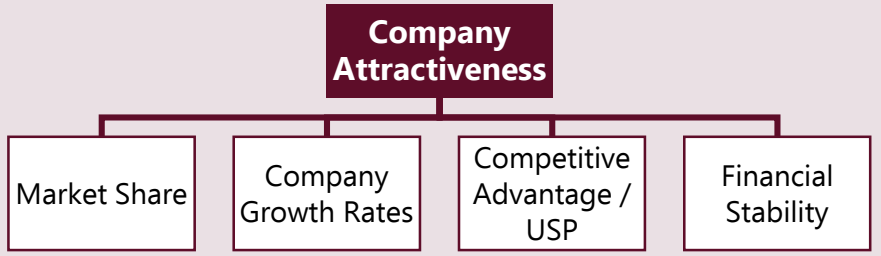
Framework

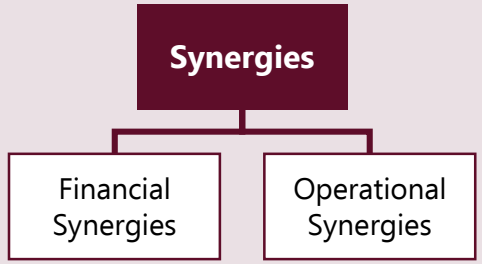
Company Attractiveness: Market Share, Company Growth Rates, Competitive Advantage / USP, Financial Stability

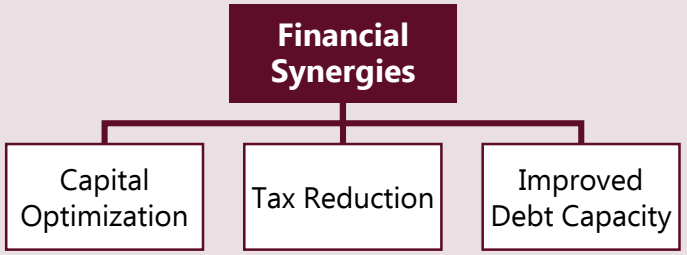
Synergies: Financial Synergies, Operational Synergies



Financial Synergies: Capital Optimization, Tax Reduction, Improved Debt Capacity







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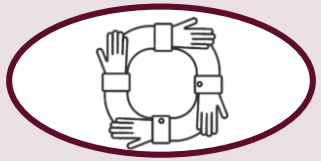
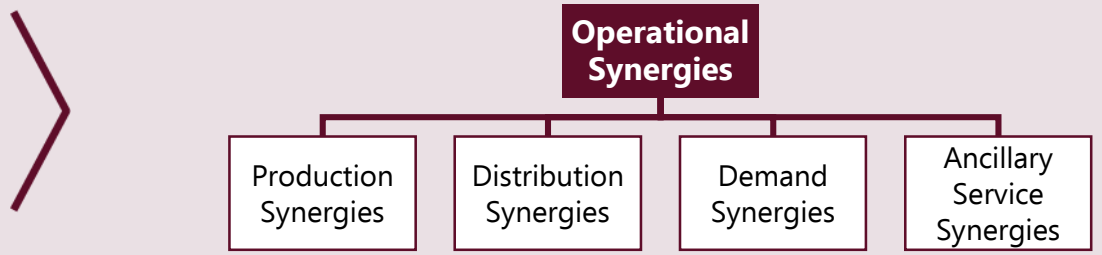
Framework

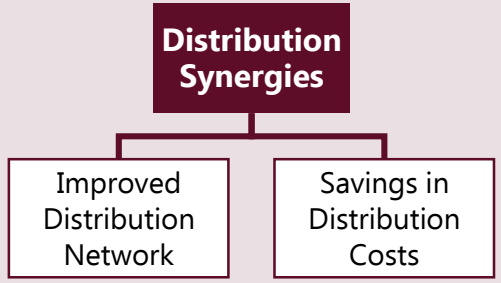
Operational Synergies: Production, Distribution, Demand, Ancillary Services



Production Synergies: **Savings in Inputs, Savings in Processing/Assembling, Savings in Packaging, Savings in Labour Costs, Savings in Ordering Costs**

Distribution Synergies: : Improved Distribution Network, Savings in Distribution Costs (transportation, storage etc.)





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Framework

Demand Synergies: Reduced Promotional Costs, Access to Wider Customer Segments, Improved Brand Equity, Strategic Marketing Opportunities (e.g. Bundling etc.), Savings in After-sales Services

Demand Synergies

- Reduced Promotional Costs
- Access to Wider Customer Segments
- Improved Brand Equity
- Strategic Marketing Opportunities
- Savings in After-sales Services

Ancillary Service Synergies: : Improved R&D, Savings in Recruitment & Training, Better Tech Support

Ancillary Services Synergies

- Improved R&D
- Savings in Recruitment & Training
- Better Tech Support

Financial Considerations

Key questions to be addressed:

- **Is the price fair and reasonable?**
- **How will the funds be sourced?**
  - **IPO/FPO**
  - **VC/PE**
  - **Debt**
  - **Company Reserves**
  - **Combination of these**

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Framework

Associated Risks: Client Risks, Target Company Risks, External Risks

Client and Target Company Risks: This is where we would look at the prospective risks that the two companies may face resulting from the potential M&A transaction. Although one can be very creative with what framework to go with, here are a couple of those that we suggest:

- Risks across Value Chain: Production Risks, Distribution Risks, Demand Risks
- Risks across Stakeholders: Risks from Management, Risks from Employees, Risks from Suppliers, Risks from Distributors, Risks from Shareholders, Risks from Consumers etc.

External Risks: This is where we look at the risks that fall outside the direct control of the business. Assessing these risks is equally important for any M&A transaction. While the best framework to go for, in this case is PESTLE, the interviewee is free to think out of the box and come up with their own relevant framework(s) as per the case!

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Script

A company wants to acquire another company of a completely different industry that would help on its own ground operational efficiency. The target company makes a software that the parent company currently outsources from it for its operations. Should they buy the company?

First up, it'll be helpful to know a little about our client – the core operations, revenue streams, value chain, operating geographies and the like.

Our client, Door-to-Door (D2D) is an Indian unicorn startup in the logistics space. Its core competency is to provide cheap intra-city and inter-city movement of domestic and business parcels. Currently operating in tier-1 cities only, D2D has built strong presence because of its hyperlocal delivery network and highly sophisticated tech algorithms.

Alright. Do we have similar information on the target company?

Yes. HLC Tech., the target company, is another Indian B2B startup. It was started two years ago by 2 former IIT Kanpur graduates. HLC provides high-end tech solutions ranging from app development, cloud computing to AI-ML powered knowledge processing system. Other than D2D, HLC has several other big clients in its customer portfolio, including our major competitors in the market.

But why only HLC? Does our client not have any other alternatives to pursue?

You got it. Until last year, each player in the industry was dependent on its own tech. However, HLC came up with a software which was way more efficient than any software present in the market. As a result, all players were quick to shift to this patented software.

Summary

And through this software, HLC has virtually removed the biggest barrier to entry i.e. technology from the logistics industry. Since the tech is now being outsourced by all firms, entering the industry has become easier for new players. So, our client fears that we may lose out on our market rapidly if we don't acquire HLC.

Makes sense. So what expectation does our client have from this acquisition?

Well, our client has no intention to cut down existing customers of HLC. However, it does expect that the tech costs – which form a major part of D2D's operating costs – would come down significantly, thereby helping D2D make its position firm in the market again.

Case #14

Category

Merger & Acquisition

Type

Interviewee Led

Industry

Multiple

Origin

Adapted | Praxis Global Alliance

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That helps. So, for any company planning to acquire another firm, the following 5 factors must be taken into consideration to form a better decision. These are:

- **Market Attractiveness i.e. market factors such as size, growth rate, barriers to entry, market concentration etc.**
- **Company Attractiveness i.e. company factors such as market share, competitive edge, management etc.**
- **Synergies i.e. how the two firms can improve efficiency, reach and profitability for each other**
- **Financing Decision i.e. whether the acquisition is financially attractive and feasible; if yes, how funds would be sourced**
- **Associated Risks i.e. the potential risks that threaten the long-term success of the two firms**

Script

Interesting. We know through our research that HLC is placed in a market that is highly attractive. There is no major reason, as far as the market is concerned, for our client to not acquire HLC. Moreover, an in-depth study of D2D's financial position also helped us ascertain that financing decision is not a roadblock for them.

Great. So I will one-by-one start looking at each of the 3 remaining factors – company attractiveness, synergies and associated risks.

Sure, go ahead.

Since we know already that the market is attractive, an attractive company in an attractive market would be one that is at par in each of the following 4 factors:

- **Market Share**
- **Profitability**
- **Management**
- **Competitive Advantage/USP**

We know already that HLC has a strong competitive edge owing to its patented software. How about the other 3 factors?

HLC is rapidly acquiring market share. However, the profitability is still negative as it is still in the cash-burn phase. As for management, there is no reason to doubt the capabilities.

Summary

Right. Prima facie, it looks as if the company is in a good spot. Why would it want to get acquired?

HLC's shareholding pattern is such, that the two co-founders own a 35% stake, while the remaining 65% is held in venture capital and private equity by 7 investors. Of these, 5 investors are now looking at an exit, which is why, HLC co-founders are now looking for fresh investors for a majority shareholding.

Got it. Since we can conclude that the company factors are favourable, should we now move to the synergies?

Yes.

Alright, within synergies, there are financial synergies and operational synergies. Is there any particular one you'd like me to explore?

Why don't you look at both?

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Script

Sure. Financial synergies could possibly include:

- **Capital Optimization, through reduced gross block or improved working capital cycle**
- **Cost Optimization, through sharing of inter-organisational resources and achieving economies of scale**
- **Tax Reductions**
- **Improved Debt Capacity**

Similarly, operational synergies could include one or more of the following:

- **Reduction in Time, through faster methods and higher efficiency**
- **Improved Productivity, through better utilization of combined resources**
- **Reduction in Wastage, through economies of scale and more efficient procedures**
- **Improved Distribution Network, through access to each other's market and network**
- **Improved Marketing Avenues, through possibilities of bundling etc.**

These are helpful. Our team will make sure to look for these thoroughly. Is there anything else you'd like to check?

Yes, the associated risks. For any M&A transaction, the risks can be manifold. These risks can be those arising from client's (D2D) side, the target company (HLC) or external environment. Would you like me to look at some of these risks?

If you were to only list down risks arising from HLC Tech, what all would those be?

I would broadly like to divide these into two buckets – the financial risks and non-financial risks.

Financial Risks:

- **Capital Structure Risks**
- **Shareholding Pattern Risks**
- **Working Capital Risks**

Summary

So if you were to give a final call on whether HLC should be acquired or not, what would your say be?

