CASE INTERVIEWS **CRACKED**

A comprehensive guide to landing your dream consulting job

SANKALP KELSHIKAR | SARANSH GARG

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We dedicate this book to our Alma Mater, IIT Bombay

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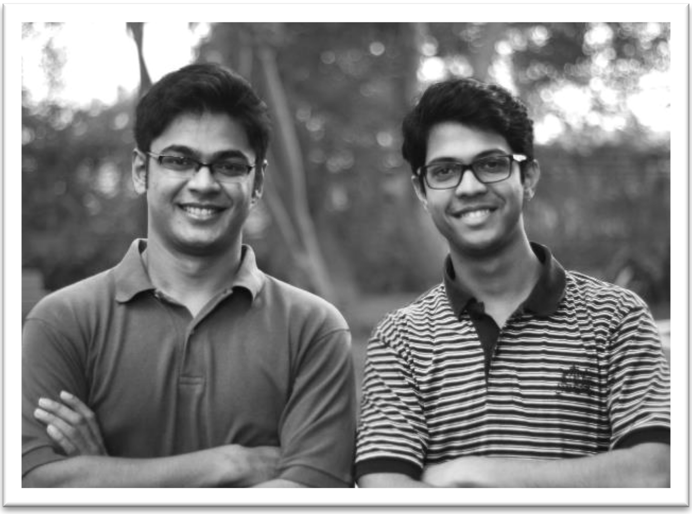
About the Authors



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Saransh (right) is currently working with Accel Partners. Previously, he was an Associate at the Boston Consulting Group. A Mumbai native, he graduated from IIT-Bombay completing his Bachelors in Chemical Engineering. While in IIT, Saransh was an active member of the Debate Club.

Sankalp and Saransh were part of the same case group during their placements and share a passion for consulting, scuba diving and entrepreneurship.
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Preface

In the autumn semester of the academic year 2013-14 at IIT-Bombay, we were gearing up for placements. We had our aims set on the top tier-consulting firms. Each year and across all IITs that consulting companies target, the placement timelines follow a similar trajectory.

Resume submission deadlines are fixed around mid-September. Most students begin their consulting preparation around this time.

Shortlists for the interviews come around mid-October. At this point candidates form case groups of size 3, 4 or 5. Some even are part of two or more groups.

At this point consulting companies appoint mentors or "buddies" to help students with their preparation. These are often alumni of the institute working within the firms. Each of the top firms typically appoints two buddies for every candidate. This marks a great leap in the consulting preparation as now candidates get access to really good cases and quality feedback from the buddies. These cases are then shared and exchanged within and between case groups.

On December 1st, or Day 1 of placements almost all consulting firms have their interviews and final selections are made.

We (Sankalp & Saransh) along with Rishi Palan and Meghna Sreenivasan were part of a rather successful case group. Rishi got recruited by BCG and Meghna got a PPO from Bain & Company. Since each of us had multiple shortlists within the Top 4 firms, we vastly benefited from getting very good cases from buddies and their feedback.

After placement, there was a realization of the stark difference in learning curves before buddies were appointed and after. Looking back, we found certain problems with the preparation phase:

Inadequacy of existing resources

1. *Case in Point:* Case in Point is a book still used by candidates. It outlines approaches to solve cases using 12 frameworks and then has a repository of solved cases. We referred to the book because of a lack of options. Most candidates find it frustrating to memorize the 12 cases and hence reject the approach. Most cases in the book have been poorly solved, with leaps of logic rather than a repeatable organized approach.
2. *Resources by Mr. Victor Cheng:* We found these resources useful as a beginner's guide. Mr. Cheng's approach basically distills solving cases by remembering only 2 frameworks. Though this approach serves useful to solve standard profitability and market entry cases, for the more advanced cases, almost all candidates experienced getting stuck with the frameworks even when the case demands moving out of them.

Also certain primary skills such as “Asking Preliminary Questions” and “Having an Overall Approach” which we explain in the book have not been emphasized with enough examples.

3. *University Casebooks:* Before buddies are appointed and even after, students pick cases from university casebooks and give each other. However, many of these casebooks suffer from a serious lack of depth and quality. Though some casebooks are better than others and some cases have decent solutions, students often waste time scouting for good cases. The solutions in these casebooks are given in the form of statements containing the findings of the case without explaining how a candidate can arrive at those findings from scratch. No attempt is made to replicate a real conversation between a candidate and interviewer. Also for interviews in India, you will most likely get Indian context cases which cannot be found in foreign university casebooks.

Unequal access and dependency on busy buddies

Due to the inadequacy of existing resources, candidates are dependent on buddies to fill the gap in preparation. Buddies provide good, relevant cases and valuable feedback afterwards. But hey, these buddies are also working full time at consulting firms and are often out of station and sometimes unreachable by phone. So they are not always available to give cases.

There is also asymmetry in access to these buddies. A candidate shortlisted in four firms is assigned eight buddies whereas a candidate with only one shortlist has two buddies. This leads to unequal access to good quality cases and feedback. Candidates often have the time to prepare, but only limited sources to practice advanced cases from. This means they are not in control of the pace of their learning even if they are willing to make the efforts.

In this book you will find 45 solved solutions of some of the best cases we came across during our preparation. We do not claim that the given solutions are the only/best approaches to solving the case. These are based on our experience, several iterations with peers & buddies during case preparation and feedback from other seniors who are (or have been) in consulting firms. Know that as long as every step you take while case solving is supported by logic and a few underlying principles (you shall encounter these during your prep), you are doing well.

We hope you enjoy the learning ahead. You may have many questions during your preparation, please let us know on our website www.caseinterviewscracked.com.

We wish you good luck for your placements.

Sankalp Kelshikar | Saransh Garg

Chapter 1: READ THIS FIRST

1. Follow a logical chronology to increase effectiveness of your learning

Begin with the free introductory videos (***caseinterviewscracked.com/primaryprep/)***. Follow this up with the theory in this book and then get cracking at the cases (guesstimates, profitability and then, market entry)

2. Treat this book as your personal guide

Every person has a unique prep style. We encourage you to use this book to record your performance (refer to Chapter 7.3 for case evaluation metrics), takeaways and other case details so that you have one place to refer to. We have allotted space after each case for your logs and insist that you use pencils, pens, highlighters etc. to maximise the efficiency of your prep.

3. Practice cases rather than reading them from the book

You can simply read this book up to Chapter 5 since it explains concepts, skills and approaches. Chapter 6 has cases which are best practiced in case groups rather than read to derive maximum value. Once the case has been practiced, apart from the feedback given by the interviewer, you can refer the solved solution in this book to identify areas of improvement.

4. Focus on getting few skills right with every practiced case

Trying to improve many skills at a time can be a frustrating and time consuming with nothing to show eventually. We recommend on concentrating on any two skills. Make sure you get them right before moving to other skills.

5. Scrutinize mistakes and incorporate lessons

This is perhaps the most important part of the case interview preparation. Poring over mistakes helps you incorporate lessons and refine your future case solving.

6. Refer to the general formatting legend below for every case

Normal: Candidate speech

Italicised: Interviewer speech

Bolded: Discussion between author and reader

<u>Normal underlined</u>: New subsection in a case

We've tried to adhere to the above as much as possible.

7. Don't get bogged down by the length and difficulty of cases

Some of the cases are longer than what you might encounter because you'll solve multiple cases on the interview day and that requires substantial mental stamina which longer cases help build. Some of the cases are also more difficult that what you might be tested on since your preparation should be much more rigorous than what you encounter on the final day. In any case, case-solving fundamentals stay the same regardless of the length or difficulty of the cases.

8. Use the data sheet in Chapter 7.2 for data you might be expected to know/use while solving the cases like guesstimates

Chapter 2: Prerequisites and other resources

Landing a management consulting job is a step-by-step process. You need to know about:

1) The consulting industry
   - **a)** What is the big deal about consulting anyway?
   - **b)** Is it the right choice for you?
   - **c)** What will it be like for you to work in a consulting firm?
2) Case interviews
   - **a)** What are case-interviews?
   - **b)** What are the different types of cases?
   - **c)** How are different cases typically solved?
   - **d)** How can you become good at solving cases?

In this book we have addressed (1) in the first part of our book which gives the reader a comprehensive look into a consulting career, whether it is right for you and how to navigate through the process to landing your dream role.

In the latter patter, we deep dive into cases, answering (2c) and (2d) since existing resources do not sufficiently cover it.

We also have four introductory videos covering (2a) and (2b) – a first look at the unique interview process that consulting firms rely on to recruit some of the smartest people around. These videos are available for free on www.caseinterviewscracked.com/primaryprep/. We recommend the candidates go through these before taking a crack at solving cases.

Other Resources:

1) *18 video mock interview series*: This series showcases how exactly a case progresses in real life. The series involves interviews with candidates who were preparing for their upcoming consulting interviews. We provide detailed feedback – covering softer aspects like presentation, delivery, reading interviewer body language etc. This is a paid resource and the videos are available on www.caseinterviewscracked.com/mockinterviews/
2) *www.caseinterviewmath.com/math:* This resource helps in improving your math calculation speed and accuracy. Doing calculations is an important part of cases, and if you find yourself slow at them use this resource.
3) *Victor Cheng's newsletters:* We recommend subscribing to these to get a unique perspective on consulting, case interviews and a consultant's approach to life in general.

Section of "Commonly asked Consulting Interview Questions" in the book Case in Point: We do not recommend using the book for learning how to solve cases because of its dependence on remembering too many frameworks. However this specific section on 'fit questions asked in interviews' is useful.

Chapter 3: The consulting recruitment process

3.1 How do you know consulting is for you?

When seeking our first job, we are faced with having to make a choice regarding our career trajectory. Depending on circumstances, candidates have to make decisions based on salary, peer impressions and parental approval whereas what is most important is personal interest and their long term goals.

Top management consulting firms have also managed to brand themselves very well on campus. Through all this noise how does one really know whether they want to do management consulting? Just because you can do consulting, doesn't mean you would like it.

Below are few ways you can think about whether you want to do management consulting.

Career Goals: As a long term career consulting is a great option for those looking to become future CEOs in Fortune 500 / SENSEX 30 companies or partners in consulting firms. It provides a faster career growth path compared to industry jobs. Entry level consulting roles in firms such as BCG, McKinsey, Bain provide opportunities to work with a multitude of industries and give a chance to figure out which sector you would like. Consulting is best for those looking to practice general management instead of those looking to work in a very specialized role.

Elimination Process: Another practical way to make a choice is by seeing what options are on the table. Saransh, made his decision through a process of elimination. After his sophomore year at IIT-B, he realized he was not interested in pursuing a career related to his major in Chemical Engineering. He then went on to do a couple of internships in a government policy research institute and an investment bank, and eliminated those options as well. What was left on the table were management consulting firms, analytics firm and large FMCG companies. Amongst these he chose to join management consulting.

Liking the management consulting role: One good way to figure out whether you would like your consulting role is to see whether you enjoy the case interview process. Both of us found it quite interesting and that is reflected in us having enjoyed our consulting stints as well. However, bear in mind that case interviews reflect the high level thinking that happens in a real - life case. It represents only 5% of the work. 95% of the work that you would be actually doing is gathering information, finding insights on Excel and communicating to client on PPTs.

3.2 Why is consulting considered a good career option?

This answer deals with why consulting is so popular and considered a good career option by many. Whether consulting is a good career option for you, depends on whether you value these things.

Diverse Business Exposure: Management consulting firms are unique because they give an opportunity to work in several sectors within a short period of time. The role also allows you to work on the most critical problem of clients that affect their bottom line.

Fast growth and access to senior management: One year in a management consulting firm is said to be equal to three years in the industry. This is because of the high pace of work as well as consultants having client counterparts who are part of the senior management in the company.

Great exit opportunities: Top management consulting firms provide great exit opportunities for undergraduates. As a graduate hire, after a couple of years of experience you would have opportunities

- Join any industry
- Join private equity or venture capital firms
- Pursue an MBA at an ivy-league university

Even for post-graduates, there are a plethora of great industry roles available

Smart people: Top consulting firms hire really smart people with great interpersonal skills from the best institutes in the country. There is a high density of talent. A lot of students fancy consulting jobs because their role models on campus selected to join these firms.

3.3 What do consultants complain the most about their job?

Consultants whine too. Let's look at some of the things you won't hear during campus talks given by consulting firms :)

Clients: Success in a real life case is a collaborative effort with the client. In most cases, all of the important information (e.g. market size, growth trends) gathered is either done by the client or is needed to be validated by them. In cases involving execution of a strategy, there is an even deeper level of engagement across the client hierarchy - it involves a lot of interaction with the client to get alignment on recommendations. As such, progress is often dependent on your client. Being generalists, consultants internally complain about how slow their clients move and how high their expectations are from the consulting firm.

Constant deadlines: A consultant is never his/her own boss. The direct implication of this is that deadlines are decided by the client and are usually extremely tight, leading to high stress situations. While this varies from project to project, clients are typically cognizant of the high investment that is made while hiring a management consultant and is keen to get the work done in the least amount of time.

Globally, there is regional variance here, with offices in Netherlands and Australia being famous for lighter work hours and offices in Japan, Korea being infamous for the opposite. Consulting is an all-consuming profession which would leave you with little time for side projects that a more typical 9-5 job may allow for.

Regular Evaluation: Unlike most professions where there is a yearly appraisal, consulting firms have an appraisal system after every project. This means if you have done three cases in a year, you would be graded three times which creates a certain amount of anxiety for the individual.

Travel: What seems like the glamorous part of consulting initially - the five-star hotel stays, travelling to new locations, mileage points - fades within three months of the consulting job. For, those pursuing consulting as a long term career, family life can take a hit since you're often away from home during the week at client locations which may be different from your home city. You can even get staffed on projects which are in remote locations requiring two or three modes of transportation and an entire day to reach.

3.4 An overview of the consulting recruitment process

Below is a description of how a typical consulting firm carries out its recruitment at the IITs. It would vary from firm to firm and whether the recruitment is on-campus or off-campus. However, many elements of the process would still apply.

Consulting firms recruit at IITs through campus placement. Here is the typical timeline. Actual timelines will vary each year and please check with your campus placement team for exact dates.

September 1st: Resume submission deadline

September 1st to September 15th: Pre - placement talks by consulting firms

October 15th: Shortlists released by most consulting firms

October 15th to November 1st: Interaction with 'buddies' for shortlisted candidates

December 1st: Interviews with top consulting firms

3.5 What is the shortlisting criteria for consulting firms?

The short answer is having a CGPA above 8 and 2-3 spikes in your CV.

Let's look at the exceptions to this rule and what does a 'spike' really mean.

Candidates with a CGPA between 7.4 and 8 can also get selected if they have very strong achievements. It's difficult for candidates with a CGPA below 7.4 to get selected. To illustrate this, consider that top consulting firms typically receive 400-500 resumes at IITB, of which at least 150-200 resumes would be of candidates having a CGPA above 7.4.

A spike is an area of excellence that a candidate has demonstrated. Consulting firms like to hire candidates who have shown excellence in diverse skill sets. Typically consulting firms like to see at least 2-3 spikes. Distinct areas of spikes and examples of the same are:

- Professional Experience
  E.g.: Internship experience at an organization with a globally recognized brand name
- Leadership Skills
  E.g.: Institute placement manager
- Academic achievements
  E.g.: A CGPA of 9+ or recipients of a prestigious scholarship
- Extra-curricular activities
  E.g.: Stellar achievements in sports, arts, debating or some other field

The above buckets are not comprehensive, and you may have achievements that you would like to categorize differently.

Each of the consulting firms recruiting at IIT-B usually have a shortlist of 25 - 50 candidates, with some having slightly more.

For a comprehensive resume making guideline, do checkout our website & blog.

3.6 How do I write a good statement of purpose (SOP)?

Certain consulting firms such as Bain and Monitor Deloitte, ask candidates to also submit an SOP. A lot of candidates, do not give their SOPs enough importance. The SOP is almost as important as your resume.

Remember, these consulting firms would be getting a hundreds of applications. In cases when there are several candidates, all with a similar level of accomplishments, the SOP would be used to differentiate between them.

It is very important for that you use your SOP to STAND OUT. An SOP gives you the opportunity to explain parts of your story which cannot be easily conveyed in your resume. For example, if you built a startup making 5,00,000 rupees annually but it has an unknown name, you would want to use your SOP to describe this accomplishment.

An SOP has to essentially answer three questions (the order can be changed as per your liking)

- Why management consulting
- Why you want to work at this specific consulting firm
- Why should the consulting firm hire you?

It helps to structure the SOP in this format so that the recruiter knows which question you’re answering where. You should give all three questions equal

importance. The answer to the first question should tell your story. The answer to the second question should show you have done your homework about the firm. The third question should highlight your achievements.
As a general rule, within each section, bring the most important points on the top so that the recruiter can read it first. Since the reader would only skim your cover letter for not more than 30s, you can also choose to emphasize (bold) key phrases. Below is an example of a good cover letter contributed by Mayuresh Patole (From BCG & IITB Alumni).

ABC Consulting
Statement of Purpose

[Why Management Consulting?]
For the last 3 years, I have been ***consulting start-ups on building their products****. The process of* ***brainstorming with CEOs of these start-ups****, solving real problems and seeing our solution come to life has to be one of the most satisfying accomplishments I have had. To take up any job, my* ***most important reasons are impact creation, learning and exposure****. Management consultants solve pressing problems that touch almost every object around us. A career in management consulting provides me with an opportunity to create tangible impact. Working in a team with some of the most intelligent and motivated people ensures that the learning curve is steep and never ending. Finally, consulting gives me with the unique opportunity to work in different industry verticals thus providing flexibility and exposure.*
[Why Me?]
Analytical rigor, presentation skills, the drive to be organized and punctual and ability to handle pressure are my strongest assets.
My methodical problem solving thought process combined with my strong design background puts me in a unique position to find the issue and deliver the solution in an effective way. As the ***only summer intern to be selected at Dalberg****, I got a firsthand exposure to how a consulting firm operates. Apart from the two cases I worked on, I took an initiative to do an analysis of PM levels in 100 countries and created an info-graphic to present the same. It got applauded on social media and was* ***shared by NASA****.*
I can think out-of-the-box while weighing all options objectively. During my ***internship at Piramal****, I led a team to create a first of its kind application, to help anesthetists take an informed decision on drug choice and dose. I* ***presented directly to ~20 regional heads*** *of the company and was* ***offered a PPO*** *based on my performance.*
My ***experience as a Mood Indigo CG has helped me extract my potential to be a leader.*** *Apart from the ability to handle pressure and being a team player, my biggest takeaway was to warrant that the capacity of the forthcoming teams is built while ensuring that the timelines and quality for the work at hand is not compromised.*

My experience with the 15+ start-ups as a design consultant sets me apart in terms of professionalism and accountability. This experience has been vital in teaching me how an organization works. Constant interaction with CEOs and stakeholders has polished my thinking abilities as well as my presentation skills, which are key to a consulting role.
[Why ABC Consulting?]
The pre-placement talk made it very clear that ABC Consulting focuses on creating world impact and comprises of some of the best leaders in various practice areas. After talking to XYZ, an ABC associate consultant, about how a typical day in the office looks like, it was evident how the company creates an atmosphere for everyone to flourish. There is a constant exchange of thoughts between senior members and associates, which allows sustained learning. It is not surprising that ABC has been consistently voted as 'Best Firm to work for' over the past decade.
The values that are focused on at ABC are in perfect coherence with my motivation to work in management consulting. I am confident that I will be able to commit and add tremendous value to the organization.

Sincerely,
Mayuresh Patole

3.7 How do I write a great cover letter? *(for non-campus recruitment)*

When you're applying to consulting firms off-campus, you are often required to submit your resume either on the company website or through email to a designated person in the company.
In both these cases you are often expected to write a cover letter. The cover letter should have the following information

- An introduction about yourself and the position you're applying for
- The reason you want to work with the organization
- Your personal qualities that you believe makes you fit for the role

Your cover letter is the first thing a recruiter will look at even before opening your resume. Hence, the cover letter content is very important to get the recruiter interested enough to want to see your resume.
The nature of the content is similar to that of an SOP, described in the previous question. The major differences are

- The cover letter should be much shorter (maximum three paragraphs) since it's most likely an equivalent of an email
- It should also focus more on your story and why you are a good fit for the role
- Its structure is more like a conventional email/letter

Dear Sir/Madam,
I am a senior undergraduate at IIT Bombay, pursuing a BTech Degree at the Dept. of Computer Science and Engineering, interested in applying for the position of Business Analyst at ABC.

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Content
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I look forward to hearing from you

Yours sincerely,
<Your name here>

3.8 What is good case prep?

Practice cases rather than reading them
Cases are best practiced in case groups rather than 'read' to derive maximum value. Once a case has been practiced, apart from the feedback given by the interviewer, you can refer the solved solution in this book to check your areas of improvement.
Solve a decent number of cases covering all case types
30-40 cases are a good number to solve. Fewer than 20 might not give you enough practice across all case types. Be careful if you are someone who is solving too many cases - your thought process might just get set along particular approach which might lead to you unnecessarily force-fitting a previously successful structure onto a case which might not need it.
Record your learnings from every case you solve
Going over your mistakes in a solved case helps you incorporate those lessons and refine your future case solving strategy. You can make notes in the space provided after every case in this book. Record your past shortcomings and how you plan to rectify them. This has been found to be a super-efficient way of improving one's case solving.
Focus on getting few skills right with every practiced case
Solving cases involve getting multiple skills right. Trying to improve many skills at a time can be a frustrating and time consuming process with nothing to show eventually. We recommend on concentrating on any one or two skills when solving a case. Make sure you are getting them right each time before moving to other skills.

Good case groups

A good case group is one which ensures a strong improvement trajectory on cases. As interview days come closer, you will be solving cases one-on-one in the interest of time. Identify the right people among your batch mates, friends, buddies, seniors who can best aid you through the process. We will further detail this out in the case group section 3.11.

3.9 How should an interviewer give a case?

The interviewee's role during case prep is rather important, especially in the early stages of the preparation.

A good interviewer conducts the case like a discussion and is able to give constructive feedback to the candidate. The interview should be more of a conversation where the case is discussed together and the interviewer gives the candidate direction and thinking time in case of roadblocks, as opposed to putting the candidate under more stress than he/she already is. The aim isn't to rattle the candidate if he/she isn't doing well but to help the candidate give his/her best shot.

A good interviewer knows the case well, before the interview begins. Every candidate solves cases in their own style and the onus is on the interviewer to give proper direction and ensure the candidates gets an opportunity to cover all the issues. Any help offered by the interviewer must be aligned to the case issues to be touched upon.

A good interviewer ensures the candidate gets the most out of a practice case. As an interviewer, you should make sure to note all of the feedback during the course of the case. While communicating the feedback, it is good practice to convey the positive feedback first. The candidate must remember all of the aspects that went well so that he/she continues doing that part well. Nothing is more wasteful than to become worse at what you were faring well at earlier. Leading the feedback with the areas of improvement highlights the negatives, and the positive feedback that follows might not registered.

3.10 How should one decide the timeline of case prep?

It is never too early to start case prep. It typically takes about 2 weeks to get familiar with the interview format, different case types and general problem solving principles. An additional 4 weeks of sincere effort is enough time to get a solid grasp of case solving. If you have a strong resume and an inclination towards consulting, then you're almost certain of a shortlist and it's a good idea to deep dive into the subject as soon as possible. The timelines mentioned above are only indicative.

If you're unsure about your being shortlisted, there are a few ways of getting a sense. One of the best ways is to have a senior working in a consulting firm to informally have a look at your resume and give his frank comments. Alternatively, you can benchmark your resume with shortlisted resumes in the previous years. It is unlikely that the firms would drastically change the type of candidates they want to hire.

If you're not 100% sure of a shortlist but have time on your hand, there is no harm in reading up on consulting firms and their approach to problem solving. The way case interviews are solved by first principles is rather intriguing and the concepts come extremely handy in real life scenarios.

3.11 How do I make best use of case groups?

How many case groups should one have?

The number of case groups you are part of does not impact your case preparation or performance. Having more case groups does not mean more / better practice since (1) it's hard to find time to practice with multiple case groups *and* do justice to all of them (each session can take up to 3-4 hours), especially considering regular coursework in the day (2) Even if there was time you can always practice with a friend / buddy.

Having said that be sure you have one or *maximum* two case groups with whom you can practice cases, share knowledge, and improve case performance.

How many members should a case group have? How does one choose group members?

Although there is no hard and fast rule, case groups typically have about 3-4 members in the beginning. In the initial days of preparation, one learns a lot not only from solving cases but also from observing other people's case solving. Getting multiple perspectives on the same case helps greatly to validate and refine your approach - having a session with more than 3-4 members each of whom solves cases might be a little too time-consuming though. Another way to get such help is to refer to our 18 cases video series, available on caseinterviewscracked.com.

Case group members can be anybody really, as long as they are serious about case prep and you can meet them regularly. Including people from different circles or those who have access to different buddies/firms might help add a fresh perspective to your discussions.

Other than these groups, it is beneficial to practice cases with other candidates throughout the course of the prep and discuss case solving strategies. These could be friends, hostel mates, mentors, seniors, buddies - anyone whose opinion you believe might benefit you. With time, the marginal utility of doing cases in a group drops (in the interest of time) and you will see yourself practicing cases one-on-one.

What if I can't find a case group around me?

Often candidates do not find themselves surrounded with other interview candidates. This happens when the number of consulting firms coming to a university isn't large or if the interview process is not through campus placements. In such scenarios, it is best to reach out to consultants in the same firm who can act like buddies. Connecting with recruits from other colleges also helps - believe me, the recruits will be more than willing to help you out. You can also get friends / people around you to give you a case. They can provide you feedback as best possible by them and for more, you can look at the solutions provided in the book to do a self-assessment of areas of improvement.

How often should I solve cases - with the case group or otherwise?

Again, there is no rule around this although meeting at least twice a week is advisable. You could accommodate other case groups or other candidates to buddy up with and practice. What is most important, however, is that you go back and understand your areas of improvement in the last case before you meet up again. Making the same mistake repeatedly not only wastes your time but also hits your confidence adversely.

What happens in case group meetings?

Typically, only the interviewer (role play) and candidate should be present so that the other member(s) in the group can be given the same case later. However, sometimes, especially in the early days of your preparation, it is useful to have other members as observers in the case. That way ideas and approaches can be exchanged within the group. The observers should not be passive but actively trying to solve the case even if they don't speak anything.

Outside of these group meetings, it's a healthy practice to share resources, interesting insights, and problem solving approaches - anything really that fosters better case performance as such.

3.12 What is the right way to approach buddy interactions?

Who are buddies? Why are they important?

Buddies are junior consultants, typically from the same college as you, who were recruited by the firm in the previous years. Buddies are mapped to shortlisted candidates (one to many mapping) so that candidates have someone from the same background to reach out to during the case prep process. Sometimes a senior buddy, a consultant holding a more senior position in the firm, is also allocated so as to provide a perspective from an experienced consultant. Candidates can benefit from the buddy system by:

- *Understanding the firm and its culture:*

  Firms have different core values and cultures which is also reflected in the kind of people they hire. Certain firms have a fun culture, some value humility and earnestness while some others might insist on their recruits being high achievers. Firms have different programs and initiatives catering to their employees' professional and personal development. All these and more help a candidate gauge which firm might be the best fit for him/her.

- *Practicing case solving:*
  Since buddies are from firms you've applied to, solving cases with them is the closest experience to the actual interviews. Try meeting your buddies as far as possible so that their feedback is not limited to what you say (as in case of a phone interview). In case they are busy (or even if they are not), you can ask some of the other buddies from the firm to help you practice.

How important is it to do well at buddy cases?

Recruitment is a competitive process, even at the firm level, and every firm wants to recruit the best talent. They know that if a candidate proves himself/herself to be a star performer on cases, he/she is very likely to be a strong consultant and a big asset to the firm. Hence, it would not be surprising if firms used any advantage they get to identify such stars.

Although a buddy might be willing to place bets on a candidate and have a preference based on interaction (he/she would need *extremely* strong data backing), it is the firm's top management alone which decides whether they will be part of the firm. It is rather unlikely that they'd hire talent despite a poor case performance, especially when they are spending a substantial time on the recruitment process themselves.

In sum, a sub-par case performance during buddy interactions will never alone be a deal-breaker and consistent strong case performance *may* get you a preference, depending on the recruitment team. We suggest you prepare before your buddy sessions so that very basic mistakes can be avoided.

3.13 Presentation guidelines

Written presentation guidelines

- Use a blank A4 sheet in the landscape orientation for case solving to ensure that the working paper looks clean and there is enough space for the driver trees when you lay out the case structure
- Log the data voiced by the interviewer on the paper to make sure nothing is missed
- Show the interviewer your structure and MECE-ness as much as you can. Put across your thoughts using driver trees with branches and sub-branches as opposed to listing things (MECE-ness will be explained in detail in Section 4.3.1)

- Try to be as neat as you can:
  - Write legibly: the interviewer should be able to follow your notes
  - Minimize scribbling
- Ensure your case and rough work are clearly separated
- Make note of / highlight the key points (any deductions, insights, important data, and recommendations) throughout the case. This habit comes very handy when you need to give a detailed summary at the end of your case.

Oral presentation guidelines

- *Structure and clarity:* Clear, structured communication reflects structured thought and consultants dig that. Whatever you do, do not speak off the cuff as you run the risk of saying something you did not want the interviewer to hear. This comes across as not well thought out and disorganized, and in a real setting, it is certainly not what a client who has trusted you with his/her business wants to hear.
- *Confidence:* Consultants are meant to be experts in their field and should be confident while dealing with clients. This is especially important when you are giving recommendations to some of the most experienced people in the industry. It is this confidence that the consulting firm values. A candidate needs to give the interviewer confidence that he/she will be able to hold his/her own in difficult client situations.
- *Calmness:* Consulting can be a tough profession with hard problems needing to be solved under tight timelines. Getting nervous and panicking under such circumstances yield sub-optimal results. So when a candidate exhibits calmness and ability to absorb pressure in a case interview (a mock version of a real client engagement), it comes across as quite impressive. Taking time out to gather your thoughts in such scenarios helps a lot.

3.14 How does an actual case interview flow?

An actual interview on Interview Day lasts for about 25-30 min. A rough timeline of how the interview goes

- *5 min - Getting comfortable*
  The interviewer uses the first few minutes to ease the nerves of the candidate. Topics that the candidate is familiar with are spoken about here - brief introductions, interests, questions on candidate's resume, other achievements etc.
- *20-25 min - Case interview*
  The case asked could be a guesstimate, a profitability case, a market entry or an unconventional one. Merger and acquisition cases are rarely

tested. You will encounter examples of each of these in Section 6. Although some of the cases in this book are quite detailed, you will be tested only on a subset of those.

- *5 min - Closing discussion*
  Here the case might segue into a general business discussion. Some "fit" questions could be tested to gauge the candidate's inclination towards the consulting, the firm and his/her fit in the firm. For example: What makes you different from the other interviewing candidates? What is the most difficult thing you've had to do at <your internship>? Why do you want to join our firm?
  The candidate will also get an opportunity to ask the interviewer smart questions. For example: Will my age/inexperience affect my performance in any way? What do you like best/least about the firm? What's been your most interesting project so far?)

3.15 Do I need industry-specific knowledge about finance / accounting for my case interviews?

The short answer is no.
Cases are expected to be solved by first principles and you do not need to have prior knowledge about any industry to do the interview. The interviewers understand that as university graduates, you have limited exposure to industries and their operational nuances. It would be unfair of them to test you on such concepts without giving you a heads up before the interview or a brief background about that industry at the start of the case. If you encounter an industry-specific term, it is best to check what it means with the interviewer. Clarifying a business terminology by no means indicates you're a weak candidate. In fact, it insulates you from making easily avoidable mistakes in the case.
Having said that, you are expected to have a reasonable understanding of basic business concepts like Profit and Loss, Revenue and Cost etc. Sometimes the interviewer asks the candidates to take lead and drill down the branches in, say, a profit driver tree (You shall encounter Profitability cases in detail in Section 6.2). In such scenarios, it is helpful to have a broad understanding of how certain industries work, what a capital investment means, what fixed and variable costs are, etc.
It is strongly advised to NOT use terms you don't have complete knowledge of, in the middle of the case. Since such terms are not expected from you, the interviewer's expectation from you increases when you mention them and suddenly you find yourself playing in difficult mode. Interviewers grilling candidates on terms that candidates mentioned to earn brownie points is also

not unheard of. While it is possible to get away with it, you do not want to risk your interview for a seemingly small edge over others.

3.16 How do I decide my preference order amongst different consulting firms?

During placements at certain Indian university campuses, there is a single day where all the consulting firms interview all the candidates and offers are handed out at the end.

Candidates with multiple shortlists have to submit a preference order of their consulting firms one day before their interview day which is kept confidential by the student placement team.

This preference order, decides in advance, which company the candidate would be accepting an offer from should he receive multiple offers. Candidates have to set their preferences during their preparation phase, which becomes a challenging exercise.

Here is a structured way to help you arrive at your preference list (and this applies across industries as well). Try and answer these questions

- What are your goals 3-5 years from now?
- What milestones do you need to hit in your career in order to achieve those goals?
- Which firm best has the ability to help reach those milestones

For answering the second question, here are certain sub-questions you might find relevant to ask.

Which consulting firm has the biggest size and brand?

The best way to answer this question is to know which the biggest firm in terms of revenues is, since it directly correlates to the size of the firm and on how well the consulting firm is doing from the perspective of their clients.

Since this data is hard to come by, you can use proxies. You can look at 'Google Trends' for relative comparison between consulting firms. You can look at the number of offices that the particular consulting firm has in the country. You can inquire about how many partners are there in the country for a specific firm and on average how much a partner makes. The last two questions are best asked on separate occasions.

What are the biggest practice areas for different consulting firms?

A lot of you may have an interest in working in a particular sector. Many of you would prefer working across several sectors. Some of you may be interested in an engagement with the government. To inquire about this, ask consulting firms (and here you can even ask the partners / senior folks) the following

- Which are the firm's largest practice areas?

- (You will hear terms like Industrial goods, Consumer goods, TMT - inquire about what kind of businesses fall under these buckets)
- Which are the fledgling practice areas?
- Which are the areas where the consulting firm does not have a practice in?

What is the company culture like?

Inquire about what cultural traits does the firm believes it uniquely possesses compared to other firms. Inquire about their unique HR practices.

Inquire with partners and even junior consultants, what are the top two qualities based on which a consultant's performance is measured internally. Ask for two, and not three or more to understand what is most important to the firm. You might get different answers from partners and junior consultants.

Inquire about the average working hours, when do they come in to office and when do they leave. How many days in the last month did they have dinner in office because it got late? How many weekends did they have to work in the last six months?

3.17 How do I plan for the Interview Day (in the case of multiple interviews occurring on the same day)?

Day 1, for those who are not aware of the term refers to the first day of recruitment for campus placements. Typically, for IITs this also happens to be December 1st. Consulting firms complete their recruitments from campus on this day. All the top tier firms interview the candidates they have shortlisted and roll out offers. Top tier firms typically begin their interviews at 8AM and are mostly done by 2.30 PM.

So, why is Day 1 such a complicated affair?

An ideal Day 1 process would be

- Candidates submit their preference list of companies
- Companies interview all the candidates they shortlisted; students interview with all the companies they were shortlisted by
- At the end of the process companies make offers to candidates they want to hire, with an extended wait list since some of those on their offer list may have been made offers by companies higher in student's preference list

However, consulting firms are very competitive when it comes to hiring the brightest candidates. They often want the same set of candidates. Hence they undercut each other by getting an early read on a candidate based on his preliminary interviews and internal perceptions based on his resume and conversations with him/her. Based on this they roll out offers as soon as possible and hope to lock-in a candidate.

Ideally, once an offer is on the table a candidate should still be allowed to interview with other companies without the risk of losing that offer. However, some companies (applies not just to consulting firms) often keep this point deliberately ambiguous on the actual day of the interview, to encourage candidates to accept their offer and not interview with any other company. The candidate needs to choose between a certain offer in hand and a probabilistic offer with a higher preferred company. And he/she has very limited time (less than 10 mins) to take a call.

So how do you plan in advance so that your day 1 can go smoothly?

- First you need to create your preference list of companies [Refer 3.16]
- Second, you need to figure out how much relative importance do you assign to companies as per your preference list. For example, you may consider an offer from any of the top 2 firms as being equivalent and may put the next two companies at a notch lower.
- Third, you need to define what a good placement outcome means for you. For example, you can decide that if you can get an offer from any of the top four firms you would be satisfied, however getting an offer from the fifth priority company would be unsatisfactory. This step helps you in taking quick calls during your interview rounds, that for example if the fifth priority company makes you an offer, you would be willing to walk away to interview with other companies even if it means losing that offer.
- Fourth, during your interviews get clarity on which companies are interested in interviewing you for further rounds and which do not wish to hire you. Don't be left hanging where a company keeps you waiting but hasn't given you an offer yet. This especially holds true for companies higher on your preference list. You want to finish your interview rounds with them as soon as possible, so that in the eventuality, they do not wish to make an offer, you can interview with companies lower on your preference list and accept an offer from them, if they make one.
- Finally, be prepared to make dynamic decisions based on how your interviews play out. The above steps will provide you the structural thought process to make swift decisions with conviction since you've already sorted out how you value each company's offer and the trade-offs you're willing to make in different situations.

Chapter 4: Skills development

Over two to two-and-a-half months of preparation for the interview, there was a lot of feedback which we received from seniors and case buddies (Consulting company representatives assigned as temporary mentors) to improve case interview skills. These are skills difficult to develop on your own without someone telling you and you taking active steps to refine them. This feedback led to a vast improvement of our case-interview skills. The focus of this Chapter is to bring to your notice these skills so that you can incorporate them from the very start of your preparation. The following are the skills which would be explained further in the respective Chapters.

4.1. Asking Preliminary Questions

4.2. Having and Conveying an Overall Approach & Sub-Strategies

4.3. Problem Isolation Tools

- Segmentation
- Company Specific or Industry Wide issue
- Hypothesis driven approach

4.4. Improving Drill Speed (If there are 4 possible causes to a problem, knowing how to assign priority to the investigation process to reach the solution faster)

- Using the 80/20 rule
- Benchmarking with competition
- Using Business insights

4.5 Synthesis

Apart from these skills we will introduce you to approaches to solve cases which are better than the approaches in conventional resources. The conventional approaches compromise on quality and time taken to solve on the case in exchange for simplicity. We will cover these evolved approaches in **Chapter 5: Conventional vs. Evolved Approaches**

4.1 Asking Preliminary Questions

You're given a problem statement like "Client ABC which is part of the X industry has lost 20% profits, please suggest recommendations to turnaround the problem". The next thing to do is ask some preliminary questions. This is the most underestimated part of the case interview. Its importance cannot be stressed enough.

The reason we use the phrase "Preliminary Questions" instead of "Clarifying Questions" is because you should not only be clarifying the initial problem statement but actively seeking pieces of information which helps in understanding the client's company.

This is not only about re-confirming the information that the interviewer has given but also seeking out information that he has NOT given.
Preliminary questions help you to scope out the problem, setting the boundary walls in which analysis needs to be done. It also enables you to get a 'look and feel' of your client's company.
At the same time, it communicates to the interviewer that you're thinking of the different angles to the problems and are checking what needs to be done. Here are different types of preliminary questions to ask:

4.1.1 Clarifying the objectives

<u>Profitability cases</u>
In standard profitability cases, usually, there is little ambiguity like
"Our client is an electronics manufacturing company. You are hired to find out why our profits in the mobile division have decreased by 20% in the last year".
However, there are ambiguous questions also for example,
"Our client is an electronics manufacturing company with a sales stagnation issue in its mobile division. Find out what is happening"
There are several ambiguities here. Sales could mean revenues or #units sold. You don't know what are the different divisions of the company and if the mobile division's sales can be treated and analyzed independently. You're not sure of why stagnation of profits is even a problem, because at the end of the day the company is still profitable. These can be good questions to ask:

- What are the different divisions of the company? Do I have to look at stagnation in the mobile division only?
- How much were our sales growing by earlier, since when has there been stagnation?
- Why is stagnation of sales even a problem? (Did the company expect them to keep growing, why did it have this expectation)
- By sales do you mean revenue or #units sold?

These may look like several questions but in a conversation they will take very little time since many of them have a simple 'yes' or 'no' response. These questions can uncover a lot of useful information which can be used to progress quickly in your case. For example, if in response to question (c) the interviewer tells you that the industry is growing and hence there was an expectation for the company to grow as well, you can quickly move through the rest of the case by benchmarking the company's profit structure to that of competitors and get to the bottom of the stagnation problem.
Also you don't want to be in a situation where you miss out some important info either because the interviewer forgot to explicitly state it (he/she has been

conducting interviews for several hours) or because you misunderstood profitability (usually profit as a % of revenue) for profits.

<u>Market Entry cases</u>

A typical market entry case statement looks like this...

Our client is X company and they are wondering if they should enter the Y market?

This is a very ambiguous question. The problem here is that the decision to enter Y market can be based on different reasons such as

- Client's ability to capture a market share target in the first year
- Client's ability to achieve a profit target in the first two years
- Strategic reasons (long term profit); Example- Amazon entered the e-reading market through Kindle even though it was a zero profit venture. The price of Kindle was so low that they were just breaking-even. The strategic reason for entering the e-reading market was so that they can push sales of their digital books.

A good clarifying question to ask to find out what an attractive market means according to the client is

a) "What metric should we use to decide if we should enter the market or not?" The response of the interviewer could be

a1) "Let's get an idea of what profits we can expect in the first year" or "We want to at least break-even in the first year." Now there is a lot more clarity and you can proceed to calculate expected profits in the first year.

a2) "We want to develop a qualitative understanding of the business and see if we can overcome the challenges" Now you know that case is light on numbers and is about qualitatively assessing the market and gauging if the company can compete in it.

Another good question to ask is

b) "Is there any reason why the company is considering market Y in particular?"

Usually the response of the interviewer is that there is no particular reason. However sometimes you can uncover useful information such as "Market Y is growing fast" or "Market Y is similar to our home market in Z way".

<u>Guesstimates</u>

Questions about clarifying objectives with respect to guesstimates should try to be about scoping out the problem and knowing what to estimate and what not to. This is best illustrated with an example:

If the question is estimate the #cars in Mumbai, good clarifying questions would be to check if we are looking at both passenger cars and cabs, whether we're looking at both first and second hand cars.

<u>Unconventional cases</u>

These questions would be subjective to case. The guiding rule is to be crystal clear of the objective and know the boundary walls (scope) of the problem.

4.1.2 Understanding Client's Company (Applies to all types of cases)

<u>Product</u>

You should know what the product that the company sells exactly is. So if the interviewer says that the client is a "watch manufacturer", you should ask what type of watch? -wristwatch, wall clocks, and alarm clocks, all of them? This question is important because if you make an assumption that the client is in the wristwatch market instead of the wall clock market, it can bite you later in the case when, let's say, you have to suggest suitable marketing strategies. Do the same if the interviewer says "Personal Digital Assistant (PDA) manufacturer". If you forget to clarify initially, you can clarify the information later, but you lose precious time analyzing from the point of view of a different product.

<u>Geography</u>

You should know the location of the business you're dealing with because the context directly relates to several aspects of the business. Example

- Facebook's penetration in Rural India is restricted by low internet availability.
- The market size for Porsche would be greater in USA than in India.

<u>Value Chain</u>

This is a simple value chain:

Production → Distribution → Retailing

It is useful to know upfront which part of the value chain the company operates in as it better helps you figure out what the company can control and what it can't.

Together-**product, geography and value chain**-give you a good 'look and feel' of the company, makes it easy for you to visualize the company and puts you in a comfortable spot to analyze the rest of the case.

4.1.3 Spidey-Sense info (Applies to all types of cases)

By this we mean any information or technical term which "tingles your Spidey-Sense" or is a little ambiguous or something you're not 100% sure of. For example,

"The client is a bank and their profits have gone down, they suspect it's because of a higher delinquency rate, they want you to figure out how to solve the problem."

Here you want to know what is 'delinquency rate', how exactly is it calculated and how it can be broken down. Even though you know the term conceptually you want to know exactly how it is calculated to better understand its drivers.

Remember you should also ask questions to clarify the new information during the course of the case.

4.2 Having and Conveying an Overall Approach

After asking the requisite preliminary questions to understand the problem statement and the Client's company, you must proceed by laying out the Overall Approach to solve the case. There are two parts here:
4.2.1. Overall Approach
4.2.2. Sub-Strategies

4.2.1 Overall Approach

What is an overall approach?
As the name suggests, this is like a Table of contents for the case interview. After agreeing on the scope of the interview (by asking preliminary questions), proposing an overall approach helps the interviewer understand what you plan on doing in the next 25-30 minutes. Typically, it is simply a breakdown of the case into simpler parts, the analysis of which will help you give direction to the subsequent parts you are tackling and eventually to the final recommendations.
Why is it important?
The biggest advantage of this habit is seen in cases which have no set pattern of solving (for instance, market entry OR unconventional). The challenge here is to sketch out a method because without it, you could be left analyzing issues that do not tie back to the objective of the case. Understand that if you are lost in a case, the interviewer is probably doubly lost. Not only is this a waste of precious time, but also is particularly annoying for the interviewers. It is better to invest sometime early in the case to agree on a strategy that will work. Additionally, if your approach is not the best way to tackle the problem, it also gives the interviewer a chance to correct you.
How to go about framing one?
Let's say there is a market entry case about introducing a luxury car in the Indian market. After asking the requisite preliminary questions, you can state your overall approach as follows:
"First, I will estimate the potential profits that can be made in the Indian market for the Car.
After establishing that this will be a sufficiently profitable venture for Company, I will find out the feasibility of setting up the entire value chain.
Finally, we can discuss the potential challenges after which I will give my final recommendation to the client."
A more detailed discussion of specific Overall Strategies is done in **Chapter 5: Conventional vs. Evolved Approach to cases.**

Sub-Strategies

After the interviewer agrees with you on the overall approach to solve the case, it is time to tackle each part of the strategy. Regard the time between each part like a checkpoint. To make sure you and the interviewer are on the same page, you should do two things here:

a) Sub-strategy: For each part of your overall approach give a sub-strategy to tackle that part

b) Mini-Synthesis: Draw out inferences from the previous part before beginning the next part

Sub-strategy is for the individual parts of the case, what overall approach is for the entire case.

As you move from one part to another, laying out your inference tells the interviewer that you are able to gather insights and make sense of the information. If the interviewer does not agree with your inference, it gives you an opportunity to engage in a debate. Moreover, consistent mini-syntheses will help you structure the final recommendation quicker and possibly better since you will have identified the key issues already.

Example:

Following from the earlier 'luxury car' example, say we have finished the first part of the case, of estimating overall profits and moving onto the next part of checking feasibility of value chain:

"We have found that we can expect to make $50 MN in profits in two years which is above our threshold of breaking-even for entering the market. (This is the mini-synthesis) Now, I wish to talk about how we can set up the value chain here. Here I will look at (1) car manufacture/import, (2) distribution options (3) Retailing & marketing avenues. Is that fine?" (This is the Sub-strategy for the next part)

4.3 Problem Isolation Tools

Often in a case you have a problem such as "Profits are down by 30%". You need to isolate the problem to its specific cause. For this we have the tools below:

4.3.1 Segmentation

What is segmentation?

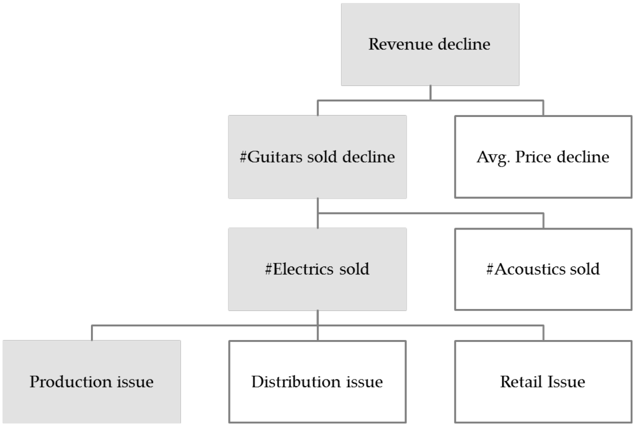
Segmentation is breaking a problem into smaller, simpler parts.

Why is it important?

Segmentation is important to narrow down a broad problem into a more nuanced and specific problem.

Example- Narrowing down the broad problem of "Revenues guitar sales is down by 10%" to a specific problem of "sales having declined of the electric guitar segment due to a production issue".

Here the segmentation was done as follows:



How to segment?

Segmentation can be done in different MECE (Mutually Exclusive & Comprehensively Exhaustive) ways

- Geography
- Value chain
- Product parameter: Color, Price, Size
- Distribution channels
- Mathematical breakdown

Example - Let's say volume of Bottled Water sold is down: We can analyze the decrease across geography or across bottle sizes (25L, 1L, 500ml, 250ml)

However, segmentation should be such that it is

a) Simple
b) Reasonable
c) Easy to obtain the information of component parts

a) Simple segmentation:

We will explain this through an example. Let's say for a particular case, we want to segment the fuel transportation cost of trucks.

This is the complicated way of segmenting all at once.

Transport Cost= (#Trucks) x (#Trips per Truck) x (Distance travelled per trip)/(Avg. mileage) x (Cost of fuel)

While the above segmentation is correct, here is a simpler way of doing the same segmentation

Transport Cost= (#Trucks) x (Cost per Truck)
= (#Trucks) x (#Trips per Truck) x (Cost per Trip)
= (#Trucks) x (#Trips per Truck) x (Fuel per Trip) x (Cost of fuel)

= (#Trucks) x (#Trips per Truck) x (Distance travelled per trip)/ (Avg. mileage) x (Cost of fuel)

There are two key advantages of segmentation in a simple and progressive manner instead of all at once

1) Avoids unnecessary analysis: You often do not need the entire segmentation. Let's say we were segmenting to do a competitor benchmarking of why our fuel costs are higher compared to competitors. If we find out that we have more #Trucks but our (Cost per Truck) is at par, then we don't even need to break-up (Cost per Truck) further. So you avoid unnecessary segmentation.
2) Easier to Follow: While segmenting all at once can be faster and sometimes useful, it is not easy for the interviewer to follow in a conversation. Also, when simultaneously using so many variables in the equation there is a risk of making a mistake from your end.

b) Reasonable segmentation:

When segmenting why guitar sales are down (for instance), unless there is sound logic it would not be reasonable to segment guitar sales by gender of customers.

c) Information of component parts is easily obtainable:

It's better to break down monthly revenue of a coffee shop as,

Monthly revenue = (# Transactions in a month) x (Spend per transaction); instead of

Monthly revenue = (# Unique Customers per month) x (#Transaction per customer) x (Spend per Transaction)

Since it's difficult to keep track of #Unique Customers but easier to keep track of #Transactions and Spend per transaction. Unless knowing #Unique Customers is crucial to your analysis avoid segmenting that way. Also notice that the former segmentation is 'Simpler' than the latter.

How to use Segmentation? Ask "What has changed" within the segments

Candidates when segmenting often lose track of why they are segmenting. Suppose if profits have changed (reduced), then something somewhere has gone wrong or changed to cause the change in profits. By segmenting we are trying to get at what specifically has CHANGED. So it's important to not only segment but also ask WHAT HAS CHANGED.

For example:

Let's say profit margin(s) (Profit margin=Profit/Revenue) for guitar sales has gone down and we know there are two channels for distribution- Company owned stores and third-party stores.

Since overall profit margin will depend on profit margin(s) of each channel as well as the revenue split across both channels, Think about this

Profit Margin= (% Revenue from Company stores) * (Profit Margin of Company Stores) + (%Revenue from Third-party stores) * (Profit Margin from Third-party stores)…

It's not enough to just know the current profit margin and split in revenues of each segment. You need to ask if the profit margin for each segment has CHANGED or if the revenue split has CHANGED to identify what is causing the problem.

You will remember to ask "what has changed" only when, before asking about a particular segmentation, you know how you will use that segmentation. Most candidates ask questions to gather info and then decide how to make sense of that. This means they will ask questions like what type of distribution channels we have, but since they don't know beforehand how they will make sense of the information, they often forget asking the second question of WHAT HAS CHANGED in the distribution channel.

Closing remark on segmentation: Once we have segmented, it's also important to prioritize which segment to analyze first, since it improves how quickly you arrive at the root cause of the problem. We will see this in section 4.4 where we talk of the 80/20 rule.

4.3.2 Company Specific or Industry Wide issue

When trying to identify the range of possible reasons for a problem like reduced profits, consultants need to know where to look. Knowing whether a profit problem is company specific or an industry-wide issue helps them prioritize where to look. This holds especially true in a case interview as well.

Example: Revenues have reduced by 50% and client wants to know what can be done to resolve the problem.

Revenue=Price x Volume

Let's say revenue decline is as a result of reduced volume while price has remained constant. Let's say, after asking, we know that the problem of volume decline is a company specific issue as opposed to an industry wide issue. This question now also allows you to eliminate certain branches of reasoning. Because you know that Volume reduction is a company specific issue, you now know a more likely reason for it is customers preferring competitors over us rather than all customers moving to a substitute product. You will focus your analysis on finding company-specific causes rather than potential industry-wide causes. Hence again this is a problem isolation tool.

4.3.3 Hypothesis driven approach

Many times you will hear that your case interview approach should be "hypothesis" driven. What does this mean? Relax, it's very simple.

In Consultingdom if the cause of the problem is A, B, C or D, then a hypothesis driven approach is one where you first assume 'A' is the problem and check whether that is true or not, and you do the same for B, C, D. In consulting an outcome is presumed and then the presumption is validated or invalidated.

Now all of us use a hypothesis driven approach naturally. The only difference is we don't assume an outcome. So if we know the potential cause of a problem is A, B, C, or D, we proceed to investigate each potential problem and in the end come with an outcome-A, B, C or D.

Now given that we are implicitly using a hypothesis driven approach, what does it mean when someone tells you to be hypothesis driven? It means either your mental process of thinking is not hypothesis driven or you are not communicating your mental process of thinking effectively.

Here is a concrete example to illustrate the point further. Let's say the candidate needs to find why revenues have declined.

<u>Non-hypothesis driven approach</u>

We know revenues have declined. I want to find out why.

Have customers stopped preferring our products?

Which product segment has shown the decline in volume?

Is there a price war in the industry?

<u>Hypothesis driven approach without effective communication</u>

We know revenues have declined. I want to find out why. Do we know if price has changed?

No, it has not changed.

So our volume has declined?

Yes.

Has the industry market size declined overall?

No, it has remained constant.

Then, our market share must have reduced, is that correct?

Yes.

<u>Hypothesis driven approach with effective communication</u>

We know revenues have declined. This could be because of a price decline or volume decline. Do we know how price and volume have changed in the same time period?

Price has remained the same, Volume has declined proportionate to revenue.

Since we know volume decline is the problem,

It could be because the market size has reduced or the client's market share has reduced.

Do we know how each metric has changed?
The market size has remained the same for the industry, our market share has reduced.

4.4 Improving Drill Speed

If there are four possible causes to a problem, then by "drilling" through each branch we try getting to the bottom of each possible cause to either,

- Identify it as a cause for the problem or
- Eliminate it as a reason.

In Consultingdom it's important to assign priority to the different analysis that can be done and be selective about which ones to do. Doing a particular analysis costs time and money. Case interviews, too have a time limit (20-25 minutes). You want to move through a case fast. Here are some ways of doing that.

4.4.1 Using the 80/20 rule

The 80/20 rule here signifies analyzing the branch responsible for 80% of the problem first and then analyzing the branch responsible for 20% of the problem. In short, analyze the more important things first. You need to know the weights of sub-parts to a problem and choose which sub part to analyze first.
Let's say costs are up by 50%. You need to find out why. You know that 60% of the cost is Raw-Materials and 40% is Manufacturing cost. If both costs have gone up by 50%, you should begin by analyzing why raw material cost has gone up rather than manufacturing cost since that is the bigger chunk of the problem.
In the previous example if, let's say Raw Material costs still make 60% of costs and Manufacturing makes 40%. The difference is that manufacturing cost has increased by 100% and raw material cost has increased by about 15%, then the bigger chunk of the problem is coming from rise in Manufacturing costs. So now you should analyze Manufacturing before Raw-Materials. Don't analyze raw materials just because it is the bigger chunk of overall costs.

4.4.2 Competitor benchmarking

Benchmarking different metrics with respect to competitors' better helps distinguish where we are lagging behind industry. Let's say the reason why we are losing market share to competitors is because of a higher price of our product which in turn is because of a higher cost of our product. Let's say cost comprises of manufacturing, distribution and marketing related costs. Now it's useful to benchmark each of these costs with respect to competitors to get a sense of where we are lagging behind industry. If our distribution cost is twice as much as industry but production and marketing costs are almost the same, then distribution cost should be analyzed further even if on an absolute scale our production & marketing costs are greater than distribution costs.

4.4.3 Business insight

Sometimes business insights can help you gauge which branch to drill first. This should be used carefully since wrong assumptions of business may lead you to assign a wrong priority of drilling. It's important to use this in conjunction with the previous two ways outlined.

Business judgment is about knowing what factors are relevant in a given context. For example, from the customer point of view, after sales service is important when selling laptops, but less important when selling guitars. For retailers, shelf life is an important concern for food items but less important for stationary.

Another place where you can demonstrate business judgment is when finding root cause of a problem. Let's say, the client which is in the business of manufacturing laptops, is losing market share to competitors. We already know that there are no production or distribution issues, it's the customer demand that has decreased for our product. Now we need to find the root cause for this reduced customer demand.

There could be several parameters which could be compared with competition for this:

Customer Characteristics

- Customer segments (age group, gender, income, geography, type of requirement) targeted

Product Characteristics

- Laptop price
- Specifications-battery life, hard disk, RAM, graphics, monitor size, etc.
- After sales services, complimentary products
- Brand image

Sales and Marketing

- No. of Retail outlets, location of outlets, visibility in stores, sales representatives
- Discounts & offers
- Online marketing

This is a big list and it's not a good idea to indiscriminately go over them one by one. Instead, using business judgment, you can pick and prioritize few key issues, before moving to others.

So for example in this case, you can pick

- Laptop Price,
- Specifications, and
- Brand Image

as the most important differentiators between companies where we maybe lagging behind.

'Wrong customer segment being targeted' would be a low priority issue since most laptop companies like Dell target customers across all age-groups, gender, geography, income etc. (There are exceptions. Apple targets the premium segment, so useful to get a general sense of the type of company and customers targeted beforehand.)
Most laptop companies have reasonable after-sales service mechanisms. Most companies also have their products available on all retail channels with more or less equal visibility. Hence these are less likely to be important differentiators that customers care about. (Again, there may be instances when these could be important. Let's say the client is a new entrant in the market, then visibility to customers becomes a priority issue.)
So, in summary using business insights you can arrive at the important issues faster.
Business judgment is best case inter alternative is to be reading business articles. We recommend Bloomberg Businessweek and Economic Times/Business Standard, if time permits.

4.5 Synthesis

What is a synthesis?
The synthesis is the final part or the closing of the case interview, where the candidate is expected to summarize the case and offer recommendations.
Why is it important?
In the consulting world, the final presentation / recommendations given by the consultants is the most important part of an engagement for the client. Million dollar decisions are hinged upon what these are and how they are communicated. For example, asking a CEO to shut down certain lines of business, or layoff 10% of his/her salesforce, or enter a new market altogether are ideas that *need* to be good business calls which *need* to be conveyed carefully. Moreover, the impact of these recommendations determine future business opportunities for the consulting firm.
The synthesis is basically the 'final presentation' of the case interview.
How do you go about forming a good synthesis?
Throughout the duration of the case, you will diagnose issues (e.g. declining sales, high costs), gather details about the situation (e.g. constraints in supply, new competition), calculate important numbers (e.g. expected profit is INR 50 Cr)., make key decisions (e.g. client should change the business model) which take the case forward. It is useful to make a note of these on your paper. These points essentially form the building blocks of your case and determine your recommendation(s).
A good synthesis has the following characteristics. It should be:

a) Crisp and to the point

Time is of extreme value to CXOs and other senior management and since consultants largely interact with this set (in addition to being stretched for time themselves), they are encouraged to communicate succinctly as opposed to delving into a long, winding story. Simple, brief sentences is the way to go.

b) Led with a definite recommendation (there are exceptions - we will talk about them shortly)

You run the risk of losing your audience as you take them through the entire case since they might be more keen on hearing your recommendation. Giving them definite action points up front captures the attention of the audience as they wait for you to explain the reasons why you give them the recommendation.

It is also good to be definite and confident when you deliver your thoughts. If you don't seem like you trust your recommendation, the client (or the interviewer) will find it rather difficult to trust it too.

c) Backed by strong reasons and analysis

Since recommendations can make or burn crores of rupees, they cannot be based on anything except for sound reasoning and data. Strong evidence pointing at a certain business direction is easy to buy than simply a gut feeling.

An example of a good synthesis for, say, a European cement manufacturer who is seeing declining profits:

'We recommend the client expand their operations to Asia and set up the entire supply chain in India, for three reasons:

1. The European market has become saturated and has seen an increase in raw material cost
2. The Asia market is a fast-growing one with expected profits of over INR 3000 Cr. in the first 3 years
3. Operational cost of setting up the business and distribution cost is most favourable in India

If given more time I would also like to analyse... (in case certain issues were not addressed due to time constraints)'

When is it okay to not lead with the recommendation in a synthesis?

Some cases do not involve any recommendations. For example - guesstimates. Unlike profitability / market entry cases, these are fairly straightforward problem statements. Here it makes more sense to take the interviewer through the case the way you solved it. The only points you need to mention are segmentations made, insights gathered and the final ballpark figure.

Sometimes, the interviewer might ask you to wrap up the case mid-way. In such a scenario, you should highlight the issues, details about the situation and any important data - depending on the extent of the case solved.
At other times, the interviewer might explicitly ask you to take him/her through the case in brief. In this scenario as well, you could use the same approach. Using the same example as earlier,
'The profit decline has been driven by a saturation of the European market over the past three years in addition to an increase in raw material cost - something that can't be addressed at the moment.
It makes sense for the client to enter Asia since it is a fast-growing market and if they do enter, they can expect over INR 3000 Cr. in profit within the first 3 years. This can be achieved due to favorable costs of a setup and distribution network in India.
Given more time, I'd like to explore...'

In this book, we have written the synthesis for 4 cases (Case numbers 14, 34, 42, 44). You are encouraged to attempt the rest on your own.

Chapter 5: Conventional vs Evolved approaches

Most candidates after referring to conventional resources tend to solve cases in a particular way. Though candidates differ in their intrinsic abilities there is a common under-link to their approach which we call the conventional way of solving the case. Over a period of two months, candidates incorporate tweaks into their approaches to make themselves more effective in solving cases.
In this section we will suggest a few very important tweaks to the conventional approach. This new approach is what we call the 'evolved' one since it has evolved out of an iterative process of making multiple minor modifications to the conventional approach after receiving feedback from seniors and buddies. Beyond just stating the difference between the two approaches we will illustrate through sample cases-one profitability & one market entry- of how the evolved approach is more beneficial.
There are two sections under which we will discuss the contrasting approaches
5.1: Profitability Cases
5.2: Market Entry Cases

5.1 Profitability Cases

Profitability Cases are the most common form of cases. The problem statement is usually like this
"Our Client AB, part of the X industry, has been experiencing a revenue decline of 10% over the last 3 years, they wish to hire you to turnaround the situation".
We will now show you how to effectively tackle these types of cases. The following three sub-sections will be covered
5.1.1: Conventional Vs. Evolved Approach
5.1.2. Sample Case 1: Sweets (Conventional approach)
5.1.3. Sample Case 1: Sweets (Evolved approach)

5.1.1 Conventional Vs. Evolved Approach

Let's say we need to find why the client is experiencing a revenue decline of 10% from last year.
The <u>Conventional Approach</u> to solve the case goes like this…

- We use the Profitability Framework* to figure out which metric is causing the revenue decline. Let's say we find that price has remained constant and volumes have declined by 10%
- In the second step, we use Business Situation Framework* to figure out why the volumes have reduced by 10%

**Refer Appendix (section 7.1) or visit www.caseinterviewscracked.com/primaryprep to learn more about these frameworks.*

In the Evolved Approach to solve the case, we can add more steps of segmentation (by geography, product type, distribution channels, etc.) before moving to the Business Situation Framework, especially if a segmentation has been given to us by the interviewer. This is done to further isolate the problem to a particular segment. Of potential segmentations, segmentation by Value-Chain has proved to be very useful.

So here, after we know it is Volume decline that is causing the problem, we should isolate the problem along the **Value Chain:**

Production Issue->Distribution Push Issue->Customer Pull Issue

Volumes could have declined either due to:

- Production Issue-We are not able to produce as much as before.
- Distribution Push Issue-Our products are not being pushed by the Distributors & Retailers as much as before. This could be due to fewer distribution channels, lower margins being provided to distributors relative to competitors, inconvenient packaging, not enough visibility in the stores etc.
- Customer Pull Issue-This means there is reduced demand from the Customer/Consumer end for our product.

Hence the Evolved Approach has the following three steps

1) We use the Profitability Framework to figure out which metric is causing the revenue decline.
2) Assuming Volume decline is the problem, isolate this problem across segments that are known or given by the interviewer. Remember to always segment across the Value Chain.
3) We find out why the problem exists at that part of the Value Chain using the Business Situation Framework

The benefit of this modification is it allows you to isolate the problem to a specific part of the value chain thereby leading you to the cause of the problem more easily. We will demonstrate the benefit of this approach through a sample profitability case. Apart from the benefit of using the Evolved Approach we will also highlight the benefit of asking the Preliminary Questions and using MECE Segmentation as explained in Section 4.1 and 4.3.1 respectively.

Note that the following sample case, solved using the Conventional Approach, is actually how we solved the case as candidates after a month of preparation.

It would be preferable if you can have your friend give the following sample case. For this purpose, he/she can read section 5.1.3. where the case is solved using the Evolved Approach. If you can't find someone to give you the case you can keep reading ahead, but try to solve the case yourself as you read.

5.1.2 Sample Case 1: Sweets (Conventional approach)

Your client is an Indian sweets manufacturer who is facing a decline in profits. He wants your help. How will you proceed? Assume I am the client.

I would like to begin by asking a few clarifying questions:

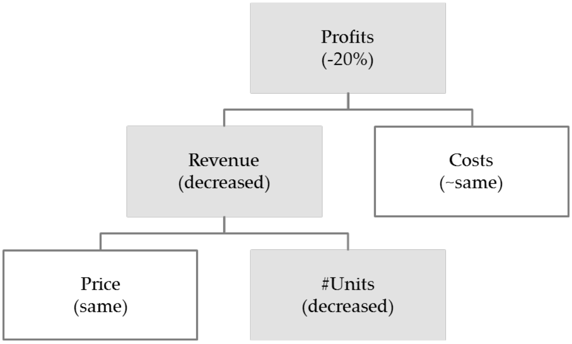
How much have the profits reduced by and in what time frame?

Profits have reduced by 20% in the last 2-3 months.

What is the Geography in which the client is selling the product?

The client is selling the product all over India.

I would now like to analyze the profit structure of the company to know why profits are declining.



So we know that #Units sold have declined which is causing our decline in Profits. Do we know if this is an industry-wide trend or Company specific?

We have no information on that.

Alright, to understand more about the business, I would like to analyze four aspects of the business

1. Customers
2. Competition
3. Product
4. Company

Notice here that after using the Profitability framework to find the metric responsible for Profit decline, the candidate is directly moving onto the Business Situation Framework.

<u>1. Customers</u>

Has the market size for sweets increased or decreased?

It's remained the same in the last 2-3 months.

What are the customer segments in the market?

Why do you want to segment customers?

I want to see if any particular customer segment of customers is facing the problem.

What kind of segmentation are you looking for?

Age, gender, geography, type of sweet?

We know that all geographic segments have experienced a decline, and we do not have data for age, gender segmentation. We have just 1 type of sweet we sell.

Is there any reason why the needs of the customers may have changed when it comes to buying sweets?

None that we can think of. Why do you think they should change in such a small span of time?

We are not selling as much as before, so I was thinking.

What are the preferred distribution channels for the customers?

We sell our products through third party distributors who sell it to three types of retailers

- *Large retailers (10%)*
- *Medium retailers (30%)*
- *Small retailers like Paan shops (60%)*

I have not seen sweets or 'mithai' being sold in Paan Shops, what kind of sweets are these?

We sell toffees, like a Mentos toffee.

Oh ok!

Have any of the distribution channels taken a greater hit than the others?

Good question. Paan shops have largely shown all the volume decline.

I would now like to move to the second branch of analysis. I would like to analyze it in conjunction with the 3rd branch of product to do a competitor benchmarking of our product.

<u>2. Competition & 3. Product</u>

Who are our competitors?

There are too many of them in the fragmented market.

I would like to benchmark our product with other typical toffees on different product parameters like Price, Quality, Taste, Packaging...

Wait, what is your hypothesis here?

I am seeing if there is any reason why customers will prefer other toffees.

Think of it practically. When you go to a candy shop, how do you choose which toffee to buy?

Hmm… the prices are the same, I just choose one, do not really care of the differences.

Yes, it is a commoditized product, small differences do not really matter to the customer. You should think on a different track.

I am kind of lost, we know that there is no particular reason why the market size has reduced and also no reason to believe why customers will prefer to buy other toffees over our product.

Hmm… why don't you analyze the distribution and retailing aspect of the toffee?

Alright, have the margins being paid to distributors and small retailers comparable to other toffee companies because of which they are pushing our product less?

Yes, toffees are a low value product 50p, 1 Re so they even don't care much if there are minor differences.

.... *Thinking*....

Alright,

Let's say we know that toffees are reaching the Pan shops as before. But from the Pan shop they are somehow not reaching to the customers? Now what do you think could be the reason for this?

It could be that the shopkeeper does not have space to keep the toffees in his shop OR because the toffees are not kept in a place that customers can see them or is inaccessible to the paan-wala.

The toffees are kept in jars in front of the paan-wala.

.... *Thinking*....

Well we can stop here. It so happens that the containers in which the toffees were kept were changed by the distributor. The new ones had narrower necks which made it difficult for the shopkeeper to hand out the toffees to his customers.

Discussion

Well, as you can guess, this was not the best way to solve the case. Don't worry if you did something similar in your attempt, it is indeed a challenging case at first. Before you see how this case is solved by the Evolved approach we would like to bring to your notice some of the shortcomings of the candidate here and you can see later how it gets rectified

- Preliminary questions about the product not asked which led to the candidate confusing sweets with 'mithai'. The candidate also was not sure which part of the value chain the sweets manufacturer operates in and could have asked a question about it earlier.
- The candidate directly went from the Profitability framework to the Business situation framework without isolating the problem along the Value chain. This is fine, although it helps to isolate the problem as early into the case as possible.
- In the latter part of the case when asked for potential reasons why toffees are not reaching customers even though they reach the Pan-Shops, the candidates approach was of trial & error instead of a MECE Segmentation

5.1.3 Sample Case 1: Sweets (Evolved approach)

Your client is an Indian sweets manufacturer who is facing a decline in profits. He wants your help. How will you proceed? Assume I am the client.

<u>Preliminary questions</u>

How much have our profits declined by?

There has been a decline of 20%.

For how long has the company been experiencing this decline?

It's a recent issue, since the last 2-3 months.

What exactly is our product?

These are toffees, like a Mentos.

Which regions have seen this problem?

All of India.

Where do we lie in the value chain?

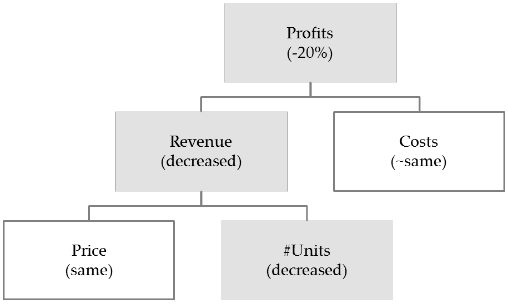
We send the toffees to the distributor who sends them to large retail stores, medium retail stores and small stores like Paan shops. They further sell the toffees to the end customers who buy them.

Is this a company specific issue or have other's in the company seen this trend as well?

We have no information of that.

<u>Overall Approach</u>

Let's begin by finding where the reduction in profits coming from is. Then we can understand why this problem is happening and how to turn it around.



We know that we reach out to customers via Pan Shops, Small Retailers and Large Retailers.

Do we know the split in sales of each type of retailer and how much of a decline in sales is each channel facing?

Small Retail (Pan Shops): 60% sales

Medium Retail: 30%

Large Retail: 10%

Paan shop sales have taken a hit, while other channels have not seen a decline.

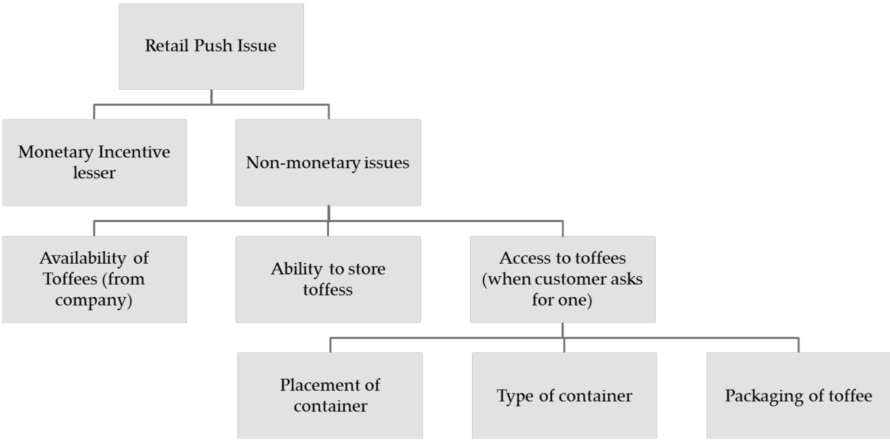
Since the segmentation of Distribution Channels was already given by the interviewer it's always useful to use the segmentation early on in the case.
Since # of units is reducing in the Pan Shop segment, I want to identify the problem in the value chain. The problem could be because of

1. Production Issue -> 2. Distribution Push Issue -> 3. Customer Pull Issue

Has our production capacity reduced stifling the number of toffees we can produce?
No. It is same as before.
Are we able to supply distributors as many toffees as they demand?
Yes.
Are all toffees reaching from the distributors to the paan-walas?
Yes.
So either

1. The shopkeeper is not selling (pushing) the toffees to his customers
2. The customers are buying someone else's products over ours
3. The market for toffees itself has reduced, however I doubt that the market for toffees will suddenly reduce in a span of 2-3 months.

Good.
My hypothesis is that the customers are not buying our products.
Okay. How will you test it?
Is it a commodity product or a differentiable product?
If it is a differentiable product, we will need to do a competitive analysis on product parameters (flavor, size, price etc.), distribution channels (customer preferences) and marketing.
If it is a commodity product, then some of these factors are irrelevant.
It is a commodity product. No distinction in product, distribution channels or marketing.
Although the interviewer gives away the "commodity" bit of info here, it is useful to suggest your opinion and verify it with the interviewer.
Okay. So the product sales are largely driven by the shopkeepers. I want to understand why our products are not being pushed to the customers as much.
Good.



Good job. It so happens that the containers in which the toffees were kept were changed by the distributor. The new ones had narrower necks which made it difficult for the shopkeeper to hand out to his customers.

Discussion

In this approach after the candidate identified the problem of volume decline, he isolated it across the value-chain instead of directly moving to the business situation framework. The fact that he was able to isolate it as a distribution push issue meant that the business situation framework was not required at all.

Asking the preliminary question about the product meant there was no confusion as before. Also asking about where we lie in the value chain helped later when we moved from the profitability framework to the isolation of the problem across the Value-Chain.

Lastly, the candidate was more effective in thinking of potential Retail Push issues. Instead of thinking of them in a trial and error manner, the candidate logically breaks the several issues down in a MECE manner.

5.2 Market Entry

We would like to directly begin with the advanced techniques to solve the market entry cases. The prerequisite for this section is that you know what a typical market entry case looks like and have general idea of how to approach it. If you're unaware of this, we recommend you go through "Session 4: Market Entry Cases" available at caseinterviewscracked.com/primaryprep

We would cover the following three sub-sections

5.2.1: Conventional vs. Evolved Approach

5.2.2: Sample Case 2: Chicken Nutrients (Using conventional approach)

5.2.3: Sample Case 2: Chicken Nutrients (Using evolved approach)

5.2.1 Conventional Vs. Evolved Approach

After asking the right Preliminary questions, the next aspect of Market Entry is the overall approach. There is the conventional approach which is what most candidates use initially after referring popular resources. We recommend using the 'Evolved' approach instead. Till now during placement time, everyone starts off using the conventional method but after two months of receiving constant feedback from seniors and buddies, people start using the Evolved approach. We want you to begin using it early on to get much better at solving cases faster. Below we will give you a brief overview of the two approaches followed by solving a case through either method. Our objective is to ease you into the Evolved approach and for you to see the benefit of using it for yourself.

A <u>conventional approach</u> to market entry looks like this:

To understand whether the client should enter the market or not,

Start asking questions under these 4 buckets, and see if you can qualitatively tick off each bucket.

Customer	Competition	Product	Company
• Who are our customers? • What are the customer segments? • Size and growth rate of each segment? • What are the needs of each segment? • Distribution Channels preferred? • Price Sensitivity? • Customer concentration and power?	• Who are our competitors? • What is the market share of each? • Behavior (target segment, product characteristics) • What are their best practices? • Barriers to entry? • Supplier concentration?	• Commodity or differentiable good? • What are its complementary goods? • What are its substitutes? • Product characteristics-lifecycle, etc.	• Capabilities and expertise • Distribution channel • Cost-structure • Investment cost • Organizational structure

If all 4 buckets are favorable, then the client should enter the Market, else not. The benefit of this approach is, it covers a good breadth of questions, which could help you solve the case. However, the problems with this approach are:

a) Not goal oriented - This leads to candidates asking questions, which are part of the check-list above, but not relevant to the case. This is because this conventional approach is not goal-oriented. If our goal is to estimate Profits, every question asked should help in arriving closer to that. These are different from preliminary questions as discussed in Section 4.1 which are useful and should not be confused with non-goal oriented questions.

b) Overlapping questions - Questions such as 'What are the product characteristics?' occur twice, once for Competitors branch and then in the Product branch.

c) Not quantitative enough-If estimating potential profits is an objective then there needs to be a pro-active effort in striving for numbers.
Profits = (Market Size) X (Market Share) X (Profit per unit)-Fixed Costs.
Instead of qualitatively gauging if the customer & competitive scenario is favorable there should be an attempt to try and put a number to the market size and the market share to calculate the profits. Being quantitative leads you to ask better and more pointed question.

d) Forgetting Value Chain feasibility - Candidates often estimate the profits but do not check if it's practically possible to establish the value chain from Production to marketing.

These problems are done away with in the "Evolved" approach. We call it evolved since it has evolved out of the conventional approach after making several iterations to improve it.

Fundamentally, you should still keep a mental check-list of the questions of the conventional approach, but the evolved method helps you deploy only those questions which help you solve the case.

The <u>Evolved approach</u> looks like this

(We are assuming that we need to estimate profits to decide whether to enter the market here. The goal in a market entry case should be made clear at the beginning of the case. You can refer the part on market entry cases in section 5.1.1 for to know how exactly to do so.)

We can break the case into two parts:

- Economic Sense: If it makes economic sense to enter the market.

This is typically done by Estimating Profits

Profits= (Market Size) X (Market Share) X (Profit per unit)-Fixed Costs

Here ask the relevant questions from the Customer bucket to estimate Market Size.

Then ask the relevant questions from the Competition and Product buckets to estimate Market share.

Finally inquire about the price, variable cost and fixed costs involved.

- Implementation: If the market entry can actually be implemented

This is typically done by checking the feasibility of the value chain

Production->Distribution->Marketing

Here, you should do a check if we have available resources: Capital, land, labor, equipment- to meet demand. Then see what kind of distribution and marketing would be required to ensure products reach customers.

Here we also see if it makes sense to enter independently, through acquisitions or a joint venture to maximize profits.

We will illustrate the two methods and the advantage of the Evolved approach over the Conventional one through a sample Market Entry case.

5.2.2 Sample Case 2: Chicken Nutrients (Using conventional approach)

Your client ABC Co. is a vertically integrated manufacturer, marketer and retailer of vitamins for chicken in the US. Now to pursue growth overseas in emerging markets, the management of ABC is thinking of entering the rapidly growing Chinese market. You have been hired as a consultant to evaluate the feasibility of their market expansion plan. Should the client ABC enter the chicken market in China or not? Why?

<u>Preliminary questions</u>

What metric should we use to decide whether we should enter the market or not? Else I would look at potential revenues, profit margins and investment costs.

The second part of the question is useful when the client themselves do not have metrics in mind to determine market entry.

The management wants you to estimate potential profits and would take a call there-after.

Is there any particular reason why the client has chosen the Chinese market for pursuing expansion?

The Chinese market is twice the size of the American market in terms of units of product.

We are vertically integrated along the value chain in the US. Do we expect the same in China as well?

Not necessarily, we will definitely be manufacturing the vitamin though.

How is our product, the chicken vitamins useful to our customers?

The vitamin products produced by the client help increase the size of chicken breast and reduce fat content.

What geography within China are we looking at for expansion?

No geographic specification, wherever the business can be profitable.

<u>Overall approach</u>

Now I would like to analyze 4 branches of the business

1. Customer
2. Competition
3. Product
4. Company

2. Competition + 3. Product → Competitor Benchmarking

You can analyze the 'Product' branch and 'Competition' branch together as a 'Competitor benchmarking' branch to eliminate overlaps.

<u>1. Customer</u>

What are the different market segments? What is the size of each segment? What is the growth rate of each segment?

Segment	Size (of total Chinese market)	Growth rate (last 5 yrs.)
Small farmers	80%	1%
Community farmers	10%	15%
Corporations	10%	70%

What are community farms?

Usually small farmers are part of a community. They donate a few chickens to the community pool and they are jointly taken care of through more advanced techniques. The income generated is then split amongst the contributing farmers.

What are the segments at home in the American market where we currently operate? What is the growth rate of each segment at home?

All customers in America are corporations. The growth rate is 3%.

How are the needs of each segment different?

Can you ask a more specific question please?

What are the distribution channels that each segment prefers?

What do you think?

Small farmers and community farms would purchase the vitamins from a local shop. Corporations may buy it in bulk and can be directly supplied to?

Yes. Good.

What is the price-elasticity of each customer segment?

We expect small farmers to be more price-sensitive than corporations.

What is the customer concentration like?

Small farmers are fragmented and corporations are more consolidated. Community farms lie in between.

Okay, I think I'll move on to the next branch of my analysis. So far the Customer aspect of the business seems favorable owing to the large market size, twice as much as the US market. Corporations' segment seems attractive because of high growth, our experience in dealing with them in the US and low price-sensitivity. Cannot choose a segment yet since Small Farmers are a huge chunk and Community farm segment also has a significant size and growth.

<u>(2&3) Competitor benchmarking</u>

I would like to know what kind of competition exists in the Chinese market.

We have no direct competition

Do we have any indirect competition then in the form of substitutes?

Yes, there is a substitute product in the market.

How does it compare with our product on price and quality?

The substitute is cheaper at 47c/unit compared to 80c/unit for our product. However, the substitute can cause side-effects in the chicken and affect the health of the person consuming the meat.

I want to try and gauge how we will fare with respect to the substitute in each segment.

1. Small farmers - We know our product is more expensive but has better quality. How much do the farmers care about quality?

Farmers care more about price rather than quality hence would prefer the substitute over our product.

It would seem that we are not suited for this segment unless we can reduce our price.

We cannot reduce our price.

2. Community farms: Would they prefer quality over price?

Yes, community farms are looking to get a high yield from their chicken and want minimal side-effects in their chicken hence would be willing to buy our product.

Can we market and distribute our product to them?

Since community farms are scattered across China, it will not be cost-effective to be able to reach out to them.

Then it seems we are left only with Corporations.

3. Corporations-Would corporations benefit from our product and use them? We know that they do not use the substitute because of its side-effects. Also, we have similar customers at home.

Yes, corporations will most likely be our customers.

Would we be able to distribute our product? Since corporations would be in more concentrated pockets than community and small farms, I expect distribution would be more economic.

Yes, good observation.

What kind of brand image do we have?

This would be a new concept for Chinese corporations and hence we will have to market the product to them.

Yes, we should do that. If there are American corporations which operate in China, we should first sell our product to them since they will be aware of its benefits.

Good.

Are there any legal barriers to entry?

No, we've got regulatory approvals.

Till now it seems that the corporation segment looks most favorable since they require our product and we have experience in reaching out to such customers. Small farmers prefer the substitute product and we have difficulty in distributing to community farms.

We can now change gears and come to the Company branch.

4. Company

What is the core-competency of the company in the US market?

To manufacture a superior and effective product.

What would our cost structure look like?

Investment of $100,000 would be required for expansion.

Variable cost would be 40c/unit.

Based on this information I would like to calculate our profits.

Estimating profits

The corporation segment is most suitable for us. Do we know the absolute size of the segment?

We know the US market size is 10BN units.

That makes the Chinese corporation segment size to be 2BN units. Let's assume in the first year we can capture a 30% market share?

Yeah fine.

That will give us 600MN units.

Profits=600MN units*(80c/unit-40c/unit)-$100,000

=~$240MN

Anything else you would like me to do?

No thanks, good.

Discussion

Although in this approach you arrive at the correct answer, the process can be made a lot more efficient. Did you notice the problems highlighted earlier?

e) Not goal oriented- Instead of writing the profit formula upfront and proceeding with the analysis, the candidate deep-dives into the Customer branch, without being seemingly clear why he/she is going down that branch. As a result, several questions were asked in the case which either did not help us in getting any closer to the answer or were too vague. For example:

How are the needs of each segment different? This question is a bit vague. A better way is to understand the various product parameters and then interact with the interviewer about which parameter matter more for each segment.

What is the price-elasticity of each customer segment? This question is important only when we are trying to determine a price of the product. If you're asking this to understand customers at a qualitative level, that is fine.

What is the customer concentration like? Not necessary at all. Getting a qualitative 'high' or 'low' response does not help is estimating profits.

A goal-oriented approach would look like this.

1. Our goal was to estimate profits.

Profits=Market size x Market Share x (Price per Unit-Variable Cost per unit)-Investment.

2. Proceed by estimating the market size.
3. Here you only needed to ask "what the market size is of each segment and respective growth rates" and move on.
4. Then proceed to gauge what market share the company can achieve in each segment. For this ask all the relevant questions with respect to competitor benchmarking.
5. Similarly move across rest of the Profit formula.

f) Overlapping questions - Here there was an attempt to reduce overlaps by analyzing Competitor and Product branch together as 'Competitor benchmarking'. Still the question on "What is the core competency of the company" is redundant and could have been tackled in the benchmarking itself.

g) Not quantitative enough-In this example the candidate fairly asks for enough quantitative information. Still a better job could be done while market share for small farmers was being analyzed. When the interviewer tells the candidate that small farmers prefer using the substitute, the candidate should have quantified the information by asking what percent of small farmers use the substitute product. Notice the benefit of doing this in the Evolved approach, you're able to uncover more insights.

h) Forgetting the Value Chain-In the above approach, the candidate missed out on verifying if the client has the capacity to produce 600MN units in a year, and whether they have the $100,000 of investment required. Though this can be something which can be added as one more check-list question, it's easier to remember this separately as a second piece of analysis that could be done, i.e., "Establishing the Value Chain".