On the basis of what we know so far, the proposition can have a significant advantage for D2D. Moreover, as a company, HLC has strong fundamentals and market position. Unless this transaction leads to any negative synergies, amplifies any existing risk or results in a chronic new risk for either party, this transaction should be pursued.

synthesis

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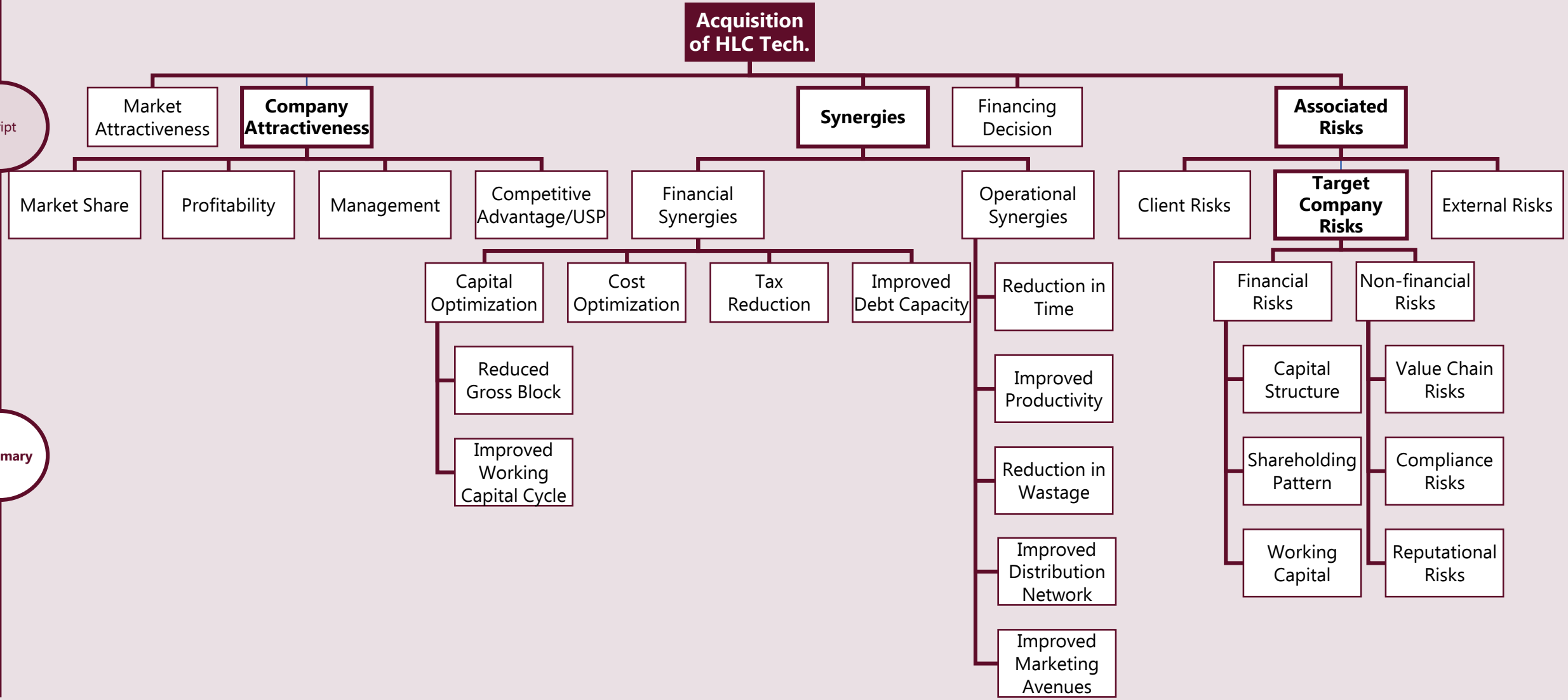
Structure

Script

Summary



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Script

Your client, SF Partners, is a PE firm looking to acquire a loss-making mineral company. They have hired you to help them in assessing the feasibility of the acquisition.

What is our client's objective with respect to this acquisition?

You see, as a PE firm, SF is always on a lookout for acquiring loss making entities at a discount, breaking them up and selling the constituents at highest possible values to different buyers. Through this acquisition, SF expects to make a profit of at least 40%.

Got it. Do we have some background information on the target firm – what is the operating geography, what resources the company deals in, what is its value chain and the like?

Alright. Chhattisgarh Mineral Co. (CMC) has been in the business of mining and processing iron, copper and zinc for the last 9 years. The company operates 14 mines across numerous locations in Chhattisgarh and the neighbouring states, for which it has signed lease agreements with the respective state governments. In addition, CMC has signed MoUs with 3 Indian companies and 1 Saudi Arabian company to directly supply these minerals to them, together accounting for 88% of the CMC'c total production.

Interesting. And what do we know on the quantum of losses, the duration and the underlying factors?

For consecutively 9th quarter now, CMC has incurred a loss in the range of 15-20%. Management asserts that the operating costs are too high for the mines to operate profitably.

***Question 1*: SF requires your help in identifying the cause(s) for the overtly high operating costs.**

Sure. Do we have information on the cost breakup for mining and processing business?

Summary

Yes. You can note it down:

Business	Cost Structure (2016)	Cost Structure (2021)
Mining	55%	30%
Processing	45%	70%

The data clearly points that the problem lies with the processing business. Though I don't want to wholly rule out the possibility of hike in costs of the mining business as well, but I believe it makes sense to go for the larger part of the problem i.e. the processing business first.

Case #15

Category
Mergers & Acquisitions

Type
Interviewer Led

Industry
Mining and Minerals

Origin
Curated

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Script

Sure. What next?

I plan to further break the processing costs into direct operating and indirect operating costs.

Can you list them down for our client?

Right. The direct operating costs would include costs incurred on:

- **Manufacturing Supplies (e.g.. machine lubricants, chemicals etc.)**
- **Labour**
- **Power**
- **Transportation**
- **Material Losses**
- **Storage & Warehousing**

Similarly, indirect operating costs could be manifold, the most prominent ones of them being:

- **Rent**
- **Salaries**
- **Repairs & Maintenance**
- **General & Administrative**
- **Utilities**
- **Regulatory & Licensing**

Fair. There, in fact, happens to be a problem with the transportation costs. Can you analyse them further?

Alright. Before that, I would like to know how the mineral ores are transported from mines to processing units. Is it via road or rail or any other way?

Assume the road network.

Got it. Typically, transportation costs can be broken down as follows:

$$\text{Transportation Costs} = (\text{Number of Trucks}) \times (\text{Cost per Truck})$$

we know which of these have grown significantly over the last 5 year period?

Summary

The cost per truck has remained constant. Go ahead and look at the number of trucks.

Interesting. The total number of trucks needed can be represented as follows:

- **Total Ore Transported**
- **Capacity per Truck**
- **Capacity Utilization (%)**
- **Number of Rounds per Truck**

$$\text{Number of Trucks Needed} = \frac{(\text{Total Ore Transported})}{(\text{Capacity per Truck}) \times (\text{Capacity Utlization}) \times (\text{Rounds per Truck})}$$

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Script

Excellent. Due to a change in government norms, each truck can only be loaded with material equivalent to half the weight of the truck. Since ores are heavy in nature, the new norms only allow about 20% of the truck's space to be utilized, leaving the rest 80% space unutilized. This has led CMC to employ a larger fleet to transport the same amount of ore.

***Question 2*: SF needs your help in ascertaining the value at which the CMC should be acquired. Here is the list of assets along with their respective approximate realisable values:**

Assets	Realisable Value (INR)	Assets	Realisable Value (INR)
Land	350,000,000	Financial Assets	550,000,000
Intellectual Assets	1,000,000,000	Vehicles	150,000,000
Machinery & Equipment	250,000,000	Inventories	500,000,000

From the given information, we can conclude that SF would be realising a total of INR 2.8bn. by further selling the assets of CMC. Also, SF plans to earn a minimum of 40% from the proposition. So, he maximum amount at which SF should acquire CMC is INR 2bn. (i.e. 2,800,000,000/1.4).

***Question 3*: SF is all set to acquire CMC at INR 2bn. 50% of this amount would have to be raised from external sources, either through debt or through dilution of equity. Assuming SF is indifferent on all other aspects, which option would be financially most attractive for SF? Refer to the given information:**

Summary

Holding Period	2 years
Cost of Debt	10% p.a.
Equity Dilution for the Amount	18%
Tax Rate	20%

Got it. The alternative which would financially be the most attractive would be the one that costs least amount of money to SF. The total amount that SF needs to raise in INR 1bn (i.e. 0.5 * 2bn.).

Taking the equity option first: By diluting 18% stake in CMC, SF would lose out on 18% of the profits it makes by selling CMC's assets. This means that the amount SF would have to forego would be INR 180mn.

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Script

For the debt option, SF would be paying a total interest of INR 200mn (i.e. 0.1 * 1bn. * 2). However, since the interest on debt is tax deductible, the effective amount paid by SF in this case would be INR 160mn (i.e. 200mn * (1-0.2).

Therefore, raising debt would be a more attractive option for SF.

Great. We can end the case here.

synthesis

Summary

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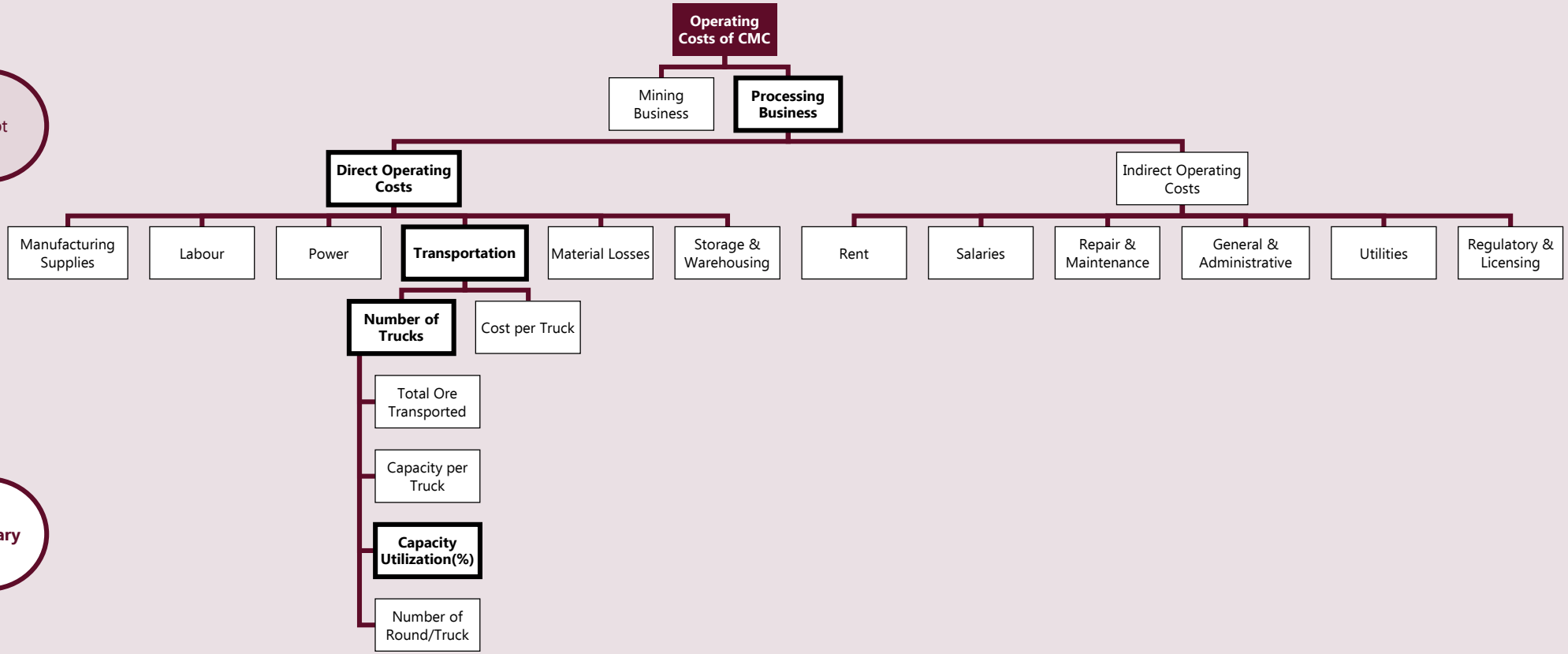
Script

Summary

Structure



Authors' 2 Cents

Different types of Costs: In a merger & acquisitions case, an interviewee might have to list down all the potential costs he/she can think of for a particular firm or industry. Here, it helps to know what are some of the general cost heads across various industries and how those can be further broken down into specific cost heads. Hence a candidate should always come prepared with such information to the maximum possible extent so he/she can easily list them down in an actual case interview

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Unconventional

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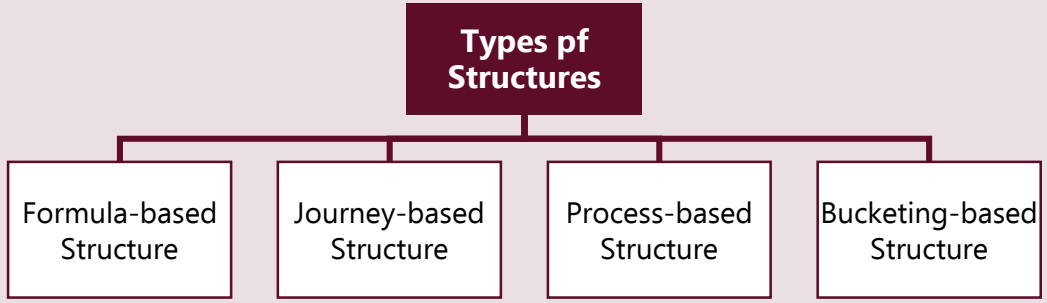
Overview

Unconventional cases are typically those that do not confine within scope of any of the set frameworks. These cases test one not just on the level of creativity but also the structural thinking of the candidate.