We will now see the Evolved approach to see how these issues get resolved.

5.2.3 Sample Case 2: Chicken Nutrients (Using evolved approach)

Your client ABC Co. is a vertically integrated manufacturer, marketer and retailer of vitamins for chicken in the US. Now to pursue growth overseas in emerging markets, the management of ABC is thinking of entering the rapidly growing Chinese market. You have been hired as a consultant to evaluate the feasibility of their market expansion plan. Should the client ABC enter the chicken market in China or not? Why?

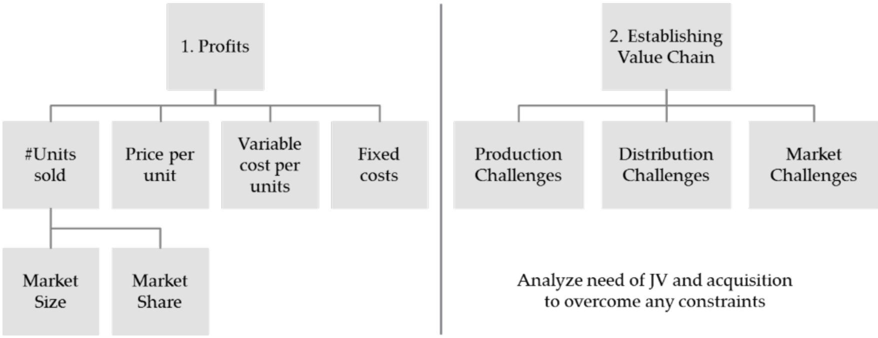
<u>Preliminary questions</u>

(Same as in the conventional case)

<u>Overall Approach</u>

We can proceed by doing two pieces of analysis

1. Estimate profits = Market Size*Market Share*(Price/unit – Var. Cost/unit) – Fixed Costs
2. Establishing Value Chain: Production --> Distribution --> Marketing



<u>Market size</u>

We know the market size is twice as large as the US market. Do we have a number as to how large the US market is?

Take the US market size to be X units.

Do we have any segmentation of customers in China? What is the size of each segment and their growth rate?

Segment	Size (of total Chinese market)	Growth rate (last 5 yrs.)
Small farmers	80%	1%
Community farmers	10%	15%
Corporations	10%	70%

I would like to compare this information to the US. What are the segments and their growth rate at home?

The market for Chicken vitamins comprises only of corporations and has a growth rate of about 3%.

Based on this information, the Small farmer segment is the largest=1.6X with stagnant growth. 'Corporations' is the smaller segment with 0.2X size but significantly higher growth. Community farms have the same size as the corporations' segment but with a lower growth rate. Since in our home market we serve corporations, it may be easier to enter this segment, however we cannot decide which segment to enter or not enter yet.

Market Share

I would like to know what kind of competition we have in the current Chinese market.

There is no competition currently.

Are there any substitutes for our product currently?

There is a substitute product.

How does it compare to the client's product?

It is cheaper and costs 47c/unit; our product price would be 80c/unit. However, it creates side-effects in the chicken.

Do we currently know which of the three segments uses the substitute product?

Small farmers and some community farmers use it, corporations shun it since they cannot risk the health and quality of chicken.

I would now like to see what kind of market share we can get in each of the three segments. Since small farmers make the largest segment, I would like to begin by that.

1. Small farmers - We know that currently they are using substitutes. Do we know what % of small farmers are using the substitutes? I want to know if there is even a market for Chicken vitamins.

About 20% of them?

Do we know why only 20% are using the substitute? Is it because of the side-effects?

Actually small farmers do not really care about the side-effects in the chicken. They are often reluctant to make the investment required to buy the vitamin due to lack of awareness and limited capital.

Hmm… and we know that our product is more expensive than the substitute. If we were to calculate the return on investment for a typical farmer would it be positive after he uses our product. This calculation would involve the investment to buy our product and the incremental price at which he can sell the chicken since it's got a bigger size.

Great question. The farmer would at best break-even.

Hmm so even if we were able to overlook the problem of low capital and lack of awareness of farmer, our product would not be useful to the small farmers.

Notice above how many more insights are uncovered compared to the previous approach at this same point in the case. This was possible due to a deliberate attempt at being quantitative about the market share that can be captured by the client in the small farmers' segment, instead of just qualitatively knowing whether the segment is ideal or not.

2. <u>Community farmers</u> - We now need to see if our product would be useful to community farmers. Firstly, I want to know what community farms are.

Usually small farmers are part of a community. They donate a few chickens to the community pool and they are jointly taken care of through more advanced techniques. The income generated is then split amongst the contributing farmers.

So since they use advance techniques, they would be more open to the idea of safer and better vitamins for the chicken? Even capital for investment would be less of a concern for them?

Yes, good observation.

Would the return on investment be positive for the community farms?

Yes, because they have more #chicken compared to a small farmer, economies of scale kick in. They are also able to sell the higher quality chicken at better prices compared to small farmers.

So we know that our product would be useful for the farmers, but do we have the right distribution channels to cater to the community farms?

In fact, we do not have a distribution network to cater to community farms. Since they are scattered all across china we think it will be prohibitively expensive to distribute to them, either on our own or through third parties.

Hmm... So that makes it difficult to enter community farms as a segment as well.

3. <u>Corporation</u>s - I would imagine that corporations would benefit from economies of scale and can also command a higher chicken price due to the nature of their customers.

Yes, big corporations sell to branded restaurant chains or packaged meat in supermarkets. They can command a higher price after using the vitamins.

Would distribution be a challenge? I think it would be easier to reach to big corporations and we'll require only a few distribution centers to reach out to them. Since in the US we have similar type of customers, we even have experience in reaching out to this segment.

Precisely, we can economically reach out to this segment.

Are there any regulatory barriers to entry? Is there competition likely to be present in the near future which we should be concerned about?

We've got the approval to sell our product in China. There is no competition in the next 1-2 years.

So we know the market size of corporations is 0.2X.

Can we assume we should be able to capture about 30% of the market in the first year, and increasingly there-after?

Yes, go with that.

Then in the first year we can sell 0.06X units at a price of 80c/unit.

Cost

We now need to see what kind of cost we will incur to achieve this target?

We will need to incur an investment of $100,000. Our variable cost, including all transportation costs, comes out to be 40c/unit.

Based on this information our profits for the first year would be,

Profit =0.06X(80c-40c)-$100,000=0.06X*40c-$100,000*

Take X to be 10BN units and calculate.

Profit=~$240mn in the first year and are likely to grow at >80% year-on-year(y-o-y) owing to increasing capture of the market share and intrinsic growth rate of the segment itself.

Good.

I would now like to come to the second part of the analysis.

Establishing the value chain

A. Production challenges - In the first year we expect to sell 600mn units and more in the future, do we have the capacity to produce so many units? We also require a capital investment of $100,000 which seems like a small amount in this context. I expect we would have that money to spare?

   Yes, we can meet the production requirements and have the required capital for investment.

B. Distribution challenges - We have already covered this aspect. We know that we can reach out well to our corporate customers.

C. Marketing challenges-Since we are new to the market we will have to communicate to the corporations our brand and product benefits. I would like to see first what kind of marketing strategies we can transplant from our American business and build on them. Do we have any information on that?

That would not be necessary. This much would do, thanks.

Although not shown in this case, the way a value-chain is set up affects profit margins. Parts of the value chain such as some production phase or some distribution phase can be outsourced to a partner instead of being undertaken independently by the client. This is dictated by which avenue is more profitable.

Note - In the case we analyzed distribution challenges within 'Estimating profits' although we had highlighted it as a separate piece of analysis in the

'Establishing the value chain'. In truth the two branches are not mutually exclusive, they are dependent on each other. They have been explicitly segregated so that you can easily remember to estimate profits as well ensure the value chain is established. As you improve your case-interview skills you can merge the two branches.

We will be using the Evolved approach for Market Entry cases, but feel free to customize and bend it according to your convenience.

Through Chapters 4 and 5, we have tried to show you skills needed to be developed to excel in case interviews.
In the upcoming cases you can expect to find more techniques and approaches, some that are specific to certain situations and some that can be applied more generally in cases.

Chapter 6: Cases

6.1 Guesstimates

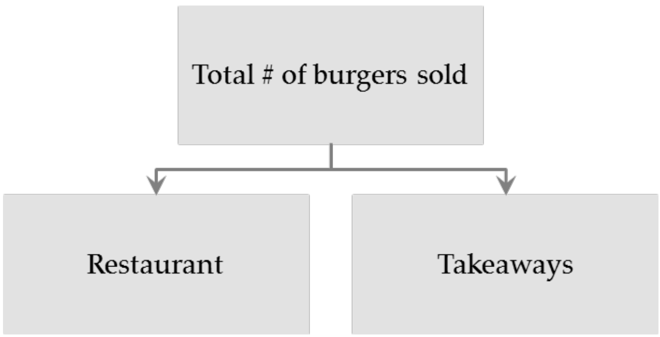
6.1.1 Case 3: Guesstimate 1 | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 35 min *Actual case time: __ min*

Could you estimate for me the number of burgers a McDonald's outlet sells in a day?
Preliminary questions
Can we assume this to be an average McDonald's as opposed to one in a specific location like an Airport?
Yes.
Do we include sales from takeaways as well?
Good question. It might be useful to include takeaways.
Do we assume that the outlet serves other items like wraps/puffs etc.? We will discount the people having wraps/puffs instead of burgers.
Assume that burgers are the only item on the menu apart from fries and coke.
It is very useful to scope out the problem correctly. This has 2 advantages.

1) **You need to identify the constraints you are working under so as to analyze only what is required by the client and move through the case interview faster.**
2) **The interviewer notes that you have thought about various aspects of a case. Although he/she might not ask you to delve into the nitty-gritties, he/she is assured that if you're hired and assigned to a case, you will cover issues exhaustively.**

Overall approach
Here is what I want to do.
To simplify this problem, I would like to estimate the sales in (1) the restaurant and (2) takeaways, separately.



1. <u>Restaurant</u>

I would like to approach this problem from a supply point of view. I want to add that supply in this context means not the burgers that can be manufactured but the maximum customers that can be seated in McDonalds on a given day. I will further try to understand their consumption patterns to arrive at total burgers sold.

I'm assuming that an average McDonalds has about 50 seats and is open from 10 am to 10pm. The consumption patterns of burgers are different throughout the day

The total number of burgers = (# hours) x (# people per hour) x (# burgers per person)

We have used mathematics here to ensure MECE segmentation.

The total number of burgers = (# hours) x (# of seats occupied) x (# people per seat per hour) x (# burgers per person)

The total number of burgers = (# hours) x (Total # of seats) x (average % occupancy) x (# people per seat per hour) x (# burgers per person)

Let's say every person eats at McDonalds for 20 minutes. There are 3 (60min/20min) people occupying a seat every hour. Also, in my experience since burgers in India are slightly smaller, I will assume 20% of the people eat 2 burgers and 80% of eat 1 burger. That is an average of

0.2*2 + 0.8*1 = 1.2 burgers per person per sitting.

The total number of burgers = (# hours) x (50) x (average % occupancy) x (3) x (1.2)

= (# hours) x (% occupancy) x (180 or approx. 200)

Since the occupancy varies according to time of day, I would like to do the math separately for each hour. Do you think that works?

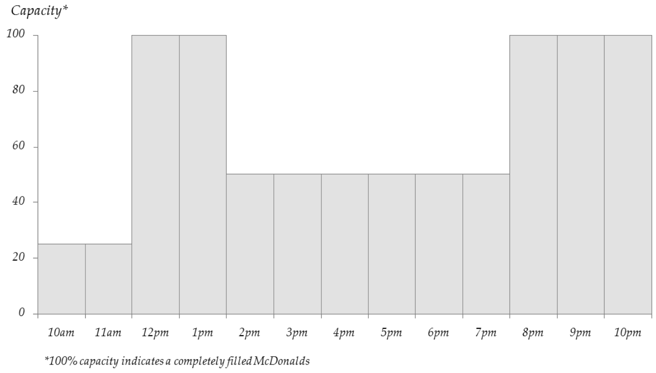
Sure. That seems reasonable.

For simplicity's sake, let's take 3 scenarios: 100% occupancy (high traffic), 50% occupancy (medium traffic), and 25% occupancy (low traffic).

- High traffic: Lunch and dinner hours
- Medium traffic: Post lunch and early evening hours
- Low traffic: Morning hours

The kind of insight demonstrated by the candidate above is what you want to aim for in guesstimates. Not only should it be important but something that can easily be incorporated in your solution.

Here is a graph representing the traffic of people at McDonald's by the hour.

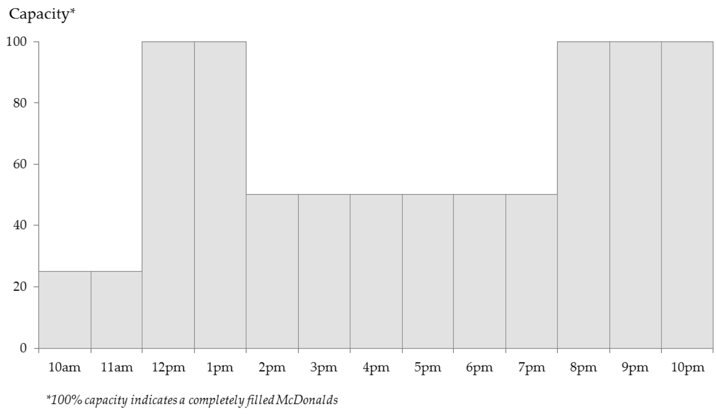


Calculation: (Following from the last mathematical equation)
High traffic: 5 hours * 100% occupancy * 200 burgers = 1000 burgers
Medium traffic: 5 hours * 50% occupancy * 200 burgers = 500 burgers
Low traffic: 2 hours * 25% occupancy * 200 burgers = 100 burgers
Total number of burgers sold in a day in a restaurant is 1600.

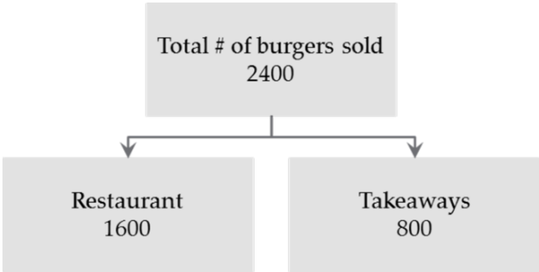
2. Takeaways

The takeaway counter has a queue during high traffic hours and it will be useful to bring in my own experience at these counters to estimate the time that each exchange takes.

In my view,
Time taken for every person = 75 s = 1.25 min
# of burgers in an hour = (# of people in an hour) * (# burgers per person)
I have assumed that the takeaway orders are slightly more than the restaurant orders.
# of burgers in an hour = (60/1.25) * (2) = ~100 burgers
Assuming that the traffic of people is the similar for takeaways as well,



High traffic: 5 hours * 100% traffic * 100 burgers = 500 burgers
Medium traffic: 5 hours * 50% traffic * 100 burgers = 250 burgers
Low traffic: 2 hours * 25% traffic * 100 burgers = 50 burgers
Total number of burgers sold in a day in a restaurant is 800



Hence, the total number of burgers sold every day at an average McDonald's is about 2400 burgers

Impressive. Is there anything else you would like to add?

Yes. I would like to do a quick sanity check.

Sanity check is a method to check if the answer from the guestimate is in the bounds of reasonableness

Okay. How might you do that?

I think the bottleneck during high traffic hours is the supply i.e. the manufacturing rate of the burgers themselves. The kitchen would be running at nearly full capacity during these hours.

Supply = Demand during peak hours.

<u>Demand</u> (as per our calculation)

Demand of burgers during high traffic time = 300 (restaurant: 200; takeaways: 100) burgers per hour = 5 burgers per minute.

<u>Supply</u>

Keeping in mind that the McDonald's model is a made-to-assemble* one,

Time required to make a burger = (1) Sourcing components + (2) Heating + (3) Assembly + (4) Delivery

***A made-to-assemble model is one where the individual components are ready or 'made' and require only assembling to make the finished product**

Time required to make a burger = 5s + *5s + 10s + 10s = ~30s

*Assuming 2 crate of patties (each having 30) take about 5 minutes to cook.

Hence, every kitchen employee makes 2 burgers per minute.

Assuming 3 people working in the kitchen during high traffic hours, the outlet produces ~6 burgers per minute or which is in the same ballpark as the demand.

I concede that due to incomplete knowledge about the industry, I may have made some errors in assumption.

That is just fine. I like your approach.

Case performance sheet (Tick in the appropriate box)

#.	**Fields**	**Excellent**	**Good**	**Average**	**Below par**
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.1.2 Case 4: Guesstimate 2 | ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 25 min *Actual case time: __ min*
Estimate the fleet size of Air India

Preliminary Questions

Do I need to calculate both international and domestic fleet size?

Count only the domestic one as of now.

Should I consider only active aircrafts or also ones under maintenance?

Only the active ones.

Overall Approach

I would like to first estimate how many flight routes Air India operates in. Then we can see what would be frequency of each route and accordingly find the no. of aircrafts required to service the route. Finally, we can sum up the required aircrafts for each route and get the result.

Sounds good, go ahead.

There are two types of cities

a) 6 Metros: Mumbai, Delhi, Kolkata, Chennai, Hyderabad, Bangalore
b) 30 Tier-two cities

This would lead to three types of direct routes

1. Metro to Metro: 15 routes
2. Metro to Tier two: Total of 6x5=30 routes.

We can assume that every metro has 5 tier-two orbital cities, for example there is no direct flight from Mumbai-Chandigarh. It is routed via Delhi. Hence Chandigarh is an orbital city of Delhi. We will assume there are direct flights only between a metro and its orbital tier-two cities, not between a metro and different metro's orbital tier-two city.

3. Tier-two to Tier-two (direct flights are rare, since they usually routed via Metros and hence accommodated in previous two types of routes)

There may be some flights which have multiple stopovers. We can consider them to be equivalent to two flights (if there is one stop over) under the types of routes mentioned above and continue with the analysis.

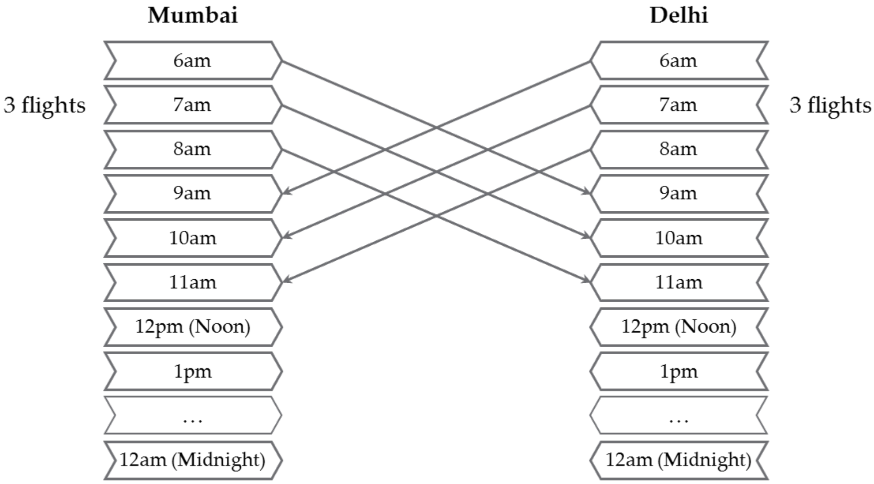
1. Estimating # flights it would take to cover a Metro-Metro route

Let's assume flights can run between 6am in the morning to 12am in the night.

If we take a high intensity metro route like Mumbai to Delhi, based on my experience, there is a flight of Air India departing every hour.

If I assume that a flight leaves from Mumbai at 6am. It reaches Delhi at 8am. Then there is a 1-hour turnaround time which includes maintenance of the

aircraft. Then the flight leaves from Delhi at 9am. Similarly, after reaching Mumbai, the flight is ready to depart at 12pm (Noon).
At 6 am simultaneously a flight departs from Delhi, reaches Mumbai at 8am and after a 1 hr. turnaround time departs from Mumbai at 9am.



Totally 6 flights required to cover Mumbai-Delhi route to achieve frequency of 1 flight departing per hour

This would mean that we need 3 flights departing from Mumbai at 6am, 7am & 8am and 3 flights departing from Delhi at 6am, 7am & 8am to achieve a 1-hour flight frequency from 6am to 12pm (Midnight). Therefore, a route like Mumbai-Delhi requires 6 flights.
However, all Metro to Metro routes are not this busy. Mumbai-Delhi is the busiest route. If we take Kolkata to Hyderabad, it is a less busy route and the flight frequency would be more like 1 flight per 3 hours by Air India. This would mean a requirement of only 2 flights to cover the route.
On an average we can assume a requirement of 4 flights per metro route leading to an average frequency of -a flight every 1.5 hours.
This would mean 4X15=60 aircrafts on Metro to Metro route.
2. Estimating # flights it would take to cover a Metro-Tier-two route
Coming to the 30 Metro -Tier-two routes. A typical route would be Delhi-Chandigarh.
These routes have low frequency.
The journey time is lesser of about an hour.
A flight departing at 6am from Delhi will reach Chandigarh at 7am, would depart from Chandigarh at 8am, would reach Delhi at 9am and would again leave from Delhi at 10am.

Hence with one flight we can achieve a flight frequency of 4 flights per day. Based on my experience **(You can ask the interviewer for his experience, makes the interview conversational)** even 4 flights might be too much and Air India may be having just 3 per day to save on operating expenses. Additionally, it's possible that one air-craft might be catering to two low-frequency Metro--Tier 2 routes, however we will neglect that and assume each route will have one dedicated aircraft at least. That leads to 30x1=30 Aircrafts.
Hence we have a total of 60+30=90 aircrafts of Air India meant for domestic routes in active service.
Alright, good job.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.1.3 Case 5: Guesstimate 3 | ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 30 min *Actual case time:* __ *min*

Estimate the number of schools in Mumbai

Preliminary questions

Are we counting both government and private schools?

Yes.

Are we looking at all standards from Junior Kg to the 12th Std.? This would give us an age group of 4-18.

Yes, you are spot on.

Should we include junior colleges as well in schools?

No, do not include them.

Should we consider NGOs as well? What about local level teachers teaching without any school (for very poor students)?

Consider only establishments where students go for an education. The establishment can be run by anyone, government, NGO or private.

Overall Approach

We have the following formula:

#Schools in Mumbai = (#School going children in Mumbai) / (Avg. # Students per school)

We will first estimate the (#School going children in Mumbai) and then the (Avg. # Students per school).

1. # School going children in Mumbai

We can divide the population across age-groups and then across income segment. We know that India being a young country has 50% of its population below the age of 25. Since Mumbai has a population of 20MN, this would mean 10MN people are under the age 25. Assuming an equal distribution, this gives us 400,000 students across each year till the age 25.

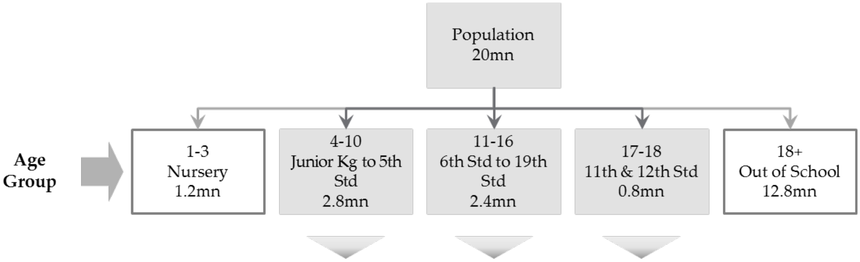
Depending on their age and family income segment, different percentages of children would go to schools. The following are general characteristics being applied on a group and there will be exceptions.

The middle class families send all their children to school. Some children may be home-schooled but we can neglect that.

The lower middle class sends children to school up to 10th Std. But because of our patriarchal society, some girls may not be sent to school. In the lower middle class segment several students only complete their 10th Std. examinations and do not study further, though that trend is changing.

Most BPL families are too poor to send their children to school. These are usually, children of construction workers, vegetable vendors or even beggars. However, there are several NGOs and government schools accommodating

them. These children have a slim chance of attempting their 10th Std. examinations and almost none at attempting the 12th Std. examinations.
Note that the Upper Middle Class (10% of population) has the same relevant characteristic as the Middle Class and hence it has been lumped in the Middle Class for analysis.



Income segment	% going to school		
Middle Class (40%)	100%	100%	100%
Lower Middle Class (40%)	90% (100% M, 80% F)	90% (100% M, 80%F)	37.5% (50% M, 25%F)
BPL (20%)	50% (50% M, 50% F)	25% (25% M, 25% F)	0%
Total	2.4mn	1.9mn	0.4mn

We can say that of the 0.4mn students of the age 17-18 almost 50% would be going to Junior Colleges and the rest to CBSE, ICSE and other schools.
Hence we get the total school going children to be 2.4mn + 1.9mn + 0.4mn*50% = 4.5mn

2. Avg. # Students per school

We can divide schools as

- Large Schools (30%)
- Medium Schools (50%)
- Small Schools (20%)

If I just count the schools around IIT Bombay, Powai (Mumbai), there would be about 10 schools of which 3 are large, 5 are medium and about 2 are small.
You can take any area you want as a reference. Try to choose one which has a good mix and which you think might be a close to an average
Large schools typically have 40 students in each class. They have 5 divisions per class. There are variations but we can say generally they teach students from Jr. Kg to 12th grade. This would mean a total of
40 x 5 x 14=2800 students.
Medium Schools do not tend to space out their students across divisions like the large schools do. They typically have around 50 students in each division and

about 3 divisions in total. These schools generally teach students from Jr. Kg to 10th grade. This makes it a total of
50 x 3 x 12 = 1800 students.
Small Schools teach about 30 students at a time. They have fewer divisions, let's go with 2. They also teach a small age group of students either only Jr & Sr. Kg, or 1st to 5th Std. Let's say they teach students across 5 age-groups. This is an approximation as many times small schools like those run by NGOs lump students across ages in the same class. We get total students as
30 x 2 x 5 = 300 students.
Hence an average school has
0.3 x 2800 + 0.5 x 1800 + 0.2 x 300 = ~ 1800 students.
Hence the Total # Schools = 4.5mn/1800 = ~2500 schools.
<u>Sanity Check</u>
As a sanity check we can see how many schools we get per square kilometer and if that number is reasonable. We know that Mumbai has an area of 600 sq. km. I would expect about 2 schools per sq. km. This takes the number of schools to around 1200. It seems like we made certain overestimations. Let's go over the numbers once more.
Our average school's student strength looks all right at 1800, could not be higher.
Our Population distribution numbers seem right too.
Within the income-segments the middle class and BPL assumptions seem right.
We may have over-estimated the number of students from the LMC category. In the age-group of 4-16, 80% students may have gone to school at some point of time, but not through all the grades in between.
Should I re-calculate based on this?
No that would not be required, good job with the case.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.1.4 Case 6: Guesstimate 4 | ★★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 30 min *Actual case time: __ min*

Estimate the market size for air-conditioners in Mumbai

Preliminary Questions

There are two types of air-conditioners- window and split. Shall I include both?

Yes.

And should I include objects like air-coolers?

No, you need not.

In what unit would you want me to estimate the market size- #ACs, INR, etc.?

Good question. Estimate the market size in terms of tonnage. A 1-ton AC can typically cool a small room.

Should I include second hand ACs as well?

Interesting, but no. Include only first-hand ACs in the market size.

Air Conditioners are used for residential cooling and commercial cooling in Mumbai. Residential cooling involves cooling in home and apartments. Commercial cooling would involve Office Spaces, Malls, Restaurants, Hospitals, Schools, etc. Shall I calculate the market size including all these?

For simplicity, just calculate Residential and Office Space cooling. We can neglect the rest.

Overall Approach

We need to calculate the market size for air-conditioners in tons. The market size would involve the #ACs required to replace old ones along with the additional demand for new ACs.

Market size in tons= Demand to replace old ACs + Demand due to growth in market size

= (#ACs in tons) / (Avg. life of an AC) + (#ACs in tons) x (Growth rate)

Avg. Replacement Demand = Current # Products/ Avg. Life cycle of product

If the life cycle of a product is Y years on average, then in Y years' time each of these products would be replaced by newer ones. Then we can say, Average replacement demand for any particular year is (Current # Products/Y).

We can take the average life of an AC to be 10 years. Can we take the growth rate in absence of any other information as the growth in GDP of India which is about 5%?

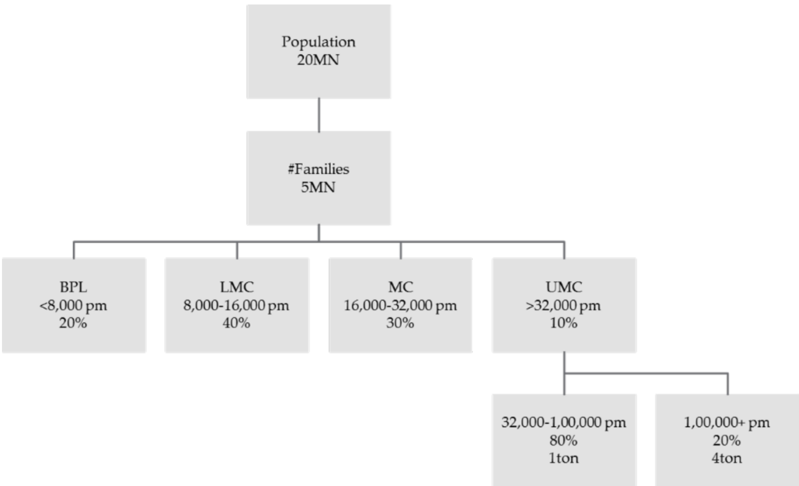
Take the growth rate to be 10%.

Alright, what remains to be calculated is the (#ACs in tons) presently in Mumbai. We are looking at demand in

- Residential Segment
- Office Space Segment

For the Residential segment,

#ACs in tons = (#Families who can afford ACs) x (Avg. tons of ACs per family)
For the Office Space Segment,
Offices typically have centralized ACs and the tonnage of the Central AC decides how much area can be cooled.
#ACs in tons = (Total office area) x (Tons required per unit area)
= (#People working in air-conditioned offices) x (Office area per person) x (Tons required per unit area)
Sounds good. Go ahead.
<u>Residential segment</u>
We can take the average family size to be 4 in Mumbai. Though there are families of bigger and smaller sizes, we will use this simplification. Hence for a population of 20MN we get 5MN families.
The next aspect we need to look at is the affordability of an Air Conditioner. An AC costs roughly INR 25,000 to 40,000 depending on the tons.
A Middle Class (MC) family has an income in the range of 16,000 to 32,000 pm. The average household income would around 20,000pm. **Note that the average is skewed towards the lower limit.** This would probably be the salary of junior most clerks in offices. Given the AC cost is more than a month's salary, I do not think that the Middle Class would be able to afford ACs. Obviously the Below Poverty Line (BPL) and Lower Middle Class (LMC) families would not be able to afford it as well.



Now we need to see the Upper Middle Class (UMC) families. Their income is greater than 32,000 pm. The average income of this segment would be roughly 50,000 pm or about 6 lakhs per annum. The average UMC family would live in a 2 BHK home. I think such a family would be able to afford at least a 1-ton AC.

In this segment there would be families which can even afford up to 3ACs, two 1 ton ACs for each bedroom and a 2-ton AC for the living room. This is the case for my family, and our average household income would be around 100,000pm. Based on this we can split the UMC into two segments.

- Income between 32,000pm-100,000pm. Let's assume this will be 80% of the UMC segment. We will assume on average a family in this segment owns a 1-ton AC.
- Income greater than 100,000pm. Based on our assumption this will be 20% of the UMC segment. We will assume the average family in this segment owns 4 tons of ACs

Hence we get,

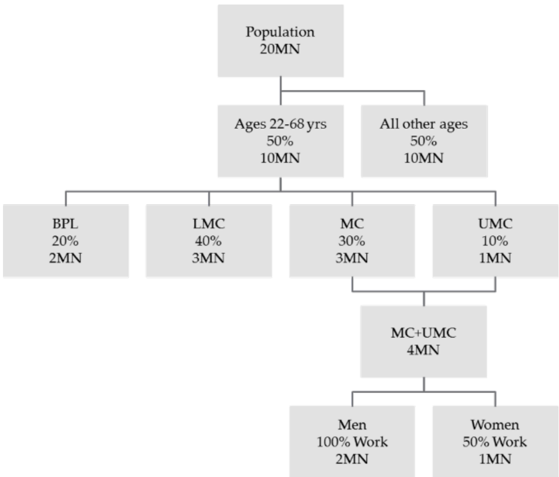
#Tons in residential segment= 5MN x (10%) x (80%) x (1 ton) + 5MN x (10%) x (20%) x (4 tons)
=400,000 + 400,000
=800,000 tons.

<u>Office Space Segment</u>

For the Office Space Segment

#ACs in tons= (#People working in air-conditioned offices) x (Office area per person) x
(Tons required per unit area)

The people working in air-conditioned offices typically would have white collar jobs. Though there will be cases where white collar professionals do not work under ACs and blue-collar workers have air conditioning, we will neglect these exceptions. (White collar employees are those which typically work in offices, they are accountants, bankers, bureaucrats, etc. Blue collar employees would be mechanics, electricians, manual laborers, etc.)



The people with white collar jobs would be part of the Middle Class and Upper Middle Class in the age group of 22-60. Assuming an equal spread of the population from 1-80 yrs., roughly 50% of the population will lie in the 22-60 bracket.

We can assume that all men and half the women would be working.

This gives us a total of 2MN men + 1MN women = 3MN people.

In a typical office, people work in cubicles. Apart from the area of a cubicle, an air-conditioned office has several common areas such as receptions, washrooms, lunch areas. If we were to divide the total area of an office with the total number of employees, we can say that an office area roughly the same as a 'bedroom' would be equivalent to two employees. A 'bedroom' typically has an area of 200 sq. ft. Hence each employee is equivalent to 100 sq. ft. area in an office. Also we will require a 1-ton AC to cool a room of 200 sq. ft.

Hence,

#ACs in tons= (#People working in air-conditioned offices) x (Office area per person) x

(Tons required per unit area)

= (3MN) x (100 sq. ft.) x (1 ton / 200 sq. ft.)

= 1.5MN tons

Combining the office segment with residential segment, we get the total AC tons to be 2.3MN.

Market Size in tons = (#ACs in tons) / (Avg. life of an AC) + (#ACs in tons) x (Growth rate)

= (2.3MN tons) / (10 yrs.) + (2.3MN tons) x (10% per year)

= 460,000 tons / year

Great. We can close the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.1.5 Case 7: Guesstimate 5 | ★ ★

Interviewer Name: ____________ *Date:* _______________
Estimated case time: 40 min *Actual case time:* __ *min*
Estimate the no. of taxis in Mumbai.

Preliminary Questions

What kind of taxis, call cabs like Meru and OLA? Or the spot taxis like Black and Yellows?

Calculate the spot taxis, only, mainly the Black and Yellows.

There is an overlap of demand between call cabs and spot taxis. However, let's assume it is insignificant since call cabs are used for longer distances like going to airport etc., and have a more premium income segment.

Fair enough.

Overall Approach

We can use a Demand based approach.

#Spot Taxis = (Total #Taxi fares per hour) / (Avg. fares per taxi in an hour)

The above analysis can be done for any hour in the day. However, we should choose the hour on the basis of ease of computation of (Total #Taxi fares) and (Avg. fares per taxi) in that hour.

For this let us choose the morning time, since we know most people need to leave home to go to work or college at that time. This is better than choosing some other time like afternoon/evening where demand can come for a wide variety of purposes (like going for shopping, theatre) and will make it difficult to compute. We can compute the

(Total # Taxi fares) in the morning time (7am-12pm) and divide by number of morning hours to arrive at (Total #Taxi fares per hour) in the morning.

We need to consider the following factors when calculating (Total # Taxi fares) in the morning

- Population
- Income Split
- Age split
- Gender
- Alternatives: Buses, personal cars, bikes, walking, auto-rickshaws, other vehicles
- Region: Auto-Rickshaws are not allowed in South Bombay, so use of taxis is greater there
- No. of passengers in a taxi at a time
- Journey time

Let us begin the estimation

Total Population 20MN	Filter	Factor
20MN*1/2=10MN	Age	1/2
10MN*3/4=7.5MN	Gender	3/4
Target Population 7.5MN		

Age

Assuming an age spread from 0-80. Our target age-group will be 15-55 yr olds who go to college or work and require transportation.

I'm assuming 0-15 yr olds don't travel without older company, their demand is subsumed in the 15-55 age group.

Demand from 55-80 yr retired population is negligible.

Hence the age factor is 1/2, assuming equal distribution of population across age groups for ease of calculation

Gender

In the 15-55 yr segment, we can assume every second woman leaves home in the morning and all men leave home. Hence the Gender factor would be 3/4.

Of this target population of 7.5mn, we can now find how many require transportation through autos or taxis. Later we can compute, how many of them prefer taxis.

This step may be counter-intuitive. Try to directly go ahead with finding taxi demand instead of (taxi + auto) demand. You would find (as we did) the need to do the income-split analysis, below, separately for South Bombay and Rest of Mumbai. The approach given does the income-split analysis together, and then applies a factor for market share of taxis within (taxis + autos). The lesson here is that in the middle of a case you can pull back, tweak your approach for simplification purpose, and then resume forward.

Target Population 7.5MN

	BPL 20%	Lower MC 40% 3MN	Middle Class 30% 2.25MN	Upper MC 10% 0.75MN
Characteristics	Cannot afford taxis/autos	Use buses for longer distances, walk shorter distances. They car pool up to 3-4 persons from local taxi/auto spots to workplace hubs.	Do not own a personal car but can better afford taxis/autos. Less dependent on car pooling. Avg of 2 persons	Have a private car so don't always need a taxi/autos, but also don't use buses too Can afford to not car-pool
% using taxis and autos	0	40%	60%	20%
		3mn*40%-1.2mn	2.25mn*0.6=1.35mn	0.75mn*0.2=150k

This gives us a total of 1.2mn+1.35mn+0.15mn=2.7mn people requiring (**taxis + autos).**

We need to now apply a factor, for people only using taxis out of these.

In South Bombay, autos are legally not allowed, so people there will only use taxis. South Bombay roughly represents 20% of Mumbai's population. In the rest of Mumbai, most people use auto-rickshaws since their more easily available and cheaper. Let's say 20% of people outside South Bombay use taxis in the morning.

Hence % of people using taxis in the morning=0.2*100%+0.8*20%=0.36

Hence the #people requiring taxis in the morning

= 2.7mn * 0.36

=~2.5mn * 0.4

=~1mn

Now, we need to apply a factor for carpooling. This differs by income-segment. In the middle-class segment on an average two people would use a taxi at a time. Since this is the largest segment of demand, we will consider the average carpooling number to be 2.

Hence we get a demand for 1mn/2=500,000 taxis during the morning.

Now, let's say the demand is scattered over morning 7am-12noon, with peak-hour being 9am-10am constituting 30% of the demand.

Hence during the peak hour of 9am-10am, there is a requirement of

(500,000) x (30%)

=150,000 taxis per hour

An average fare time during the peak hour would be

=Time with passenger + Time without passenger

=40mins+5mins

=45mins

Avg. fares per taxi in an hour = 1 hour / (Average fare time)

= 60 mins / 45mins

= 1.33

Hence the total # taxis= (Total #Taxi fares per hour) / (Avg. fares per taxi in an hour)

=150,000 / 1.33

~**110,000 taxis**

<u>Sanity-Check</u>

As a sanity check let's see what the ratio of taxis and passenger cars is:

We know population of Mumbai is 20MN.

This will roughly equal to 5MN households.

We can assume that according to the income segment, the top 20% can afford cars.

This will give us about 1MN passenger cars.

The ratio of taxis to passenger cars would then be ~1:10 which seems to be in the right ball-park based on experience.

Note the above computation of passenger cars is not how you would do it if you were asked an entire guesstimate on it. However, it is a useful 'quick and dirty' method for the sanity check, here.

Case performance sheet (Tick in the appropriate box)

#.	**Fields**	**Excellent**	**Good**	**Average**	**Below par**
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2 Profitability cases

6.2.1 Case 8: Logging Company | ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 25 min *Actual case time: __ min*

Our client is a South Indian Teak wood manufacturer. They have been reporting too high profits and want you to figure out why is that so.

Preliminary Questions

How high are our profits? What are we comparing it to?

Our profits are significantly higher than our competitors.

It is important to benchmark numbers with respect to something like competitors or timeline to put the number in perspective.

Why is it even a concern?

The client is concerned if the high profits are sustainable.

Since when have we been having these high profits compared to competitors?

Since we started the business three years ago.

So it seems we have an internal advantage (company specific) ever since we started the business which we are unaware of.

Some questions to understand the business better. What is the client's product? What are the competitors' products?

Both competitors and the client make wooden planks of two types - A and B. They differ in their sturdiness.

What geography do we and our competitors operate in?

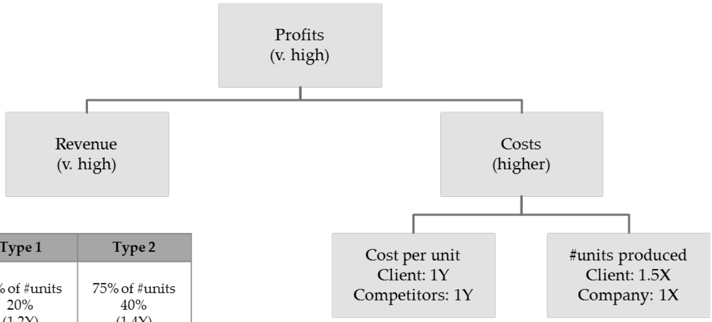
In the Nilgiri forests, the hub of teak wood in South India.

Where do we lie in the value chain?

Most companies in this industry, the client included, own plots of land in the forest. Wooden planks are manufactured from the teak trees that grow there. The planks are then sold in a common wholesale market to customers (primarily construction companies).

Overall Approach

First, I want to compare our profit structure with respect to competitors to identify key drivers of our client's high profits. Following that, I want to verify whether they are sustainable.



	Type 1	Type 2
Client #units sold: 1.5X Margins over cost (hence price is)	25% of #units 20% (1.2Y)	75% of #units 40% (1.4Y)
Competitors #units sold: 1X Margins over cost (hence price is)	90% of #units 20% (1.2Y)	10% of #units 40% (1.4Y)

Note: The above Information has to be given as and when the candidate asks for each data point. The candidate has to come to his own conclusion of price from the margin data.

Based on the above information, there are two reasons why client is earning high profits

1. # of units sold by the client is 1.5 times more than that by the competitors
2. Client's split of production is 3:1 in favor of higher priced type B planks as compared to 1:9 for competitors

We know what the reason for high profits is, but we need to know why this is happening and whether it is sustainable.

I'd like to begin by understanding why:

1. Units sold is 50 % higher than competitors

Let's understand the value chain of the business here.

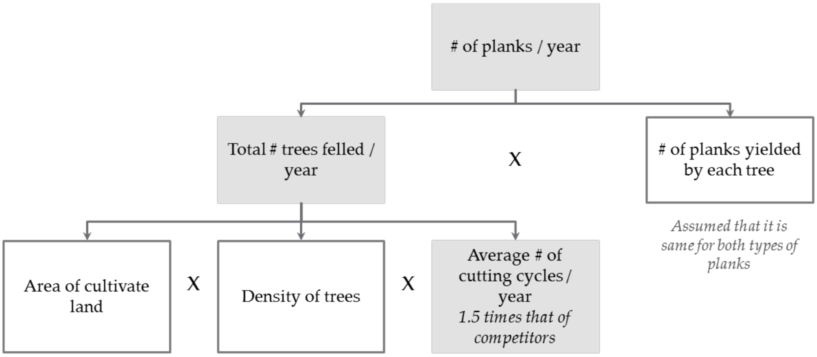
Production > Distribution push of product > Customer demand

Hence, one or more of the following could be happening

- We are producing more planks.
  That is in fact happening. We are producing 1.5X compared to competitors.
- Our wholesalers are able to push our products better than anyone else.
  That is not particularly true.
- The customers prefer our products better than our competitors'.
  No. The planks are a commoditized product. This means that customers do not prefer our type A over our competitor's type A. Same in case of type B.

Assume every plank that is produced in this industry gets sold. So, sales are dependent only on production.

I want to segment further to identify the driver for higher planks produced by the client.



Cutting cycles is the number of times the trees in a plot are cu annually

Area of land is same since each company has been allocated a 50sqm area by the government for a 99yr lease.

Why do we have more cutting cycles in a year? It is possible only if our trees are growing that much faster. Is that the case?

We've done some research and we've found that there are certain minerals in the soil of our plot of land that allow trees to grow faster.

So we know why we are able to produce more planks. The big question is: can we continue doing that? Are the minerals going to last forever?

The minerals are depleting and will get exhausted linearly in the next 5 yrs.

Hmm so the minerals are the key and they will deplete in 5 yrs. Is there any way to?

1. Re-generate the minerals, for example using special fertilizers? No
2. Get more of the soil with these minerals? No
3. Get a plot of land where these minerals are present? No

This means the profits are not sustainable. We will have to look at other ways to compensate for our eventual depletion of luck. But before that I want to move onto mystery 2-

2. Split of unit production is 3:1 in favor of high-margin Type B planks as compared 1:9 for competitors

Why do we have a more favorable split of 3:1 for type B planks?

Every company tries to maximize the production of the high margin product. Our competitors are just not able to produce as much.

Why is that? What determines whether a plank is a type A or a type B wood?

Every tree gives us wood of the two types. Whether a plank is type A or type B depends on the inherent sturdiness of the wood, which is again because of the minerals in the soil. Naturally, our trees are able to provide us with much more type B wood compared to our competitors.

So essentially minerals in the soil were the reason for our unsustainable high profits. Since we cannot preserve our advantage of higher unit production and favorable split, we can potentially look to increase our price in the market or reduce costs to maintain our high profits. Would you like me to do that analysis? *Prices cannot be increased due to competitive pressures and cost optimization will be difficult. I think we've uncovered the crux of the issue. We can close the interview here.* **Brownie points for mentioning that prices for Type-2 planks can be jacked up since no other company has the soil advantage. Even if it means reduced annual profits in the short run, in the long run we will have a higher cumulative profit.**

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical calculation				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.2 Case 9: Drug mafia | ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 30 min *Actual case time: __ min*

Your client is a drug lord from Mexico whose company is reporting a drop in profits in the last 2 years. He has hired you and you have no choice but to figure out why. How do you work it out?

Preliminary questions

Think of preliminary questions here

How does this business work? What part of the value chain does our client operate in?

We manufacture cocaine in large quantities in Mexico. It is then shipped to various countries. Here, the local drug cartels purchase the cocaine from us and sell it to the end consumers.

What are our revenue streams? Which is the loss-making one?

We are only present in the cocaine business.

Hmm. Have our competitors seen similar losses?

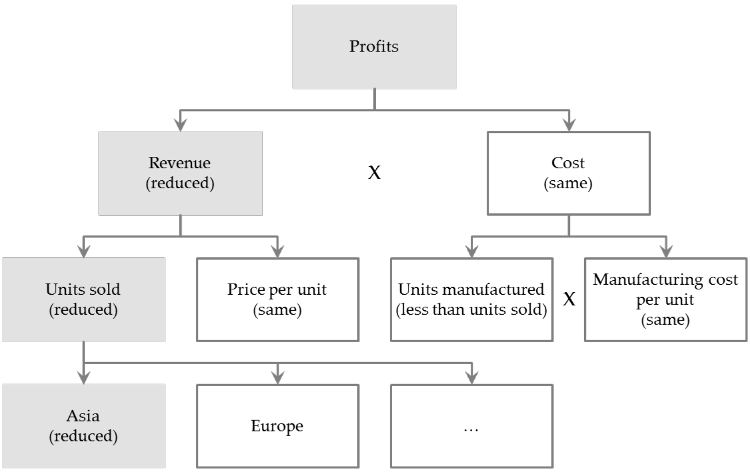
We have men in a few other cartels who inform us that there is no serious hit to their profits.

Is this an issue in a particular geography?

The Asian countries have reported lower profits.

Overall Approach:

I want to study the profit structure of the client and identify drivers of lower profit. We shall then address them in the latter half of the case.



Since the # of units sold is less than what is produced, I want to understand where in the value chain is the cocaine produced not getting pushed forward, and subsequently identify the driver for it.

Production →Transportation to countries →Distributor push (in each country) → Local cartel demand

Since we are manufacturing the same number of units, production does not seem to be an issue. Are we able to transport the required amount of cocaine to the Asian countries?

Yes. We are.

Are our distributors able to push the product to the cartels? Is there enough demand for cocaine?

No. They are not. This is despite there being a demand for cocaine by the local cartels.

So, either the cocaine is not being sold and is lying in the stock or the cocaine probably went missing in transit while shipping.

The demand for the cocaine is the same. The cocaine is going missing while shipping it. Why do you think that might be happening?

It is possible that our product is being stolen.

Good, but that is not the case. What is likely to happen to an illegal product like cocaine?

It could get confiscated by the police.

Exactly. It so happens that our cocaine is being confiscated in market places by the police. Why is this happening?

This could be because either the enforcement against drugs has become stricter in Asia OR the security around our sale with the cartel has slackened OR both.

In light of stricter enforcement, the local cartels have been receiving the drugs through alternate, less risky routes and our competitors have moved to them.

Interesting, so it seems we have not adapted to this development. We can

- **a)** Look to increase security of our consignments around this route
- **b)** Shift to the alternate route or
- **c)** Ramp up production to the extent that losses due to security lapses are made up for
- **d)** Do nothing much if previous three actions will lead only to more losses.

Can we bring in our own security? Is it possible to pay off the cops to let go of our product? Can we pay our distributor more to ensure better security?

We will be unable to do either of these.

Then it looks like we are going to have to settle with shifting our trade route as well (to get back the business we have lost to our competitors). I want to understand how badly this affects our profits. It might not make sense if we go into greater losses.

That makes sense. Shifting trade routes will increase our cost, but would be more than offset through the restoration of our sales volume, leading to better profits.
Now we need to know which option between shifting routes and ramping production on existing route is more cost effective.
That fine, we can close the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Communication				
6	Presentation				
7	Creativity				
..	…				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.3 Case 10: Mumbai Hotel | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Our client owns a hotel. The client is pondering whether to increase the room rental rate from $160 to $180 to increase profits and wants your recommendation on what to do?

<u>Preliminary Questions</u>

Any particular reason why we have chosen price increasing strategy over other options to push profits?

Not really, we're just exploring this option for now.

Sometimes, this question is useful to uncover what is the rationale of the client to prefer one option over the other. You can use the information then as a focal point in your analysis.

Is $160 an average room rate, or do we have standardized rooms with a uniform rate?

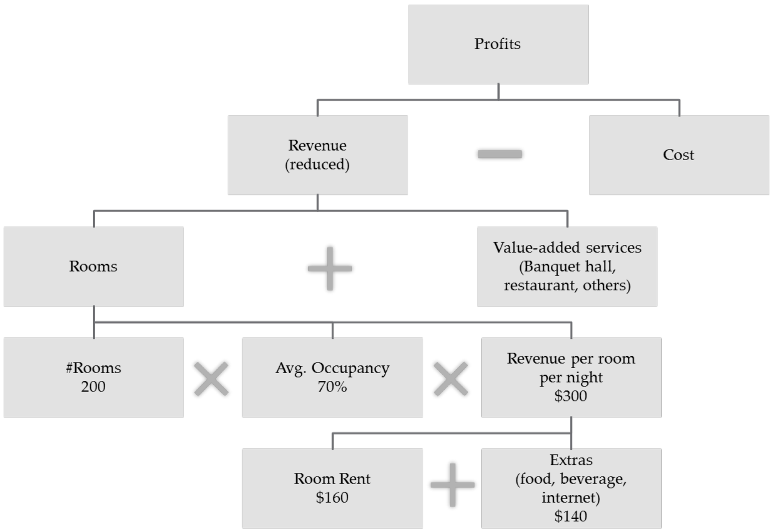
Uniform rate across all our rooms. They are similar.

What is the location of this hotel?

Located in a business area in Mumbai.

<u>Overall approach</u>

I would like to begin by understanding the profit structure of the company and how room rentals fits into it. I would then like to calculate the additional new revenue and costs to check if we are more profitable than status quo. Costs will go up only if we find during the analysis that we need to make additional expenditure to justify higher room rental.



Note: The candidate has to ask relevant question to be able to chalk out the profit structure himself. It does not have to be directly given by the interviewer.

So we know we're increasing Room rent from \$160 to \$180. To understand how this affects our overall profits, I would like to understand how this decision will impact the following:

1. Occupancy rate: Customers might choose not to come to our hotel
2. Spending on Extras: Customers may scale back on this expenditure
3. Profits from Value-added services: This may be related to the #Customers coming to our hotel. This analysis can be taken care of in the potential decrease in #Customers for point 1.
4. Costs of Room: Any additional expenditure required to justify higher room rate

This looks fine, you can proceed.

I'll begin by understanding 1 (Occupancy rate) & 2 (Spending on Extras), and later come to 4 (Costs).

We basically need to understand the price elasticity of our customers. I want to understand two aspects of our business

- **a)** Type of customers-to find out how price elastic they are
- **b)** Competition nearby-this will affect customer price elasticity as well

(a) Type of customers-to find out how price elastic they are

What kind of customers do we get?

Mainly business and tourists.

What is the split amongst these two type of customers?

80% business and 20% tourists.

Since we've got 80% business customers, let's begin by seeing how increasing room rental affects them. Business customers often don't pay from their own pocket but they can bill their company for the stay. Is that true?

Yes, that is in fact the case for all our business customers.

Does the company also cover for the extras?

Yes.

Hmm, that means the cost is borne by the company. We really need to look if the company would be okay with the added expense of the room.

So, the companies whose employees typically stay in our hotel have a cap for room rentals. Employees can stay in any hotel as long as rooms cost <\$220 per night. Also, there is no restriction on the employees' billing of extras.

Alright, this means that we can expect similar occupancy and spending on extras, since the employees are unaffected and their spending is in line with company policies.

However, given that the cap is $220 and our objective is to maximize profits, we can potentially increase room rentals even upwards of $180.

Good suggestion, we will look into that later.

As of now we don't see the need of increasing costs in our room. We can simply increase room rates and expect more revenue.

(b) Competition nearby-this will affect customer price elasticity as well

However, I would like to understand what kind of alternatives do our business customers have. Even though they are personally not affected by the higher room rental, if they have cheaper options for the same quality, they may take an economic decision from their company's point of view.

In the location that we cater to, there is one other hotel. It has rates around $160 per room. However, we have a better business center.

I want to get a sense if our customers are likely to stay with us because of our business center. Can you tell me what the use of the business center is and how important is it for business customers?

Notice that the candidate is not only asking a specific question but also telling the interviewer why he is asking this. This allows the candidate and the interviewer to be on the same page throughout the case.

The business center provides facilities for holding corporate meetings. Our business customers frequently use it and hence it's quite important to them.

This means we have an edge over our competitor which will make our business customers stick with us and anyways they are unaffected by us increasing room rates.

So from the point of view of our business customers, this looks like a profit boosting strategy and we don't need to increase costs. However, we also need to consider how it affects the other type of customers – Tourists.

I imagine that tourists would be a lot more price elastic than business customers since they pay from their own pocket.

That is true.

In that case we have two options,

- **a)** Uniform price increase for business customers and tourists: In this case we will have to see if the additional revenue from business customers outweighs potential decrease in revenue from tourist customers.
- **b)** Price increase for only business customers: This can be done through a price differentiation strategy. For example, we can have "executive suites" for our business customers with slightly better ambience/facilities and "regular" rooms for tourists.

Awesome, I think that's good.

Synthesis

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.4 Case 11: Fruit juice manufacturer | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 35 min *Actual case time: __ min*

The client is a UK fruit juices manufacturer. The facility was established 4 years ago. The client sells to big retailers as well as small and medium retailers. The client sells its product in two bottle sizes-1L and 250ml. The client has a 10% market share in the current market. The profits have been negative since inception. You have been called to turnaround the profits.

<u>Preliminary Questions</u>

We know the client is a UK based manufacturer. Is the geography of its current market also in the UK?

Yes.

Where do we lie in the value chain?

Like I mentioned, we are manufacturers. We use third-party distributors to sell our product to small, medium and big retailers.

This maybe a redundant question, but it's better to be certain of your understanding.

What exactly is our product, like Tropicana?

Yes, you can assume Tropicana.

Are our competitors facing the problem of negative profits as well?

No all our competitors are profitable.

Hmm, so this seems to be a company specific problem.

<u>Overall Approach</u>

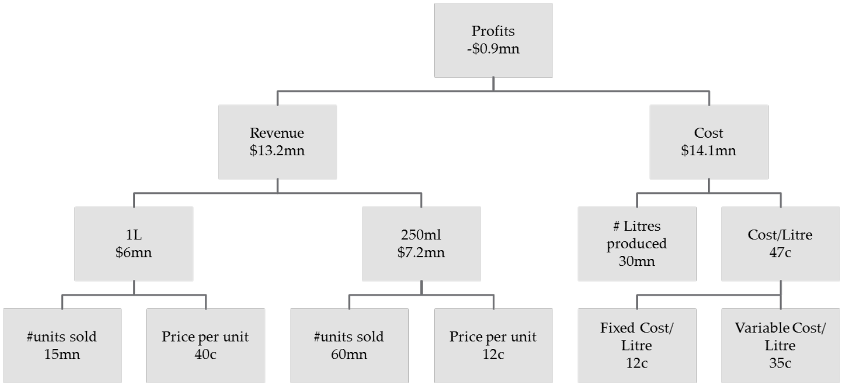
I would like to understand the profit structure of our company. I would then like to compare it with our competitors to see why we are making losses while the industry is profitable. Finally, I'll see other ways of increasing our profits.

The below profit structure is to be discovered by the candidate by asking multiple questions. Note that it is important for the candidate to discover the ends of each branch in an issue tree because they help diagnose the problem. Suggested way to go about:

Profits = (Rev) - (Cost)

= (Vol. * Price/unit) - (Vol. * VC/unit + FC)

= (Vol1L * Price/unit 1L + Vol250ml * Price/unit 250ml) - (Vol. * VC/unit + FC)



We can restructure the profit formula as

Profits= (Volume) x (Profit margin per liter) - Fixed Cost

= V x (P - C) - FC

Based on the above information:

1. Liters sold (V) = (1*15 + 0.25*60 =) 30mn
2. Our Avg. price per liter (P) = $13.2mn/30mn=44c
3. Our Fixed Costs (FC) = (12c) x (30mn) = $3.6mn
4. Our Variable Cost per liter (C) = 35c

I want to now compare our volume, Avg. price, Fixed Costs and Variable Cost per liter with our competitors to understand where we are lagging.

Notice the benefit of restructuring the profit formula as

Profits= (Volume) x (Price- Variable Cost/Liter) - Fixed Cost

Instead of using Fixed Cost/Liter. It makes more sense to segregate it out as Fixed Cost since now we have all mathematically independent variables in the formula. If instead we wrote

Profit = (Volume) x (Price-Variable Cost/Liter-Fixed Cost/Liter)

It would be suboptimal since Fixed Cost/Liter is dependent on Volume and we cannot analyze them independently.

We know that our competitors sell 1L and 250ml bottles at the same price as us. The ratio of sales in terms of liters is also equal to 1:1 like us. Hence Avg. price per liter is the same.

We know that even Fixed Costs (not fixed cost/liter) and Variable Cost/Liter is comparable with competitors. However, each of our competitors are selling 3X volume compared to us.

I would like to do the analysis in the following order

1. Increasing Volume
2. Increasing Avg. Price/Liter
3. Reducing Fixed Costs
4. Reducing Variable Cost/Liter

Notice how comparing each metric with competitors, helped us to establish a priority in analysis of each metric.

1. Increasing Volume

Can you give me an idea of our market share vis-a-vis competitors?

Sure.

Company	Market Share
A	30%
B	30%
C	30%
Client	10%

Hmm...So it seems to be a volume issue for us. Our competitors are producing 90mn liters whereas we are producing only 30mn.

Our break-even point would be

Profits= (Volume) x (Price- Variable Cost/Unit) - Fixed Cost

0 = V x (44c- 35c) - $3.6mn

0 = V x (9c) - $3.6mn

Therefore, V = 40mn liters.

Anything upwards of 40mn production and our company would be back to profitability. I would now like to see if that is possible and why we have less market share compared to competitors.

We can solve the issue of increasing volume sales by upgrading the value chain through

Increasing production → Better distribution and retail push → Increasing Consumer demand

We can increase volume sales only if we can increase production – assuming no inventory issue – so let's start here.

a. Increasing production - Can we increase our production? What is our current capacity utilization?

Current capacity utilization is 40%.

This means we can produce up to 30mn/0.4 = 75mn liters. Why is it that we are not producing more, is it because of less demand for our product OR is it that demand exists but we aren't supplying enough to satisfy it?

We never thought of increasing production. We can easily sell 10mn liters more if we produce that much more.

Great, this will allow us to break-even. However, are market share will still be around 13-14%. We can further see why our competitors have an edge over us.

It is important to ask the capacity utilization question. If we are operating at 100% capacity utilization the volume cannot be increased without capacity addition which would increase fixed costs.

b. Improving distribution and retail:

I want to know if we are doing particularly badly in any of these segments-small, medium or big retail.

What specific information you would require?

What is our split of volume across these three segments and what is it for competitors?

The splits are the same for client and competitors.

I want to know if our distributors and retailers are pushing competitors' products more than us. This can be either because of monetary reasons such as better margins being provided by competitors or non-monetary reasons like our bottles having poor shelf life, etc.

No reason to believe that competitors favored because of a better push.

So we know that we don't have any competitive disadvantage with respect to our competitors, however we can look to gain an edge over them. This can be done by

- Expanding distribution network to new geographies
- Increasing types of distribution channels in each geography-small, medium, big retail, online
- Increasing the no. of shops, we supply in each distribution channel
- Improving effectiveness of each channel

The above is a good way to breakdown the distribution operations of a company. It is hard to miss out on important issues if the analysis is well structured in a case.

Great, but we don't need to go in that detail, you can move onto the next issue.

c) Increasing consumer demand for our product.

Here we will have to benchmark our product on a range of parameters to understand why our competitors have an edge in market share.

- What customer segments do we cater vis-a-vis competitors?
- Do we satisfy the requirements of each customer segment targeted?
  - How is the product priced compared to our competitor?
  - How is our product different from our competitors - taste, health, preservatives used, and flavors?
  - How is our packaging different from our competitors' - bottle sizes, color, outer packaging?
  - How do our marketing efforts compare with competitors - product differentiation, marketing channels, and brand recognition?

On all parameters we match competitors, except one. Over the last few years 'pulpy' drinks especially for orange juices has become a consumer fad both due to health and taste reasons. We have not tapped into this market.
What is market share of pulpy juice drinks in the overall juices market?
About 30%.
Do we have the capability to manufacture and supply pulpy drinks? Would it require any additional cost considerations?
Yes, we can manufacture and supply pulpy drinks at negligible cost increment.
(After checking with interviewer of what can be our approx. market share in pulpy segment?) So we can capture 20% of the pulpy drinks segment.
When we saw we could increase production by 10mn liters and sell, which segment was that for-pulpy or regular?
Yes, assume that those 10mn liter worth sales will come from regular juices only.
So increasing 10mn liters of regular juices allowed us to breakeven. Capturing 20% of the pulpy drinks segment of 90mn liters (30% of 300mn liters) will lead to additional sales of 18mn liters. Total production is 30+10+18=58mn liters. This is still within our production limit of 75mn liters.
Is the price for pulpy drinks and the variable cost the same as regular juices?
Yes, assume that.
This will result in an effective profit of ((58mn liters * 9c) - $3.6 =) $1.62mn.
Great, would you like to analyze anything else?
We have seen how we can improve our market share in the existing market.
We can now see if we can increase volume by exploring new markets. We can then go back to seeing if we can increase price, reduce variable cost per unit or reduce fixed costs.
That won't be necessary in this interview. Thanks.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.5 Case 12: Vodka manufacturer | ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Your client is a spirits' company which makes vodka. Of late, they have experienced a decline in profits. Why is this happening? What recommendations can you give to turn this around?

<u>Preliminary questions</u>

Is selling Vodka the only business of the spirits company?

Yes, it is the only business.

I see. So there could be more than one reason for this decline. Where does the client primarily operate?

The client operates in the metropolitan cities of India.

Where do we lie in the value chain? Do we manufacture it and sell it to distributors?

That is correct.

What exactly is the product?

It is simply a standard bottle of vodka.

Since when have we experiencing this decline in profits? How much is this drop?

There has been a constant decline for the past 10 years and a rather sharp one last year.

Which is the geography giving us trouble then?

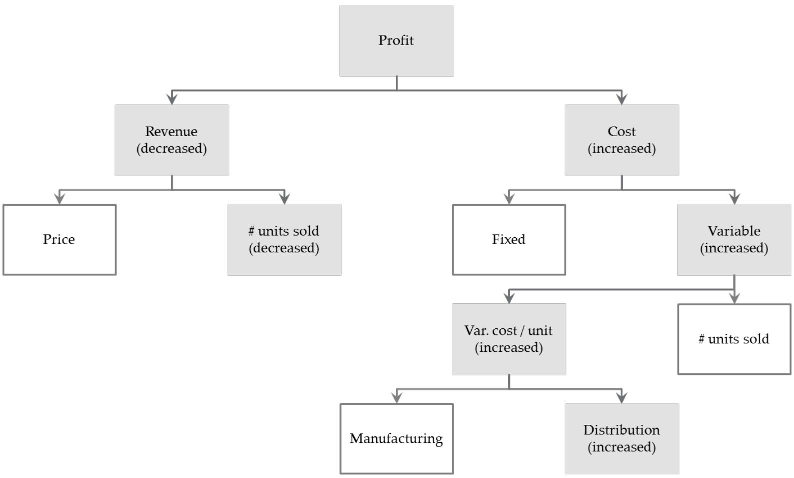
All over India sales have uniformly declined.

Sure, how is the rest of the industry doing?

They are also facing reduced profits but their case is not as bad as that of our client.

<u>Overall approach</u>

I would like to study the profit structure of our client in Mumbai to understand what is causing the problem and then proceed to suggest recommendations.



Let's break this problem down into 2 parts:

1. Why has the number of units sold decreased? How can we change that?
2. Why has the distribution cost suddenly increased? How can we address that?

1. Addressing decreasing sales:

I want to find out whether this has been happening across the industry? Have the sales of our competitors decreased as well?

We do not have hard data but there is evidence that more of the competitors' product is being sold.

Hmm. So, if the market size has not decreased, we have been losing market share to our competitors.

The market size has stayed more or less the same.

I would like to now analyze where in the value chain (from the production to the end consumer) the problem lies:

Production →Distribution and retail push →Customer pull

<u>Production:</u>

Has our production capacity taken a hit because of which we are not able to produce as before?

No. It's not because we aren't producing enough units that we aren't selling as much.

<u>Distribution push:</u>

What distribution channels do we use? What about our competitors?

We sell our goods to retail stores and clubs all over Mumbai. So do our competitors.

How much do we earn from each of these channels? What about our competitors?

Hmm. We earn 90% from retail stores and 10% through clubs. Competitors earn 60% from retail stores and 40% through clubs.

Why is there a discrepancy between us and competitors?

The orders for vodka by clubs from us has been on the decline. The retail sales have stayed more or less the same. Our competitors have not lost sales in clubs. It has increased in fact.

Hmm. That explains where we are losing our market share. Are the club-owners pushing the competitors' products more aggressively? Is there any incentive for them too?

Not really. It is the end customers who are not buying the vodka, resulting in lesser orders off late.

I would now like to understand the customer pull for our product which has been decreasing over the years.

<u>Customer pull:</u>

Let's look at factors that influence a consumer to buy our competitor' product over ours. Is there a difference in?

- Price
  Competitor's product is cheaper than client's product.
  Why have we priced our vodka more?
  We have a better quality vodka.
- Vodka - flavors, alcohol content etc.
  Ours is the superior vodka.
- Packaging - bottle size, shape, color
  This is more or less the same.
- Marketing
  Competitors have been marketing on social media and have an annual electronic dance music (EDM) festival in Bangalore in addition to the channels we use.

I see! It seems like our competitors have been doing a good job of attracting a younger crowd. The younger generation is much more tech-savvy and catching on to EDM as opposed to the elders. Hence, by associating their product with these channels, there seems to be evidence that our competitors' vodka is more popular than ours in clubs.

You are right. The customer base we served 10 years ago is not on social media. Moreover, with age, they are probably drinking lesser.

Correct.

To close the discussion on decreasing revenue – It looks like our client hasn't kept up with the current trends of the youth. The competitors have positioned themselves as a vodka that celebrates the spirit of youth. They have done so by setting a cheaper price, marketing it on social media and collaborating with music festivals.

2. Addressing increased distribution cost:

I want to find out whether this has happened across the industry. Has the distribution cost per unit increased for our competitors too?

It has, actually.

How does the distribution work today?

There is a designated distributor who distributes these goods across the city. He has chosen to increase the price.

When did this happen?

This happened last year.

That explains the sharp dip in profits last year.

True. What are you going to do about it?

We should try and do the following:

- Negotiate a better deal with him
  That does not seem likely.
- Try to move to a new distributor

There are very few distributors around and hence we do not have any bargaining power.

- Try distributing the product ourselves.

  We could consider that. Let's close the case here. What are your thoughts on the next steps the client should take?

To restore the revenues:

Market the current vodka as a gentleman's drink or a vintage drink. This could be our premium product. We must look to increase the distribution channel to airport lounges, airplanes and other places where the moneyed people frequent.

Sure.

Have a slightly cheaper vodka range which targets the youth. The packaging for this range should be attractive and funky. In addition to marketing on social media, it could be co-branded with aspects associated with the youth – music festivals. Fashion shows, sports and the entertainment industry (movies etc.) We could invest in a brand ambassador if the numbers make sense

Okay.

To decrease the distribution cost:

We set up a distribution faculty within our company which serves the purpose of the current distributor. We would, however, need to look at the numbers to make sure this is profitable.

Besides that, we could explore alternative distribution channels as well. E.g.: Online, late-night delivery vendors.

These ideas make sense. That will be all. Thank you.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.6 Case 13: Private Equity Firm | ★ ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 40 min *Actual case time: __ min*

ABC partners, a Private Equity firm, has hired us. They have recently acquired a Retail Chain. Post the acquisition, in the next year Revenue of the retail chain increased 2X. However, Profitability reduced from 40% →35%. The client wants you figure out why this is so and suggest suitable remedies.

<u>Preliminary questions</u>

Have the profits reduced or profitability? Is profitability defined as profits as a % of revenue here?

Profitability has reduced. Your definition is correct.

The client expected the Profitability to remain the same?

Yes, almost the same. Did not expect a 5% decline.

2X seems seem a huge revenue increase in a span of a year. Do we know upfront why this has happened? (Spidey sense info as explained in section 4.1.3)

Yes, after ABC acquisition, 10 new stores were opened in the last year taking the count to 40.

How many stores do we have and in what geography?

40 stores in Mumbai evenly spread out.

Where do we lie in the value chain? Just retail?

Yes, we receive products from independent distributors and retail them.

What are our product offerings in the stores?

You can imagine a Big Bazaar-apparel, groceries, furniture, electronics, etc.

A follow-up question here on whether any of the above segments - store, geography, product type - faces the profitability issue might be useful. This is an advanced tactic, and here the line between preliminary questions and problem structuring starts blurring. This should be used, only when in the back of your mind you know what your hypothesis in the case would be (based on experience). You can check if the problem is isolated in a particular segment immediately after you are made aware that the segment exists. This saves time since you do not have to come back to the issue later. You still have to state out loud the overall approach to solve the case which is in your head. If this is your first case involving profitability (as opposed to profit) you may not already have the overall approach in mind. In that case you should focus on framing the overall approach and then you can ask questions about which segment is facing the problem.

Is this an industry wide problem?

Other retail stores are not facing a reduced profitability.

Is the reduced profitability of 35% same across all 40 stores?

Yes.

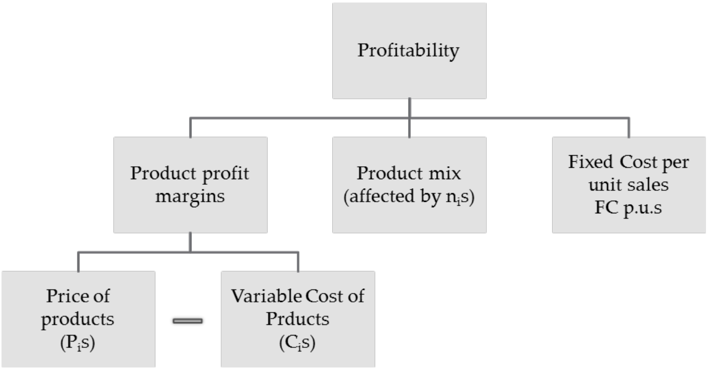
Overall Approach

I would like to understand what is driving lower profitability by studying its components. After acquiring this information, I will proceed to identify remedies for these issues.

You need a customized framework to analyze profitability instead of profits. A MECE mathematical segmentation is can be very useful to come up with one on your own. This can be done whenever you have an unfamiliar composite metric or parameter. Try on your own before seeing the solution.

$$Profitability = \frac{Profit}{Revenue} = 1 - \frac{Cost}{Revenue} = 1 - \frac{Fixed\ Cost}{Revenue} - \frac{\sum n_i C_i}{\sum n_i P_i}$$

- C_i is the variable cost per unit of the i^{th} item type
- n_i is the number of units of the i^{th} item sold. (Every unique product will have an 'i' and n_i would represent the number of units sold of that product.)
- P_i is the price of the i^{th} item



(Fixed Cost per unit sales = Total Fixed Cost / Total Sales)

We will now look at how each bucket is responsible for our reduced profitability.

1. Price of Products
2. Variable Cost of Products
3. Product mix
4. Fixed Cost per unit sales

It's important to layout your structure upfront as shown above for the interviewer's benefit as it shows a clear pathway for how the case will be solved.

1. Price of products

Have we decreased the price at which we sell our products?

No.

Can we increase the price of our products to boost profitability?

No, since the prices have to remain competitive.

<u>2. Variable cost of products</u>

What do our variable costs include?

It includes only our purchase costs from distributors. Apart from purchase costs the distributor bills us at the end of the year for delivery. However, this is included in the fixed costs.

Alright, can we reduce the purchase costs for any of our products by leveraging the cumulative bargaining power of 40 stores?

No, we cannot.

<u>3. Product mix</u>

I want to know if our product mix has changed such that a greater percentage of our revenue is coming from lower margin products than before. If this is the case what are these lower margin products?

We have recently introduced electronic products in all 40 stores. Electronic products now contribute to 50% of our revenue and are lower margin products compared to our conventional products.

This also would be leading to the 2X increase in revenue apart from the increase in 10 stores?

Yes.

Has the 50% revenue contribution of electronics come in addition to existing revenue from conventional production or at the expense of revenue from conventional products?

We have seen a decline in revenue from conventional products, owing to loss of shelf space to make way for electronic products.

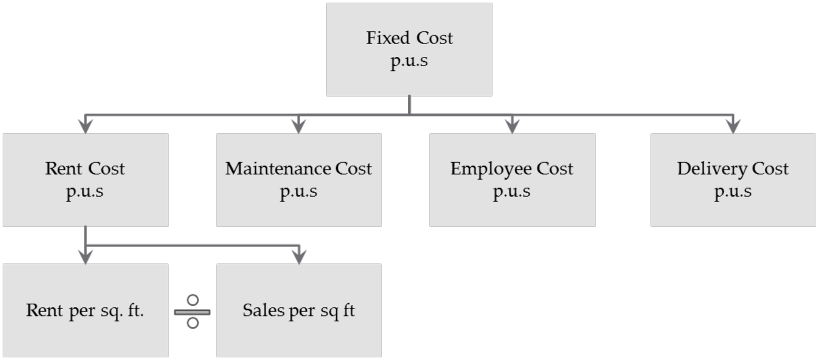
In that case, ABC can look at shifting the balance of shelf space in favor of conventional products as long as their overall profits do not take a hit, to secure a higher profit margin.

Yes, good point.

However, it seems that some decline in profitability was inevitable. When ABC decided to introduce electronic products which typically command a lower margin. Was it not expected?

We did expect it but not to the extent of the 5% decline.

4. Fixed Cost per unit sales (p.u.s.)



a) Rent Cost p.u.s.

I want to break Rent Cost p.u.s. sales as (Rent per sq. ft.) / (Sales per sq. ft.). How has each parameter changed?

(Rent per sq. ft.) has remained constant. What do you think has happened to (sales per sq. ft.)?

Even though the interviewer can give you the information, these are times when the interviewer wants to test your reasoning and logic, and so flips the question back.

Assuming equal floor space of each new & old store our total area would have increased by 33 %(30->40 stores). Our revenue has increased by 100%. This would mean that (Sales per sq. ft.) has increased.

Yes, exactly.

Hence our Rent p.u.s has decreased and this factor would lead to an improvement of our profitability.

b) Maintenance Cost p.u.s

We have seen a reduction in Maintenance cost per unit sales for a similar reason as Rent Cost per unit sales.

c) Employee Cost p.u.s

Employee cost per unit sales has increased

Why has this happened?

$$Employee\ Cost\ p.u.s = \frac{Employee\ Costs}{Revenue} = \frac{(\#Stores)\ X\ (\#Employees\ per\ store)\ X\ (Avg.Salary)}{Revenue}$$

Employees have increased from about 10 per store to about 30 per store for new stores and old stores. This is because electronic products require a greater sales effort. Employees’ costs cannot be reduced without taking a hit on profitability as long as we continue to sell electronic products.

So this has led to a hit on our profitability but again on expected lines.

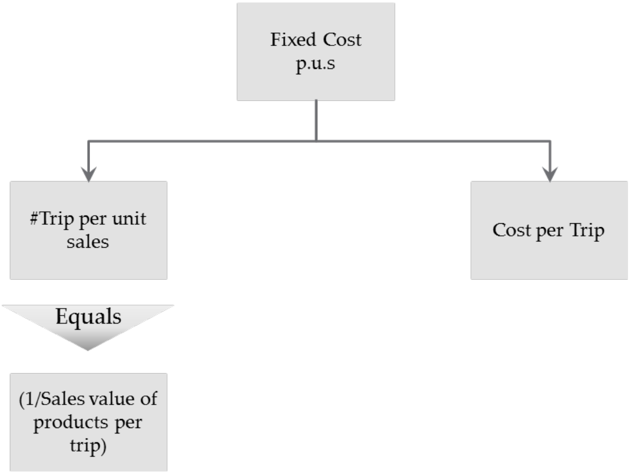
d) Delivery Cost p.u.s

Delivery cost p.u.s has increased.

How are we charged by the distributor?

Retailers are billed by their distributors on the basis of no. of trips the distributor trucks have to make.

I would like to break-up Delivery Cost p.u.s as follows and see which bucket has changed.



Cost per trip has remained same but value of products per trip has gone down.

This is because the larger electronic items such as refrigerators and television sets are being transported in each truck and there is less space for more items.

Can we reduce Cost per trip?

Cost per trip cannot be reduced with the current set of trucks.

We should then find either another distributor or have an in-house distribution team which uses much bigger trucks for electronics so that improved space utilization more than offsets higher per trip cost.

Great, we can end the case here.

Note the importance of using this customized profitability framework. If you would try and fit the normal profit framework, under costs you would find that all costs-rent, maintenance, employee and delivery are up and would not know where the problem lies.

Also here the metric <Fixed Cost per unit sales> is more appropriate than <Fixed Cost per unit>. Since there are all sorts of units-furniture, electronics, etc.-being sold, there is no standard product unit. The common denominator that applies to all products would be per unit worth of sales.)

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.7 Case 14: Electronics Manufacturer | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Our client is a consumer good electronics' manufacturer. Their revenues have declined by 20% over the last year and they want you to figure out the cause and suggest suitable remedies.

<u>Preliminary questions</u>

What is the geography of the client's operations?

Urban India-tier1 and tier 2 cities- is mainly where demand for our product lie.

We manufacture and then sell through 3rd party distributor and retailers?

That is correct.

What are the products we sell?

We sell kitchen utility electronic products like microwave ovens, refrigerators, toasters, etc.

Since when have we been experiencing the revenue decline?

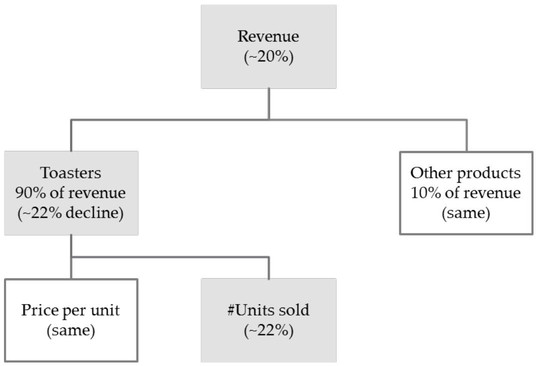
Since the past year.

How is the industry doing with respect to kitchen-utility products on the revenue front?

The kitchen-utility electronics industry has been showing a growth of 5%

<u>Overall approach</u>

I would like to analyze the revenue structure of the company and find out what drivers are causing us to lose revenues and then proceed to suggest remedies.



So we know our revenues are down by 20% because units sold in our main business of toasters is down by 22%.

I would like to now analyze where in the value chain the problem lies.

Production --> Distribution & Retail push --> Customer pull

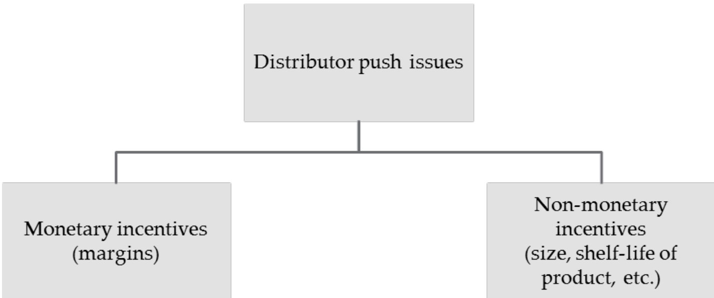
<u>Production:</u>

Have we faced any production related issues which have reduced our capacity to produce?

Yes, our factory had been shut down for 2 months for the once in 3-year maintenance, owing to which we could only produce 78% of our usual capacity.
Okay that explains why our #units sold is down by 22%. I'm wondering if we had been able to produce at full capacity would we have seen #unit sales decline?
Good question. Let's say we conduct a market survey of our retailers and customers and we find that even if we had faced no production issues we would still have seen a 10% unit sales decline.
Alright, then there are other reasons why we would see revenue decline apart from production.
<u>Distribution and Retail push issues</u>:
Can you tell me how our distribution works?
We've got three channels

- *Small Retail (40% of toasters revenue)*
- *Big Retail (40%)*
- *E-commerce (20%)*

What is the split for competitors? Through which channel have we seen the #unit sales decline coming from?
The split is same for competitors; we are seeing the decline in #unit sales in the same proportion as the current split across three channels.
During the case you can score brownie points by throwing few insights along the way as long as you're not deviating much from your primary objective. Here you can say that, since e-commerce comprises 20% of revenue, and if it is the fastest growing segment then the company should aggressively market through this channel to capture a leading market share.



Is there any reason to believe that our distributors or retailers are not pushing our product as much as they are for competitors? Are our margins in line with competitors? Is there any non-monetary reason that makes our product less lucrative to distribute? *No. Our margins are in fact slightly better.*
<u>Consumer Pull:</u>
Then we are left with Customer pull decreasing, as being the reason for the 10% decline in #unit sales over and above our production issue.

I wish to now know how our competitors in the toaster business have fared in terms of #units sold. I had earlier asked about kitchen-utility products. However, our revenue decline is because of toasters, I now want to ask the question from this point of view.
We have 4 competitors A, B, C and D in toasters business. Each of us had a 20% market share roughly at the beginning of the year. A & B have shown an increase in market share whereas C & D along with us have reported a reduction in market share.
Is it fair to say that the customers of C, D and us have shifted to A & B?
Yes.
So somewhere A & B have developed an edge over us.
To identify this edge, I would like to benchmark our product with respect to the competition. What are the key parameters of comparison for the product?
Why don't you come up with them?

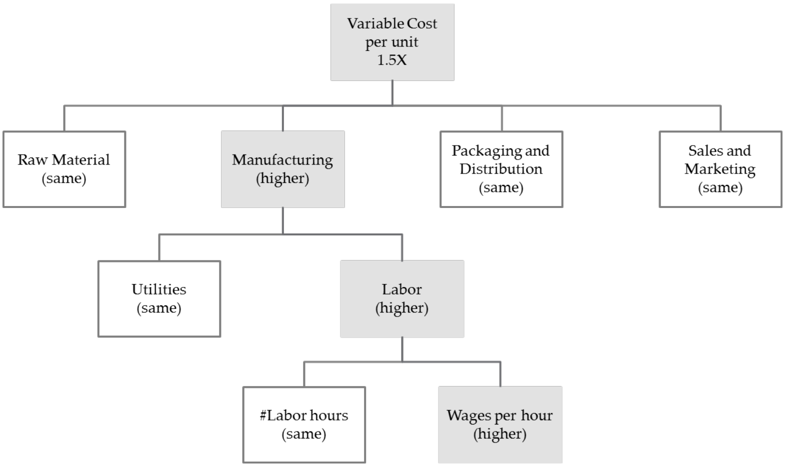
- Price
- Quality of product: Life, time to toast, electricity usage, safety, look
- After sales servicing
- Marketing-advertising, channels of sales

Good, here is some data.

	Price	After sales service
Client	1.5X	Best
A	1X	Okay
B	1X	Okay
C	1.5X	Okay
D	1.5X	Okay

On all other parameters you can assume the client and competitors don't differ much.
Based on this information it seems, that customers are moving away from our client's product as well as B & A due to the higher price. That would make sense since we are dealing with middle class urbanites who typically are price sensitive. *Good point.*
Another insight that can be mentioned is that because of e-commerce, customers can quickly check prices of all companies' products online and purchase the cheapest product more easily, making the industry more price-sensitive.

To validate if price is indeed the reason for this year's revenue decline, I want to know if our competitors have changed their price. *Yes, A & B have reduced their price from 1.5X to 1X in the last year.*
I want to now know why our competitors are able to charge a lesser price. How does pricing work in the industry?
A standard 20% profit margin is imposed on the cost by each competitor and us.
This would mean that our unit cost is also 1.5X compared to A & B.
Yes.
Then we can reduce our price by either reducing profit margin or by reducing our cost.
We are unwilling to reduce profit margin, since it's necessary to overcome our initial investment.
Alright I would then like to analyze our cost structure and compare it to A & B. Can you tell me how our fixed and variable costs compare with competitors?
You do not need to compare fixed cost, since that is our initial investment which will be recovered once we get sales back on track. You should compare variable cost with competitors.
The reason the interviewer says this is because companies apply a profit margin per unit over their variable cost per unit. The profit margin per unit chosen is dependent on what the fixed costs of the company are, and here the interviewer has said that profit margin cannot be changed. Hence we only see how variable cost per unit can be reduced to reduce price.



Do we know why our hourly wages are higher?
Our client has recently outsourced labor to China as a result of which they have been able to cut down on labor expenses.
Where is our factory located? Can we outsource outside India?