***For example*, a case statement goes like, "*Government of India aims to achieve a 40% reduction in carbon footprint by 2040. Create a plan for the same.*" Here, one can see that none of the frameworks discussed earlier could thoroughly fit in the context. Here are some of the broad strategies to tackle such cases:**

- **Clarify: Clarification becomes one of the most important aspect of such cases since these cases usually deal with topics which would be alien and would require you to gather information from your interviewer, so much so that the questions you ask would become an important parameter for the interviewer to rate you, as well as for you to create a sound structure going forward in the case.**
- **Think: Take your time to think thoroughly of the various dimensions of the case. The interviewer will not mind if you let them know that you need a minute or so to think of a robust structure to take the case forward.**
- **Structure: Proceed with the case with a well-defined structure, which is both Mutually Exclusive and Collectively Exhaustive. The objective here is to break the problem into smaller segments, so that a logical flow could be created and at the same time the root cause of the problem could be reached in the least number of steps and in the most understandable manner.**

Here are a few ways in which a problem could be broken down. These are meant only for reference and as you practice you would observe how you yourself are able to come up with dynamic issue trees while tackling such cases:



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Approach

Formula Based Structure:
Sometimes breaking a particular component into a formula could help you get a better understanding of which component could be causing the problem.
E.g. Interest Revenue Earned by a Bank = Number of borrowers × Average amount borrowed × Average loan duration × Average Interest charged × [1-(% of NPAs)]

Journey Based Structure:
Imagine a problem where you were to assess the problems faced by customers that has led to a decrease in footfall in a cinema hall in recent times. Here, one of the approaches could be to lay down the complete consumer journey from entry to exit within the hall and get the same validated through the interviewer. Here is one of the possible consumer journeys:

Decision → **Travel** → **Experience** → **Return**

Process Based Structure:
There is still another category of cases which may require the candidate to lay down each step of a process to understand the root cause. E.g. The onboarding of several employees post campus recruitment has been delayed. You are to figure out the reason for the same. Here, usually the following steps take place for onboarding employees:

Releasing the Offer → **Offer Acceptance Period** → **Employee Contracts and Disclosures** → **Background Checks** → **Orientations** → **Date of Joining**

Bucketing Based Structure:
Another way to approach a problem could be creating buckets based on a particular criterion. This criterion could be product lines, revenue streams, customer demographics, geography, organizational function, methods of consumption, stakeholders, etc. E.g. Ministry of Health is concerned about a sudden fall in growth rate of the healthcare sector. You are to analyze the underlying reasons. Here, the very first approach could be to segment the entire healthcare sector into buckets based on offerings: Hospitals and Clinics, Diagnostics, Pharmacies, Medical Equipment and Supplies, Health Insurance, Telemedicine

While it may seem from the above example that this approach requires extensive knowledge of the industry, however, that is not necessarily true. Under most circumstances the candidate would get sufficient data from the interviewer upon asking which component they would like to segment. The above example is for those rare cases where interviewer would not have enough to give to the candidate and therefore it becomes important to have basic knowledge of some of the important criteria of segmentation.

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Script

Industrial Training Institute (ITI) was opened by the Government of India in the 1950s, to provide training in various trades. Students after class 10th typically have 3 career options – go for further higher education, look for a job with no specialized knowledge/training or look for a job with some training. The only prerequisite to enroll is to have a class 10th degree. ITIs offer various vocational courses for several professional paths such as electrician, mechanic, chef, etc. The duration of such courses ranges from 1-2 years. The main objective of ITIs is to help the people enrolled to secure a good paying job. The salary one can get after the completion of such courses usually varies from INR 10,000/month – INR 15,000/month, which is more than what one can get after directly starting a job without any specialized training. A new ITI is being opened in Gurgaon, and its principal has asked you to figure out a way to decide which 10 courses out of 250 available courses should be taught at this ITI.

Alright. I want to understand a few details about the ITI which is to be opened. Is there any reason why we are selecting only 10 courses? Also, are there any additional infrastructural capabilities that have to be built for any specific courses?

So we are only taking 10 courses in the beginning to check the feasibility of this ITI and gauge the interest of the prospective students. Assume that any infrastructural facilities that are required are already met.

Is there a particular time frame by which we have to decide on 10 particular courses?

2 weeks.

Okay. To decide on what courses we should select for our ITI, we need to keep in mind certain important factors related to the interest of the students and any operational bottlenecks we may face. These are as follows:

- **Courses offered by nearby ITIs**
- **Number of students enrolled for each course in the nearby ITIs**
- **Pass percentage in the courses offered by the nearby ITIs**
- **Availability of teachers for various courses**
- **Maximum seats available for each course**

Summary

Interesting points. However, instead of just looking at the trends of nearby ITIs, why don't you also think of ways in which our client can find out what courses are relevant for the students enrolled to secure a job, which is the main of objective of any ITI.

Okay. Since the objective of an ITI is to help people secure a decent paying job, perhaps we should look into what jobs are currently prevalent in the nearby areas and in general what skills are required in the industry. This will allow us to recognise the courses which should be beneficial for our students to secure a job.

Case #16

Category
Unconventional

Type
Interviewee Led

Industry
Education

Origin
Adapted | Samagra Governance

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Script

Good. Suppose you go and speak with people in the current industry to try and gauge current job requirements and their need for a skilled work force, what questions would you ask them relevant for our ITI?

Interesting. To understand the current market requirements and feasibility of our courses, we could ask the various industry experts the following questions:

- **What are the skills which are demanded the most within workspaces?**
- **What is the growth in various types of jobs available**
- **What jobs yield a higher pay?**

Yes, these are fine. This will help us in understanding how current ITI students have done in the job market and what courses have been in demand up till now. Is there anything else you would like to check which will help us in understanding what courses will be relevant in the future?

The relevance of courses in future would be an interplay of several interrelated factors:

- **Industrial factors, like industrial growth rate, industrial investments, industrial wages and changing industrial trends**
- **Technological factors, like any foreseeable innovation that could be perceived as a threat to manual labour**
- **Labour factors, like any significant change in the quality, skills and availability of labour force**

Good job. We can end the case.

synthesis

Summary

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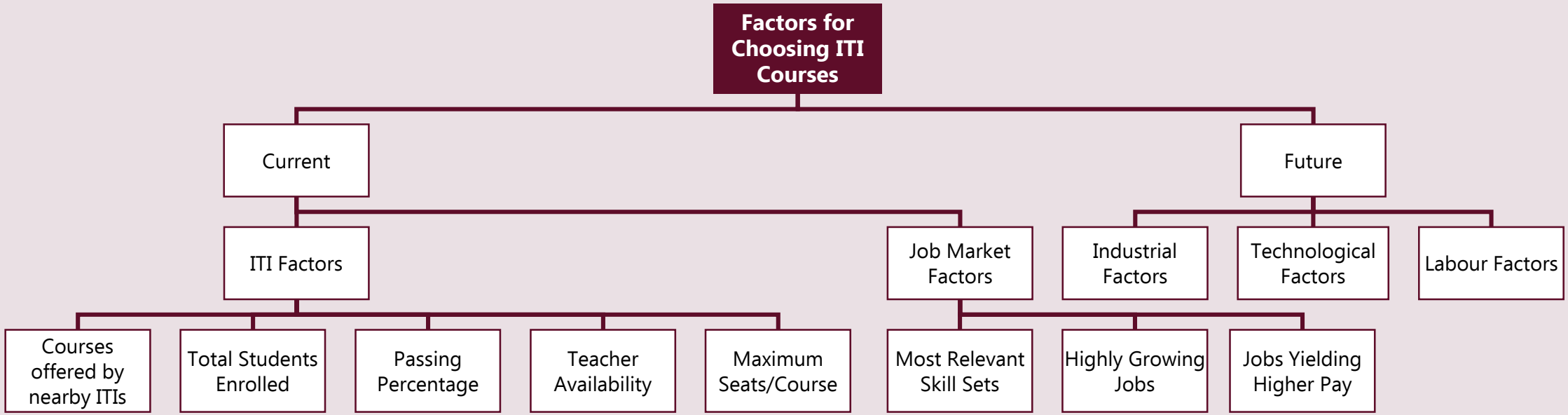
Structure

Script

Summary



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Script

Your client is the CEO of a top market research firm in India. He is concerned with the declining performance of one of his most dedicated managers in the company and has reached out to you for advice.

I would like to understand the problem better. What exactly does the CEO mean by declining performance? How long has this been happening for?

The CEO is concerned with the low ratings the manager has received in his last two company reviews. A company wide review takes place every quarter, so this has been happening for 6 months.

Understood. I would like to get more information about the Manager. How long has he been working with the company? How was his performance before the last two reviews? What kind of role does he play in the company?

The manager has been with the company for 5 years. He used to be cited as a model employee by his superiors, and had two fast track promotions within the first 4 years of his tenure at the company. He is directly involved in making extensive research reports for his clients and heads a couple of major projects for the company. Therefore, his performance is of great importance to the CEO!

Alright. I would now like to begin with my solution. The CEO has based the declining performance of the manager on the low ratings the manager has received in the last two reviews. Is there any information on what all factors are measured during a performance review, and how has the manager done on these factors?

Interesting question. According to you, what competencies should be measured in a performance review?

I think competencies such as Leadership, Client Satisfaction, Skills and Relationship with colleagues are the important parameters a performance review will cover.

Summary

Yes, that is correct. Our client's performance review is based on three attributes: Leadership, Skills & Competencies and Client Management. The Manager in question has received lower than usual ratings in the last six months on Skills & Competencies. What can be the issue in Skills & Competencies?

Case #17

Category

Unconventional

Type

Interviewee Led

Industry

Market Research

Origin

Curated

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Script

According to me, Skills & Competencies can include the following:

1. **Analytical Skills: Ability to read information/data and organise it**
2. **Problem Solving: Ability to understand and solve the client's problem in a structured and concise manner**
3. **Communication Skills: Ability to understand others' point of view and queries and convey one's own point of view**
4. **Quality of Outputs: Delivering good quality of work on time**

Is there an issue with any one of the following?

Yes, in fact the Manager's quality of work has significantly dropped. The reports he has been sending for the past few months are seldom of the quality expected from him and has not been well received by the client. Can you find out why?

Sure. I think quality of research reports decline can be attributed to one or more of the following factors:

1. **Time Spent on Report: Perhaps the overall time the Manager used to spent on making reports earlier has declined in the past few months. Because of this decline, the Manager may not have enough time to make quality reports expected by his clients**
2. **Misalignment of Expectations: Perhaps the client's expectation of the report and that of the Manager is different because of which the client may be turning in bad quality reports without realising it.**
3. **Inadequate Research: The Manager simply may not be conducting the necessary quality of research, leading to bad recommendations/outcomes and bad quality of research reports**
4. **Poor Presentation: The Manager might be doing everything else right, but is simply not presenting his work in a presentable or aesthetically appealing manner, leading his client to consider the report as a poorly constructed one**

Summary

You are correct. The time the Manager spends on making reports has dropped by 40% compared to a year back, leading to turning in of unfinished or poorly and hurriedly written reports from the Manager. Can you guess why this time has decreased?