Maharashtra. No our company owner does not wish to ship jobs overseas.
In that case can we outsource within India to maybe a more rural part of the country where wages are lower?
Yes, that can be done.
In addition, we should try and lobby the government to impose tariffs on companies shifting labor outside the country. We can also look at a "Made in India, Swadeshi" branding of the company to increase customers buying our product.
Interesting! You can synthesize your findings and recommendations.
I would recommend the client to re-locate their factory to a place with lower wages

- We are losing market share to competitors who are better priced than us owing to lower labor costs
- Competition has managed to reduce labor costs by moving to China
- Since we are unwilling to move outside the country we should find the most suitable location from a wage standpoint in India

Additionally we can also look at lobbying government to provide incentives to keep jobs in India and capitalize on a Swadeshi positioning for our brand.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.8 Case 15: Petrol Pump Owner | ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 25 min *Actual case time: __ min*

Your client is a petrol pump owner. He has recently seen losses in his businesses. What might be going wrong? What are your recommendations?

<u>Preliminary questions:</u>

How many petrol pumps does the client own? How many of them have a problem? Where are they located?

He owns 50 out of which one has a problem. It is located on a highway joining Delhi and Chandigarh.

Have all petrol pumps in the area reported reduced profits?

We don't have exact figures but on the whole, yes, all of them have.

Is this a recent issue or has it been happening over time?

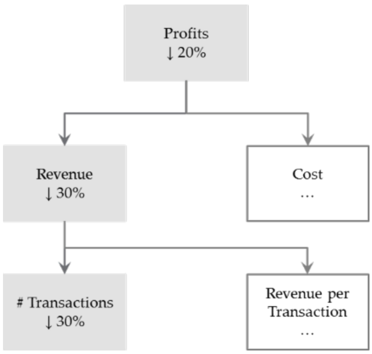
We have seen this in the past few years.

What are the various products sold at this pump? Is a particular business not doing well?

ABC sells petrol and diesel. Both businesses have suffered.

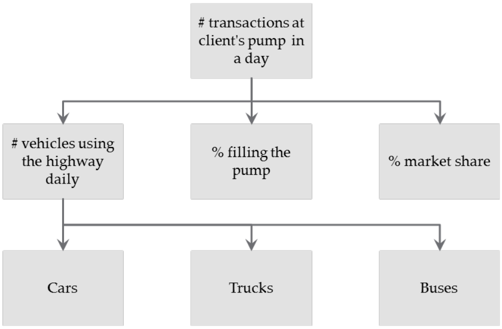
<u>Overall Approach</u>

Hmm, I would like to study the profit structure of the company and identify drivers which are causing profits to plunge. I will further try to address issues which come out of this analysis and develop some concrete recommendations at the end of it.



Hmm. It appears as if the root of the problem lies in fewer transactions at our pump. I want to investigate as to what might be going wrong.

Transactions = (Vehicles in area OR passing through the area) x (% filling petrol) x (% Market share)

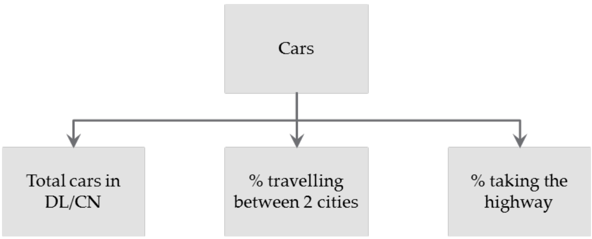


Since, it is an industry wide issue, I think the following could be happening:

1. People in the area/passing through the area have reduced.
2. % people filling petrol has seen a decline. People may have shifted to other forms of transport in the same area. E.g.: People cycle/use hybrid cars instead of using motorized vehicles.
   No two-wheelers allowed on the highway!
3. We could be losing our market share to other petrol pump players on the highway. However, since everyone has reported losses, it is unlikely.
   Your first hypothesis is correct. The traffic on the highway has reduced considerably.

I am trying to segment the population that may have reduced. Has there been a significant dip in a certain kind of vehicle type or a customer type? Say (trucks/cars) OR (truckers/ businessmen/ families).

The trucks use diesel and the diesel business has stayed constant in the area. Cars typically use petrol and the number of cars has reduced. So,



1. The # of people in Delhi/ Chandigarh has reduced, which is unlikely in a short span of time.
2. There has been a dip in the need to travel between the two cities, again, unlikely to have changed suddenly.
3. There are alternative routes being taken.

I am assuming air and road as the only 2 ways of travelling. Yes? Ok. Has there been a shift of passengers from the highway to some other road or possibly an air route?

Good job. Indeed, there has been a shift of passengers to a new air route between the two cities. It proposes to cut travel time by 6 hours. Also, a new freeway is going to start which is much shorter than the current one.
Interesting. So the reduction of car traffic which has impacted our business is because of a shift in customers to airways. This traffic on the highway is going to drop further because of the new shorter freeway which might incentivize some of the remaining vehicles to shift as well. Shall we discuss the next steps our client must take to tackle this?
That won't be necessary.
Synthesizes

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.9 Case 16: Delhi Darbar | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 40 min *Actual case time: __ min*

Note-This case is slightly different. It is more driven by the interviewer.

The Delhi Government has organized the Delhi Grand Darbar. The facility basically contains a large tent. Inside the tent there are 17 "Zones" each of which has a different theme, and each of which is sponsored by a different company. Sponsors have full creative control over their exhibits.

The Dome is suffering from significant financial problems as well as a large amount of negative publicity. It is now March 2014, and you have been appointed by the Delhi Government to come up with a solution for how to turn this thing around. To make matters worse, the facility has a life of one year, and will be closed in 10 months in case things don't improve. I want you to come up with the plan.

<u>Preliminary Questions</u>

The objective is to bring back the Darbar to profitability and to turnaround the negative publicity, right?

Correct, but the Government is not looking to make profits out of this, it is looking to break even.

Since when has the Darbar been experiencing financial problems?

Last year, when it began operation.

I'm not familiar with this business. Can you tell me what the business model is?

Sure. We rent out the zones to a sponsor which is basically a company. Sponsors attract crowds by entertaining them and brand whatever products or services they provide. We also charge a ticket price to visitors coming to the Tent.

It's fine to ask a question like this especially if the situation is alien to you. This question is important not because you discover that even tickets are a source of revenue; you would discover that anyways during the case. This question is important since we want to emphasize that it's better to clear out your understanding than have doubts remaining in your mind which might bug you later during the case.

Where is this Darbar located?

In the heart of Delhi.

What are the exhibits about?

You can consider them to be like the exhibits of an amusement park. There are rides, games also 3D movies at different exhibits meant for the purpose of entertainment of audience.

What part of managing the Dome are we responsible for and what part do the sponsors manage?

We manage all aspects of the Dome, right from ticket selling to maintenance. The sponsors are responsible for getting their own equipment and managing their exhibits.

<u>Overall Approach</u>

We need to address two issues although they affect each other

1. Reduce losses to break-even point by either increasing revenue or reducing costs.
2. Turnaround negative publicity

I would like to begin by understanding our Profit structure. What is our current profit/loss?

We are making a monthly loss of 20 lakhs. We have 90 lakhs in revenue and 110 lakhs in cost. Let's begin by analyzing costs first.

Notice here that the interview is directing where to begin first instead of the candidate taking the lead, this can happen often in cases, since the interviewer has a particular flow in mind for the case.

Okay so we would like to see where we can reduce Cost. Do we have the breakdown of our costs?

Here are 2 exhibits for you. What insights can you draw from it?

<u>Exhibit 1</u>

Cost structure (in INR lakhs)	Head Office	Marketing	Tent Maintenance	Service Personnel	Total
This Month	50	20	20	20	110
Last Month	60	20	25	25	130

Exhibit 2

Operating Data

	Number of Maintenance Requests		Average queue times at exhibits(minutes)	
	This Month	Last Month	Peak Queue time	Off Peak Queue time
Zone 1	6	12	21	3
Zone 2	10	5	25	2
Zone 3	20	15	92	17
Zone 4	34	11	12	11
Zone 5	20	7	76	23
Zone 6	18	9	88	21
Zone 7	71	54	34	12
Zone 8	1	3	44	10
Zone 9	29	12	57	14
Zone 10	22	15	232	121
Zone 11	10	14	76	16
Zone 12	32	18	21	4
Zone 13	1	0	140	92
Zone 14	0	1	32	4
Zone 15	20	12	42	3
Zone 16	37	31	18	7
Zone 17	45	20	12	1

Observations:

1. So over the last month our costs have gone down from 130 lakhs to 110 lakhs, 10 lakh reduction coming from Head Office costs and 5 lakhs each coming from Tent Maintenance and Service personnel reductions.
2. Our Maintenance requests have increased over the past month.

3. Our peak queue times are significantly higher than non-peak times which might cause visitors frustration. This along with poor maintenance might also be causing us the negative publicity.

Good observations. In fact, the negative publicity is arising due to poor maintenance and long queue waiting times. Please suggest ways to reduce peak time queue and improve maintenance. Then we can look into cost reductions.

Peak queue reduction at exhibit

Definition: It is the time taken by the person just joining a queue to enter the exhibit.

*Peak queue time= #People in a queue at an exhibit*Speed of queue (Min per person)*

$$= \frac{\#People\ at\ Darbar\ (at\ peak\ time) - \#People\ not\ at\ exhibits}{\#Exhibits} * \frac{Avg\ time\ per\ batch\ at\ exhibit}{Batch\ size\ attending\ exhibit}$$

- **a)** We can try to shift the crowd at the Darbar to non-peak times by increasing price of Darbar tickets at peak times and/or reducing non-peak time prices.
- **b)** We can increase the #People not at exhibits. This can be done by establishing common places (restaurants and side entertainment) where people can be instead.
- **c)** We can look to increasing #Exhibits subject to availability of area
- **d)** We can ask the sponsors to increase the size of the batch they take at a time and reduce the duration of each demonstration.

To do away with the queues altogether, we can also introduce a token system, where a time is given to a visitor and he/she has to come at that time to see the exhibit, else they are free to do something else. However, we will have to see if this is feasible.

If not, we can also look to reducing frustration of the crowd in queues by providing side entertainment - magicians, clowns juggling, etc.

Terrific ideas. We can reduce queue times through a combination of these. How would you improve maintenance?

<u>Maintenance improvement</u>

The maintenance problem has occurred over the last month and we've seen a spike in maintenance requests. We know that we have cut down on Tent Maintenance and Service personnel during the same time-frame. I am wondering if there is a link.

I want to know

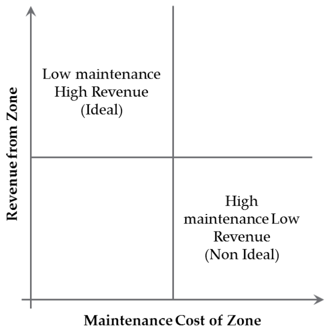
1. If our maintenance requests are being addressed in appropriate time?

Most of these maintenance requests are repeat requests, owing to the previous request not being addressed due to lack of manpower and equipment.

2. What exactly do Tent Maintenance and Service Personnel costs comprise?

Tent Maintenance comprises maintenance equipment costs and Service Personnel comprise of our labor costs including maintenance staff.

Hmm. So it seems that to reduce costs we have compromised on maintenance. Since several requests are repeated, it only means that trash, accidental damage or whatever maintenance is required, there is more time being taken to clean up. This is also causing us bad publicity. The solution would be to revert back on the reduction in maintenance costs both from equipment and staff point of view. If we were to look at zones separately, we want the revenue from the zone to be greater than the costs to service it. The problematic zones for us are in the bottom right of the graph, which require high maintenance but provide less revenue. We can either charge these problematic zones higher rent or replace them altogether if they do not allow us to break-even.



Yes, good points. Let's say we incorporate your suggestions and find that we will have to make an expenditure of 10 lakhs to improve maintenance, no other optimization is possible. Revenues remain unchanged. You can look at other cost reductions now.

<u>Other Cost reductions</u>

So our costs had gone down from 130 to 110 lacks we are still in losses. We know we need to make an additional investment of 10 lakhs on maintenance. This will take our costs to 120 lakhs.

Can you tell me what our revenue last month and this month was? I want to get an idea of how much cost cutting is required to break-even.

Last month revenue was 110 lakhs; this month it is 90 lakhs.

Since our cost will become 120 lakhs after solving the maintenance problem, to break-even we need to make up for 30 lakhs.

I would like to look to breakdown Head Office and Marketing costs to see if we can reduce them.

We've looked into it comprehensively already last month and there is no possibility of further cuts.

We had made suggestions to reduce queue times which may increase our costs further.

Assume it to be negligible.

This means we will have to break-even by achieving a revenue increase of 30 lakhs. Shall we look into this?
Yes, please.
<u>Increasing Revenues</u>
Begin by telling me what are the likely revenue streams?
We already spoke of

1. Tickets
2. Sponsor fees

In addition, there would be

3. Food, Beverages, Merchandise
4. Parking tickets

Okay, good. Assume revenues predominantly come from Ticket sales. Here is the break-up, suggest how we can improve our revenue.

	Ticket price	Avg. #Visitors/day	Revenue
This month	150	2,000	90,00,000
Last month	150	2,444	1,10,00,000

Compared to last month we have seen a revenue decline of 20 lakhs. I am guessing this is owing to the bad publicity we have been receiving. Since when has the bad publicity begun?
Since the last month.
So we can gain back up to 20 lakhs worth of revenue just by turning around negative publicity. For that we need to spend additionally on maintenance, reduce queue times and have a strong marketing campaign. However, 20 lakhs is an upper cap since some damage has already been done.
Great, we expect this to increase our revenues to 100-110 lakhs. What else can we do to increase revenues further to break-even?
Revenues= (Ticket price) x (#Visitors per day) x (#Days)
= (Ticket price) x (#Visitors per hour) x (#hours open in a day) x (#Days)
We can look to increase the above parameters.
We don't want to increase ticket price, since this is a Government organized event. So let's focus on increasing #Visitors. The dome is already open on all days. Also, police regulations do not allow us to keep the Darbar open for any longer than the current hours.
So we only look to increase #Visitors per hour. For this I would like to break-down the issue as:
Increasing capacity →improving distribution of tickets →Increasing demand for tickets

Notice how this division is similar to other cases in the book where there is #unit sales decline. There also we isolate the problem along the value chain as

Production →Distribution & Retail Push →Customer Pull

How many people can we accommodate at the Darbar?

Up to 3000/day.

That means we have an opportunity of generating upwards of 20 lakhs more of revenue by using existing capacity. Hence capacity expansion is not needed.

Can we improve ticket distribution? What are our existing channels?

Here is some info

Internet sales	10%
Venue-based ticket counters	80%
Other non-venue based locations	10%
Total	100%

The bulk of our sales are coming from Venue based ticket counters. I'm surprised that online sales only account for only 10% though it is the channel through which we can reach out to all of Delhi. I would like to know what kind of online channel we have for selling tickets.

We have a website where people can buy tickets.

I would want to know how user-friendly it is to book tickets through it.

Our website has received several complaints for transactions being halted midway.

Then we need to correct that. Also, we should look at tying up with aggregators such as BookMyShow.com where people look to buy tickets for variety of entertainment events.

We should be able to increase sales of tickets by accommodating this.

Notice how the candidate has used his business judgment here to point out that Internet sales seem to be too low, and suspects poor user-friendliness of the website, especially since this is a Government run event. While it's good to be MECE, when it comes to prioritizing issues, you should try to use your business judgment as interviewers look at that to differentiate candidates.

What else would you like to do?

We can see how to boost sales through the other two channels by improving their effectiveness.

That's fine, anything else?

Finally, I would like to see how we can increase the demand of people coming to the Darbar. We can look to improve Customer Value & Experience in other ways. We can also look at ways to improve marketing.

For now, this much is enough, thanks.

Synthesis

The question and data in this case has been used from a similar case from the London Business School Casebook 2006

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.10 Case 17: Theatre House | ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 35 min *Actual case time:* __ *min*

A theatre house recently got on board a new manager. He has hired you to help him grow the profits of the theatre.

Preliminary questions

What is the profit growth target-50% increase or 20X increase or something else? What is the time-period in which this growth has to be achieved?

We are looking to have a strategy for the next 5 years to grow profits as much as possible.

The importance of this question is to understand how aggressively are we looking to expand, a 20X growth strategy will have more radical steps like investing in constructing new theatres than what a 50% increase in revenue plan would have.

How has the profit trajectory been over the last few years?

It has remained more or less stagnant.

What kind of a theatre house is this? Where is it located? How many theatres do they have?

It's a theatre where plays are conducted. You can imagine Prithvi theatre in Mumbai. It's only one theatre we are talking of.

Are we open to setting up more theatres, exploring options outside the city or are we to focus only on the existing theatre?

We are looking to grow our profits at the existing theatre.

In open-ended growth strategy questions it is important to ask more number of clarifying questions to understand constraints you are operating under.

What is our primary source of revenue? I'm guessing it's the ticket sales from the plays? Are we open to change the purpose of the facility from plays to something different?

No. We want to continue to have the theatre.

Overall approach

I would like to break profits in revenues-cost.

I would like to see first where we can increase revenues and later see where we reduce costs.

Sure, let's do that.

What are our current revenue streams?

Why don't you take a shot at it?

1. Ticket sales for plays
2. Food and beverages
3. Parking

Good.

Let's see first if we can increase our revenue streams. We can in addition have

1. Book stores, video stores
2. Leasing theatre space for conferences, seminars
3. Acting school, workshops
4. Museum of drama and arts, archive of scripts
5. Merchandise sales

Good. Let's now see how we can increase our ticket revenues? What data do you need?

Ticket sales= (#Days) x (#Plays/Day) x (#Capacity per play) x (% Occupancy) x (Ticket price/seat)

I would like to see if we can increase any of these factors.

Okay, here is some data. Analyze and tell us how you can increase our ticket sales

Total seats = 200

	Mon, Wed, Thu	**Tue**	**Fri, Sat, Sun**
#Shows/Day	3	2	3
Occupancy	80%	60%	100%
Price	250/-	90/-	500/-

Observations:

1. Based on this information, it seems on Fri, Sat, Sun we have a 100% occupancy. We can look to increase #Seats, our ticket price and #Shows/Day. However, we will have to look at price elasticity to ensure #seats occupied does not reduce.

We can at max have three plays on any day. What kind of data would you look at to understand price-elasticity to see if we can increase price?

I would look at how much are we over-booked. This data can be collected by looking at how much in advance we get sold out. How many more inquiries either at the theatre or online do we get after we are sold out. We can also pilot by increasing price of one show on Fri, Sat, and Sun and see customer response. I would also look at what alternatives do people have in the vicinity with respect to direct competitors (another theatre house) or indirect competitors (movie theatres, comedy shows) to understand our price elasticity.

2. Compared to Fri, Sat, Sun on Mon, Wed, Thu we have only an 80% occupancy even though we have tickets selling at half price. My preliminary thoughts are this is because of fewer patrons on working days.

3. However, it is perplexing to notice that on Tuesday, although we have reduced price to 90, occupancy has fallen to 60%. Here I would want to know what is it that we do differently on Tue compared to other weekdays.

Good observations. We have the best and most popular plays conducted on Fri + Weekends. Tue is a holiday for the theatre industry. We use this as an opportunity to provide a platform for indie plays and college dramatics club's to showcase their talent. On Mon, Wed, Thurs we have plays of moderate popularity performing.

Are we even making profits on Tue given the low price and occupancy? Do we wish to continue encouraging young talent, even if it does not make sense from a cost angle it may make sense from a soft-publicity angle?

We are able to break-even on Tue. Yes, the management wishes to continue providing this kind of platform.

Alright, to make Tuesdays more profitable as well as better in promoting talent we can

- Improve quality of the plays to boost audience turnout by appointing veteran directors as mentors
- Tie-up with local schools by providing discounted tickets for class outings at the theatre
- Sell broadcasting rights to TV channels. This will publicize artists as well as earn royalties which can be used to improve quality of the plays. Even signing up with channels with mediocre TRP on non-prime time slots is good enough.

These seem like ideas we can work with.

We now need to see how to improve our revenues on Mon, Wed & Thurs. This will happen if we can improve occupancy. (We can increase price once we start getting full houses like on weekends). We can compare weekdays to weekends and isolate differences leading to poorer collections for the former. Then we can think of how to mitigate or compensate for these differences. So far the differences are

1. The most popular plays are performed on weekends
2. Weekdays and Weekends have a different target audience

Is there anything else I am missing?

This seems right.

Let's address the first issue first.

1. The most popular plays are performed on weekends

When we say we have popular plays on weekends and less popular plays on weekdays, on what basis is this popularity determined? The respective turnout on either day would not be a good parameter of comparison, because weekdays are hamstrung with a fewer people going out in general?

Good question. The popularity of a play is determined through audience feedback.

So how is it that on Mon, Wed, Thurs we are consistently getting poorer feedback compared to Fri, Sat, and Sun where we are consistently getting good feedback? How are the plays different?

Good question again. The biggest production houses have their plays on weekends. These plays have larger budgets with more extravagant costumes, props and famous artists. Hence the likelihood of these plays being more popular is greater. We have more mediocre studios performing on Mon, Wed, and Thurs.

That explains a lot. What I now want to know is why do we not have the bigger studios performing on weekdays as well?

There are limited number of big studio plays available on weekends and they prefer a nearby rival theatre house.

Why is this so?

What do you think can be the reasons for this?

It could be because of a better:

- Profit sharing with the play organizers
- Brand of theatre house
- Location of theatre, ambience of theatre
- Facilities available-stage, lights, props

Our theatre is less reputed than our rival and hence less preferred.

To improve the brand image of our theatre we can

- Attract quality plays be offering better price in the short-term
- Invite reputed famous foreign plays to perform
- Invite famous artists and celebrities to be guests and review plays to attract audience
- Improve the ambience and theatre look to make it grander

Good idea. What else would you like to do next?

This addresses the issue of securing big budget plays on weekdays by working on our brand image. However, this alone may not be enough to match weekend collections or even come close to them.

2. Let us now address the second issue of the different target audience on weekdays and weekends.

On weekdays, it would be difficult to attract working adults at least for shows before 6pm. Instead we will have to attract housewives, retirees, older school students and college students to increase occupancy. This can be done by

- Popularizing theatre as a form of entertainment for this group
  - Advertise and provide promotional tickets; flyers at homes, social media for students
  - Have television soap actors as cast members in the plays to attract housewives, retirees
- Having plays with themes that appeal to these groups

Alternatively, some shows can have plays targeted towards the masses, by having vernacular languages as the medium. We can also tie up with companies to have organizational outings on weekdays.
Till now we have considered revenues, but since our eventual goal is to grow profits we will have to see the cost aspect of the business too.
I think we can stop here for now. You've done well.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.11 Case 18: Thailand Hotel Chain | ★ ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 30 min *Actual case time:* __ *min*

Note: In this case at times, we have bundled questions to avoid unnecessary dialogue. It's fine if you ask three bundled questions individually to the interviewer.

You are the CEO of a luxurious hotel resort chain in Thailand. The CEO is worried because the tourist growth rate in Thailand was at 6% but revenue only grew by 4%. He wants you to find out the problem is.

Preliminary Questions

Stop here and think of preliminary questions you would ask

So the client expected a revenue growth of 6% in line with tourist growth rate and wants us to figure out why that is not the case?

Exactly.

I wanted to ask a few other clarifying questions. How many hotels are part of the chain? Are they evenly spread out in Thailand?

20 hotels, evenly spread out across major tourist destinations.

Would tourist growth rate mean year-on-year growth in total no. of tourists in Thailand?

Yes.

It was useful to clarify here what is the meaning of tourist growth rate even if it seems obvious.

Tourist growth rate could have also meant growth in *average no. of tourists per night* which has a completely different meaning. There are certain 'industry standard' ways of reporting figures. You want to check with the interviewer if your own understanding is aligned with his.

You said we are a luxurious hotel chain. Are there any other segments in the industry, what has their revenue growth rate been like?

Often the devil is in the segmentation. The candidate is wisely asking for segmentation to see if revenue across all segments has grown at the same rate or there is some disparity which might lead to an insight.

For our purpose there are economy and luxurious segments and both have seen revenue growth rates of 4%.

So this is also an industry wide trend across all segments.

It's important to know whether a problem is company specific or an industry wide trend. This helps streamline the problem isolation process to a great degree. E.g. so if all hotels in Thailand are experiencing a revenue decline, the cause is more likely to be the decline in tourist traffic in Thailand, an industry wide problem, rather than poor service in your client's hotel which is a company specific issue

Since when have we been experiencing this problem?
Over the last 2-3 years.
Overall Approach
I'd like to see where the problem in revenue growth lies to so that it is not at par with Tourist growth rate. Then we can figure out how to solve this.
Firstly, are all 20 hotels showing revenue growth of around 4%?
Yes, all are showing the 4% growth figure and you can assume there are no differences in the hotels or the tourist environment around them.
Okay, what are our revenue streams? What is the revenue split in each and growth rate of each?
Again notice the candidate's emphasis on segmentation here. He is trying to see if the problem is concentrated in a particular revenue stream or all across.
Our revenue comes 80% from room rentals and 20% from VAS. Both segments have seen revenue growth of 4%.
I'd like to proceed by investigating the mismatch between tourist growth rate and revenue growth starting with room rentals first since it makes 80% revenue. I'll get back to VAS later.
Here the candidate is applying the 80/20 rule by drilling down the room-rental branch as opposed to VAS.
Take a moment to think what will be the most logical way to break-down room rentals given the original question of the interviewer
Since we are investigating the mismatch, I'd like to break room-rental revenue into
No. of tourists at our hotels x Spend per tourist.
No. of tourists at our hotels has gone up by 6%. Spend per tourist has gone down by ~2%.
So it's the small decline in Spend per tourist which has taken down the Revenue growth rate from 6% to 4%.
This is a good breakdown by the candidate. An alternate but sub-optimal way is
Room rental revenue = Total no. of rooms available per night * (% avg. occupancy) * room rate per night * 365
Though this and other ways are formulaically correct, they do not help your investigation process since your bigger GOAL is to find out the mismatch between tourist growth and revenue growth.
In this breakdown we would be told by interviewer that (% occupancy) has gone up by 4%, room rate and no. of available rooms remaining the same. The next step here would be to understand the mismatch between %occupancy growth of 4% and tourist growth rate of 6%, and hence we haven't moved any closer to the problem isolation. That is why every step in the case must be

GOAL-ORIENTED. And a LOGICAL segmentation is required as opposed to an arbitrary segmentation to come closer to the goal.

Hmm, let's investigate the Spend per tourist.

Spend per tourist=Avg. Length of stay per customer x Rate per customer per night

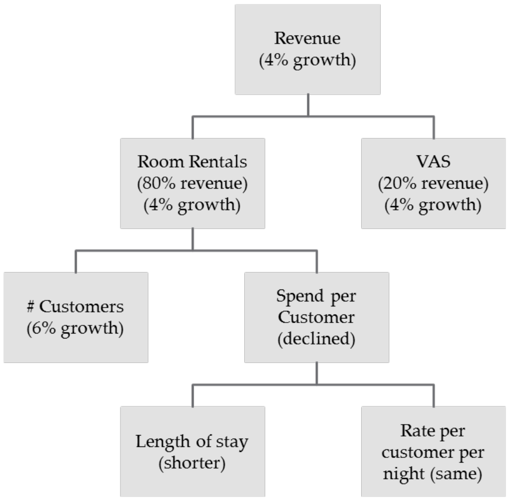
Rate per customer per night has remained the same, average length of stay has decreased.

That's very interesting. We know the industry is showing a revenue growth rate of 4%, do we know if the avg. length of stay of customers has decreased? We don't need specific data of competitors, but there might be a body like a tourism body which keeps industry data.

Notice the candidate is asking for information which is obtainable

Yes, we can check that. And in fact this is an industry wide trend that Avg. length of stay has decreased.

This is the kind of issue tree you would want to have on your sheet at this stage in the case.



We have exhausted the use of the profitability framework. It allows us to identify WHERE the problem is. We then move to a customized framework to find out WHY there is a problem. Because of the effective use of the profitability framework we are now asking the more specific question 'Why has the length of stay reduced?' This also helps our next line of questioning be very specific.

Okay I'd like to move by understanding two areas of the business

- Customers: What has changed in their behavior that makes the average length of stay shorter?

- Product: Anything that has changed in the industry's offering that forces customers to shorten duration of stay
- Competition: We can de-prioritize this branch since everyone is facing the problem

Alright, why don't you analyze the customer branch first?

I'd like to know if we have any customer segments.

Notice again the candidate's emphasis on segmenting and dissecting. The devil is in the segmentation.

Segmentation based on what?

The segmentation should be along a parameter that affects the length of stay of customers. Let's look at the following segments

- Business and Tourist customers
- Family or Singles
- Geography of customers

What about type of customers-business or tourists? I would believe tourists tend to stay longer than business travelers who come in for only a few days.

You can assume them all to be tourists.

Family or singles? I would assume because a family has many more members, because of their collective constraints-working parents, school for kids-they would stay shorter than singles who could be lone rangers.

For every single customer, we have 9 customers who are part of a family.

Has there been a change in the split? Are both segments showing a reduction in length of stay?

Notice over-and-above asking for segmentation the candidate is also asking "What has changed" within these segments, something we discussed in Chapter 4.3.1.

Just information of what the current split is, does not tell anything. It is the change in the split that matters.

Both segments have grown at the same rate, they have also seen the same reduction in length of stay.

What about geography of where customers come from?

We have customers coming from North America-Europe and then from within Asia.

Do we have a split between NA, Europe and Asia? Has there been a reduction in length of stay of each segment. Has there been a change in the split?

NA-Europe makes about 50% customers and Asia the rest. There has been no reduction in length of stay of each segment. However, the no. of Asian customers has been increasing in the past 2-3 years.

Aha, that's interesting.

Fun fact: In consulting, this is referred to as the 'Aha moment!'

What is the length of stay of each segment?

Asian tourists typically have a shorter stay than NA-European tourists.
And this is because of their generally lower affordability leading them to having smaller vacations?
Yes.
That settles it then. Though we are having a 6% growth rate in overall no. of tourists, the growth rate of Asian customers who stay for shorter durations is more than Western tourists staying longer. This is leading to revenue growth of only about 4%.
Yep. That's it.
But, wait... There is the 20% revenue coming from VAS as well. Can we say VAS, which comprises of Wi-Fi services, laundry, use of banquet halls is also related to length of stay of customers and hence seen a 4% growth rate.
Spot on.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.12 Case 19: Book Retailer | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Your client is a book retailer who has been working with a publisher for some years now. In the current model, the retailer buys books from the publisher every month and sells them to customers. Any unsold books are returned to the publisher (the retailer does not have to pay for them).

The client is considering changing this model to a new one. Under this model, he will have to buy a pre-decided number of books and would not be able to return the unsold books. Should he change the model? If yes, how many books should the client purchase from the publisher for it to make economic sense for him?

<u>Preliminary questions:</u>

Why does the client want to shift to the new model? It does not allow him to return the unsold books? Is he being compensated for this?

Good point. The client is going to be able to purchase the books at a lower cost as a result. Hence, there is the incentive to make more profit.

What book is this? If the book is returned to the publisher after every month, the book must be a periodical one - like a magazine. Is that correct?

True. Assume that the unsold books are useless since the book is a periodical one.

Hmm... Can I have details about the earlier model and the proposed one in terms of numerical data?

Old model:

- *Publisher produced 10000 books a month each costing him $5.*
- *Purchasing price for the client (retailer) = $10 per book*
- *Selling price to end customer = $12 per book*

New model:

- *Publisher produces X (depending on client's order) books a month each costing him $5.*
- *Purchasing price for the client (retailer) = $9 per book*
- *Selling price to end customer = $12 per book*

The demand for the books is 7,500-10,000 with an average being 8,000 per month.

The terms of the deal should be such that the publisher on an average makes at least as much as he/she used to in the old model else he will not agree to the new deal. Moreover, this figure should ensure that our client (book retailer) is earning, on an average, more than before.

That is correct.

Do we necessarily need to always cater to the demand? Our profits could take a hit as a result of over-purchasing to always satisfy demand. However, if we do not cater to demand, we could stand to lose out on our loyal customers who might start purchasing books from a competitor.

Good point. However, the loss due to over-purchasing is something that the client does not want. He has other loyalty programs to ensure that he retains his customers.

<u>Overall approach</u>

First, I want to compare the previous and new profits of the book publisher and the retailer (the client). Making sure that the new profits are greater than the earlier ones, I will use the constraints to arrive at a reasonable figure for the number of books to be purchased.

Calculations:

Publisher profit comparison:

Publisher's current monthly profit = Revenue – Expenditure
= 8000*10 – 10000*5
= $ 30000

Publisher's new monthly profit = Revenue – Expenditure
= X*9 – X*5
= $ 4X

Hence, for the publisher to have increased profits,

4X >= 30000

I.e., X>= 7500

So, as long as the client orders for more than 7500 books, he is okay.

Perfect. Can we look at the client's profit figures now?

Sure,

Retailer profit comparison:

Client's current monthly profit = Revenue – Expenditure
= 8000*12 – 8000*10
= $ 16000

Let Y be the demand of books in a particular month,

Client's new monthly profit = Revenue – Expenditure

Case I: Y>X (supply less than demand)

Monthly profit = X*12 – X*9
= $ (3X)

OR

Case II: Y<X (demand less than supply)

Monthly profit = Y*12 – X*9
= $ (12Y-9X)

Do we have details about how many books are sold each month in a 12-month cycle? We can optimize the profits by changing the number of books ordered for each month.

We don't have that information. We only know that the demand for the books is in the range of 7500-10000 with an average of 8000 per month.

Can you come up with a number for the books to be ordered making necessary assumptions?

Using the previous information that X>=7500, we know that Case I (supply less than demand) is never going to be a concern for our client because a profit of 3X (>=7500*3) is always going to be greater than the previous profit of $16000. Hence, we must look at Case II (demand less than supply) to give us some more insight into X.

So,

New profit = Y*12 – X*9 ...Y<=X

We need to identify an X (books purchased) greater than or equal to 7500 for which the above equation is maximized keeping in mind that it should be greater than $ 16000.

Now, to arrive at an accurate answer, we will need the distribution of the book demand but to get an approximate figure for X, let's assume an average scenario where the demand is 8000 books...

For an average month, Y=8000.

Therefore, Client's new profit = 8000*12 – X*9

Remember that to earn the revenue for 8000 books, the client will have to purchase at least 8000 books.

For maximum profit, X will have to be 8000.

Then,

Client profit = $24000

This is greater than 16000 (the earlier profit) and is, therefore, a favorable scenario for the client. This is profitable for the publisher as well (Profit = 4*X = $32000)

Fair enough.

Before we wrap this up, I want to check what the worst case scenario for our client will be assuming he orders 8000 books every month. The worst case scenario is when demand is lowest (Y=7500) i.e. the client has grossly over purchased and some of the books he buys will not get sold.

In this case,

Client's new profit= 7500*$12 – 8000*$9

= $18000 ...which is greater than $16000, his earlier profit

Hence, even in the worst case scenario for the client (when the demand is at its lowest), purchasing 8000 books from the publisher under the new model is still better than what he typically gets on an average in the old model ($ 16000).

The publisher, as said before, will be more than pleased with this deal since his/her profits will, on an average, have surged to 8000*$4 = $32000 per month.

That is correct.

Synthesizes

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.13 Case 20: Petrol Supplier | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Your client is an oil company, Mobil, which supplies petrol wholesale to ABC, a private company owning petrol pumps in Mumbai. Mobil's business at these pumps has been stagnating for many years now and they want to increase profits. What do you think they should propose to ABC so that they are able to do so?

Preliminary questions

The objective is to help Mobil make recommendations to ABC such that Mobil can increase their profits. My guess is that these recommendations should not affect ABC's current profits, else ABC would be unwilling to implement them. Is that correct?

Yes. That is a good observation.

How many petrol pumps are we talking here? Are a few specific pumps facing an issue or is it a problem throughout?

ABC owns 100 petrol pumps today. The stagnation has been common to all pumps.

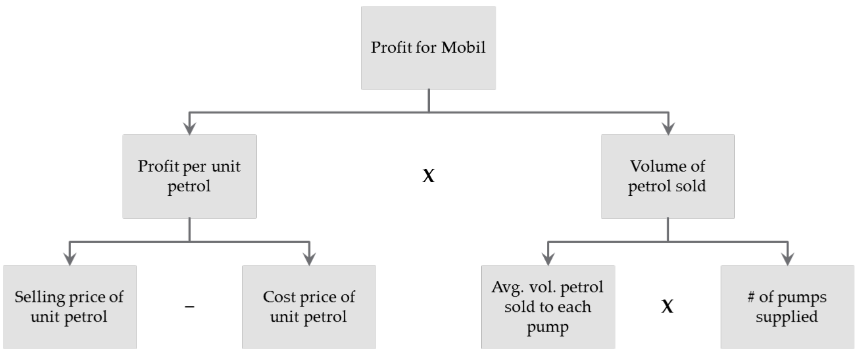
Has this been an industry wide trend or specific to Mobil?

We do not have data on other companies.

Overall Approach

I want to study the profit structure of Mobil and identify avenues to increase profits. Subsequently, I want to study the profit structure of ABC so I can check whether these avenues don't adversely impact ABC's profits.

Profit structure for Mobil:



There are 4 ways of increasing profits for Mobil:

1. Increase selling price of petrol. Is it possible?

   It is not a possibility. Mobil might stand to lose their supplier contract to a competitor.

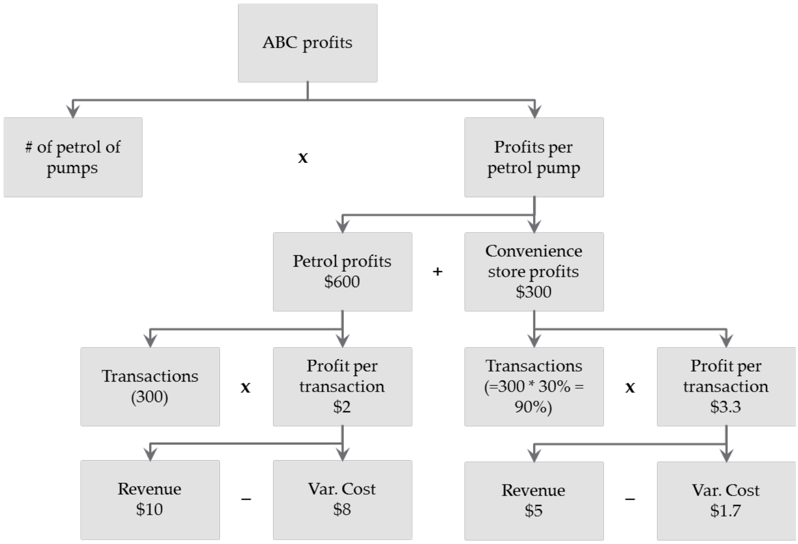
You're probably wondering why increasing the selling price is not a possibility. Following an increased purchase price for petrol, ABC will need

to make up for the lost profit by charging the customers a higher price. If ABC could push an increased price to customers and make a higher profit on it, it is likely they would have already done it. Hence, an increased purchase price is only going to hurt them. This makes it difficult for Mobil to increase the selling price.

2. Reduce cost price of petrol. Is that a possibility?
   No. We are the most efficient company in the manufacturing and distribution department.
3. Increase volume of petrol sold to each pump. However, volume bought by ABC is completely demand driven. If we can propose a way to increase the demand for petrol somehow, it works for both parties.
   Okay.
4. Supply to other petrol pumps. Can they do that? Can they build other petrol pumps?
   Usually, contracts between petrol companies and pumps are long term ones so supplying to other pumps any time soon is not an option unless we can offer a very low price.
   There are no plans yet around building their own petrol pumps. We could look into that later since it has nothing to do with ABC.

So option 3 (increase volume) is a possibility. I want to understand ABC's profit structure now to see if volume sold to ABC can be increased without hurting their profits.

Here it is.



The convenience store transactions are 30% of the petrol pump transactions.

Observations:

1. The petrol pump business earns ABC more profits than the convenience store
2. The convenience store traffic depends directly on the petrol pump traffic (factor of 30%)
3. A convenience store transaction is more valuable to ABC ($3.3) than a petrol pump transaction ($2)

To increase the volume of petrol sold to ABC, there needs to be a demand for the petrol at the customer end. I want to know why customers come to a particular petrol pump over another. The major drivers are: (i) Location, (ii) Price, and (iii) Service

ABC petrol pumps are quite well-distributed in the Mumbai city. So we can overlook location. Their prices are competitive. Their service is top notch as well.

Interesting. Since, the prices are competitive, I want to explore the possibility of ABC reducing the price of petrol in the hope that their transactions will see an upsurge. However, we need to make sure that ABC does not have lower profits as an outcome.

So how does demand for petrol vary with prices? What is the impact on the profits?

The demand certainly increases with a lower price. However, the total petrol profits will show a marginal dip.

Ouch. I believe we are at a dead end here. The only way to improve Mobil's profits in the short term does not align with a profitable outcome for ABC.

Are you sure? Have you considered all the profit parameters in ABC's profit structure?

No. We haven't. We are yet to analyze the impact to profit of the convenience store. How do its profits change with the reduced petrol prices?

The revenue depends directly on the number of people visiting the petrol pump.

Will the increased traffic in convenience store - and subsequent increase in the profits - compensate for the marginal dip in petrol profits?

That's right. The convenience store profits will offset the dip in the petrol profits.

Excellent! This means that we can get ABC to reduce petrol prices and still make a higher profit than they used to earlier. I believe this solution works out perfectly for both parties. One concern though: Won't competitors respond to a 10% cut in prices?

Mobil supplies petrol at the lowest price. Hence, it is unlikely that any other pump will be able to offer a lower price to customers.

Excellent!

On the point of services: Can ABC include new services (car wash, air filling station)/ improve existing ones to attract additional customers?

This exercise will require significant investment and is a risky proposition in the absence of hard data (of a correlation between better services and customer traffic). So, let's not look into this.

On a side note, we could also recommend Mobil to participate in the next step of the value chain (since it is reasonably profitable) i.e. to build their own pumps.

That can be a case in itself. Let's put that on hold for now and hear your synthesis of this case.

Synthesizes

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.14 Case 21: Canada Discount Retailer | ★ ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 45 min *Actual case time: __ min*

Note this is an intensive case so it is expected to take a longer time than usual to solve it.

Our client is the #1 Canadian Discount Retailer named Canada-Mart. They have 500 stores spread across Canada and are leaders both in their market share as well as profitability. The #2 discount retailer in Canada has 300 stores and is named Maple-Mart.

US-Mart a US based Discount retailer having 4000 stores in the US is planning to acquire Maple-Mart. You have been hired to figure out how the acquisition could be a potential threat to Canada-Mart.

<u>Preliminary Questions</u>

Our objective is to understand how US-Mart's acquisition poses a threat to Canada Mart's profits, correct?

More specifically, how it threatens our Market Share and Profitability.

And market share would be in terms of (Client revenue)/ (Industry revenue)?

Yes, go with that.

And just to be clear, by profitability you mean our Profits as a % of Revenue?

Precisely.

I want to know if my understanding of a discount retailer is correct. These are basically big supermarkets offering customers cheap prices on their products.

Yes, they provide everyday low prices on a variety of products.

And what kind of products are offered?

All consumer products groceries, electronics, apparel, health items, etc.

And, why is US-Mart entering Canada. Is it just business expansion for more profits?

Yes.

Though the answer may seem obvious to you for this question, it's still worth checking your understanding. This is because sometimes there are strategic or regulatory reasons behind a company's behavior and not just profits. For example, the reason why Wal-Mart tied up with Bharti to enter Retail sector in India was because of a regulatory requirement that not more than 49% ownership can be with the foreign player.

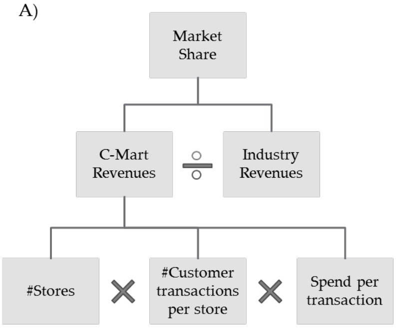
<u>Overall approach</u>

We need to see how the acquisition of Maple-Mart affects our client's

A) Market share and

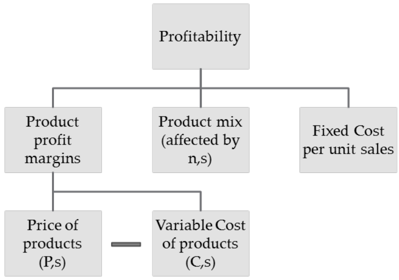
B) Profitability

A)



B) $$\text{Profitability} = \frac{\text{Profit}}{\text{Revenue}} = 1 - \frac{\text{Cost}}{\text{Revenue}} = 1 - \frac{\text{Fixed cost}}{\text{Revenue}} - \frac{\sum n_i C_i}{\sum n_i P_i}$$

C_i is the variable cost per unit of the i^{th} item type
n_i is the number of units of the i^{th} item sold
P_i is the price of the i^{th} item



If you are reasonably comfortable with the profitability formula there is no need to write it down, you can directly break it into its component buckets and move on. The formula is just for the reader's understanding here.

1. Firstly, we will see where our competitive edge lies (in market share and profitability) and see if this edge will be eroded post acquisition of Maple Mart.
2. Secondly we will analyze if we have any other advantage or disadvantage compared to the new entity that will be formed.

Essentially this case is about competitor benchmarking before and after acquisition. Here we've assigned a priority to the metrics of comparison with competition. The priority is

1. **Analyzing those metrics responsible for our current competitive edge**
2. **Studying other metrics not responsible for competitive edge currently**

You can do the benchmarking without this prioritization and solve the case, however it might take you longer. But it would be good to remember that often the drivers of our current competitive edge would be important factors to consider.

<u>A-1 (How our competitive edge is affected with respect to market share)</u>

Can I get a sense of what our client's and Maple-Mart's current market shares are?

Canada-Mart: 60%

Maple-Mart: 30%

This means we currently have twice the revenues than Maple-Mart. Let's see where does our edge lie and how this would get affected.

i) #Stores

We have 500 stores which and Maple-Mart has 300. Since we have twice the sales of Maple, this means our revenue per store is currently greater than Maple Mart.

Before we come to revenue per store, do we know if US-Mart plans on opening more stores?

Good question, they don't actually.

Then we will still have an edge because of our higher #Stores.

ii) Revenue per store

We know it is currently higher than that of Maple-Mart. Since,

Revenue per store = (#Customer transactions per store) x (Spend per transaction)

I want to understand why customers favor our stores over Maple-Mart.

Let's see what the potential reasons could be

Make this comprehensive list on your paper

- Customer characteristics
  - Segments targeted-age group, gender
- Product characteristics
  - Price of products available, discounts and schemes
  - Variety and brands of products available
- In Store experience
  - Ambience, air conditioning
  - Convenient layout, ease of finding desired items
  - Time required to shop, crowd
  - Parking space
  - Trolleys
- Store Location, Brand

Now select the key issues using your business judgment which you think are important. If the interviewer asks for more issues other than the key ones you mention, then you can fall back to your list on the paper.

Since we are comparing supermarket stores, we should look at the following key issues

- Brand of Stores
- Location
- Price and Variety of products
- Shopping time

Good, so we know that

a) We have some high-quality product brands compared to Maple-Marts. How are we able to do so?

We have favorable supplier contracts because of our market share such that they serve to us only.

I am now wondering if we will be able to maintain this edge when US-Mart comes in. Will they somehow be able to get our suppliers to serve them by either providing higher margins to them?

US-Mart has announced it plans to source all its products from its existing supplier in the US. That will mean they will be able to put on shelves high-quality product brands to compete with us in that segment.

And from the customer point of view, within the high-quality segment do they care about the brand whether it is American or Canadian?

No, they are price sensitive. Within a segment, they are typically brand agnostic.

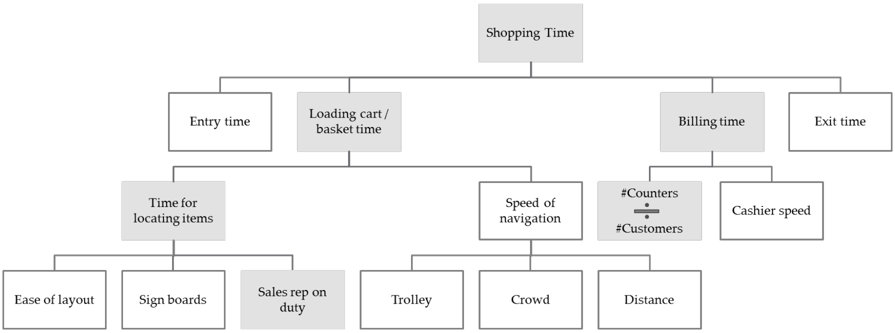
So it seems we will lose our edge in the high-quality product segment when US-Mart enters. Just to get an idea of how much it will impact our market share, do we know what % of revenue comes from the high-quality product segment?

5%.

So this will relatively bring a small impact on our market share.

b) Our shopping time is lesser; hence customers prefer to come to our stores

Why is it that our shopping time is lesser?



Compared to the current Maple Mart which does not have any sales representatives we have few which make it easier for customers to locate products they need.

Secondly we have a better (counter: customer) ratio leading to better billing time.

I now want to see if we might lose this edge when US-Mart comes in. How does their current shopping time in the US compare to our current time?

It's lesser by 5 min., since they have even more sales reps as well as a better (counter: customer) ratio.

This seems like a challenge for us, we might lose significant market share if we do not take shave our shopping time. Can we bear the cost of having more no. of sales rep and counter in our stores?

Actually, our stores run on a franchise-model where we lend our Canada-Mart brand to independent supermarket managers. They bear the cost of administering the supermarket and share the revenue with us in exchange for licensing our brand name. US-Mart has a conventional centrally controlled model. Our managers hence would be reluctant to bear the cost of additional sales rep and counters.

In that case can we need to communicate to the managers that it is in the mutual interest of Canada-Mart and themselves that the additional cost be incurred.

Otherwise there will be a loss of revenue for both. The terms of how each party bears the cost can be negotiated. Will it be possible to do so with all our 500 stores?

This can be worked out; however, it will take at least a year to negotiate the terms with so many stores.

Do we have the capital to buy-out all the stores to move to a centralized model? However before moving to that we will also have to see the advantages of the franchise model which we might lose.

No we don't have the capital for such a thing.

Hmm, so we will lose some market share since shopping time will go from being a competitive advantage to a disadvantage. Our product margins will also reduce, leading to a reduction in profitability, owing to the increased revenue sharing with the managers.

<u>A-2 (Other advantage/disadvantage on the market share front post US-Mart acquisition)</u>

I want to now see if there are any other advantages or disadvantages we will have compared to US-Mart on these criteria:

- Brand of Stores
- Location
- Price and Variety of products
- Shopping time

a) We have a better brand recognition than US-Mart in Canada.

Does the brand of the supermarket matter to the customers?

Yes, they trust the products based on the supermarket brand.

Is it difficult to improve the brand image for US-Mart? Given they have deep pockets they can use the money on improving their brand recognition in Canada.

Good point, our advantage will only be temporary.

b) US-Mart prices are 10% lesser than C-Mart prices.

This is in the existing US-Mart stores?

Yes.

I want to understand how this would translate to prices in their Maple-Mart acquired stores. Since they are sourcing these 10% cheaper products from the US after incurring distribution expenses to get them to Canada at what price will they be able to sell compared to us?

Prices will be almost the same then.

Hmm, then we won't lose out on the price front.

<u>B-1 (How are competitive edge is affected with respect to profitability)</u>

We already saw that some of our profitability is being shaved due to lower margins owing to increased revenue sharing so as to not lose market share to competitor.

Currently why do we have an edge over Maple-Mart when it comes to profitability?

- **a)** Better margins of products?
- **b)** Product mix inclined towards higher margin products?
- **c)** Lower Fixed costs per unit sales?

Our margins are better since our product mix is more inclined towards higher margin products since we are exclusively present in the high-quality product segment currently and we earn higher margins on those products.

We have already analyzed how we will lose market share in the high-quality products segment. This means our profitability will also be affected.

B-2 (Other advantage/disadvantage on the profitability front post US-Mart acquisition)

I now want to know if there is any other advantage or disadvantage that US-Mart's acquisition will lead to with respect to profitability.

That's all we can close the case. You did well.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.2.15 Case 22: Fashion Magazine | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Your client is a fashion magazine company which sells a monthly magazine in India. In the hope of increasing ad revenues, the printing team of your company has proposed to start having targeted ads in the magazine for their customer base. Should they go ahead with it?

Preliminary questions

Okay, so my objective would be to check whether the new ad structure yields more ad revenue than the current one?

Yes.

1. Regarding the current ad revenue structure:
   - **a)** What is the current ad revenue structure?
     We include full page ads in our magazine and get paid for it by the company whose ad it is. Today, we sell 1M copies. Each magazine has 100 ads. Each ad costs $50 per 1000 copies.
   - **b)** Do we assume that all magazines are exactly alike today? What I want to know is whether a company paying for ad space pays to have their ads in all magazines?
     Good question. Yes.
2. Regarding the new ad revenue structure:
   - **a)** What exactly do you mean by targeted ads?
     We have data on our customers based on which we would send relevant ads to them.
   - **b)** Broadly, what are the categories based on which you want to target ads?
     Good question. We have premium brand ads and non-premium brand ads today. The proposal talks about sending
     Premium brands ads → upper class/ premium customers, and
     Non-premium brand ads → economy customers

So we have 2 types of magazines in the new structure. One that contains Premium ads and another that contains Non Premium ads.

   - **c)** Do we know how many premium and economy customers we have?

How do you think you can capture this data?

Hmm. I think this data can be captured if we have some background information about the customer. This typically happens in a subscription model – online or otherwise - where we are supplied with the customer's address and profession. However, there are also a number of people who purchase these from vendors on the street. I am not sure we will be able to make this distinction here. I believe the company must have some record as such.

True. We do sell our magazines in 2 ways – Home delivery to the subscribers (80% of population) and selling on newsstands (20% of population). 75% of the subscribers are premium.

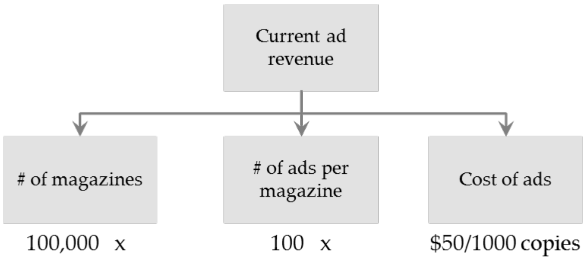
People buying magazines off newsstands typically flip through the magazine before buying them. They could be either premium or economy customers. It makes sense to have both types of ads in them i.e. according to our current structure.

Correct.

<u>Overall approach</u>

I want to study both the revenue structures and check whether the new ad structure yields more ad revenue than the current one.

For current ad revenue:



Current ad revenue (per issue) = 1,000,000 x 100 x $50/1000

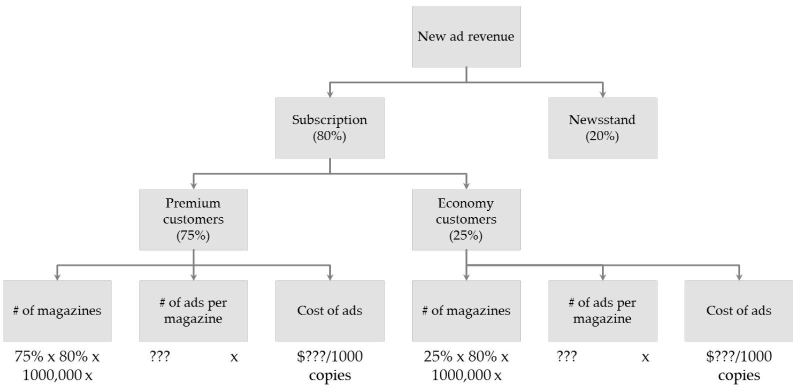
= $ 5M

Why do have only 100 ads? Can we increase it?

We fear that too many ads might drive away customers. The management has decided to put a cap at 100 ads.

For new ad revenue:

Let's put down the data we have at this stage so we can figure what additional data we need.



I will need the following information to arrive at a number. In the subscription model,

<u>A) For premium ad magazines:</u>

How many premium brands do we tie up with, today? Can we get more on board?

75. No, we cannot get any more. All potential premium brands are already with us.

Now that we have 25 more pages for ads, can we have certain non-premium brands too? E.g.: Kellogg's Cornflakes, a non-premium brand, still finds customers in the premium segment.

Sure, but the point of this exercise was to charge the premium brands a higher price. The non-premium brands would never pay more than $50 since we cannot justify this increase to them.

Alright, can we convince them to have more ads to fill out the remaining 25 slots?

Sure, we can. However, these brands typically have a set budget for advertising and we need to make a more convincing case for them to expand their budget. Assume a conservative 75 premium ads for now.

I want to now look at how a premium targeted ad should be priced.

Sure. How would you determine the price of an ad?

There are 4 ways to arrive at this.

1. Cost based pricing. However, this is rarely used in the advertising industry. The cost attached to making an advertisement is often negligible compared to its value to the advertiser.
   Makes sense.
2. Price based on the value of ad to the advertiser i.e. the return they will get based on how many people they'll be able to reach out.
   Good idea. Can you elaborate?
   Advertising in the client's magazine makes sense as long as advertiser can expect returns from it. I think it is fair to assume that premium customers are the only target segment for premium brands. Okay?
   Yes.
   Then despite appearing in fewer subscription magazines (800K→600K), the premium brands are still reaching out to the same audience in the new model. Hence, they have no incentive to pay a dime more for the same outreach.
   True.
   Let's look at the actual numbers around this. We shall be talking only about the subscription magazines (800,000 in number) here since newsstand magazines (200,000 in number) remain unchanged.

In the previous model, Premium brands paid out $40,000 (800,000 * $50/1000) to reach out to 600,000 premium customers. They do not value reaching out to 200,000 economy customers.
In the new model, to reach out 600,000 customers the payout would be $600X (X being the price per 1000 copies - which we are trying to calculate)
The payout in both models should be the same for the same value of reaching out to 600,000 premium customers.
Hence,
$40,000 = $ 600X.
X = ~ $67
Hence, the premium brands would be willing to pay a price of $67 /1000 copies in the new model for subscription
Alright.

One might not be expected to do an analysis in this depth for all cases. However, you might just get a curveball once in a while testing your understanding of how advertising works. The above analysis should help you to think from an advertiser's perspective.

3. Price based on a competitor's pricing. I want to understand how our magazines are different from our competitors'. Also, what prices do they charge?
   Okay. There are 2 other premium fashion magazines which charge premium brands $ 70/1000 copies. They are about the same as our magazines.
   Given that there is not much difference in the product, it seems like brands would be unlikely to pay more than the price of $70.
4. Price such that the total ad revenue (price * #brands) is maximized.
   We do not have price elasticity data available.
   Although the value-based approach gave us a price of $67, since brands pay $70 for a spot in premium magazines today anyway, $70 is the price we should demand for premium ads in our magazine.
   That makes sense.

B) <u>For non-premium ad magazines:</u>

We inferred that we tie up with 25 non-premium brands today. Since we have 75 more pages, can we get more on board?
Excellent question. We can get more, yes. How will you price these ads?

1. A cost based approach will not work.
   Can we do some competitor benchmarking? No? However, we know that our earlier model charged $50 /1000 copies.
2. A value based approach will give us a price of $50 /1000 copies again since these brands are indifferent to premium/non-premium customers

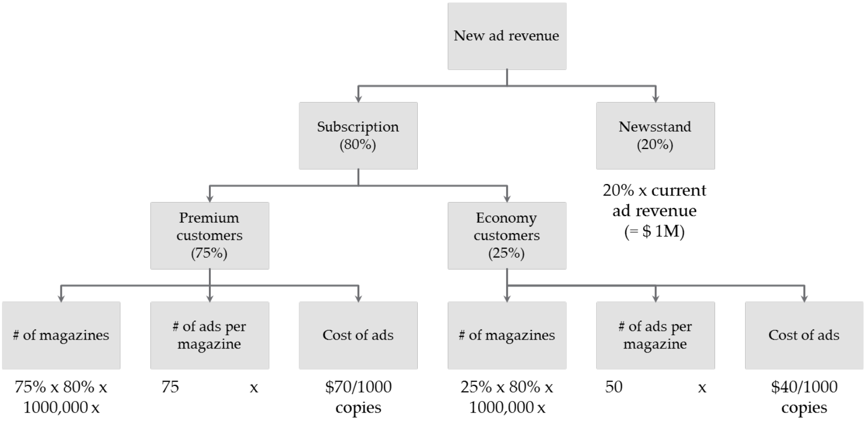
i.e. a reduction in outreach means a proportional reduction in revenue. Price stays constant.

3. Maximize revenue by optimizing price and number of brands.
   Good point. Let's say we get a total of 50 brands on board paying $40 /1000 copies.

In reference to point 3 above: Although the price per copy remains constant, note that the total outreach is still reducing. Sometimes, brand managers have a target of reaching out a certain number of people. If their outreach gets slashed by a whopping margin, say 80%, they might just pull out of the deal altogether. However, we have left out that analysis for the sake of simplicity.

Okay. I think we have all the data required to calculate the new ad revenue.

New ad revenue:



New ad revenue (per monthly issue) = 3,150,000 + 400,000 + 1000,000

= $ 4.55M

Looks like it does not make sense to change the current structure of ad structure from an ad revenue point of view. I recommend against it.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.3 Market Entry cases

6.3.1 Case 23: Home Security Equipment | ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 25 min *Actual case time: __ min*

Our client is a Telecom operator. They are looking to diversify their presence in India and wish to enter the electronic home security market. They want you to estimate potential profits and want you to suggest how to capture a significant market share.

Preliminary questions

What market share is significant enough for the company? In how much time they wish to achieve this target?

About 5% in the first year.

So our objective is to estimate potential profits along with having a strategy to achieve a 5% market share at least.

Correct.

What are the products we're talking of in the home security business?

There is essentially one product. It's an alarm system which is installed in the home along with sensors. Whenever someone is trying to burgle the house, the alarm goes off.

What part of the value chain are we looking to enter?

We have not decided but generally industry players manufacture and use third parties to distribute and retail.

What geography are we looking to sell in?

Anywhere in India where there is a market.

Overall Approach

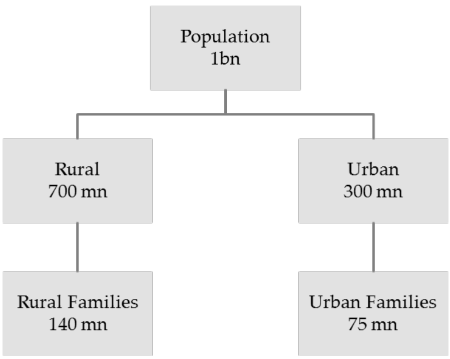
We can begin by first estimating profits.

Profits = (Market Size) x (Market Share) x (Profit per unit) - (Investment)

While analyzing market share we can see how to ensure a minimum 5% share.

Don't worry about initial investment. Just calculate profits independent of initial investment for now.

Market size



(We've assumed a 70-30 Rural-Urban divide. Avg. family size is take as 5 and 4 respectively for Rural and Urban families.). Next we will have to see

- **a)** How many families can afford to purchase the home safety units?
- **b)** How many families would buy them given some of them live in "high risk" and "low risk" areas

A smaller % of rural families would be able to afford the equipment compared to urbanites. We will have to also see how many families in each segment need the equipment depending on degree of criminal activity and available security measures (police enforcement, building security, CCTVs)

Good let's say we do this analysis and find that the market size is 15mn household. Let's move on from there.

<u>Market share</u>

Let's now look at how we can get a market share of at least 5%.

Just to put this number in perspective what is the market share of the largest player?

The industry is highly fragmented with mainly local players. The largest player has a market share of about 5%.

I want to understand what drives local dominance?

Well, the industry is such that majority of costs are concentrated in transportation of the fragile equipment. Lesser the distance from factory lower the cost. Since manufacturing is cheap and transportation is not, factories are set up close to markets.

That was a good question to understand more about the industry.

And, what is the growth rate of the industry?

It is about 10%.

There are two ways to enter the market, displacing existing players or taking a slice of the growing market. However, because of the fragmented nature of the industry, if we have to capture a significant market share through either path, we will need to have a competitive edge in our product. I would like to benchmark our product with competitors to see if we have an advantage. I'd like to do it on basis of price and other product parameters.

We don't have a product of our own. We plan to enter with the same type of products that already exist at the same prices.

If our product is going to be physically the same, then to capture a significant share in such a fragmented industry, can we get an edge on

- **a)** Production front leading to lowered cost and hence lower prices
  We don't even have internal ability to produce this type of equipment
- **b)** Distribution front leading to lower transportation cost and distributors favoring to push our products over competitors

Lowering transportation cost has been looked into and is difficult. Also because the market is very competitive we cannot afford to pay higher margins to distributors.

c) Marketing

Consumers are price sensitive, do not care much about product brand.

This means independently we cannot have a significant share. Then the only remaining options to capture a 5% market share are through a Joint Venture or by Acquiring existing players.

Joint venture would make sense if there is some part of the value chain where we can complement existing players, either in production, distribution or marketing/retailing so that together with our partner we have an edge. However, we've already seen that we cannot manufacture and cannot provide any edge on distribution or marketing fronts.

Then it makes sense to acquire existing players. For that however we would need enough capital, do we have that?

Yes, we do.

<u>Profit per unit</u>

I would like to know the price of existing products since that would be our price as well.

They are generally priced between Rs. 5,000-15,000. The margin earned is 10% of the revenue.

Apart from that there is a servicing package which is bundled. Usually Rs. 200 per month is charged, and a margin of 25% is earned in servicing.

Why is there a range in price of the product? Is it due to difference in quality of product or brand?

No there is no difference in quality. Each product has a main alarm system along with sensors placed in different parts of the rooms. The price increases as the no. of sensors required are more.

And I am guessing that the bigger a house more the sensors required and hence a higher price.

Yes.

<u>Calculation</u>

We can divide the 15mn households into

33% small houses requiring a unit priced at 5,000

33% medium houses requiring a unit priced at 10,000

33% large houses requiring a unit priced at 15,000

Okay. Let's go ahead with that assumption.

The average price is Rs. 10,000.

We know we earn a 10% margin which will result in a Rs. 1000 profit.

Apart from that we know that Rs. 200 per month is charged with a margin of 25%. What is the life of any unit?

One year.

Then for every unit sold we earn 200x12 = Rs.2400.

At a 25% margin this means an additional Rs. 600 of profit.

Hence total profit on a product is 1000+600 = 1600.

Hence our expected profit = (Market size) x (Market share) x (Avg. Profit per unit)

= 15mn x 5% x Rs. 1600

= Rs. 120 crore

Alright, thanks.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.3.2 Case 24: Washing Machine | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 30 min *Actual case time: __ min*

The setting is that of 1990. Your client is an electronics manufacturer which wants to enter the Haryana market. You need to tell them whether it is a good idea to do so.

<u>Preliminary questions</u>

Do you have a metric which we should use to decide whether to enter the market or not? Maybe we can look at investment costs, profits and break-even point? Any other benchmarks we need to look at?

Let's estimate our profits for now and later we can benchmark this to Maharashtra, where we operate today.

What kind of products does our client want to introduce? Is it generic electronic items or are there a few important ones they want to focus on?

They want to introduce a specific product – a semi-automatic washing machine – into Haryana. This involves the latest technology and is operated using buttons alone.

I am not aware of the 1990 context. Is this washing machine a new product in the market? What are the other garment washing options?

There are a few manual washing machines present today. Ours is the only S/A washing machine. In fact, it has been patented.

<u>Overall approach</u>

I want to break down this problem into 2 parts.

1) Whether this makes sense from a profit point of view by calculating the market size, expected market share and profit margin.
2) Whether it is possible to establish the entire value chain so the client can sell the washing machines to the end user.

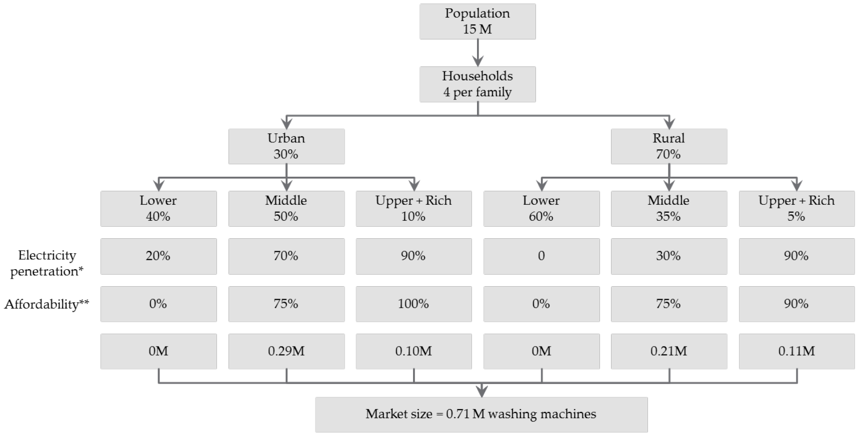
Let's assume that the implementation bit can be taken care of. Let's begin with the market sizing.

OK. To calculate the market size, let us understand the product a little first. Is the machine like any other washing machine we get today? How is it priced? I want to understand who will be able to afford it.

Yes, the machine is similar. It is in the same price range (Rs. 4000 - 5000) as most other machines available in the market today. Assume it can be afforded by most families in the middle income group or upwards.

Okay. That is helpful. Starting with Haryana's population, I'll apply appropriate filters to finally get our potential market size. I will be using Maharashtra as a reference for demographics since I am not familiar with the Haryana's demographics.

Alright, proceed.



**Upper income groups prefer staying in areas with electricity whereas the lower income group typically don't end up in the most developed areas. On an average, the penetration is much more for the urban population*
***Most upper income groups will be able to invest in a washing machine. The lower income group and some of the middle income group would typically wash their clothes manually.*

The market for washing machines therefore is around 0.7M machines.
Fair enough. Move on.
Now, to calculate the market share, I want to know how the client's product compares to others available in the market. What are the factors influencing a customer's purchase of a washing machine? I can think of the following:

1. Price
   Upfront cost: The company wants to sell the machine at Rs. 4500. This is cheaper than any other washing machine available.
   Running cost: Rs. 500 /year (electricity). This machine has a higher power requirement than existing washing machines.
2. Time saved
3. Quality of wash
4. Ease of use
5. Durability
6. Size

All these are either up to the industry standard or are better.
Can we expect a 50% market share in this industry given that we score over our competitors in most regard? It might be slightly lesser than that since there are other factors like product awareness and ability to operate a new device.
Umm... Let's keep it at 10% after the first year since people already use washing machines today.
The market for our client, therefore, is 70,000 units after a 10% market share.
Can I have the fixed cost and profit per unit to calculate the total profit and time required to break even?

Assume no fixed cost. The manufacturing cost is Rs. 4000. The distribution cost is Rs. 650 per unit when sold through retail outlets and Rs. 100 per unit when sold through the company outlets. Note, however, that using all distribution channels available, 40% of sales come through retail outlets and the rest through company stores.

		Internal Cost	Distribution cost	Total cost	Selling price	Profit
Client	Retail (40%)	4000	650	4650	4500	(-)150
	Own (60%)	4000	100	4100	4500	400

I see that we will be profitable if we sell our product only through our own distribution channels. We will suffer losses through the retail channel. Are the distribution costs negotiable?

No

Are there competitors who sell products through the retail stores at all? Do they make profit? Can we have their profit structure?

		Internal Cost	Distribution cost	Total cost	Selling price	Profit
Competition	Retail (40%)	4300	650	4950	5000	50
	Own (60%)	4300	100	4400	5000	600

Hmm. Although the competitors have a much higher internal cost, they make up for it by having a much higher selling price. Can we increase our prices too?

No. The client wants to maintain the price advantage in the market.

Fair enough. Can we use any new channels of distribution?

No.

Alright. Since the client suffers losses by selling their washing machine through retail stores, it makes sense to distribute them only through one's own stores.

Correct.

Given the strategy is to sell through company owned stores, we will not lose all of the 40% sales from external retail stores. Given we have a superior product creating a customer pull, we might just get more than 60% from company owned stores.

You make a fair point. However, let's assume that it is still only 60% and go ahead.

The operating profit then becomes,

Profit = Market size * Market share * Profit per unit

= 0.7 M * (60% of 10%) * 400

= Rs. 1.68 Cr.

Is this a sensible figure?

Considering any profit is good news for client, yes, this is a sensible figure. My recommendation will be that the client enter Haryana. However, it will be interesting to know how we are doing in Maharashtra comparatively.

Our profits in Maharashtra are Rs. 40 Cr (we sold 10L washing machines last year). Can you give me possible reasons for the huge discrepancy in profit figures?

Since the profit figures have changes with geography, I want to understand what relevant factors are different between Haryana and Maharashtra:

Profit = Market size * Market share * (Unit revenue - Unit cost)

- W.r.t market size:
  - Population difference - Maharashtra is more populous than Haryana
    Fair enough.
  - Electricity penetration is probably much higher in Maharashtra
    Good but this is not the case.
  - Maharashtra has a much higher per capita income (affordability)
    Not really.
  - Lower price of product in Maharashtra. This could be lower upfront cost or lower running cost (price of electricity)
    Excellent! Electricity is much cheaper in Maharashtra.
- W.r.t. market share:
  - Little competition in Maharashtra
    Competition is in fact much more.
  - Better distribution network and marketing efforts
    Yes, that could be a reason
  - Mature market - we've probably been around for longer there
    That is right. We were one of the first to enter the market and have retained much of the market share
- W.r.t. unit profit:
  - Product sold at a higher price in Maharashtra
    Not true.
  - Lesser production + distribution cost
    That is not the case.

The profit figure discrepancy is driven by:

- Lower cost of electricity in Maharashtra
- Higher population in Maharashtra
- Haryana being a new market whereas Maharashtra operations (incl. distribution) having been around for much longer
  That should be it. Thanks.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent		Good	Average	Below par
1	Preliminary questions					
2	Overall approach					
3	MECE Structuring					
4	Synthesis					
5	Business Insight					
6	Communication					
7	Presentation					
8	Mathematical Calculations					

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.3.3 Case 25: Anti-smoking pill | ★ ★ ★

Interviewer Name: _____________ *Date: ________________*
Estimated case time: 40 min *Actual case time: __ min*

Our client is a pharmaceutical company. They recently invented an anti-smoking pill. They want to know to if they should introduce the pill in India and how they should go about it.

Preliminary questions

Do you have a metric we should use to judge whether the pill should be introduced in India? Otherwise we should look at the Initial investment required, our profits and break-even point.

We want to maximize our profits and at least break-even on our investment in the first two years.

And by how we should go about entering, you mean?

Everything, where our customers are located, how we should market, pricing, etc.

So we are open to all geographies in India?

Yes.

Can you tell me more about the product?

It's a pill. Needs to be ingested once a day for 4 months. Once a pill is taken, a person does not feel the need to smoke. It has been observed that when a 4 month course is taken, 50% of patients are able to quit smoking permanently. It is a prescription pill rather than an OTC (off-the counter) meaning it can be purchased only on a doctor's prescription.

Overall Approach

We will do two things:

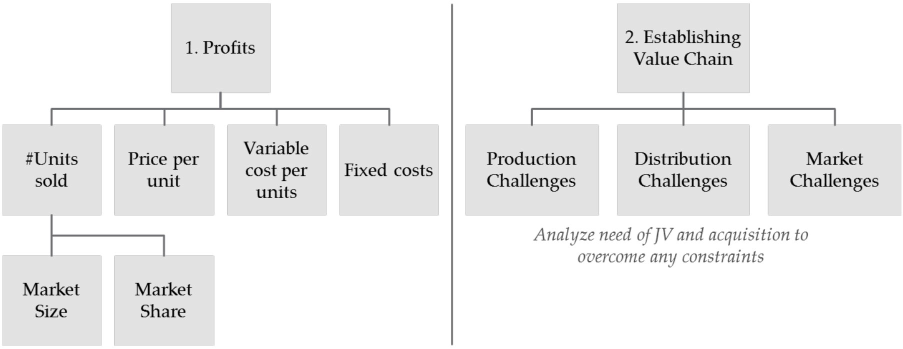
1. Calculate,

Profits= (#Units sold) x (Price per Unit-Variable Cost per unit)-Fixed Costs (or Investments)

We expect an INR 100mn investment to set up a plant to manufacture the drugs.

2. Then if our profits>=0, we will break even else not.

Analyze if we can establish value chain as required.



1. Profits

#Units sold=Market Size*Market Share

Market size:

Our Market size would basically comprise of Smokers who want to quit smoking, have access to a doctor & a pharmacy and can afford our pill.

Population
1bn

- 50% of population below age 25
- Women smokers assumed to be nil

Age group	18-25	25-50	50-70	0-18
% of population	~15%	~25%	~25%	~35%
%Smokers	5% (10% Male, 0% Females) Youngsters are just beginning to smoke	15% (30% Male, 0% Females) A greater % of working population smokes due to more people taking up smoking and young smokers continuing.	10% (20% Male, 0% Females) The % would drop amongst older people since many smokers quit for health reasons or die early. Few new takers	~0% (legal)

To understand how many people are looking to quit smoking, we can see what % are using nicotine patches, ~7%.
Our product would be muh more convenient and effective to use, hence lets say 20% (conservative) of adults want to quit. Though this will vary with age for simplicity lets take a standard 20%

Total Smokers
70mn

Smokers who want to quit (20%)
14mn

Smokers who don't want to quit
56mn

	Urban	Rural
% of population	30%	70%
% who have access to doctor and pharmacy	100%	30%

Total Market Size
7mn

(Note the data on 7% smokers using nicotine patch comes after discussion with interviewer)

Important how you prioritize taking splits. It makes more sense to take the urban, rural divide later as opposed to in the beginning since the %smokers will vary less within urban-rural divide. What will vary significantly within the urban-rural divide is access to doctors and the split should come before it.

In situations where you do not know the price of the product, it's useful to take the income split in the end. Another reason for taking income split later is that you have to establish need for the pill and access to it is a prerequisite after which affordability can be considered by taking an income split.

Market size

Now that we know our market size, let's understand what our market share would be. Who are our competitors? I cannot think of any direct competitors but alternatives like nicotine patches maybe indirect competitors.

Yes, we have no direct competitors. Closest product addressing the need is the nicotine patch.

How effective is a nicotine patch? How is it used? What is its price?

After using the patch for four months less than 1% people are able to quit. It costs about Rs. 5 per patch and has to be replaced every day.

So we have a superior product both in terms of effectiveness and convenience of use. There is also no stigma attached to our product unlike a nicotine patch which is visible on the arm.

We may not have competitors now, but can they come anytime soon. Do we have a patent? Is it likely others might be able to develop the product, or illegal copies might be made?

We discovered the composition by a rare accident. We do not have a patent. But the composition is a trade secret and cannot be mimicked (just like Coca-Cola). You can assume that we do not expect anyone else to develop the product in the next 5 years.

Is there any regulatory barrier to entry?

No, we have the clearance to sell the pill.

It is fair to say that we have no competition in the market right now and we need to find the right price to maximize our profits. Our potential market size is 11mn and we can now begin to price our product.

<u>Cost based pricing</u>

What will be our variable cost per pill?

Rs.1 per pill.

So our price has to be greater that Rs. 1. For a 4-month pack, this comes to Rs. 120

<u>Competitor based pricing</u>

This approach would not help us since we have no direct competitors. All we know is we can charge more than the Nicotine patches priced at Rs.5(since our product is much more effective) if we are targeting the same income segment that uses nicotine patches, but we don't know how much more we can charge. Also, there may be a lower income segment that can be tapped into if we price the pills below Rs. 5. Correct me if I'm wrong, I think generally 1 nicotine patch lasts for a day. For comparison sake, a 4-month nicotine patch routine would cost: 120 days x 1 patch/day x Rs.5 per patch=Rs. 600.

<u>Value based pricing</u>

Here we will price the pill according to the value generated for the customer.

The question we need to answer is how much would someone be willing to pay to be able to quit smoking with a 50% chance in 4 months in a convenient manner? A rich man would naturally be willing to pay more than a poor man. Though the 'value' of being able to quit smoking is huge (potential lung cancer expenses saved, life-long savings on cigarettes), affordability is a constraint. Let's divide the population into income groups

- **a)** Upper middle class (>Rs. 32,000 pm)
- **b)** Middle class (Rs. 16,000-Rs. 32,000pm)

c) Lower middle class (Rs. 8000-Rs. 16,000pm)
d) Below poverty line (<Rs.8, 000pm)

a) Upper middle class (>Rs. 32,000 pm)

Assuming an average income of Rs. 40,000 per month. Savings rate in India is 25% that leaves Rs. 30,000 bucks on expenditure. Expenses are distributed as follows in order of priority

- Food: 30%
- Housing (rent, renovations): 10%
- Transportation and Communication: 10%
- Health: 5%
- Education: 5%
- Discretionary spending (Clothes, furnishings, electronics, etc.): 40%

The money for the pills cannot come from the 25% savings since they are of long-term nature (saving for home, marriage of children, pension etc.). Within expenses, a family might be able to carve out ~5% by scaling down on the 6th category of discretionary spending. This would mean a spending of Rs. 1500 per month on the smoking pills. This would mean we can price the pills up to Rs.50 per pill, some of the savings also coming from not buying a cigarette that day. This means a price of Rs. 6,000 for a four-month pack.

This approach is difficult to get the first time, but can easily be remembered and in an actual interview you can do a simplified version. Here is a simplified version:

- **75% is expenditure of a family**
- **Savings cannot be touched because they are for long-term necessary purposes**
- **I'm assuming a family can spend up to 10% of their expenditure on the pill.**

If the interviewer asks for further detail, you can go into it.

b) Middle class (Rs. 16,000-Rs. 32,000 pm)

Assuming an average income of Rs. 20,000, and using the same analysis as for the upper middle class bracket, we get a maximum spending of (20,000) x (75%) x (5%) =Rs.750 per month. This leads to a price of Rs. 25 per pill.

c) Lower middle class (Rs. 8,000-Rs. 16,000 pm)

Let the average income be Rs.10, 000 pm for this group. For the lower middle class, the savings are lesser of about 20% since their income is low. A greater percentage of expenditure is used for buying groceries and other essentials. We will assume only 3% of their 80% expenditure is used for the pills. This gives us (Rs. 10,000) x (80%) x (3%) =Rs.240 which give us a price of Rs. 8 per pill.

d) Below poverty line (<Rs.8, 000pm)

The average income is Rs. 4,000pm for this segment. There are hardly any savings and most of the expenditure are for essential needs. The maximum a person could spend would be a little more than the expense on the *beedi* (which he/she is no longer smoked on that day). The price is typically Rs. 1, we can charge let's say Rs. 1.2 per pill to stay profitable. This means an expenditure of Rs. 36 per month which is roughly 1% of the income and seems reasonable.

<u>Price-elasticity based pricing</u>

Since different income segments can afford a different price we will need to do a price-elasticity analysis to figure out what is the right price to charge.

Our 7mn smokers are divided in this proportion

Upper Middle Class: 5% (~0.35 MN smokers)
Middleclass: 25% (~1.75 MN smokers)
Lower Middle class: 40% (2.8 MN smokers)
Below poverty line: 30% (2.1 MN smokers)

For,

Price of Rs. 1.2, profits =
(Rs. 0.2) x (120days) x (7 mn ppl.) - Rs.100mn = **~Rs.68 mn**

Price of Rs. 8, profits =
(Rs. 7) x (120days) x (4.9 mn ppl.) - Rs.100mn = **~Rs.4100mn**

Price of Rs. 25, profits =
(Rs. 24) x (120days) x (2.1 mn ppl.) - Rs. 100mn **= ~Rs. 6000mn**

Price of Rs. 50, profits =
be (Rs. 49) x (120days) x (0.35 mn) - Rs.100mn = **~Rs. 1960mn**

According to this, the right price would be Rs. 25 per pill since we can maximize our profits then and we can easily break-even in the first two years. We should also explore ways through which we can price-differentiate our product so that we can charge higher income segments more and lower income segments less. Price-differentiation strategies could involve better packaging and better taste of pills targeted towards higher income groups.

2. Establishing the value chain

We can now see if setting up the value-chain is feasible.

We can close the case here, thanks!

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.3.4 Case 26: Solar Lantern ǀ ★ ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 40 min *Actual case time: __ min*

The client is a German Electronics company. They have developed a solar lantern. They have hired us to figure out whether they should enter the market in India.

Preliminary questions

Think of the good preliminary questions to ask here

What metric should we use to judge whether we should enter the market? Profits?

Yes. We would like to get a sense of what kind of profits to expect if we enter the market and how we should go about achieving those profits.

Okay, I understand that we need to do a study to identify market potential for profits. I just wanted to be clear on one more thing about our objectives. On the issue of how we should achieve those profits do you mean things like- at what price we should sell, production, distribution, marketing...all of that?

We have a selling price in mind, but generally yes. Look into all aspects of the business.

In such a situation, though it seems daunting, go step-by-step through each area of the business using whatever customized framework you have. As you go into details, use your discretion and the interviewer's guidance and interest to judge the extent of detail you need to enter into for each branch

Okay we'll come to pricing again. I had some other clarifying questions.

What parts of the value chain do we operate in?

We manufacture and use third parties for distribution.

What geography within India are we looking to enter?

We are open to servicing all of India but we expect to sell mainly in rural areas.

How does the product work?

The solar lantern requires 6 hours of bright sunlight to be fully-charged and can then be used for 8 hours of illumination good enough for a small room.

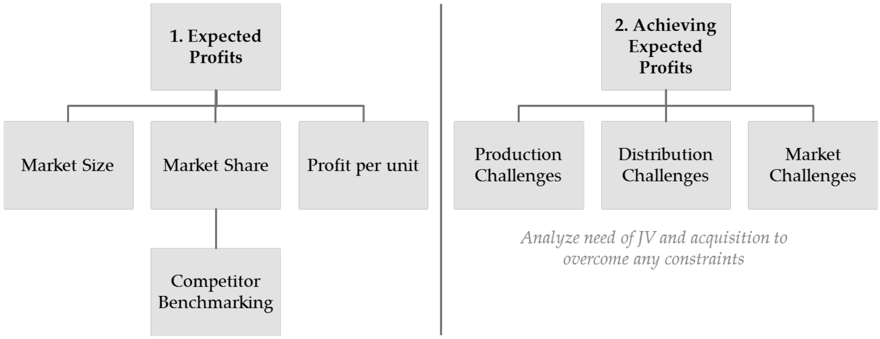
Overall Approach

Try to come up with an Overall Approach to solve the case

We will address two issues:

1. Expected profits=Market size*Market share*Profit per unit sold
2. How to achieve expected profits: After we analyze what market share we can hope to achieve, we will cover production, distribution and marketing constraints. We will also see if we need to do a Joint Venture (JV) or Acquisition to overcome some of these constraints.

Problem Structuring:

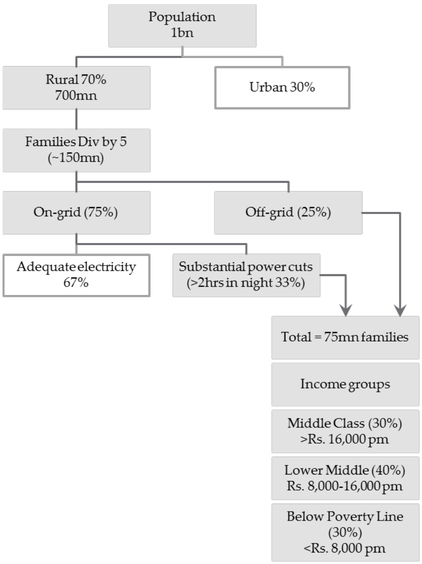


The above is a customized issue tree for this case. To understand how this has evolved from the conventional framework see Section 5.2. It's perfectly fine to have a different issue tree from the one above as long as you cover the objectives. For example, you may choose to analyze both 1. & 2. together instead of separately.