Got it. I think the time could have decreased because of the following two reasons:

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1. **Overall Reduced Working Hours: The number of hours the Manager usually spends on all aspects of his work may have decreased, leading to lesser amount of time spent on making research reports.**
2. **Spending more time on other Tasks: Perhaps the number of working hours has remained the same, but the manager has got more responsibilities or has to spend more time on a particular aspect of his work, because of which he has decreased the amount of time spent on making reports. It is also possible that the Manager is spending more time on a personal matter**

Script

Right. The Manager's working hours have remained the same. However, the manager was given more responsibilities by his senior management 7-8 months back on two fronts: looking after the firm's campus engagement activities and overseeing and conducting the trainings of new employees. Because of this increased workload, the manager is not able to devote sufficient time in making his reports.

What recommendations will you give the CEO to correct this?

Alright. I would like to list down the following recommendations for the CEO:

1. **Reducing the overall workload of the manager either by asking someone else to share his newly given responsibilities or by reducing his responsibilities in other less important aspects of his work**
2. **Allocating more people on the Manager's project team who can help him with his work**
3. **Asking the Manager to work more hours to cover up for the increasing workload, with an increase in his compensation or by giving other incentives**

Would you like me to look at any other points?

No, that's fine. We can end the case now.

Summary

synthesis

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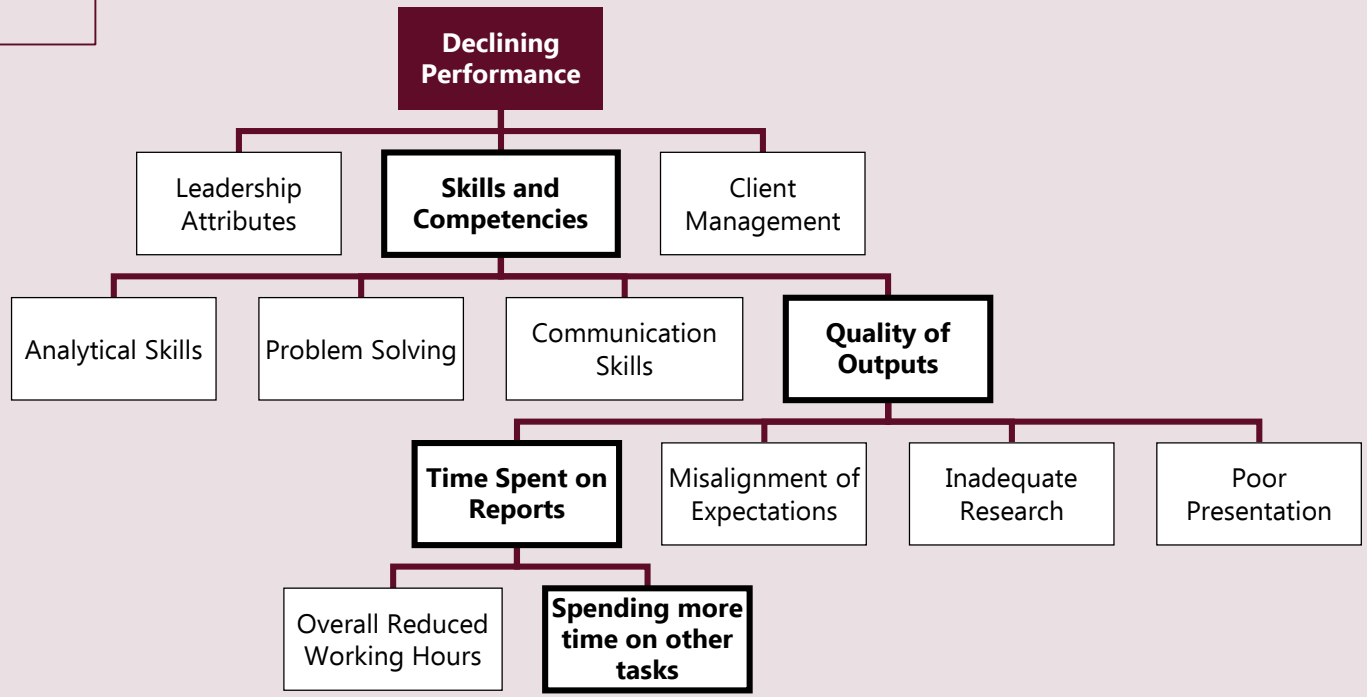
Script

Structure



Authors' 2 Cents

Clarifying Questions: In unconventional cases, it helps to clearly specify with the interviewer what exactly is the problem and how can it be measured. For example – in this case, the manager's performance was considered to be 'declining' because of his bad performance reviews. This allowed the interviewee to find out the reason behind such bad reviews and come up with solutions to solve the same.

Summary

Recommendations

1. Reducing the overall workload of the manager either by asking someone else to share his newly given responsibilities or by reducing his responsibilities in other less important aspects of his work
2. Allocating more people on the Manager's project team who can help him with his work
3. Asking the Manager to work more hours to cover up for the increasing workload, with an increase in his compensation or by giving other incentives

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Script

You are a Shark Tank India judge. A business, seeking to raise money, is pitching to you. How would you judge whether it's an investible business or not?

Alright. Preliminarily, I'd like to understand more about the business we're seeking to evaluate.

Jingles is a fast-fashion start-up which began its operations in 2019. It has a youth-appealing line of clothing and footwear, which primarily caters to urban millennials and GenZ through online marketplaces and offline retail chains like Shoppers Stop etc.

Got it. Secondly, different investors could have different expectations from an investment. For some, it could be purely from profit standpoint whereas for others it could be about solving a larger problem while settling for lesser profits. Is it okay if I go with the former?

Yes.

Okay. I would primarily split the evaluation criteria into 5 broad buckets, each could further be broken down into subsequent factors. These are – market factors, business factors, product factors, company factors and other factors.

Interesting. Let's go through each of these one by one.

Sure. Starting with market factors; these are the factors related to the overall dynamics of the market in which the business seeks to operate. Among these, market size tends to be one of the most important consideration as it gives an idea of the highest potential of the business with respect to the market. In addition, the existing competitors as well as their relative market shares and market strategies form another crucial factor to check. On the consumer side, the consumer behaviour, the switching costs and their geographical concentration must be thoroughly checked as each of these has a bearing on the success of the business.

Summary

Go on.

Yes. Within business factors, the USP of the business is particularly important as it offers grounds for differentiation from the competitors. Similarly, the revenue model is important to understand the different revenue streams of the business. Lastly, specific strategies like the GTM Strategy and Supply Chain strategy tend to offer adequate insights into the overall functioning of the business.

As for product factors, the quality, pricing and profit margins form important considerations.

Moving to the company factors now…

Case #18

Category

Unconventional

Type

Interviewee Led

Industry

Retail

Origin

Curated

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Script

Before you do that, kindly explain the rationale behind keeping business factors and company factors separate?

Sure! The reason why I keep company and business factors different is that the business is separate from the company. Business is not the company itself but rather what the company pursues. A company can continue to be same, while switching its business. Therefore, the business factors would differ from the company factors.

Interesting. You can continue.

Right. The two key factors to look at, under the company are the team and traction. The perseverance and entrepreneurial spirit of the team is particularly necessarily for any start-up to be successful. It should also have a good balance of different skills being brought to the table by different members, with clear, explicit roles of each member. Secondly, the traction gives a fair idea of how the venture has fared out so far in the market i.e. whether it has received market validation or not.

Lastly, there are several miscellaneous factors which I have clubbed together in my last bucket, which is 'Other Factors'. These include the risks associated at different levels of the business, the ask & valuation of the company, the current shareholding pattern between team and other investors (if any) as well as the long-term vision of the company i.e. where it's headed to. Each of these can be a make-or-break criteria, depending upon the weightage assigned by different investors to different criteria.

That seems quite comprehensive. We can end the case now.

synthesis

Summary

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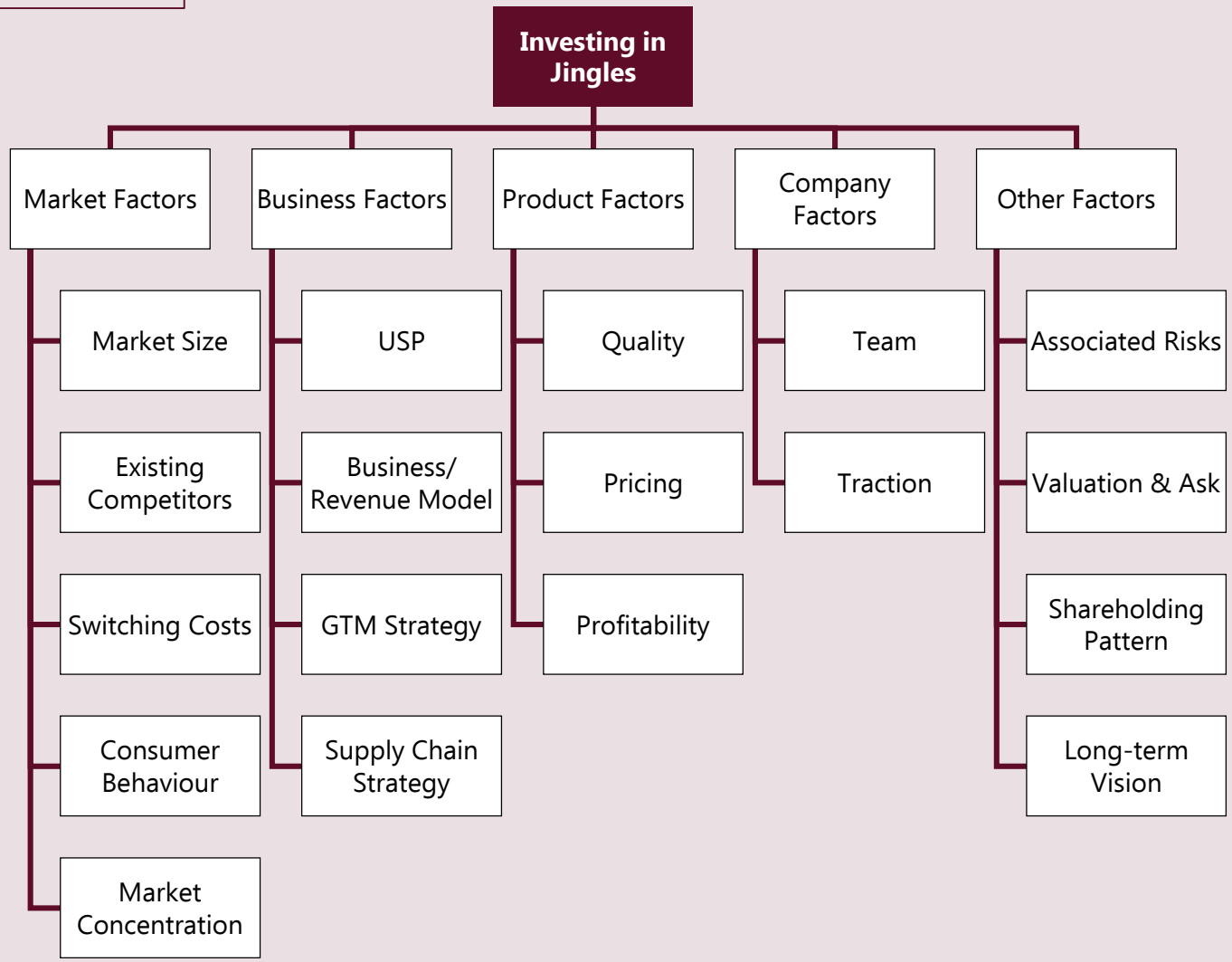
Script

Summary

Structure



Authors' 2 Cents

Using MECE Factors – An interviewee should make sure that any factors he/she uses in a case interview are clearly distinguisable from each other and collectively cover all aspects there could be in the case. The interviewee should also be ready to explain to the interviewee at any point in time in a case interviewee why they have chosen the factors that they did.

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Script

The Government of Andhra Pradesh plans to launch a scheme for students in the government schools within the state with the aim to provide students with laptop facility at school, so as to provide better learning opportunities. You have been approached to help them with the strategy.

I want to begin by gathering a few more details about the scheme. What is the goal of this initiative? When is it expected to launch? How can the progress be measured?

Under the Digital India banner, many states rolled out different schemes to improve the tech capabilities of their people. Through this scheme, the Andhra Pradesh Government aims to equip students of class 6th - 10th with technical skills by giving them hands-on exposure of computer equipment, softwares and programming languages.