<u>Market Size</u>

Let's begin by estimating our market size.

Notice that this is a very proactive way of solving the case and that is how case-solving should be. At the same time keep looking for acknowledgement from the interviewer so that you know you're on the right track as well as seek out simplification of analysis which the interviewer might be keen on giving.



There are power cuts in Urban India but are negligible. People can also afford more expensive alternatives such as inverters. Given Rural India is 70% in size. I'd like to focus on that Reasonable? Alright. **(80/20)**

Our Lantern is useful for families facing power cuts post sundown. They would be families which are off-grid and those which are on-grid but facing substantial power cuts in the night. **(Segmentation)**

Define substantial-Lets say >2hrs. We can do a market study, but I think 33% would be a good number to go for since I've been to villages and 1 in 3 of them have power-cuts of more than 2 hrs at nights

I want to now segment customers into groups. To make a good income split I want to know what will be the price of the product?
Rs.6000
We will not have to see if each income group can afford our product and whether they will buy it, given alternatives they have. But for that I'd need more info of our product and competitors.

(In the above estimation "80/20" and "Segmentation" refer to skills mentioned in Chapter 4 of the book and demonstrated by the candidate here.)

Let the interviewer know that you have thought of demand even in urban areas and then neglect it based on reasons. As a general rule, state the details and ask if you can make a simplifying assumption so that the interviewer does not mistake your simplification as ignorance.

Market Share

Let's try and understand our market share. What are the key parameters of the product which determines whether someone is going to buy it? How do we fare on them compared to our competitors?

It's important to understand what the product parameters which affect consumer choice for product are. These parameters need to be assigned priority if possible and then compared with competitors to gauge our market share. Example in clothing, quality of fabric is a parameter for customers and for canned food, shelf life is important for distributors.

Price, lifespan of product, illumination are key parameters.

We have no direct competitors in the solar lantern market. Our lantern has a life of 2yrs.

So our selling price is Rs. 6000 as you mentioned earlier. Over 2 yrs., this would mean a family paying little less than Rs.300 per month for illumination. We will need a financing plan based on EMI of course. Will that increase costs? Negligibly, okay. Based on the income groups:

<u>Below poverty line:</u> These families have modest savings of about 10% meant for buying housing or dealing with shocks like food/water shortage. Assuming avg. income of Rs. 3000pm, Rs. 300 represents roughly 10% of income of BPL families. Since illumination cannot replace their more essential needs of *roti, kapda, makaan* (which is more than 90% of income), they cannot afford it.

<u>Lower Middle:</u> These families save about 25% of their income meant for long term purposes like buying a house. Assuming avg. income of Rs.10000 pm, this gives us Rs.7500 worth consumption. Rs. 300 represents 4% of their consumption. Illumination is necessary (kids going to school, etc.) for these families and they can purchase the lantern by scaling back on things like furniture, entertainment. Still Rs.300 pm is an expensive additional bill for them, we can assume ~50% can afford it.

<u>Middle Class:</u> I'll assume average income of Rs. 20,000 and savings of 30%. 300 represents ~2% of their consumption. If lower middle class can afford it then so can the middle class since they earn more. They can potentially even buy two lanterns, say 20% of the families.

(80%) x (1) + (20%) x (2) = 1.2 lanterns per family.

Note that the numbers used in this case above are subjective and should ideally come out from a discussion with the interviewer

Now the question is what alternatives our customers have given there are no direct competitors.

1. **Emergency lights, Torches and candles** are temporary substitutes, so we won't look at those as they can't provide electricity for substantial periods of time-8 hours per day like a lantern can.
2. **Inverters/Generators:** Hmm. I think these are usually used by upper middle class since it's expensive to buy them. Even an inverter is of no use in places where there are heavy power shortages. I'll assume that ~20% of the Middle class don't need our product since they are using generators or inverters which are obviously more effective than a lantern providing illumination for only a small room.

Any other substitutes?

3. ***Cheap replicas -****They cost 600 bucks and last for 6 months. Illumination strength is much lesser and many of them stop working a month after purchase.*

Can we sufficiently distinguish our product from them using a hallmark logo, color change, creating customer awareness to identify differentiating features?

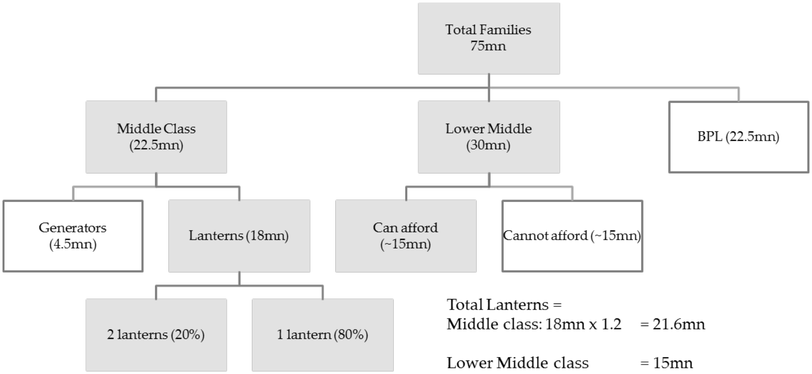
Yes, we can differentiate our product.

Candidate: Is there any negative in our product? None? German engineering, got it. Since we can differentiate our product we can overcome the risk of customers getting poor service from the clones and prevent our reputation from taking a hit. However, because the cloned lanterns are so cheap we will lose some market share to them. I'll assume after our efforts of differentiation, overall we are losing 20% Market share to the lanterns.

Outcome is not important here.

Given the mixed information about the clones -cheap but less effective -it's perfectly fine to come to a different conclusion. You might suggest that differentiating our product will be too difficult since cloners always find a way to clone again. You might say the clone is much cheaper and with only 50% less illumination, it is still a better buy. You may suggest there is a potential 80% loss in Market share. The outcome of the case is not important. The numbers can be discussed with the interviewer along the way. The PROCESS is important: your thought structure, your awareness of the factors playing in.

To put all of this info into perspective and to calculate expected profits.



Total Lanterns =
Middle class: 18mn x 1.2 = 21.6mn

Lower Middle class = 15mn
~35mn
Assuming 20% MS is lost to clones, we get ~30mn lanterns.

<u>Profit per unit</u>

We know our price per unit, I want to know what our cost per unit is.

Here is some data:

These are the components of our selling price:

- Manufacturing cost: 40%
- Logistic costs: 25%
- Distribution costs: 10%
- Marketing: 15%

Based on this information our total cost is coming to be Rs. 5400. This means a profit of Rs. 600 per unit sold.

Hence our expected profits are = (30mn lanterns) x (Rs.600) =Rs. 1800 crore

Since the lifespan of the lanterns is 2yrs, we can look to achieving this number in 2-3 years and then get re-buyers subject to improving electricity outreach and changing income groups.

That's okay you don't need to analyze the re-buyers bit.

We can also see what our investments are for the project and find our break-even point. Would you like me to go into that?

We can skip that for now.

<u>How to achieve expected profits</u>

Since we know our expected profits now, I would like to answer how we can achieve it.

- <u>Production</u>. Are we going to build a factory in India or import the lanterns? *Build in India.* Then, do we have the capital investment required for it. *Yes.*
  Can we meet the requirement of 30mn lamps in 2-3 years?
  No we can produce only half that number.
  Profits are capped at 900 crores [= (30mn/2) x (Rs. 600)]. Is there any way we can increase production?

No, we cannot.

Note that as we are limited by production, and not competition, this means that clones would have a lesser impact on our profits, would be a good observation to point out.

- Distribution. Do we have our own distribution channel?

  No, we will need to outsource distribution to third parties.

  We can possibly piggy-bank on existing distribution channels such as those for torches, basic electronics.

  Yes, Distribution can be taken care of, like that.

- Marketing. We have already discussed the strategy to differentiate our product from clones. We should also have local salesmen to create awareness of our product and provide replacements to any defective piece so that our product is not a 'risky' investment for them.

  All good ideas, I think we can close the case here.

Synthesizes

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.4 Pricing cases

6.4.1 Case 27: Anti-balding Pill | ★ ★

For more cases on pricing, refer to Cases: 10, 22, 25, 30 and 40 as shown below

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Our client is a large pharmaceutical company that has found a cure for baldness. It is a pill which will rapidly regrow (within three months) your hair to the thickness it was when you were a teenager. The pill is to be taken every day to maintain the thickness. Please estimate the size of the US market and then decide what price to sell the product at.

Preliminary Questions

So the company and its customer base is located in the US?

Yes.

Is this a prescription drug or an OTC (Over the Counter)?

It's a prescription drug

This is a useful question to ask when dealing with pharmaceuticals since it tells you how easily the drug can be accessed-through a doctor or directly through a pharmacist.

Overall Approach

We will first estimate the market size and then price the product. For the market size we will look at the group of people who would require a cure for baldness. For pricing the product, we will look at things like cost of the product, competitor prices and try to quantify the value to customer.

Alright, move on.

Market Sizing

Price of the drug determines affordability and hence important while market sizing. We will leave the income segment for later, since we do not know the price?

Yes.

Is it a unisex product, both men and women can use it?

Yes.

Are there any side-effects to the product?

It causes sexual dysfunction in 2% of men and women thinking of having children shouldn't take it since it could cause birth defects.

How serious is this sexual dysfunction?

Relatively minor and non-permanent.

We can then say that men who are balding and need the product won't really be deterred. But we can eliminate women likely to have children, which is basically all women under 40 to be conservative.

Population
320 mn

Men	1-20	20-40	40-60	60-80+
# people	40mn	40mn	40mn	40mn
% people with thin hair	0	20%	40%	60%
# people with thin hair	0	8mn	16mn	24mn

Women	40-60	60-80+
# people	40mn	40mn
% people with thin hair	10%	20%
# people with thin hair	4mn	8mn

Total market size = 60mn

This is still an intermediate market size. The next step would be to see how many people can afford our drug, but for that we will need to price the drug. Also some people, even though their hair is thin may not want to go for an anti-balding treatment. This might be the case for the older people.

Alright, this is enough. You can proceed to pricing.

<u>Pricing</u>

What is the goal we are seeking to achieve when pricing the product? Maximizing profits?

Yes.

Note the goal could have been to capture a significant market share, or to break-even on the investments of R&D in a fixed amount of time. So this question is important.

There are three ways we can look to price the product

1. Cost based pricing: We will see what the variable cost of our product is. Our price needs to be greater than the variable cost, else we would not be profitable. We will also see what the fixed costs, mainly R&D expenses, and a payback period the client has in mind are. Cost based pricing gives us a lower cap for price.
2. Competitor based pricing: Our product price needs to be competitive else we will lose market share. We can charge a premium over competitors if our product has an advantage. However, we will also have to discount it, if there are disadvantages.
3. Value (to-customer) based pricing: Here we try and gauge what is the value that is being created for the customer to price our product. For this we can look at similar products in the cosmetic industry to gauge how much customers value balding correction.

There is a fourth method of pricing called Price-Elasticity based pricing. This is useful when Price-Elasticity data is available. It is also useful in a situation when none of the above methods are useful, like when

- Cost based pricing is not applicable since the cost is too low compared to value
- Competitor based pricing is not applicable since there is no competition

- Value based pricing is not applicable since value to customer is very high and cannot be quantified

In such situations the ability to purchase the product is primarily dependent on affordability of customers and using price-elasticity we can get a right price.

You will see examples of price-elasticity based pricing in other cases in the book.

1. Cost based pricing
   Do we know what the cost of our product is?
   Yes, it is $1 per pill.
   That means for a three-month course, our cost would be $90. Our price has to be greater than $90.
   What are our fixed costs, do we have any payback period in mind?
   You can assume that fixed costs were negligible for this case.
2. Competitor based pricing
   We will now compare our product with competitors. Do we know who our primary competitors are? What are their product characteristics?

Characteristics	Com A	Com B	Client
Price	$50/month	$60/month	??
Duration	9 months	9 months	3 months
Effectiveness	Ordinary	Ordinary	Thicker hair, faster
Side Effects	Serious	None	Minor (in target population
Prescription/OTC	Prescription	Prescription	Prescription
Covered in health insurance	No	No	No
Type	Pill	Shampoo	Pill
Brand Image	Positive	Positive	Positive
Market Share	50%	50%	-

Note that each of the above information is to be explicitly asked by the candidate as opposed to the interviewer simply giving it away.

So the market is evenly split across A and B. In terms of effectiveness, brand image and accessibility, A and B are similar. They do differ in pricing. It seems that although B is priced higher, it is attracting as many customers as A since there are no side effects. Also it is shampoo based as opposed to pills, what do customers prefer?

Customers have a preference for shampoo since psychologically it gives them a feeling of using a hair product as opposed to some kind of medicine.
Will this be a big factor in their consideration compared to our product which is highly effective?
Not much, I would say.
Based on this information, we know that the total price for the anti-balding treatment of competitors is $450 for A and $540 for B respectively.
Compared to product A, we have a much better product-less serious side effects, greater effectiveness and faster treatment. So we can at least price our product at $450. The monthly price would then be $450/3=$150 per month.
Compared to product B, the client's product has greater effectiveness which should trump over the disadvantage of minor side-effects (we've excluded women under 40) and the fact that our product is a pill instead of a shampoo. At $150 per month, our product is still a cheaper buy since the total price comes to $450 as opposed to $540 for product B. The combination of better price and effectiveness should attract even those customers who have reservations about using a pill or the fact that there are minor side effects with our product.
We could potentially price our product even greater than $150 due to its high effectiveness. But we should have a competitive price initially to capture market share and later increase the price when our product gains positive reviews.
On the other hand, at $150 per month, we are making a good profit of $120 per month and hence we can consider even reducing the price to $100 per month to capture market share even faster. But let's keep it at $150 for now, we can reduce the price if we aren't getting market share fast enough.
Good idea.
$150 is just a number we came up with here. It could be $100 or it could even be $200. It's the reasoning behind your number which matters in the case-interview more than the number itself.
Sometimes it makes sense to even look at substitutes as competitors. Not in this case, since hair wigs and a permanent solution are vastly different. However, let's say the client is a construction material supplier. A new material is becoming popular in the market and the client wants to know how to price it. Apart from looking at how the competitors are pricing the new material, it's also useful to look at the price of the substitute, i.e., the traditional construction material to judge the right price.
3. Value based pricing
We can now move on to Value based pricing to see if we're in the right range. Here we can look at products, services similar to getting a full head of hair and see what their prices are for the sake of comparison. We can also look at services,

which we know are definitely of less value or definitely of more value. The prices of these services will give us a lower and upper cap of price range.

Sure, go ahead.

We can look at gym membership prices in the US for 3 months as a comparable since it also addresses a requirement improving external appearance. (Worth mentioning to the interviewer that a head of hair would be more permanent than a ripped physique and some may value a head of hair over a shapely body.)

We can look at other cosmetic products such as wrinkle removal and skin lightening creams, since the value derived for the customer is similar to the value in improving facial looks.

As a lower-cap, we can think of something like drinking coffee at a Starbucks for 3 months. It would be worth missing coffee every day for three months to have a full head of hair. A coffee costs $3, across three months this would make it $270.

As an upper-cap we can look at getting braces for teeth re-alignment. Since it requires regular dental appointments, it would be more expensive than to take a pill for getting hair rejuvenation. Do you know what would be its price in the US?

That's okay, we don't need to go in the numbers. I like your approach. We can close the case here

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.5 Unconventional cases

6.5.1 Case 28: Consulting Firm to IITB | ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 20 min *Actual case time: __ min*

ABC consulting firm wants to reach IIT Bombay from their office in the least time possible on December 1 (placement day). They need you to figure out the best route. How would you go about this problem?

Preliminary questions

ABC's office is at Nariman Point and IITB is in Powai, right?

Yes.

How do they travel from ABC office to IITB today? Cars?

That is correct.

What would you consider as the best-possible route? The route that takes the least amount of time to reach destination?

Yes, exactly.

Are we open to exploring the option of changing our mode of transport to railways, airways? I won't consider waterways since the geographical features do not permit such a commute.

Good question. Let's focus on travelling by road.

Do we have any constraint on the resources we can use to reach in the least possible time?

We intend to use our present resources. We have a fleet of cars.

Are we open to breaking the journey with different modes of transport on the road? For example, if there is traffic jam we can consider walking out of it and then hiring another cab?

Interesting point. However, we would be using the same car throughout the journey.

Given that we're trying to optimize journey time, I want to draw out the factors affecting it first.

Sure, go ahead.

Overall approach

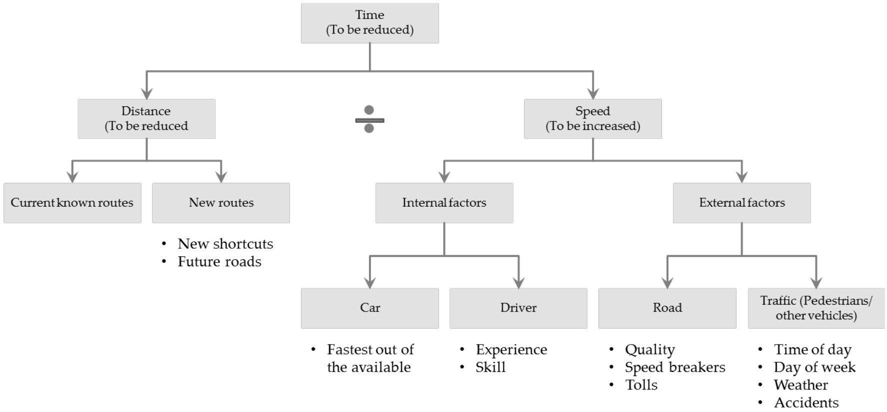
Since our overall objective is to reduce time and

Time = Distance / Speed,

We can simplify our objective to:

- Reducing the distance travelled, and
- Increasing the Avg. speed

We want to identify factors which can help us achieve the above 2 sub-objectives.



Although an attempt has been made to keep the solution MECE, there are scenarios (as this case) where this is not entirely possible in the span of the case interview. Here, the candidate must strive to keep it as MECE as possible by making smart segmentation. Such problems also allow for a lot of room for creativity which the candidates are expected to exploit. E.g.: The above factors could further include factors like number of signals on a route, presence of high traffic junctions on the way etc.

Let's look at distance first. Since we are restricted to roads, I want to split roads as known routes and new routes. New routes include (1) any new shortcuts, and (2) any other routes likely to be laid by Dec 1 which might reduce our journey distance.

Let's say we have the required information. Why don't you tackle the other bucket - speed?

Sure. I want to split this bucket into 2 more parts – Internal factors and external factors. Internal factors include (1) Type of vehicle – car, bus etc. (2) Type of driver. We can split these buckets further to discuss characteristics of vehicles and drivers affecting speed.

That won't be necessary. Move on.

External factors will depend on factors outside of the ones discussed. They include (1) Road: road quality, speed bumps, signals, tolls etc. (2) Traffic (pedestrian/vehicular): time of day, day of week, other intangible factors (accidents, strikes etc.).

Okay, this sounds good. We will consider these factors the next time we come to IITB.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Communication				
6	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.5.2 Case 29: Yash Raj Films | ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 25 min *Actual case time: __ min*

Your client is a Bollywood film production company – Yash Raj Films (YRF). They have a story for a film. They need your help to figure out whether the film will be a success. What do you do?

<u>Preliminary questions:</u>

What determines whether a film is a success?

There are 2 types of films YRF makes – (i) Commercial – objective is to make profit – and (ii) Non-commercial – objective is to get critical appreciation and at least break even.

What kind of a story is this one?

This is a story about a girl who attempts to commit suicide. You could say it is a non-commercial film.

What do you mean by critical appreciation? How can we measure it?

All elements of the movie must be good. Why don't we discuss the latter at length?

<u>Overall approach</u>

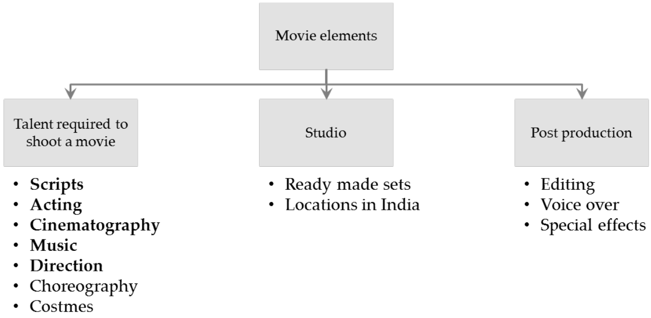
For this film to be a success, we need to ensure:

1. Critical appreciation – by analyzing elements of the film
2. Breakeven – by studying the revenue and cost of them film

This makes sense.

<u>Problem structuring</u>

1. Critical appreciation



Talent required to shoot a movie: Script, acting, direction, music and cinematography are the most important factors.

This is good. We have the best directors, music directors and cinematographers. There is no dance number in the movie. What do you want to know about the script and the actors?

About the script, who are the writers?

There is an award winning writer who has written the script. Although he is new, he comes highly recommended.

That sounds encouraging. I am guessing YRF will have good connections in the acting community. Can we use that or are we looking to cast fresh faces?
We have actors who have done well in the theatre industry with a good number of plays to their names.
That is good too. I am guessing they all would fit the part.
Yes, they do.
Studio and post production:
We have identified apt locations for the movie. Our post production team is very strong.

2. Break even

Let's look at whether the film will break even.
Let's not get into the math here. What factors will you look at?
Revenue and cost.
We can handle the cost aspect. What factors in revenue?
Revenue will depend on:

- #Cities movie is released in
- # Theatres per city
- Shows per week in every theatre
- # of weeks a movie runs
- Capacity of theatre
- Average occupancy
- Ticket prices

The occupancy will majorly depend on factors like

- Price of ticket
  Okay.
- Show times
  They will be equally spread out throughout the day.
- Competition. When are we looking to release it? Does the timeline clash with another big banner movie or one with a similar theme?
  Good question. We are looking to release it in the next 4 months. No major releases scheduled then.
  If the timing is on a special weekend like Diwali/Holi or some other, we can expect a larger turnout of movie-goers?
  No it's on a regular weekend, another reason why no big names are scheduled for release.
  Occupancy will also depend on how much buzz there is for the movie. This would depend on doing movie promotion through bill boards, participating in film festivals (like Toronto, Cannes), paid reviews and having the cast present on TV shows, large public gatherings, etc.
  This is a fair analysis. We can close the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.5.3 Case 30: Godzilla | ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 30 min *Actual case time: __ min*

Your client has just found a dinosaur – let's call it Godzilla. She is looking for advice on what she should do about it?

<u>Preliminary questions</u>

What is the objective of the client? Is it to get as much profit as possible?

Yes.

What does our client do?

How is that relevant?

It will determine what business the client would be comfortable doing since she would have experience in that area of business.

She is a businesswoman. She owns a few theme parks all over India

Interesting! That gives us some direction.

Okay. I want to know more about the dinosaur. What kind is it? Where did the client find it? Are there any more of them?

It is a T-rex the client found in the Lakshadweep islands near India. They searched for many more on the island and on the ones around as well, but they didn't find anything

I don't have too much knowledge about T-rexes. Can they fly? Are they vegetarian?

No, they cannot fly. They are active predators (carnivores). For the time being though, Godzilla has been sedated.

How big in size is it? Also, how long do T-rexes typically live? How old is Godzilla?

It is about 1 storey tall - 10 feet. Assume that the T-rex has at least 10 years of life to go.

Wouldn't the government or some wildlife organization simply take this animal from us for research purposes?

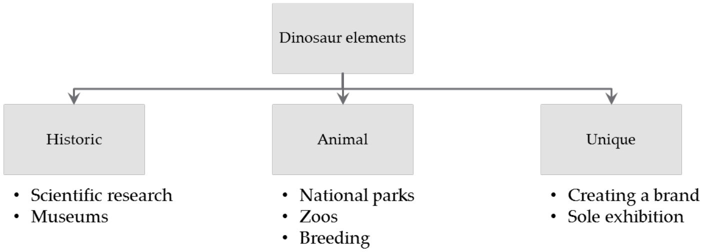
Good point. Let's say your client lives in a place where finders are keepers.

<u>Overall approach</u>

I want to classify all the options our client has into – (1) to sell it, (2) to lease it out, and (3) to start a business using it. I will further explore each of these and then we will freeze the best options we have.

Okay. Let's move to the last one which is the most interesting. We'll come back to the rest after.

I want to study the various aspects of a dinosaur and then list out the businesses we can do leveraging each of them.



<u>Unique:</u>

Let's start with the unique aspect of a dinosaur since I think that provides the most potential. We could trademark the brand of Godzilla and do the following:

- Godzilla theme parks
- Entertainment industry (movies, TV shows, commercials)
- Official merchandise (apparel, toys, bags)
- Restaurants, cafes

We could have an exhibition of Godzilla along with acts of:

- Feeding the Godzilla
- Seeing the Godzilla hunt
- Safari

In fact, the above 2 can be done simultaneously.

Good.

<u>Animal:</u>

We could tie up with zoos and national parks to incorporate the dinosaur.

We do not want to tie up with anyone since we think their entry fees are too less. Even if they bump it up, they would get a pretty large share. You will be better off with a solo exhibition.

I am guessing breeding dinosaurs is out of the question since we have only one? Is there a chance the dinosaur could reproduce if it is a female? We could multiply our revenue by quite a bit.

Great idea but for now, assume Godzilla is male.

<u>Historic:</u>

I suppose a businesswoman wouldn't be interested in scientific research unless there is some chance of a further business opportunity. We can of course sell to a research institution, but we'll discuss that later. Museums rarely have live animals so that wouldn't be appropriate either. However, we can sell museums specimens of the Godzilla's skin, nails, footprints, etc. We can also give them opportunities to take pictures or make a documentary for a fees.

Good ideas, let's say we want to go ahead with the idea of exhibiting the Godzilla.

How would you price the ticket to such an exhibition?

There are 4 ways to price the exhibition:

1. <u>Cost based</u>

Before we go into the actual cost, we would want to know what kind of exhibition this would be. Will it be an exclusive premium experience for the rich or a general exhibition for a larger audience base? That will determine our costs and price. If it's meant for a wider audience, we can keep it restricted to a solo exhibition of the Godzilla with little frills. I would say we go for the solo exhibition, since it more resembles our existing way of running theme parks.

Yes, let's go with the solo exhibition.

Note how the candidate has weighed two business models (Premium, exclusive or General) qualitatively and then using business judgment suggested one of them.

What is the upfront investment required for such a business? What would the running costs be like?

The upfront cost is negligible. The upkeep and maintenance would be about Rs. 1 lakh per month.

I see. The base price of the ticket should be such that we earn at least Rs. 1 Lakh per month. How many visitors can we expect in a month?

That would depend on the price but do you really think this is the best approach?

You're right, for something as unique as a dinosaur, a value based approach is better. We will even skip the competitor based approach since we have no real competitors.

2. <u>Competitor based (skipped since no direct competition)</u>
3. <u>Value based</u>

How will you determine the value for something like this?

Our Godzilla is not the one we know from the movie, it's a much smaller version. It's more like an exotic animal, and because the public is intrigued by dinosaurs there would be a desire to see it, but nothing more. The value would be similar to going for a music concert or an amusement park which have prices in the range of Rs 1000-10,000. Seeing the Godzilla would be a unique but easily accessible experience. I would say music concerts and theme parks have more to offer in terms of an emotional + visual experience. Seeing an exotic animal would be just a visual experience. I'd probably pay around Rs. 2000 to see it and hence price it around that. We can expect a lot of people coming to watch it in and around the area. Once it has been exhibited in a particular city we can move it to a different city, assuming it's safe to do that.

Yeah, we can do that.

On the revenue front, we need 50 (=100,000/2000) people every month to break even. Given the hype that will surround such an exhibition, we can certainly expect that. Should I calculate the revenues per month?

No need. Move on.

If you were to calculate the revenues, you would need to look into the following factors:
Monthly revenue =
(# of days the exhibition is open in a month)
X (# of hours it is open in a day)
X (# of batches that can be accommodated in an hour)
X (Batch capacity: max. no. of people that can be accommodated in one batch)
X (Batch occupancy in %)
X (Average price of each ticket)

4. <u>Price elasticity based</u>

Do we have any data which will help us arrive at the optimum pricing to maximize revenue?

No, we do not have any data on that.

We can also introduce some price differentiation to make a larger profit. We can provide more expensive tickets for a premium experience where people get to see it hunt and from a closer range. And then we can have a regular priced ticket.

Great! So this is what we would do in case we have to start a business. Let's discuss the options for selling/leasing it out.

Off the top of your head, who do you think would be potential buyers?

- Research institutes, Government, Zoos, Parks
- Other business owners who would have the same ideas

Good. We can close the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.5.4 Case 31: Plot of land | ★ ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 35 min *Actual case time: __ min*

Your client has a large plot of land in Mumbai. He wants you help him figure out what he should do with it.

Preliminary Questions

When a case is open ended, with no clear objectives, more number of preliminary questions are warranted.

What are the goals of the client?

There are three objectives

1. *Maximize profits*
2. *Get brand recognition*
3. *Reserve some space for a philanthropic cause*

What is the order of priority of the three objectives? I'm trying to gauge how important each objective is.

Good question. The order of priority is in the same order

- *Profits*
- *Brand recognition*
- *Philanthropy*

How big is this plot of land? Where is it located in Mumbai? What are the surroundings like?

It's a huge piece of land, the size of IIT campus, located in the Phoenix Mills area. It's surrounded by homes, offices, schools, restaurants, etc. It's a prime location.

Do we know what the background of the client is – what kind of business is the company involved in?

Yes. The client was the owner of several textile mills and the land itself. The textile mills could no longer be run profitably in Mumbai so they were shut down and what is left is the land. In addition to this the client's procurement manager, operations manager and sales manager have decided to follow the client in his future venture.

Are the skills of the managers' textile industry-specific or can they be applied to other industries as well?

They have a lot of business experience and can be applied anywhere.

Overall Approach

To solve this case, I would like to approach each objective in the order of their priority.

Let's first see how we can maximize our profits.

Selling the land is not an option, as while it may get us money, we will not be able to get any brand recognition through it unless we utilize the money, so that would be just pushing the problem one step away.

Let's see how we can use the land other than selling it.

Since it is empty right now, it should be put to productive use by developing the land. We could choose between three types of projects

- Residential: Apartments, homes, bungalows
- Commercial: Office space, Malls, restaurants, Shops, Schools, etc.
- Industrial-Factories

Industries is not an option since regulation prevents any large scale manufacturing of goods in the area. How would you judge between entering the commercial and residential space?

It will depend on where we can make more profits. This would be comprised of revenue and costs. For revenue we can look at indicators such as "price per sq. ft."

Let's say for the residential space the rate is Rs. 50,000 per sq. ft. For the commercial space it is Rs. 1000 per sq. ft.

Are these the prices at which properties can be purchased in the area? Does it not seem a little less for commercial property?

50,000 sq. ft. is the purchase rate for residential property, whereas 1000 per sq. ft. is the annual lease rate for commercial space in the area.

Okay. So it would not be fair to compare the two metrics, do we know what the purchase rate for commercial space is?

How would you use the given information to judge which segment is more valuable to enter into from the client's point of view?

We can extrapolate what the commercial property price would be from the commercial lease rate. This can be done by calculating the Net Present Value. This involves adding the cash flows that leasing commercial property will generate after discounting them to their present value.

The discount rate would depend on inflation rate, property appreciation, risks involved in the project.

Net Present Value is a financial concept useful to know. Check out Investopedia.com for more explanation. Financial concepts like these are unlikely to be tested in a case-interview but if you have, for example, an investment banking internship it can be tested.

In the actual calculation the time period of cash flows is infinite but the present value of successive cash flows keeps decreasing.

To simplify calculation let's assume the net present value= Annual Lease Rate x 30 years.

This would give us Rs. 30,000 per sq. ft. Comparing this to the Rs. 50,000 sq. ft. purchase price for residential property, entering the residential segment seems more favorable from the monetary standpoint. However, we also need to look at cost of developing the land for commercial and residential purposes before we can take a call on which segment is more lucrative.

Great. Let's go back to the different types of commercial projects you mentioned. You named Offices spaces, malls, restaurants, schools etc. Is this exhaustive, can you expand on this list?

It's not exhaustive, I can expand on it.

- Office Space
- Restaurants, pubs, bars
- Shopping complexes: Electronic stores, garments, bags, furniture, grocery stores, supermarkets
- Recreational activities: Amusement parks, Spas, Sports complex, Movie theatres
- Schools, Colleges, Multi-purpose Hospitals, doctor clinics, gyms, parks

It's probably still not exhaustive but I've expanded on the list.

Alright, till now we discussed about DEVELOPING and LEASING the land for commercial purposes. Let's say we wanted to ENTER a particular commercial activity on our own, how would you decide which commercial activity to enter from the list you gave?

Since our objective here is to maximize profits, I would look which business has a large customer demand **(Market Size)**, less competition and where we have some competitive advantage **(Market Share)**.

Good, now if we focus on competitive advantage, what do you think is our competitive advantage? Then we can see how to leverage our competitive advantage and enter a particular business.

Well, we do not really have any business presently. In terms of the resources we have the three managers, experience in the textile industry and a lot of land. Hmm... I would think that having a HUGE amount of land in a PRIME location of the financial capital is itself a unique advantage. So much land is not available to one company or if it is, it is available in scattered pieces.

Exactly, and can you think of commercial activities which would greatly benefit from having such a big piece of land in a prime location.

Hmm... Some of the ideas I can think of are

- A large sports complex capable of hosting major international games such as Asian and CWG. But we will have to see if it makes commercial sense
- A world class MBA School which can significantly benefit from being inside the city
- A big amusement park like Universal Studios or Disneyland

Good stuff, so as a lesson, when there are multiple attractive options from demand and competition point of view, competitive advantage can be a key decider.

Note that in the above discussion the interviewer is testing for the candidate's creativity and here MECE-ness can be compromised.

However, let's say the client decides to go ahead with a combination of residential and commercial office-space type projects. How can we get a great brand recognition now as a land developer?

To gain brand recognition as a developer, there could be many things we do which will make our brand name recognizable. We could

- Construct an iconic building. It could have a unique shape such as the Shard or the Gherkin in London. Or it could be the tallest skyscraper in the area.
- We could have niche attractions, such as a horse race course, an 18-hole golf course, F1 track
- We could make luxury apartments and invite a rich customer base to live. We can invite top corporations to open their offices
- We could invite celebrities to book homes in the region adding to the glamour quotient of the area

Gaining brand value will also translate into more profits.

Good ideas, and what could we do as a philanthropic cause.

Does the client have a particular cause in mind, any history with a particular NGO?

Not really.

There are several causes that the client can choose to pursue. We need to see where we can have a maximum philanthropic impact with our available resource of land. This could possibly be free schooling for unprivileged or differently abled children. It could be a hospital for the same. We could even provide land to NGOs from where they can operate. A good idea could be to invite applications from NGOs with a definite plan of how they would use the free land provided. We can also encourage our customers in our main line of business to donate to our philanthropic cause.

Alright, this sounds good. We can close the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.5.5 Case 32: Sales force | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 30 min *Actual case time: __ min*
Your client is a large pharmaceutical company in India. They want to cut 50% of their cost on the sales force of their company. How will you help them decide how to go about it?

Preliminary questions:

Think of all the preliminary questions here

What does the company structure in the sales force look like? What are their duties? What are their salaries?

Good question. Here is the current salary structure.

Designation	Salary	Total people	Total salary
1 CEO	20x	1	20x
RH (Regional head)	*10x*	*4 (4 RHs under 1 CEO)*	*40x*
AH (Area head	*4x*	*24 (6 AHs under 1 RH)*	*96x*
SR (Sales representative)	*x*	*240 (10 RH under 1 AH)*	*240x*
			396x

Roles:

- *CEO: Manage RHs and other work as a board member*
- *RH: Manage AHs and other negligible work*
- *AH: Manage SRs*
- *SR: Meet doctors and sell medicines to them*

Overall approach

First, I want to identify ways of reducing costs at each level by reducing number of people or by reducing their salaries. If at all we need to lay off employees, we should discuss the number of people and the basis for laying them off.

I will start with the cost cutting of SRs.

You must be wondering why we are starting at the lowest rung of the hierarchy. The people in the hierarchically higher roles manage people doing lower roles. Since we do not know how many people we need in the lower roles, it is advisable that we start there – in this case, the Sales Representative level.

SR cost cuts

What are the duties of an SR?

There is a fixed amount of work to be done. There is a certain number of doctors in every area, each of whom needs to be visited twice a month. Our SRs go to their clinics/hospitals and pitch the latest medicines to them for about 30 minutes.

Hmm. So we need to minimize costs keeping in mind that the total work is constant. This could be done by making the sales process more efficient by reducing time wasted. Secondly, I want to know if we can reduce the total work itself - we probably don't need to go to every doctor OR change the style of pitching our medicines.

Good point. Let's say we are not looking to change the style of pitching medicines to the doctors. Assume that the total work remains constant.

To minimize:

Total cost = (# SRs per area) x (Cost per SR) x (#areas)

Let's work on reducing #SRs. Salary cuts will be our last resort since the client does not want to lose out on talent to competitors. We want to have a presence in all areas because they are all profitable as of now.

We should reduce #SRs without reducing the cumulative work they do so as to not lose revenue.

<u>Reduce number of SRs</u>

Constraint: Total work/day is a constant. Here work represents the number of pitches an SR makes

Total #pitches/day = (# SRs in an area) x (#pitches per SR per day) x (# of areas)

= (# SRs in an area) x (hours in shift) x (% time pitching) x (pitches/hour) x (# of areas)

If we want to reduce # SRs, we will need to increase other parameters.

Note that time of shift is from 9 am to 7 pm and it is not negotiable.

I wonder if we can increase the % pitching time somehow. Why is it not 100%? I want to start with areas where % pitching time is minimum.

The pitching time is not 100% because of traveling, waiting time, snack breaks etc. Let's assume that % working time for all SRs in all areas is 50%. The break-up of time is as follows:

(1) Working time - 50% (2) lunch/snack breaks – 5%, (3) travel time – 20%, (4) waiting time – 15%, (5) free time – 10%

<u>Strategy:</u>

OK. First, I will make sure that an SR minimizes time devoted to all activities other than pitching. Next, I will try to look for ways by which SRs can improve their productivity (so that more pitches are made per unit time).

After we ensure that every SR is super-efficient, the SRs will naturally have a lot of time left over. We could consider laying people off then.

Here, the travel duration presents maximum opportunity to save time since it accounts for 20% of the total time spent by an SR every day. If this is a dead end, we move to the next largest category.

- What does the travel time entail? Is the route optimized?

Travel time includes travel on a scooter from home to warehouse (where all medicines are picked up from), then to all the clinics/hospitals (which they try to sell), back to the warehouse (to empty out the stock) and then to the company to log the details of the day's work. Routes are optimized.

- Since the routes are optimized, I am checking if any of these trips are necessary. Why the trip to the warehouse and back? Can we not let the SRs keep it for a week or so?
  Interesting idea. Let's say the daily free time increases to 15%
- Do they need to log the day's details by going to the company? Is there a way to do it remotely or less frequently? What do our competitors do?
  We don't have any info on that but sure, there is device which lets you log details remotely. Let's say that reduces travel time by another 5%. The free time is now 20%
- Can we reduce the waiting time? How are medicines sold to the doctors today?
  Meetings are set up with doctors and they get a chance to pitch their company's product. Typically, doctors delay these meetings due to their unpredictable schedule. Nothing really can be done about it
- I am guessing we can't reduce snack time.
  Right.
- The free time is 20% at this stage. We could cut that down to 0%. If we do, we will need fewer SRs – Only 8 per area.
  Sure.

How can we increase their work/time OR productivity? What does the industry do to increase it? Training programs, workshops etc. are suggestions.
Good idea. We can do that. Let's say we can double the speed of the sales pitch.
This means, we can halve the # of SRs. Hence, we are left with 4 SRs per area.
That is correct.
Now, the next part is to decide who gets fired and who does not.
There are a few parameters that are important when it comes to the role of a SR:

- Performance – Sales or Revenue that a person brings in is a good metric to judge performance
- Experience – Some SRs might be seniors who groom the fellow SRs. We might not want to fire them

I have a concern though. When we talk about performance, we need to account for the nature of the area he is working in. E.g.: Pitching in some areas is more difficult as compared to others (possibly because of less demand of medicines)
Good analysis. However, let's assume a standard level of difficulty in every area and we have ensured that SRs have been allocated appropriate areas.

AH cost cuts

I will do a similar analysis to arrive at the number of RHs. You said that all AHs did was to manage SRs. I am assuming that the work is proportional to the number of SRs under them.

Yes.

Hmm. So here too, we have to minimize the cost knowing that the total work is going to be the same.

To minimize:

Total cost = (# AHs in a region) x (Cost per AH) x (# of Regions)

All regions need to be tapped. Costs are last priority. Focus on reducing # of AHs.

Constraint: Here again the total work

Total work/day = (# AHs in a region) x (work per person) x (# of regions)

= (# AHs in a region) x (time of shift) x (% time working) x (Work/time) x (# of regions)

If we want to reduce # AHs, we will need to increase other parameters.

Let's say, you cannot change time of shift, productivity.

What is the maximum number of SRs an AH can handle? I want to investigate how much % time the AHs would be working.

12.

Since now the #SRs per area have reduced to 4, will they be less busy?

They will now be busy only 1/3rd of the time.

Interesting… So if we increase their working time 3 times to increase efficiency, we are left with just 1/3 AHs per area. Hence, an AH today could manage 3 areas. Can we club the areas such that there are 8 of them instead of 24 and we can lay off the rest?

Excellent idea! We could most certainly do that.

We can judge the performance, experience for them as well so we can lay off 2/3 of them.

RH cost cuts

I would do a similar analysis for RH cost cuts.

Can you take me through it? Let's assume everything is perfectly efficient here currently and we are focusing on reducing out the # of RHs.

Hmm. Since each RH managed 6 AHs earlier, to handle 8 AHs we will definitely need 2 RHs (considering the other work is negligible). Is that correct? Also, can we club each of the 4 regions to form 2 bigger regions?

Yes. The regions can be divided thus.

Here too, we can hold on to the 2 best RHs and fire 4 on the basis of the 2 parameters

CEO cost cuts

I am not sure we can do much about the CEO except reduce his salary. Are we open to that?
You are right. We can stop the cost cutting here. What does the structure look like at the moment?
Here is the new salary structure.

Designation	Salary	Total people	Total salary
1 CEO	20x	1	20x
RH (Regional head)	10x	2 (2 RHs under 1 CEO)	20x
AH (Area head	4x	8 (4 AHs under 1 RH)	32x
SR (Sales representative)	x	96 (12 RH under 1 AH)	96x
			168x

We have been able to cut costs by ~55%. That is more than the client has asked.
Good. We can close the case here

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):
1.

2.

3.

6.6 New Edition Cases

6.6.1 Case 33: Guesstimate 6 | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

Estimate the total number of laptops in India

Preliminary Questions

Can I exclude desktops, and only consider laptops? Yes.

Should I include second-hand laptops? Yes, you can.

Laptops could be used for both personal and business uses? Do I have to estimate for both?

Let's do both, but first let's prioritize personal laptops first.