The scheme is expected to be launched within the next 4 months and the Government has no intention to roll it back any time soon. In addition, the Government plans to conduct practical computer exams in these schools to monitor the success of its initiative and to decide the future course of action.

Alright. Does the Government have the adequate financial and infrastructural capabilities to execute this scheme, or is it something we should be looking at?

You can assume it to be adequately available.

Got it.

Question 1: The Government needs our help in estimating the number of students it would target through its scheme as well as the number of laptops it would require for the same.

Summary

Interesting. Here is what I think: First we need to arrive at the total number of school going students in Andhra Pradesh using a population based approach. For this, we'll use the total population of Andhra Pradesh as the starting point and use factors to calculate the population in age groups where school going population lies and further, what percentage of these actually go to school. Next, we use weighted average method to know what percentage of these students would actually study in Government schools. Post this, we'll figure out the students studying in 6th – 10th grades in these schools. Finally, we'll calculate the number of laptops required by dividing the target students by the number of students using one laptop.

Seems good. How do you want to start?

I want to know if we have any estimate of the total population of Andhra Pradesh?

Case #19

Category
Unconventional

Type
Interviewer Led

Industry
Education

Origin
Adapted | Dalberg

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Script

No, we don't. How about you help us estimate that too?

Interesting. Say, we were to create a 2 X 2 matrix with population on one axis and population density on the other to represent the 28 states of India. Assuming that these states are uniformly distributed across each of the four categories, the matrix would look somewhat like this:

Population / Density	High	Low
High	7	7
Low	7	7

Let us further assume that the 14 states representing high population, represent 70% of India's population while the other 14 represent the remaining 30%. Within these high population states, we can again assume that the states having high population density represent 70% population of these high population states, while 30% is represented by high population and low density states (highlighted). This is the category where Andhra Pradesh should fall according to me.

Population / Density	High (70%)	Low (30%)
High (70%)	49%	21%
Low (30%)	21%	9%

Summary

Thus, the population of this category (High Population & Low Density) would be 21% of the population of India which would give us the value of 30 Cr. (140 * 0.21). Assuming that the population in this category is uniformly spread across all 7 states of this category, we get the population of Andhra Pradesh to be 4.3 Cr. i.e., 30 Cr./7.

Spot on. Please continue.

Right. Now that we have our starting point, I can move forward with my approach.

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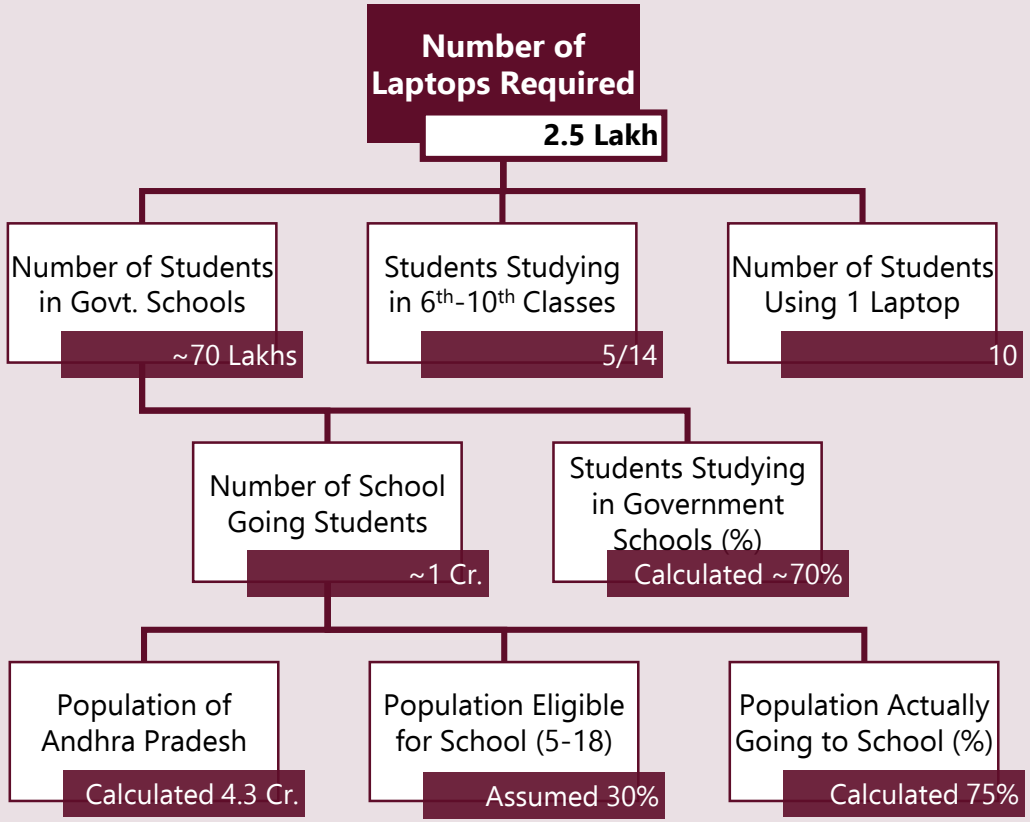
Script

Summary



On the basis of these calculation, we can assert that the Andhra Pradesh Government would require about 2.5 Lakh laptops to adequately cover the target group i.e., government school students of class 6th – 10th.

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Script

Summary

Question 2: Assume that the Government initiated the project 8 months ago. Recently, it has realized that the total number of hours being spent by the students is way below the expected hours. The Government wants you to understand the underlying cause(s) and give recommendations accordingly.

Right. Do we have information on how much the deviation is between actual hours and expected hours as well as the time period during which such deviation has been seen?

There is an almost 15% reduction in actual hours being spent by students compared to expected hours. The reduction has been seen in last 5 odd months.

Interesting. Any shortfall in the execution of the scheme can be attributed to lapse by one or more stakeholder(s) of the scheme. Here, there are primarily three stakeholders to be focused upon – State Government, Government schools and students. I'll go on and try to layout the possible lapses that could be caused at each stakeholders end.

Alright. Go ahead

As for the Government, the possible reasons can be clubbed into three major categories:

- **— Product Issues e.g., high product defect rate or inadequate supporting equipments**
- **— Logistic Issues e.g., high delivery defect rate or low periodic maintenance**
- **— Directive Issues e.g., change in curriculum or frequent school closures**

The second stakeholder, the government schools, could have one of the following issues:

- **— Infrastructure Issues e.g., regular power outages or inadequate number of classrooms**
- **— Faculty Issues e.g., low faculty attendance or low faculty skills**
- **— Operational Issues e.g., reduced class length or reduced number of classes**

Finally, at the student level, the issues could be:

- **— Low Attendance Rate e.g., epidemic, changes in socio-political landscape, etc.**
- **— Lack of Interest e.g., skipping classes, spending time but not sufficiently**

You are right with the part that the problem actually lies in the lack of interest. Despite having all means, the students are highly reluctant in adapting to the technology. Because of this, they are not spending as much time as they should be. How can you help?

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Script

Well, here are some of my recommendations that could possibly help to bring a behavioral change among students:

- **<u>Providing Incentives</u>: Incentivizing is the most popular way to bring about motivation to engage in something. These incentives could include scoring on class participation, increasing weightage of practical assessments, etc.**
- **<u>Increasing Awareness</u>: Workshops and seminars should be conducted so that students can be made aware of the necessity of technical skills in the changing work landscape**
- **<u>Integrated Assessment</u>: By taking an interdisciplinary approach of combining different subjects, schools can enforce an environment wherein adoption of computer studies becomes essential to excel in other subjects as well**

Fair. We can end.

synthesis

Summary

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Question 1

Script

$$\textit{Number of School Going Students} = \textit{(Population of Andhra Pradesh)} \times \textit{(Population Eligible for School)} \times \textit{(Population Actually Going to School)}$$
$$= 43{,}000{,}000 \times 0.3 \times 0.75 = \sim 1\ \textit{Cr.}$$

$$\textit{Number of Students in Govt. Schools} = \textit{(Number of School Going Students)} \times \textit{(Students Studying in Govt. Schools)} = 10{,}000{,}000 \times 0.7 = 70\ \textit{Lakhs}$$

$$\textit{Number of Laptops Required} = \frac{(\textit{Number of Students in Govt. Schools}) \times (\textit{Students Studying in } 6th - 10th\ \textit{Class})}{\textit{Number of Students Using 1 Laptop}} = \frac{7{,}000{,}000 \times 5}{14 \times 10} = 2.5\ \textit{Lakhs}$$

Summary

Income Group	Distribution (%)	School Going Students (%)
Upper Class	5	100
Upper Middle Class	15	100
Lower Middle Class	50	80
Below Poverty Line	30	50
Weighted Average		**75**

Area	Distribution (%)	Govt. School Students (%)
Rural	60	85
Urban	40	50
Weighted Average		**71**

Moment–to–Shine

Population of Andhra Pradesh: When a case/guesstimate requires area/population of your home country or hometown, it is okay to use direct numbers. However, when it is about a different place, the interviewer might expect you to evolve some approach to arrive at the number – either benchmarking against some other known figure or using top-down/bottom-up approach.

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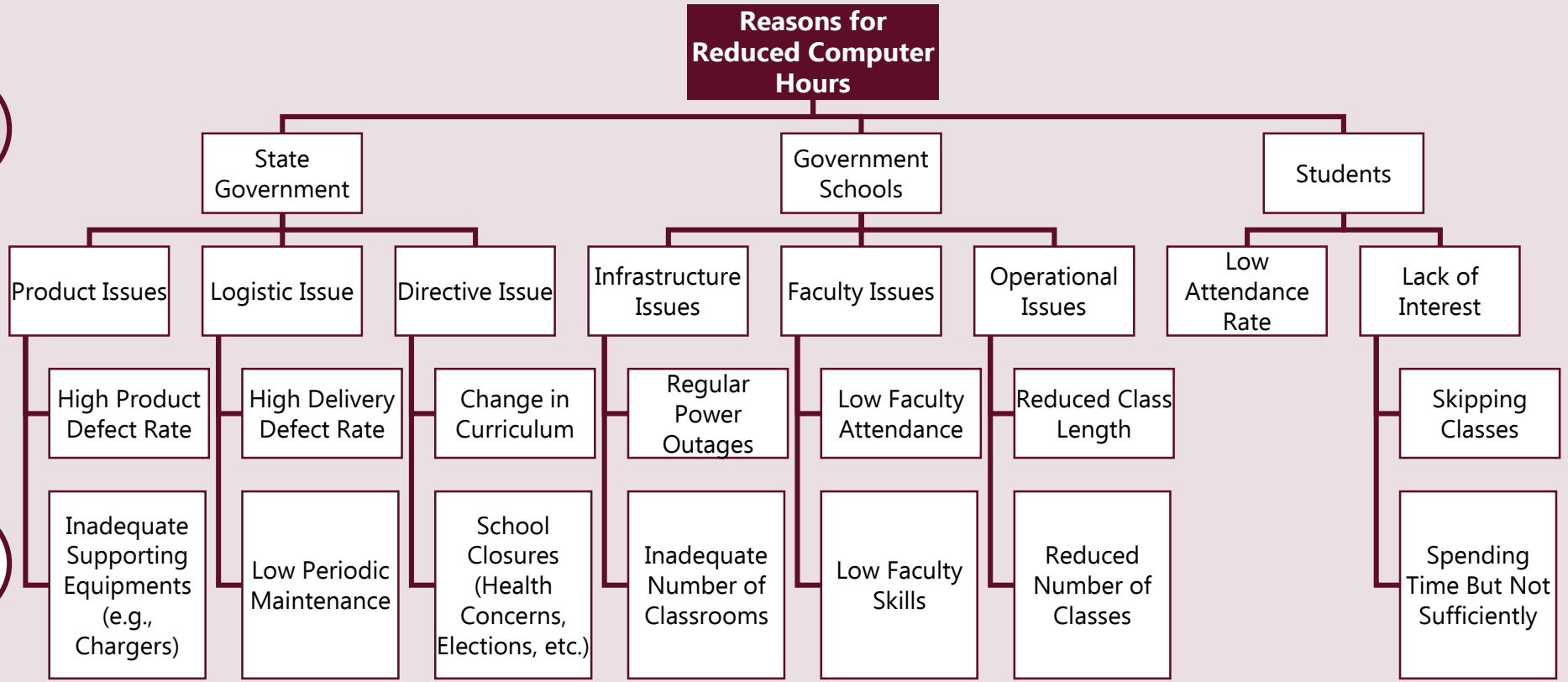
Script

Summary

Question 2



Authors' 2 Cents

Stakeholder Approach: In many unconventional cases, developing a MECE might get tricky. So candidates may want to start by identifying all the stakeholders first and then proceed with identifying factors within each stakeholder.

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Script

A late diagnoses of breast cancer drastically leads to lower survival rate of patients. XYZ has recently come up with an innovative breast cancer screening technology which uses electronic sensors to scan anomalies and they seek Dalberg's help to scale up in India.

Okay. I want to understand the problem at hand a bit better. Could you please tell me how our technology differs in the way the diagnosis is done right now as against it used to be done earlier?

Earlier, people had to go to a doctor to get their diagnosis done. With our client's easy to operate machine, which uses electronic sensors to detect anomalies, if any, patients can now simply go to our client's test centres for diagnosis.

Approximately, how much funding does our client require, what kind return is it expected to provide and over what period of time?

For the time being, let's assume that our client would require 3 million dollars in funding and the company funding them does not expect any additional return as it is just looking after the recovery of its initial investment and the impact created.

Is there any particular geographical or income segment that our client wants to serve initially? Also, if we could gather some insights on the price points that these tests could be undertaken at by the customers?

Yes, our client wants to enter into the rural market for the time being. The diagnosis would be free of cost to the people for an initial period, after which a nominal price would be charged. As the test volumes increase, the prices would be expected to go down further.

Alright. Got it.

Summary

<u>Question 1</u>: Could you please list down for me all the potential benefits that this technology could hold as a means for diagnosis for breast cancer in rural India.

Sure. According to me, our client's technology could benefit the most to the following two most important stakeholder – people and doctors.

Case #20

Category
Unconventional

Type
Interviewer Led

Industry
Healthcare

Origin
Adapted | Dalberg

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Script

The potential benefits to people could be manifold such as:

- **<u>Timely Diagnosis</u> – By getting diagnosed early, patients can undergo timely treatments and therefore improve success rates of treatments**
- **<u>Accuracy</u> – By relying on technology based diagnosis, test results can be free from subjectivity of doctors and as such can be more accurate and consistent; e.g., two different doctors diagnosing the same patient at the same time may not give the same results**
- **<u>Acceptability</u> – A certain segment of people may not be as comfortable in getting their diagnosis done manually by doctors as they would be in getting the same done by a machine**
- **<u>Affordability</u> – Seeing a doctor would cost people much more than getting a test done by paying a meagre fee**
- **<u>Accessibility</u> – As our client's technology is easy to operate, it can be installed and scaled up even in areas where there is a lack of doctors; this will improve healthcare accessibility for a larger population**

Similarly, for doctors, this technology provides the following advantages:

- **<u>Effective Treatment</u> – Doctors can eliminate hit & trial in their treatment by being more certain of the results and can get deeper insights, those which weren't largely possible through manual diagnosis**
- **<u>Increased Footfall</u> – Accessible testing solutions would now mean more detections because certain parts of population which earlier faced from such conditions but did not have enough awareness and means to detect the same would now turn to doctors well in time**

<u>Question 2</u>: Our client has received a funding of $3 million. They would like you to estimate what is the cost incurred to save each additional life through the use of our technology.

Summary

Alright. According to me, the cost incurred to save each additional life should be the total amount that we are spending by the total number of additional lives we are saving. I wanted to know if there is any information regarding the number of potential patients we can reach out to and the relevant cost of owning and operating this machine.

Sure. You can use the following information for your reference:

Okay. This gives me a total of $1,500 to purchase and operate 1 machine. Hence, our client will be able to purchase and operate a total of 2,000 machines i.e., 3,000,000/1500. As we know that one machine can potentially treat 5,000 patients each, our client's total testing capacity will be 10 million.

Can I assume that the average number of tests taken per person is 1, so that we can be sure that 10 million tests can impact 10 million different individuals?

Yes.

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Script

Great. Since we know that inly 5% of these are getting tested, that gives us a total of 500,000 people who are getting diagnosed for breast cancer. Our client's technology is able to accurately identify 6% of these, who actually have breast cancer as opposed to earlier physical check-up which was only able to identify 3%. Thus, the incremental number of patients our client's technology is able to identify who have breast cancer is 15,000 i.e., 500,000 * (0.06-0.03).

Yes. That's correct. However, do you think you are missing out on another component?

Right! Of these 15,000 patients, we need to know how many of them will be successfully treated post diagnosis.

You can take that figure to be approximately 40%.

That give us a total of 6,000 patients i.e., 15,000 * 0.4. Finally to arrive at the additional cost incurred for each additional life saved through our client's technology, we would divide initial investment by 6,000 to arrive at a cost of $500 per additional life saved.

Spot on. We can end the case now.

synthesis

Summary

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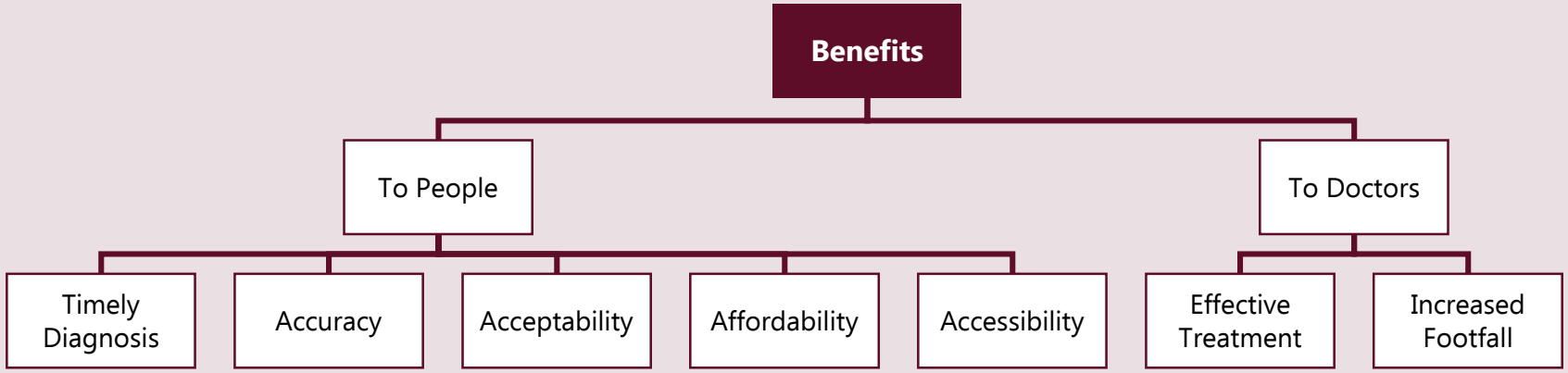
Question 1

Script

Summary



Authors' 2 Cents

When the problem statement is vague (like simply identifying benefits), doing some sort of segregation (say, on the basis of stakeholders, term etc.) is preferred rather than simply listing down all points in one go.

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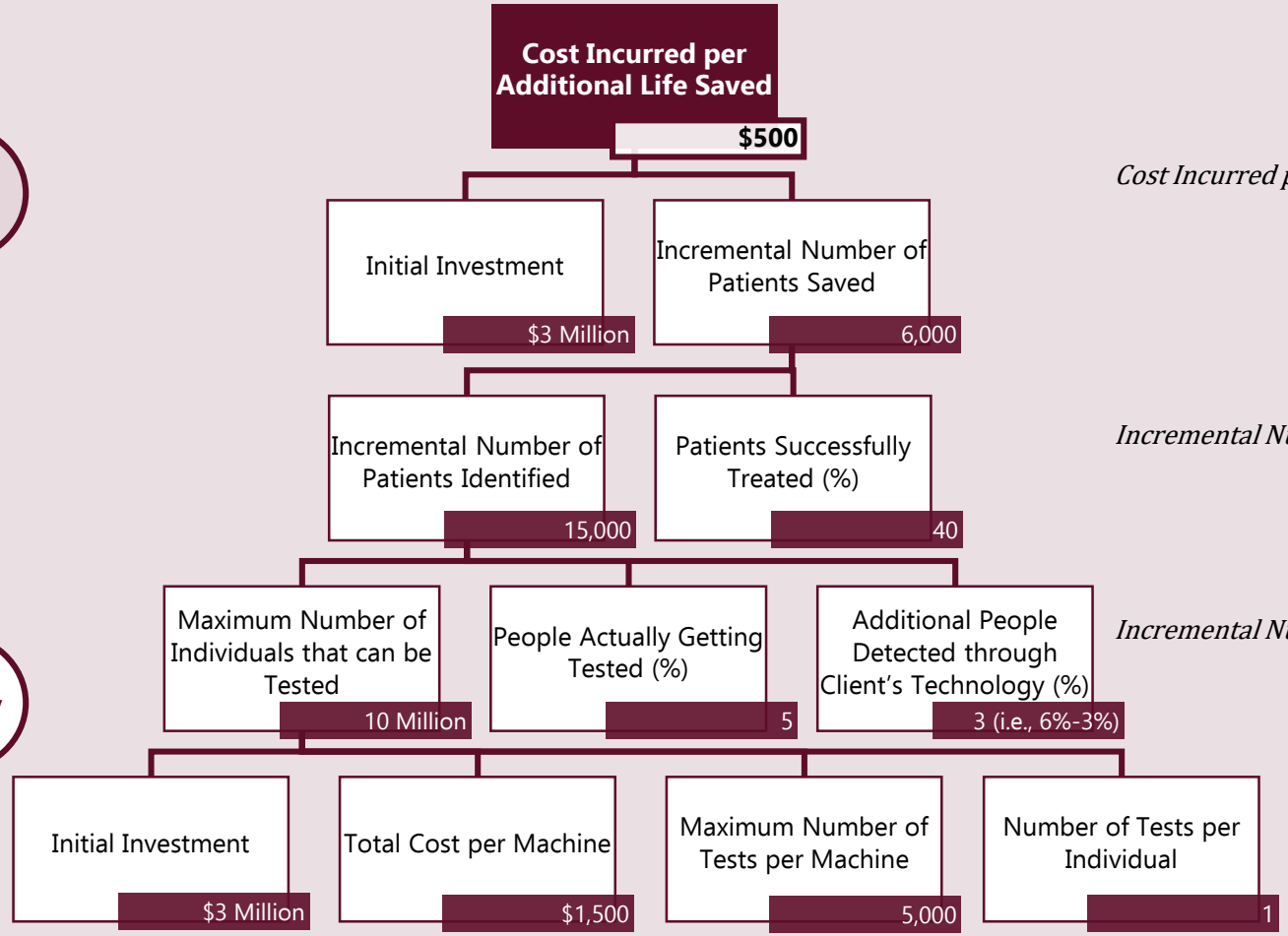
Script

Summary

Question 2



$$\text{Cost Incurred per Additional Life Saved (A)} = \frac{\text{Initial Investment}}{\text{Incremental Number of Patients Saved}}$$

$$= \frac{3{,}000{,}000}{6{,}000} = \$500$$

$$\text{Incremental Number of Patients Saved (B)} = \text{Incremental Number of Patients Identified} \times \text{Patients Successfully Treated} = 15{,}000 \times 0.4 = 6{,}000$$

$$\text{Incremental Number of Patients Identified (B)} = \text{Maximum Number of Individuals that can be Tested} \times \text{People Actually Getting Tested} \times \text{Additional People Detected through Client's Technology}$$

$$= 1{,}000{,}000 \times 0.05 \times 0.03 = 15{,}000$$

$$\text{Maximum Number of Individuals that can be Tested} = \frac{\text{Initial Investment} \times \text{Maximum Number of Tests per Machine} \times \text{Number of Tests per Individual}}{\text{Total Cost per Machine}} = \frac{3{,}000{,}000 \times 5{,}000 \times 1}{1{,}500} = 10{,}000{,}000$$

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FULL PAGE GRAPHICS FOR SCREEN-SHARE

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Data

Particulars	As a % of total costs	
	2018	2021
Pre-Production Costs	20	15
Processing Costs	30	50
Distribution Costs	30	20
Selling Costs	20	15

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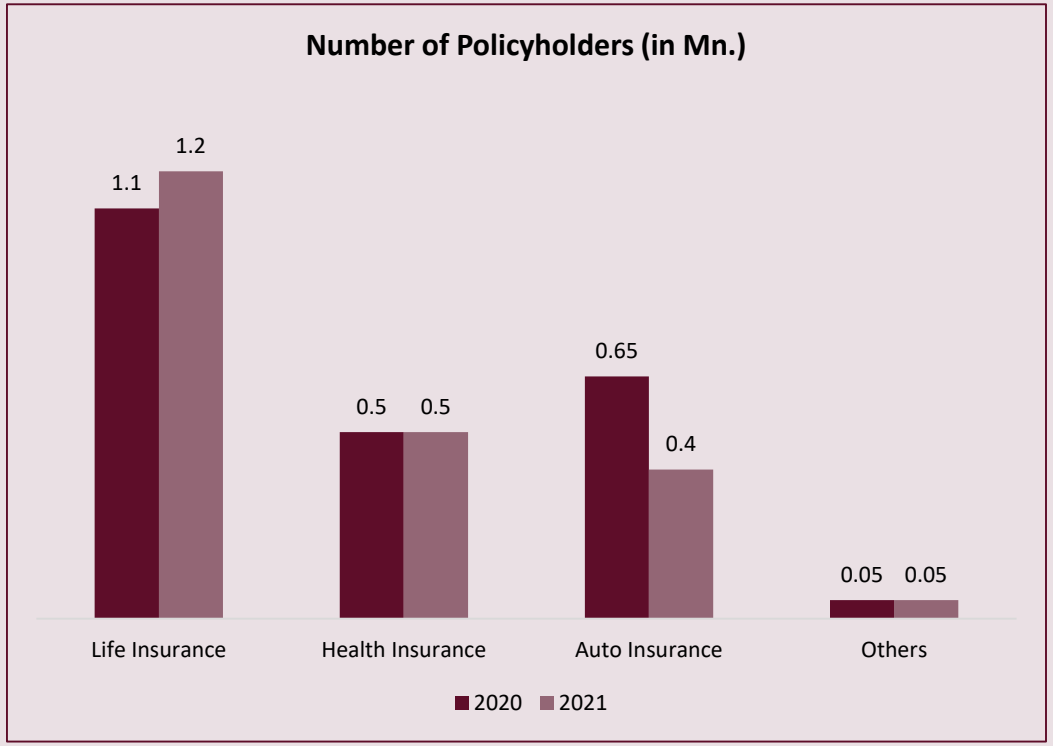
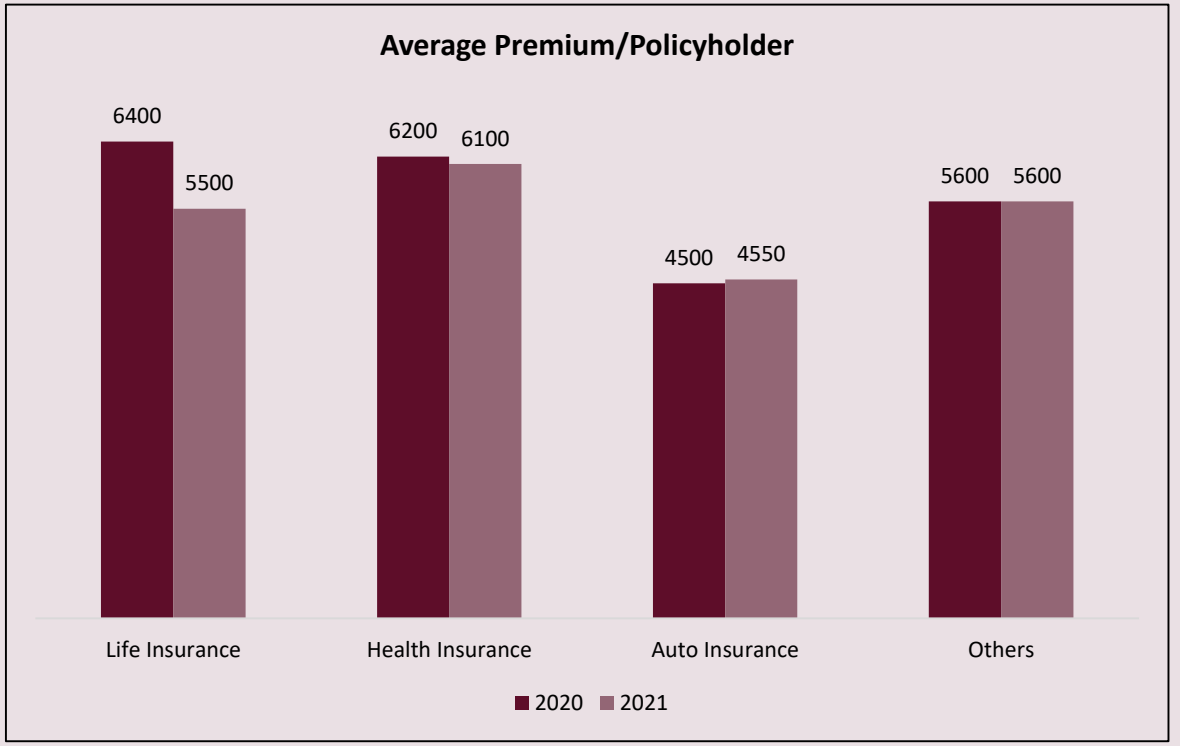
Data





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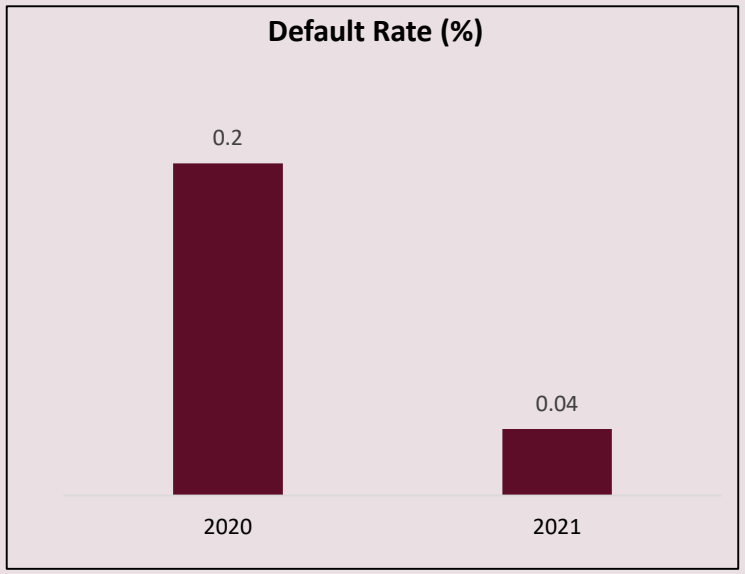

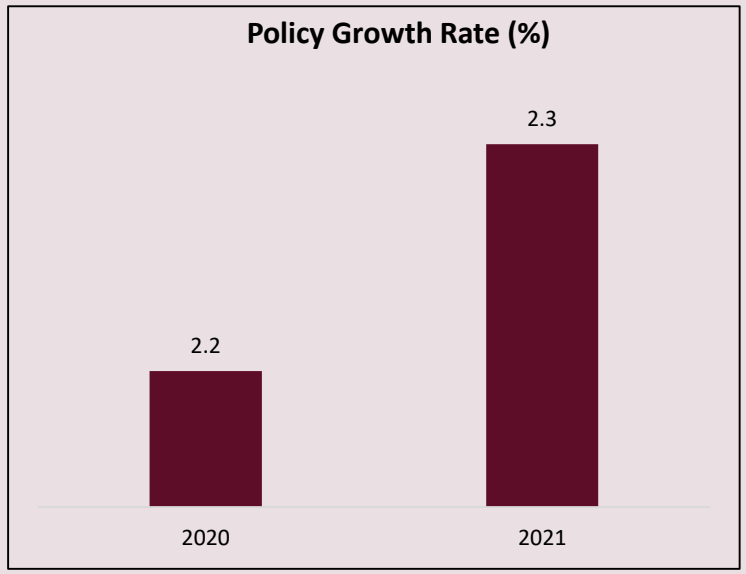

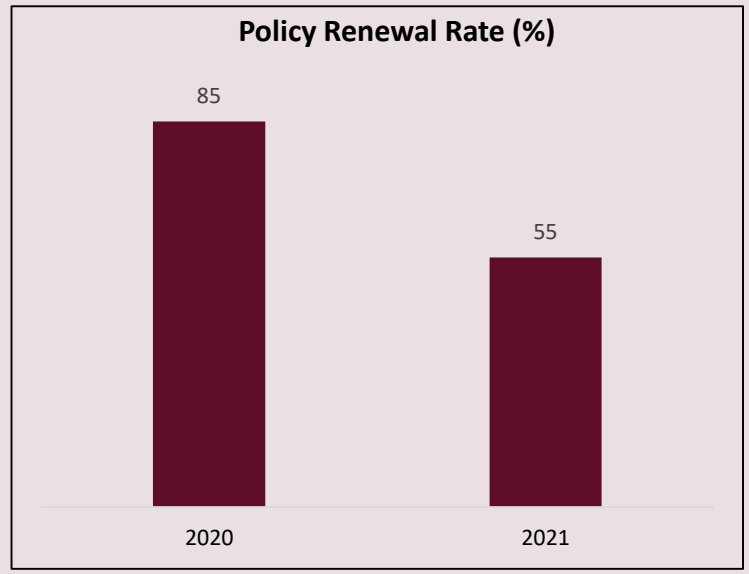

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Policy Name	Policy Premium (2021)
W	6000
X	8000
Y	12000
Z	17000

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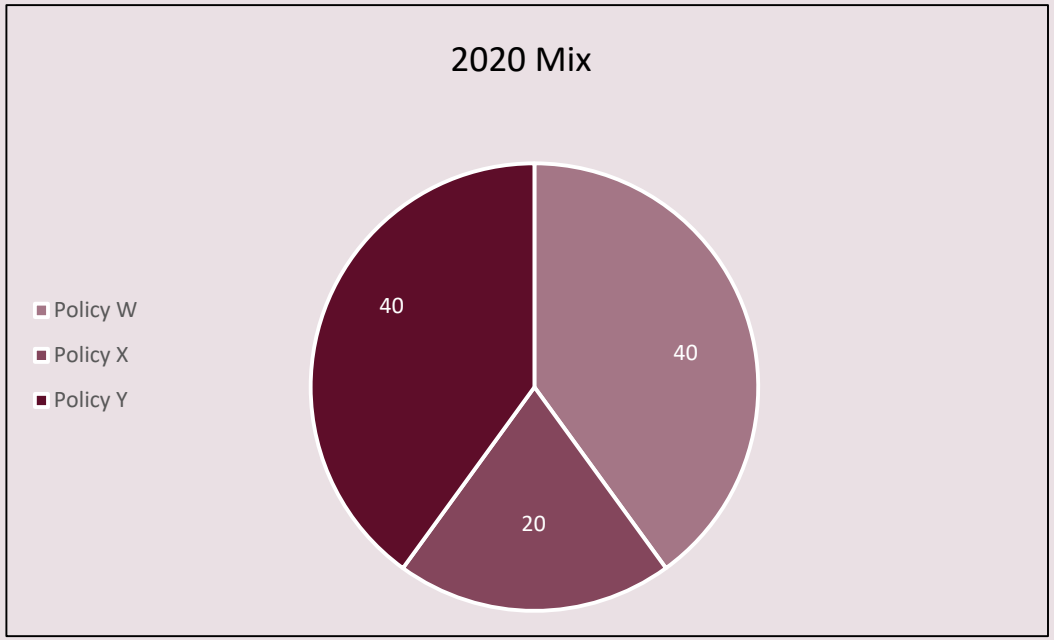

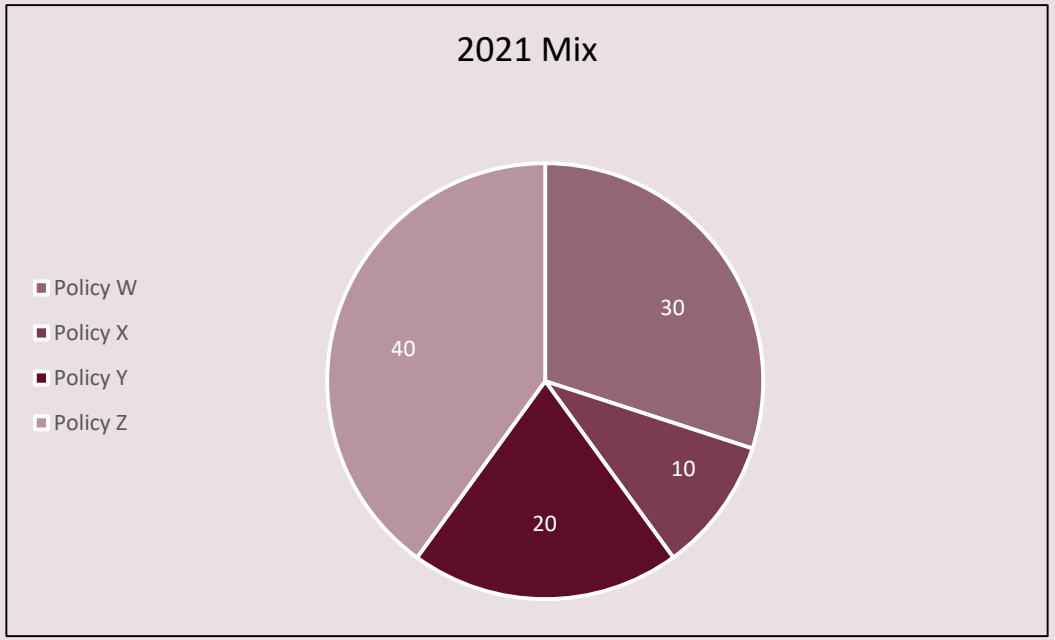

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Labor & Input Costs/Unit	INR 55,000
1 Production Cycle	5,000 Units
Fixed Cost/Production Cycle	INR 70,000,000
Dealership Margin	10% on Ex-showroom Price

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Substitute Product	Ex-showroom Price (in INR)	Gross Margin (%)
Honda Activa	72,000	14
Hero Pleasure	71,500	12
TVS Jupiter	77,000	15

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Content Production Costs	INR 95 Cr.
Content Rights Purchase Costs	INR 220 Cr.
Platform Building & Maintenance Costs	INR 25 Cr.
Marketing Costs	INR 50 Cr.

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Total Number of Hotels	125
Capturable Hotels (%)	40
Average Rooms/Hotel	110
Average Occupancy (%)	75
Average Consumption/Day (units)	2
Number of Operational Days	365

Price/Unit (INR)	5
Raw Material/Unit (INR)	2
Manufacturing Cost/Unit (INR)	.5
Distribution Cost/Case (INR) *(1 Case = 12 Bottles)*	12
Machinery (INR) (*expected life - 10 years*)	250,000

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Acquirable Market Share (1st year)	10%
Average Price per Product	INR 500
Net Profit Margin	7%

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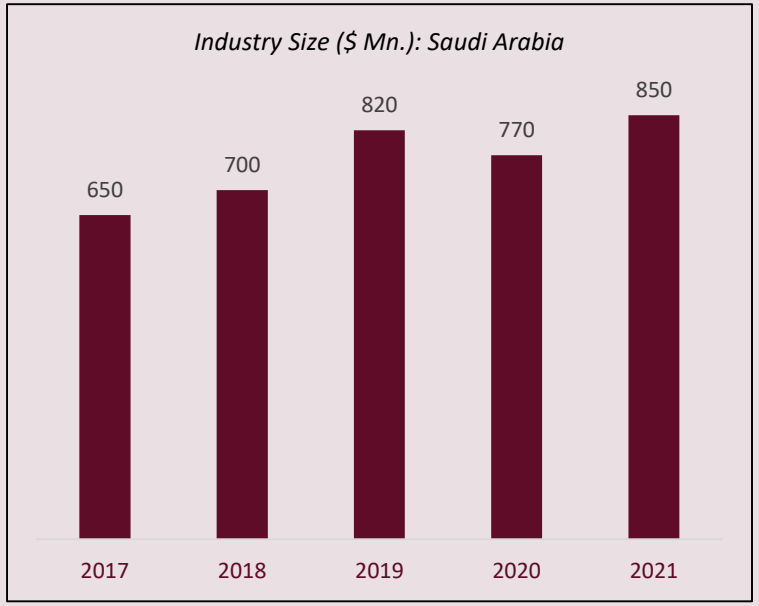

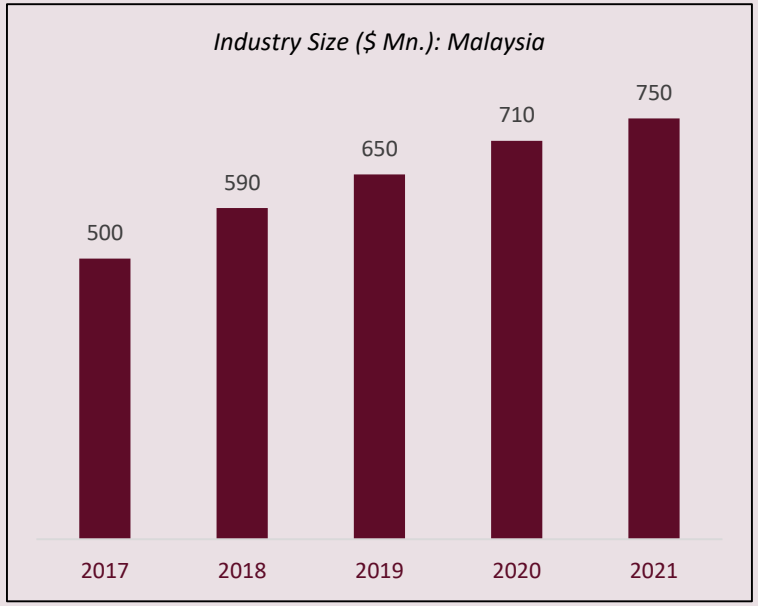

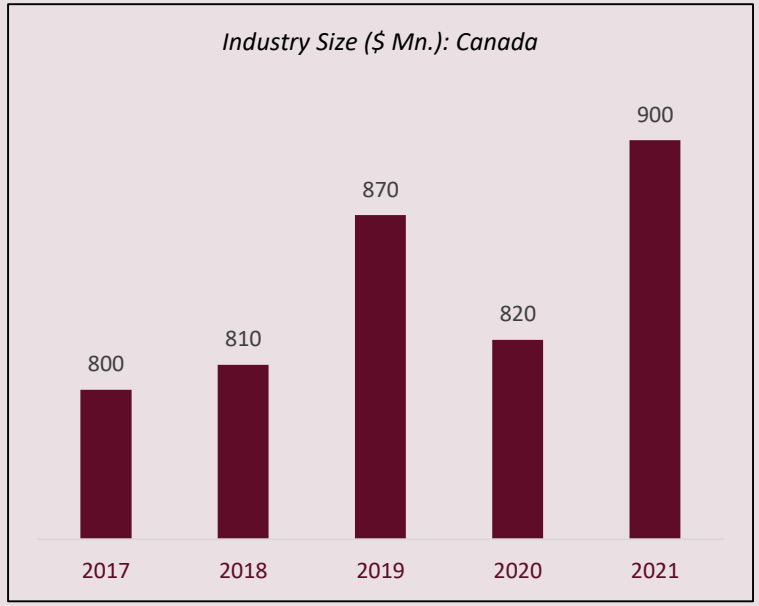

Countries	Acquirable Market Share (%)	Net Profit Margins (%)	Capital Expenditure ($ Mn.)
Canada	7	10	8
Malaysia	10	14	18
Saudi Arabia	8	12	12

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Function	Most Attractive	Moderately Attractive	Least Attractive
Compliances	Saudi Arabia	Malaysia	Canada
Product	Canada	Saudi Arabia	Malaysia
Partner Services	Saudi Arabia	Malaysia	Canada
General Administration	Malaysia	Saudi Arabia	Canada

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Business	Cost Structure (2016)	Cost Structure (2021)
Mining	55%	30%
Processing	45%	70%

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Assets	Realisable Value (INR)	Assets	Realisable Value (INR)
Land	350,000,000	Financial Assets	550,000,000
Intellectual Assets	1,000,000,000	Vehicles	150,000,000
Machinery & Equipment	250,000,000	Inventories	500,000,000

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Holding Period	2 years
Cost of Debt	10% p.a.
Equity Dilution for the Amount	18%
Tax Rate	20%

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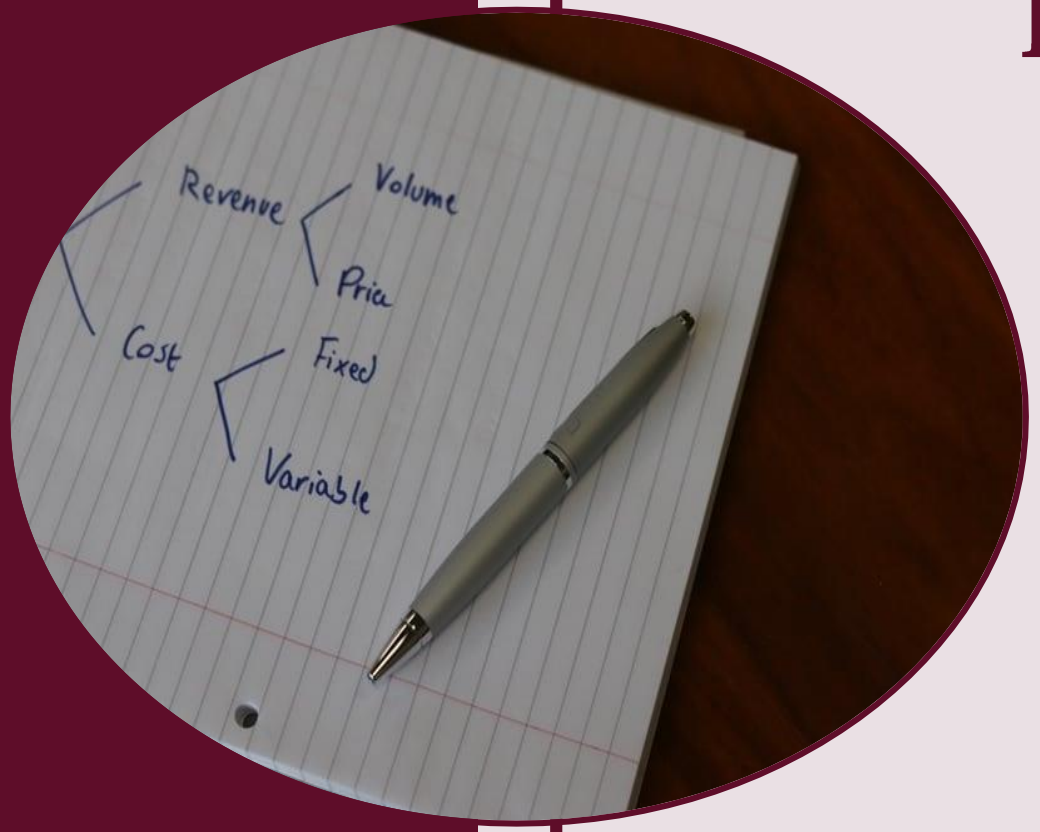

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