Overall Approach

I would like to estimate the total number of laptops as

Total Laptops =

A. Total Laptops for personal use +
B. Total Laptops for business use

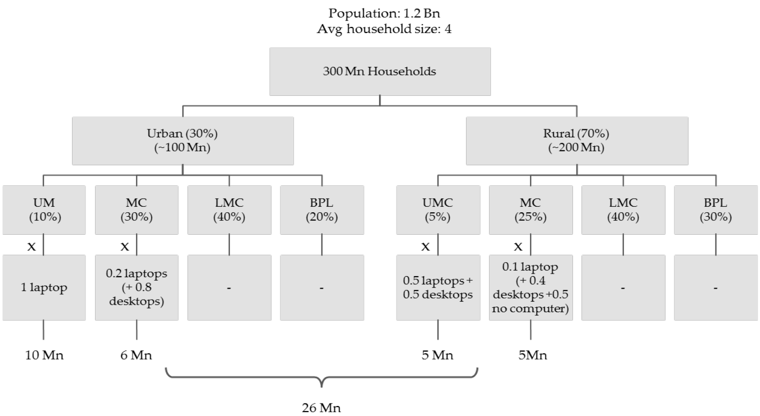
To estimate A) I shall consider factors such as

- Population
- Average Household size
- Urban vs Rural India
- Income
- Desktop use vs Laptop use

To estimate B) I shall first compute, how many white-collar professionals are there in India and then consider how many of them would have laptops.

Seems like a good approach. Please proceed.

Laptops for personal use:



UMC = Upper Middle Class; **MC** = Middle Class; **LMC** = Lower Middle Class; **BPL** = Below Poverty Line

Laptops for business use = # White collar professionals x (% using laptops)

Population	1.2 BN
Urban (30%)	360 MN
Working Age (25-60)	40% = ~ 150 MN
Gender	100 % Men + 50% Women = 150 x 1.5/2 = ~110 MN
Income	MC and UMC ~ 40% = 44 MN
Laptop vs. Desktop	(10% would be given laptops) = 4.4 MN ~ 4 MN

Hence I estimate the total laptops in India to be 26 MN + 4 MN = 30 MN

Sanity Check

I am aware that there are roughly 300 MN internet users in India. As per our calculation 10% of them access the internet through laptops. This seems reasonable, I would have been surprised if this was just 1% or 50%.

Great, this seems like a good approach.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Sanity Check				

Candidate notes (Key learning and insights gathered):

1.

2.

3

6.6.2 Case 34: App-based cab company | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 30 min *Actual case time: __ min*

Your internship manager approaches you. He tells you that his driver is deciding whether he should quit his job and instead become a driver for CFS (an app-based cab company). He has asked you to research and tell him, of whether this is a financially wise decision for his driver from a monthly income point of view. Additionally, he has told you that the driver currently receives a monthly salary of 20,000 per month and an additional 5,000 per month for the driver's children's education?

<u>Preliminary Questions</u>

If my understanding is right, I would need to evaluate if the expected monthly income for the driver after becoming an CFS driver would be greater than his current income stream of Rs. 25,000 per month.

Yes.

I would like to understand a few things before I begin. He is also living nearby in Mumbai?

Yes.

Can you give me a brief description about him? What are his goals with respect to seeking a change in job?

He is a 35 year old, living with his wife and two children here. He is looking to increase his monthly income and ensure it remains stable.

Alright, thanks. How many hours does he work?

He currently has a 10-hour job, but is willing to work up to 15 hours as a CFS driver.

Is it possible he can spend the extra 5-hours as a CFS driver while keeping his current job.

No, the driver will have to choose as per the internship manager.

<u>Overall Approach</u>

I'd like to evaluate what would be his new income stream if he becomes a CFS Driver. I would calculate this as

Monthly net earnings = Income - Expenses

Income streams would involve his wages as a CFS Driver. Expenses would involve things like fuel and maintenance cost for the vehicle.

<u>Income</u>

Can you tell me what is the revenue share model between CFS and the cab drivers is?

CFS passes 70% of revenues to cab drivers and keeps 30%.

I'm aware that CFS has different pricing depending on different vehicles tiers. The type of car, the driver purchases would determine his cost of vehicle as well as the fare charged to passengers. Can we assume the driver will purchase a first-hand car? *Yes*

I know that app based companies typically have three tiers

	Tier I - (Micro)	**Tier II -** (Mini)	**Tier III -** (Prime)
Car type	Hyundai Santro, Maruti Alto	Tata Indica, Hyundai i10	Tata Indigo / Swift Dzire
First Hand Car Cost	~2.5 lakhs	~4 lakhs	~6 lakhs

I'm not sure of the exact fare pricing, it has a combination of base fare and price per km if I'm not mistaken.
That's okay, I can give you the pricing information

	Base Fare	**Distance Fare**	**Ride Time Fare**
Tier I	₹40	₹6 per km, till 15 km ₹12 per km after 15 km	₹1 per min
Tier II	₹80 for first 4 km	₹10 per km	₹1 per min
Tier III	₹80 for first 4 km	₹13 per km	₹1 per min

Night charges are 1.5 times more between 10pm - 5am. Ignore surge pricing.
Assuming an average trip in the city, is for about 10km and a duration of 40 mins, this would mean the avg. trip fare is
Tier I: 40 + 6 x 10 + 1 x 40 = Rs. 140
Tier II: 80 + 10 x 6 + 1 x 40 = Rs. 180
Tier III: 80 + 13 x 6 + 1 x 40 = Rs. 198 = ~200

In addition, we can assume the maximum the driver would run his car would be for 15 hrs. x 6 days a week. Let's assume Y to be the avg. fare per trip. The total fare for a given day would be

	Day	Night
# Hours	11 hrs.	4 hrs.
Avg. cycle time	40 mins (trip duration) + 10 min (time to next passenger)	40 mins (trip duration) + 20 mins (time to next passenger)
# Trips	11 hrs. / 50 min = 13	4 hrs. / 60 min = 4
Fare per trip	Y	1.5 Y
Total Fare	13 Y + 6 Y = 19Y = ~20 Y	

Total Income
= (Total Fare earned per day) * (# Working Days in a month) * (Income split for cab driver)
= 20 Y x 24 days x 70%
= 336 Y
Depending on the car purchased, this would mean

	Tier I	Tier II	Tier III
Income	336 x 140 = 47,000	336 x 180 = 60, 000	336 x 200 = 67, 000

Let's now move onto his expenses.
Expenses = Car purchase cost + Maintenance cost
Car purchase
Do we know if the driver has capital to purchase a vehicle?
No he does not. He is looking to purchase an EMI based scheme for the same.
Assuming he takes an EMI scheme during the life of a car (~5 years) this would mean the principle amount is divided across 60 months

	Tier I	Tier II	Tier III
EMI (Principal only)	2.5 lakhs / 60 = ~Rs 4200	4 lakhs / 60 = ~ Rs. 6700	6 lakhs / 60 = Rs. 10,000

I'll assume that on account of interest, the EMI would be 30% more. Is that fine?
Okay, let's make that assumption, the math would be time consuming otherwise.

	Tier I	Tier II	Tier III
EMI (Principal + Interest)	~Rs 4200 x 1.3 = ~5500	Rs. 6700 x 1.3 = 8700	Rs. 10,000 x 1.3 = 13,000

Fuel Cost

While fuel cost, would depend on type of fuel (diesel vs petrol) as well as vehicle mileage, can we assume it to be common across all three vehicle Tiers?

Yes, you can do that.

Additionally, we will need to take into account fuel costs. We know on average the car travel

= 10km per trip x 17 trips per day x 24 days in a month = ~4000 km per month

Next I would like to look at the mileage of the cars and the price per liter of the fuel used. The mileage would vary from car to car and the fuel price would depend on type – petrol, diesel or CNG.

For sake of simplicity let's take a uniform mileage of 15 km / liter and price as Rs. 60 per liter.

The monthly fuel cost would be = 4000 km / (15 km / liter) x Rs. 60 / liter = ~16, 000

Maintenance Cost

Additionally, we can assume Rs. 1,000 per month to maintain the vehicle for repairs, cleaning, etc.? *Alright.*

This gives us a total monthly cost of

	Tier I	Tier II	Tier III
EMI	Rs. 5,500	Rs. 8,700	Rs. 13,000
Fuel Cost	Rs. 16,000	Rs. 16,000	Rs. 16,000
Maintenance Cost	Rs. 1,000	Rs. 1,000	Rs. 1,000
Total Cost	~Rs. 22,500	~Rs. 26,000	Rs. 30,000

Net Income

	Tier I	Tier II	Tier III
Income Stream	Rs. 47,000	Rs. 60, 000	Rs. 67, 000
Total Cost	Rs. 22,500	Rs. 26,000	Rs. 30,000
Net Income	Rs. 24,500	~Rs. 34,000	Rs. 37,000

Based on this, the best option for the driver would be to go for a Tier III car

This analysis suggests that the driver can increase his income from 25,000 to ~37,000 rupees. However, this would also require him to work 15 hours a day from the current 10 hours.

What about stability of his income? What factors would it depend on & how much?

The driver's income would be most sensitive to the following factors

- *# Hours - If the driver would work 10 hours instead of 15, his earnings would fall by ~17,000 Rupees (fuel cost would reduce as well) and become 20,000 / m*
- *If there is more supply than demand because, that might reduce # trips by 20%, this would lead to reduction in earnings by ~10,000 to 27,000 / m*
- *If CFS reduces the revenue split by three percent to 27%, this would lead to a reduction of earnings by 6,700 rupees to 31,300 rupees per month*

If fuel prices were to go up by 10%, this would reduce earnings by ~1600

So what would be your recommendation to the driver, can you please synthesize?

Synthesis

I would recommend the driver to become a cab driver for CFS in the Tier III category

- Earnings would increase by 12,000 rupees for the driver as long as he is willing to work upto 15 hours a day
- Despite income being sensitive to external factors, in most scenarios he would be earning higher than his current 25,000 rupees
- Tier II will earn him Rs. 3000 lesser than Tier III, Tier I will earn him less than even current salary, so Tier III is most optimal

Final synthesis need not be same, but structure should ideally be similar.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3

6.6.3 Case 35: Newspaper | ★

Interviewer Name: _____________ *Date:* ________________

Estimated case time: 30 min *Actual case time: __ min*

Our client is a leading media firm in India which has seen a decline in profits. We need to help them isolate the problem.

<u>Preliminary Questions</u>

Where is our client based out of?

The firm operates Pan-India throughout the country.

You said the client is a media firm- so what all products does our company have? *We sell 3 newspapers – English, Hindi and Business.*

Where does the client lie in the value chain? Do we do everything from printing to editing on our own. *Yes, it's all in-house.*

So we need to find why profits declined of this newspaper business? *Yes.*

<u>Overall Approach</u>

I would like to look at costs and revenue separately and then try to understand the various levers in both. I'd like to begin by checking if the cost increased from last year or is there a dip in revenue?

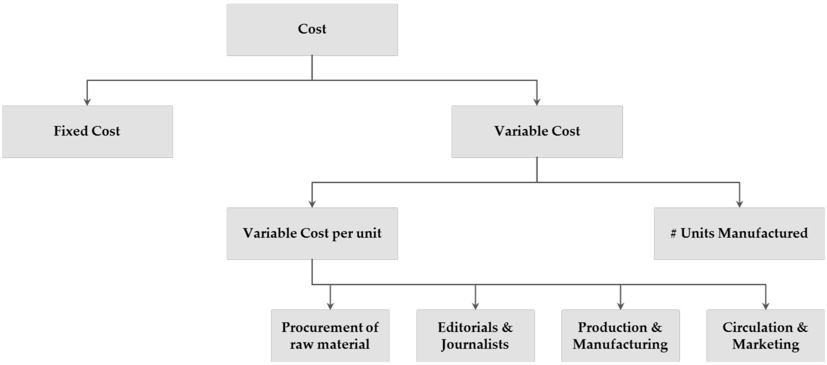
Costs have been increasing continuously; Revenues have been stagnant.

Has it been the same for the competitors as well?

No, they have seen an increase in profits. Their revenues have increased while costs have remained steady.

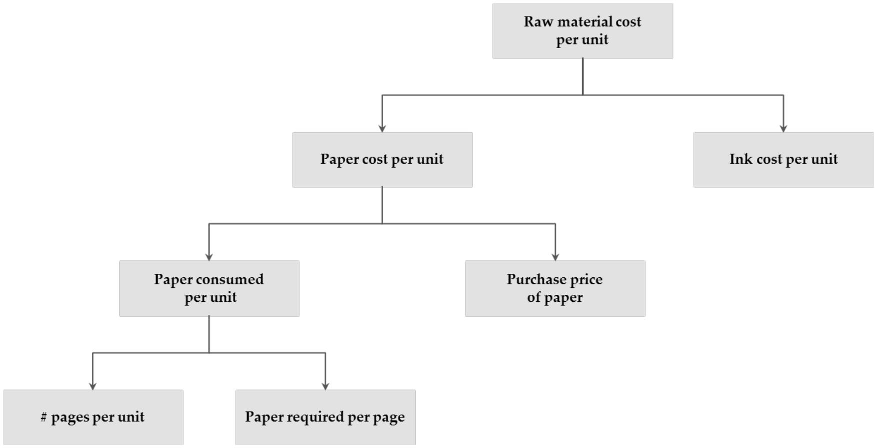
You can begin by analyzing the cost branch.

I'd like to break down cost as follows, do we know which of these cost heads has increased for us?



Our raw material cost per unit has increased. Other costs have remained the same.

We can break down our raw material costs as below, do we know what component has increased?



We had added 3 pages in our newspapers, 2 covering topics on technology and startups and 1 page having additional classified ads. While our readership has increased we were not able to get more clients to advertise with us.

Our readership increased, yet our revenues have been more or less stagnant? Why is this the reason?

Can you venture a guess?

A newspaper typically has two revenue streams

1. Circulation revenues
2. Ad revenues

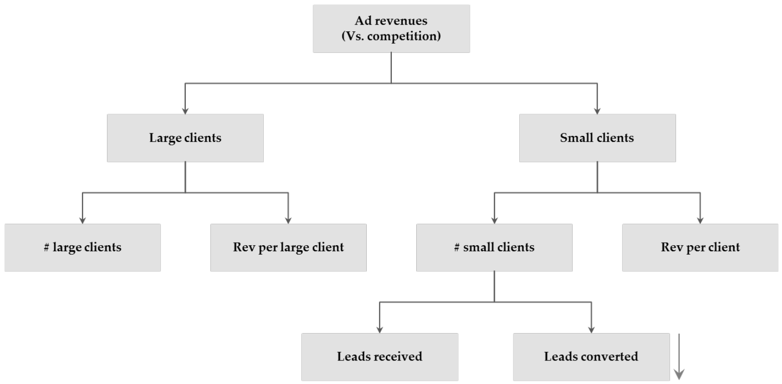
Newspapers like the Times of India have several pages but have a very small price for the customer. My guess would be that the price just about covers their cost of production and little profit is made. The real earnings come from ad revenues.

Exactly, our ad revenues constitute 80% of our revenues while circulation revenues is only 20%. Given this situation how do you suggest we increase our revenues?

So we have identified an increase in our pages as responsible for increase in cost. Moving onto revenues, we know this is a company specific issue. We are seeing stagnating revenues while competition is seeing growth. I'd like to break down our ad revenues into its component parts.

We have two types of clients - large clients (typically go for full / half / quarter page ads) and small clients (go for classifieds).

I'd like to benchmark our growth with competition to identify where they have an edge over us.



While we are seeing a growth in number of small clients requesting for ads, our conversion rate is lower compared to competition.

This could be because

a. We do not have enough space - Unlikely since we just added a classifieds page
b. Clients are unable to have their requests met in terms of specifications or time

We currently book our ads over e-mail which typically has a cycle time of half a day. Our competitors have moved to an online platform where clients can directly choose their date, select their classified ad and make payment. Their cycle time has reduced to less than 10 mins.

That seems to explain their high conversion rate. Since it is a more automated process, they are able to simultaneously cater to many of the smaller clients.

Great, I think we have isolated the problems. This much will do, thanks!

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

6.6.4 Case 36: Mango Fruit Drink | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 30 min *Actual case time: __ min*

We've been hired by a large FMCG client. One of their product lines is a famous mango drink. They have observed that they are losing their market share to competition as well their profitability is lower compared to client. We have been asked to help them turnaround the situation.

<u>Preliminary Questions</u>

So the objective of the case would be to find out why is our market share and profitability is lower compared to competition and how we can turnaround the situation.

Yes.

What part of the value chain do we lie in?

We manufacture the product and have third party distributors and retailers.

What is the geography of our sales?

All over India.

By profitability we mean our annual profits divided by our annual revenues?

Yes.

Do we know what is our current market share and profitability vs our client?

Our current market share is 25% vs 35% for the client and our profitability is -14% vs 10% for the client.

How long has our profitability been in the negative?

This has been since the last two years. We've tried to turnaround the situation ourselves, but haven't been able to so far.

And there our other players in the market as well, since the combined share is only 60% Who are they?

Yes, there are other smaller players on whom we don't really have much data on.

<u>Overall Approach</u>

I would like to begin by finding out why is our profitability and market share below our main competitor in the market. I'd like to prioritize profitability first since we are currently in the negative.

Profitability

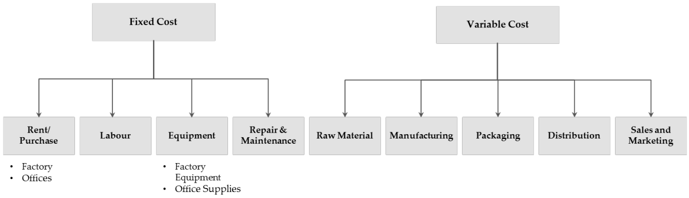
= Total Profits / Total Revenue

= 1- (Fixed Cost + Variable Cost) / Revenue

= 1- (Fixed Cost per unit + Variable Cos per unit) / Avg Price per unit

Before you proceed can tell me what do you think are the potential fixed and variable cost components?

Here it is.



If you had to guess what % of our price is the raw materials cost, what would your rough estimate be?

I'll take the example of a mango drink I'm familiar with. I'll consider a typical 200 ml tetra pack which costs Rs.15 I think. The main raw material costs would be

- Mango Content: A single mango costs roughly ~Rs. 45 to buy for me. Assuming 1 mango is sufficient for 3 packs, this would cost Rs. 15; With economies of scale and buying directly from wholesalers, this could go down to Rs. 7.
- Water: A 1 litre bottle costs Rs. 10. The price for 200 ml would be Rs. 2, and after accounting for bulk purchase, this would be Re. 1
- Others - sugar, preservatives, etc.: Re. 1
- I'm excluding packaging from raw materials for now

This would roughly result in Rs. 9 / Rs. 15 or ~60%.

Okay. Fair enough. Anyways let's get back to our main problem, what would you like to do next.

Do we have any data on what is our fixed cost and variable cost as a percentage of revenue vis-a-vis competition?

We have some data for you here.

Per unit analysis	Client	Competitor
Volume	200 ML Price: 15	200 ML Price: 15
Fixed Costs - General & Administrative	Exclude from analysis	
Raw Materials	12.9	10
Mango Pulp	9	9
Water	0.8	0.8
Other ingredients	0.2	0.2
Manufacturing	1	1.5
Packaging	1.5	0.5
Distribution	1.4	1.4
Sales & Marketing	0.30	0.10
Profit	**-2.1 (-14%)**	**1.5 (10%)**

As per the above data, it looks like we are profits are down because we have higher

1. Mango Pulp cost : 12.9 vs 10 per unit for competition
2. Packaging cost: 1.5 vs 0.5 for competition
3. Sales cost of 0.3 vs 0.1 for competition

1. Our mango pulp cost per 200 ml may be higher either because our pulp content is higher or our mango procurement price is greater.

   Our mango pulp content is 10% lesser but our procurement cost is 40% higher.

   I'd like to understand why our procurement cost is higher by understanding our procurement process and that of competition.

   Competition is in part of an exclusive joint venture with an irrigation equipment manufacturing company where they provide irrigation equipment to the farmer in exchange for right to purchase their produce directly from them. We on the other hand purchase from wholesalers. This leads to lower procurement price relatively.

   Interesting, the competition has a strategic edge over us. If we could match their procurement price, we could turn profitable. I'd like to see if we can

   - Purchase from farmers directly to reduce our procurement cost
   - Optimize current procurement process to make it cost effective

   Let's say after exploring all options reduce our procurement price by Rs. 1.0

   Great we further need a reduction of Rs. 1.1 to turn profitable.

2. I would like to now see why our packaging cost is so high. What is the type of packaging that we are using vis a vis competition?

   We are using plastic bottles while competition is using tetra packs.

   It seems usage of the tetra-packs is cost effective by a factor of 3. Can we switch to tetra packs ourselves to reduce our packaging cost.

   We can reduce it by Rs 0.6 only since competition has a scale advantage.

   This would lead to a total cost reduction of Rs. 1.6. Even if it were possible to bring our sales & marketing spend on par with competition we would still be losing Rs. 0.2 per unit. To be profitable, we will need to explore other cost heads.

   We have already explored that, we will not be able to reduce our costs further. What would you like to do next?

   If that is the case, there is little incentive to increase our market share, since we will be losing money on every unit. The only other option to increase our price.

   Why don't you still identify the reason why our market share is lower?

It seems that our market share is lesser owing to our poorer pulp content leading to customers preferring our competitors product owing to taste issue.

Yes. Now what do you propose that we should do to still stay in this business and be profitable.

Looking at our existing cost structure, it is clear if we are to stay profitable we will have to increase our price since we have explored all cost reduction options. However, we will have to justify the increased price tag, else we will lose all our market share.

We could look at positioning our brand as the more premium brand in the market. This can be done by improving the taste of our product by adding ore pulp content than competition. This will increase our cost, but we can even increase our price proportionately. We can also change our packaging to reflect the same like how Cadbury Silk has done it for their brand.

Good suggestions. Thanks, we will consider the same.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3

6.6.5 Case 37: Mutual Funds | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 30 min *Actual case time: __ min*

Our client is a public sector bank. Their mutual fund division is not doing well in the recent past. Identify the reasons and solve the problem.

<u>Preliminary questions</u>

Can you tell me what does the mutual fund division do?

A Mutual fund is a pool of money invested in diverse set of stocks to minimize risks and achieve a good return on investments based on the aggregated performance of underlying stocks.

Our mutual fund division manages money of volunteering investors in exchange for a small fee.

When you mean the MF division is not doing well, is it revenues, profits or some other metric?

In a Mutual Fund, the commonly used metric is Assets under Management (AUM). Assume that it's the total amount of investor's money that the company manages. Our AUM has not been growing fast enough. We've not been able to attract more investments.

Great. So AUM is basically the total sales of mutual fund products by the bank to the consumers. Is that right?

Let's go with that.

Do we know how has our AUM grown vis-a-vis competition?

AUM industry growth rate for the last couple of years has been 27% whereas the client has been growing at 17%

So it seems to be that we are growing slower compared to competition. Is that the problem?

Yes.

<u>Overall Approach</u>

I would like to segment MF sales (AUM), to understand where the problem may lie. Do we have any segmentation along these lines?

- Products: Sales of various MF products
- Distribution channel: Sales through various channels
- Consumer: Sales to different consumer segments

We have sales by distribution channel. Sales data of the bank through our distribution channels is given below

Channel Type	**AUM (Cr.) 2014**	**AUM (Cr.) 2015**
Own bank Channel	18,000	19,000
Other Channels	42,000	51,000

We have ~28% of our sales coming from our own bank channels. Calculations reveal that the growth % of MF sales through the own-bank channel is only 6% whereas the other channels are growing at 21%, thus the overall 17%. I want to now benchmark these numbers with the industry

Avg. growth rate of sales through bank channel (for the industry) is around 20-25%. The split is more like 50-50 between bank channel and other channels for competition.

This indicates that we are not selling well through our own channel. Let's now focus on how to increase the sales of MF through our own bank.

I want to look at the following hypotheses to identify the reason for poor performance of MF sales through the bank

a. Do we fundamentally have fewer bank account holders?
b. Our conversion rate of bank account holders to mutual fund buyers is lesser? This could be because:
    - We don't have good MF products
        - We do not have enough types of MF products to offer compared to competition
        - The return on investment has not been good on our MF compared to competition
    - We have good products but our sales team is ineffective
    - We good product and sales but not the right customers - we have a different profile of customers who do not tend to invest in MF or as much

Hmm. Why don't you look at the below data and tell me the quick conclusions you can draw from these?

Table1

(Avg. value of every Rs. 100 invested across MF products)	1st year end	2nd year end	3rd year end
Client	111	125	145
Competitor 1	109	127	144
Competitor 2	112	127	140
Competitor 3	112	131	146

Table 2

	Total deposits in the bank (2015) Cr.	Sales AUM through bank's channel (2015) Cr.
Client	1,00,000	19,000
Competitor 1	75,000	35,000
Competitor 2	40,000	25,000
Competitor 3	75,000	20,000

Looking at table 1, it reveals that our product's returns are in comparison with the competitor's returns.

Also looking at table 2, we have a large enough customer base but our conversion is 19% of deposits compared to 25-60% for other players.

Based on this I would like to begin by checking if our customer profile is different from competition. For Ex - is our average deposit per customer lesser? This may make them less willing to invest their money in MFs.
You can assume the customer profile is the same.
What about the variety of MF products we have to offer?
We have a good diversity of products that a customer can choose from.
Then, the only remaining hypothesis I would like to test is whether we are not selling our mutual fund products effectively to our customers. Can you explain me how our sales process works currently?
We have sales agents who call up our banking customers. They typically offer Life Insurance and Mutual Fund products. If a customer is interested, they visit them and help them with purchasing a product.
Do we know what is the incentive structure for our sales agents?
Yes. They typically receive Rs. 900 for every Life insurance product sold and Rs. 600 for every Mutual Fund product sold.
Why do we have this difference?
The bank offers higher incentive for life insurance sold as the profit margins are higher. But the trends show that volume of money that would be invested in Mutual funds in the coming years will be very high. As the incentives are lower for MF, the eagerness to learn about MF products is lower for the sales staff, hence their knowledge about them is poor.
Do we know what are the relative sales incentives that the competition offers?
The competition offers nearly equal incentives for both life insurance and mutual funds. Assuming you are a part of a 6-member team of a top tier consulting firm, what would your advice to the CEO be?
There are 2 ways I would tackle this problem

1. Make the incentive structure of MF at par with incentives offered for selling life insurance products. Even though the profit margins are lower right now, the future is bright for MF considering the huge increase in volume in the upcoming years
2. Conducting trainings to increase the awareness of MF products among the sales staff to enable them with adequate knowledge to sell MF. We can also look at actively hiring people if the existing capabilities aren't enough.

Alright. You have only 4 months to implement the above two steps and you have to show maximum incremental sales in MF. But there are 10,000 branches spread all over India. How would you prioritize these branches.

We can prioritize branches based on which branch has the highest total deposit from customers who match the profile of mutual fund investors. This profile can be based

- Deposit in account – larger the deposits, more is the person likely to invest
- Age group – the working age group is most likely to invest
- Location – urban population maybe more likely to invest owing to their awareness of MF produces

Thanks.

This case was contributed by Kishore Kothandaraman, BCG, IIT-Madras Alumni

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Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

3

6.6.6 Case 38: Steel Company Admin Cost | ★ ★

Interviewer Name: ____________ *Date: _______________*
Estimated case time: 35 min *Actual case time: __ min*

Our client is one of the largest steel manufacturers in India. Their largest plant is located in Karnataka. Due to a global slowdown in steel prices, the company is focusing on cost-reductions and improving profitability. They have hired a 10-member consulting team to help them, you are one of them.

While other team members are working on modules related to cost reduction of steel production value chain, you have been given a module which includes reduction of administrative costs across the steel plant. Your project manager has asked you to focus on specifically reducing

- Sales office rental cost
- Security costs at the plant

Preliminary questions

So the scope of my module only includes reducing the sales rental cost and security costs?

Yes.

I want to understand each of these cost heads better. Can you please explain what falls under sales office rental cost and security costs?

Sure.

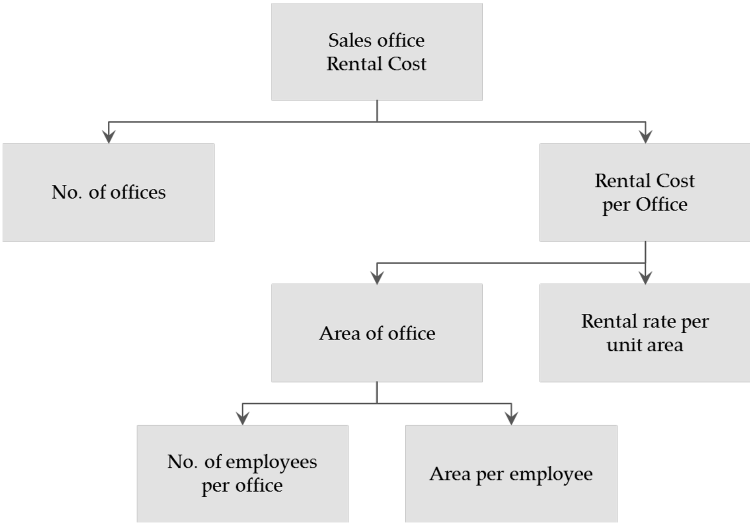
- We have 5 major sales offices across the country. Our sales agents work from these offices and meet prospective buyers of our steel products. The sales office rental cost is the sum of rent we pay for each of these offices.
- Security costs is mainly the cost of deploying security personnel within the entire plant. We have a contract with a security firm and they provide us our security personnel at a negotiated rate.

Overall Approach

Let's look at the overall costs for each of the two heads. We can prioritize starting from the largest cost head. We can then breakdown the costs into its component parts and see where there is scope for reduction.

Why don't you begin by looking at Sales office rental costs? We can then look at security costs. What could be all the possible ways according to you by which we could reduce rental costs?

We could break down our office rental cost as below



Based on the above, we could explore the following ways to reduce rental costs

- Shut offices which are not generating enough sales or merge different offices into one
- Reduce the area of the office; For this
  - We can look at reducing the area per employee based on internal benchmarking across our sales office or external benchmarks of industry standards
  - We can reduce the number of employees and thereby the need for area - but I think this would be less practical to do
- Reduce rental rates
  - Re-negotiate existing rental contracts
  - Move to a new office with lower rental rates

We are not looking at shutting any offices or reducing employees, but your other suggestions can be taken forward. We have some data for you on this. Can you estimate what could be the potential savings in rental costs?

Sales office	Area (Sq. ft.)	# Employees	Total Rent (Rs. / month)
Delhi	10,000	100	45,00,000
Mumbai	15,000	100	22,50,000
Indore	2,000	10	60,000
Kolkata	12,000	120	7,20,000
Chennai	21,000	70	12,60,000
Total Rent			87,90,000

I have analyzed the above information

Sales office	Area per employee (sq. ft.)	Rent per sq. ft. (Rs. / month)
Delhi	100	450
Mumbai	150	150
Indore	200	30
Kolkata	100	60
Chennai	300	60

- We have a big variation across offices on area per square feet. Do we have any benchmark on what should be the right area per sq. ft.?
- Rental rates are often dependent on city and location. Do we have benchmarks on commercial rental rates in the area where these offices are located?

We spoke to a real estate firm, and they have told us that the industry range for area per sq. ft. is ~100 per employee. We've also collected data on same locality commercial rental rates in the city.

Sales office	Same locality commercial rental rates (Rs./sq. ft./month)
Delhi	150
Mumbai	150
Indore	30
Kolkata	75
Chennai	60

Based on this information, I can now calculate potential savings shown in the table below

Sales office	No. of employees	Ideal area per employee (sq. ft.)	Total new area (sq. ft.)	Ideal rental rate (Rs./sq. ft.)	Total New Rent (Rs.)	Current Rent (Rs.)	Monthly Potential Savings (Rs.)
Delhi	100	100	10,000	150	15 L	45 L	30 L
Mumbai	100	100	10,000	150	15 L	22.5 L	7.5 L
Indore	10	100	1,000	30	30 K	60 K	30 K
Kolkata	120	100	12,000	60*	7.2 L	7.2 L	0
Chennai	70	100	7,000	60	4.2 L	12.6 L	8.4 L
Total Potential Savings							**46.2 L**

**In Kolkata office we have already have a lower rate compared to the market rentals*

Great, any other considerations you would have when looking at reducing these rental costs?

Yes, I would look at the following additionally

- We might have a lock-in period with the owner of the properties, and we will have to see what is the contract termination penalties
- We've currently only considered same locality rental benchmarks; we could also consider moving to a different locality within the city if this does not affect sales operations
- At Indore, where savings are limited, instead of shifting office we can sub-lease our extra office space to some other company to avoid hassle of moving out

Good, let's now move onto plant security costs. We have some data for you.

Plant is broken into 5 zones	No. of security supervisors	No. of security personnel	Total deployment
Zone - 1	15	40	55
Zone - 2	10	100	110
Zone - 3	3	35	38
Zone - 4	1	10	11
Zone - 5	30	120	150

Contracted rate of security supervisor: Rs 40,000 per month
Contracted rate of security personnel: Rs 15,000 per month
Can you suggest qualitatively what could be the possible ways to reduce security costs?

To reduce security costs, we should look at the following levers

1. Reduce number of personnel where possible without compromising on security of the plant
   a) We can find out what is the area of each zone. We could then compute security deployment per unit area for each Zone. We can then find where we may have more security than required by comparing with standard benchmarks. A similar analysis can be done by using security deployment per 100 employees as a metric for each Zone.
   b) We can classify certain zones as high risk, where additional deployment may be required because of higher chance of robbery / violence. Entry points like gates may require additional security, so would executive office locations
      i. If there would be significant benefit of doing this, we can consider aggregating high risk assets (property, equipment, offices) at once

place where we can concentrate our security and relax the coverage in other areas

c) Where only surveillance is required and no manual security intervention, we could have security cameras

2. Reduce security supervisor to security personnel ratio

d) From the information given the ratio of supervisor or personnel varies from 1:4 to 1:11. We can agree upon what should be the right ratio and cut down excess supervisors

3. Reduce contracted rates if they are above market rates

These are good suggestions and we will take them forward. Great job, we can end the case here

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Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.6.7 Case 39: Public Healthcare | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 40 min *Actual case time: __ min*

The Rajasthan state government has hired us to help them improve their public healthcare system. Currently there is a three - tier infrastructure in place.

1. *Sub-Centres (SC) - The sub-centre is the most peripheral institution and the first contact point between the primary health care system and the community. SCs provide basic drugs for minor ailments. It is managed by a nurse. They are located in small villages.*
2. *Primary Health Centres (PHC) - It acts as a referral unit for six SCs for more serious ailments. It has four to six beds for in-patients. A doctor is in charge of the PHC supported by fourteen paramedical and other staff. They are located in large villages.*
3. *Community Health Centres (CHC) - These form the uppermost tier. A CHC has thirty in-door beds with Operation theatres, X-ray, and laboratory facilities. A CHC is a referral centre for four PHCs within its jurisdiction, providing more specialized care. Four doctors and 21 paramedical staff are managing the CHC. They are located in towns.*

While the government has created the physical infrastructure so that anyone can access the healthcare system, there are several people who are not receiving treatment on ground. It has been seen that the State's CHCs are perpetually crowded and many patients are left untreated. We have been called in to help find a solution to the problem.

<u>Preliminary Questions</u>

I want to clarify my understanding of the hospital infrastructure better. So the smallest centres are the SCs. Here basic ailments are treated. For more serious cases, they are referred to the PHC. If the patient's condition cannot be taken care of at the PHC or requires operation, they are referred to the CHC. Is my understanding correct?

Yes, that is right.

And we want to find out, why despite having adequate physical infrastructure, there are a large number of patients who are unable to get treatment?

Yes.

When we say there are large number of patients left untreated, how do we measure this?

Of the total patients, visiting the CHC in a week, we are able to treat only 25% of them. We want this to be 100%.

Why do we believe we have enough physical infrastructure in place?

As per the national rural health mission guidelines, for every 5,000 people there had to be a Subcentre, for every 30,000 people a PHC and for every 1,20,000 people a CHC.

We have more or less achieved this in the state. For this case you can assume the policy has been intelligently designed.

<u>Overall Approach</u>

I'd like to begin by identifying the drivers which could be causing a high number of untreated patients at our CHCs

No. of untreated patients in a week

= Total patients coming in a week – No. of treated patients

No. of treated patients = Avg number of doctors present x No. of patients treated per doctor per week

So we can have one of the three problems

1) Either we have too many patients coming in per week than what our capacity allows

2) We have too few doctors & staff personnel to treat patients

3) Or we have adequate staff, but they are not treating as many patients as we expect from them

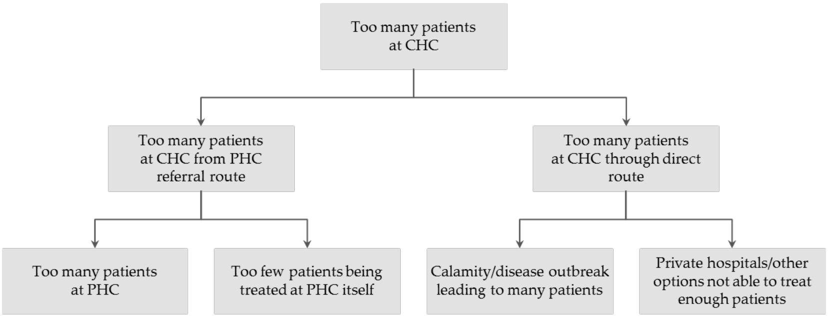
We have met staff strength as prescribed by policy and they are treating as many patients as reasonably possible.

Since we know there is an adequate coverage of CHCs, and we have enough doctors as well, it means we have too many patients coming in per week, four times more than a CHC's capacity to handle(able to treat only 25% of them).

Yes. We have some data for you.

	Patients coming to CHC through referral from PHC	**Patients coming directly to CHC**
Policy design prescription	*80%*	*20%*
On-ground reality	*50%*	*50%*

We know we are receiving 4 times more patients than we expect. This means, in the PHC referral channel we are getting more than 2 times the expected patients and 10 times the expected patients from the direct route. This could be because….



As it so happens, we are not being able to treat enough patients at our PHCs. As a result a large number of PHC patients are forced to seek treatment at a CHC instead, even those that ideally could be treated by PHC itself. Because of the ineffectiveness of PHCs, patients are being directly referred to CHC by SCs or patients often visit fake doctors in hope for a cure. These patients too eventually get diverted to a CHC.

Based on this, the problem is that PHCs are unable to treat patients effectively which is increasing the load at CHCs.

Correct, let's say we want to find the root cause as to why the PHCs are not effectively running. You are to do a survey of several PHCs, what would your survey questionnaire cover?

My questions would try to answer the following questions

1. Are the PHCs accessible? - Is there transportation available that can help people to conveniently reach there
2. Are the PHCs functioning? - Doctor & staff availability, drugs, lab test and equipment availability, maintenance of infrastructure, quality of conditions at the PHC
3. Is the treatment given effective? - percentage of patients that are able to recover from an illness

Let's say we conducted this survey and find that because of doctor absence, the PHCs are not able to treat patients. What do you think could be the reasons for this doctor absenteeism?

Following could be some of the reasons I can think of-

1. Lack of accountability and repercussions for absent doctors
2. Low compensation currently and better paying options available outside PHCs
3. Inability to treat patients owing to lack of proper knowledge and training

4. Inability to treat patients owing to lack of facilities - supporting staff, equipment, diagnosis labs
5. Poor working conditions due to location, ambience

Great. So we have found that the root problem is that doctors find the working conditions adverse. Basic requirements of 24 x 7 availability of water, electricity & cleanliness is not being fulfilled. Even if they do come, there is almost always a dearth of drugs, functioning equipment and diagnosis labs. As a result, they are unable to treat patients. Instead these doctors prefer to work with private clinics / hospitals, so they can treat more patients.

So it seems the PHCs are suffering from supply, maintenance and equipment related issues which have hindered the doctor's ability to treat patients. Do we know who is responsible for managing this at the PHC?

Yes, every 4 PHCs have a inspection officer assigned. He is supposed to do monthly checks at all his PHCs and fill in a form with the current status and order any fresh supplies, equipment or repair needed. Despite this can you suggest why are we unable to meet the PHCs requirements.

Sure, it could be because the inspection officer is not following one or more of these steps

1) Either the inspection officer is not visiting the PHCs
2) He is visiting but not inspecting and placing the desired orders sufficiently
3) He is placing the orders but they are not being delivered
4) The supplies are delivered but they are not available at time of need

Great, we have found out that the inspection officers have not been doing their weekly rounds at the different PHCs. However, they manage to mark their attendance on the PHC calendar through proxies (informal connections within staff at hospital). Can you suggest a robust system to ensure they can be held accountable?

Yes, one possible way could be a GPS based monitoring of their inspection routines. We can have an app on the phone where the inspection officer needs to fill in supplies and equipment info for each of his PHCs. To verify that the inspection officer is physically present at the PHC, the form can be made to open only when the GPS detects the right location. To verify that the form is being filled by the inspection officer and not someone else on his behalf we could do fingerprint verification of the officer through the app.

That's a great idea. We can conclude the case here. Thanks

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.6.8 Case 40: Ship Building Company | ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 30 min *Actual case time: __ min*

Our client is a new ship-building company. They want us to estimate the demand and then figure out how much market share they can get.

<u>Preliminary Questions</u>

What kind of ships does the client build?

These ships are used to transport passengers from the land to off-shore oil rig platforms. They typically have a capacity of around 100-150 people.

Are these ships used to just transport people or also cargo?

Both, but primarily people. You can consider them to be passenger ships.

What geography is the client looking to service customers from?

They are looking to cater to the demand from Indian off-shore oil companies with rigs around the sub-continent.

Where do we lie in the value chain? I am assuming we build the ships and directly sell to these oil companies.

That is correct.

Shall I begin by estimating demand? We can then look at what kind of market share we can get.

Yes, please go ahead.

<u>Overall Approach</u>

We'll look at two things

1. Estimating the demand for passenger ships for off-shore oil rigs in the next three years
2. Estimating market share we can get

To estimate the demand for these ships I would like to break it down as

Replacement demand + New demand

<u>Replacement demand</u>

= #Off-shore rigs x # Avg. ships required per rig x (1/ Life cycle of each rig) x 3 years

= 10 offshore rigs x 3 ships / rig x (1 / 10 yrs.) x 3 years *(Data Provided by interviewer)*

= 9 ships

<u>New Demand</u>

= # New off - shore rigs being built x Avg. ships per rig

= 1 offshore rig x 3 ships (Data Provided by interviewer)

= 3 ships

Total Demand = 9 + 3 = 12 ships

Great. Can you estimate what kind of share we could expect now?

Yes, do we know who are the competitors in the market?
There is only one government owned company (B) which is currently in the market. You can assume they are the only player as of now.
That is surprising, why are there so few players in the market?
Private companies were only recently allowed to enter the market by regulation and fixed costs are high. You can assume we (A) are the only new player entering the market.
To see if we can capture market share from B, I would like to benchmark our client's offering with that of the government player.
What parameters would you benchmark on?
The most important parameters according to me would be

- Safety
- Pricing
- Capacity / Size of ship
- On - time delivery
- Credibility / Experience of company
- Maintenance services

Good. You can assume that this is largely a commoditized product and price is the major consideration for the oil rigs.
Do we know what is the difference in price for us and competition?
We have some data for you, can you tell us how should we price our ships to maximize profits.

Company	Fixed Cost - 3 years	Variable Cost	Current Price
A	$ 200 MN	$ 15 MN	?
B	$ 60 MN	$ 30 MN	$50 MN

We also know that our competitors are slow movers when making major business decisions.
For the twelve ships there will be four rounds of bidding, three shipbuilding contracts will be given out in each bidding round. The bidding rounds will happen once every 3 months, bids have to be sent in sealed envelopes; they will be disclosed only after winner is decided

Based on the data, we have higher fixed costs compared to competition but lower variable costs. Depending on how many shipbuilding contracts we receive, our break even average price would vary.

I have considered four scenarios below:

Scenario	# Bids won by client (A)	# Ships to be built by A	# Ships to be built by B	Break-even Price for A ($)	Breakeven price for B ($)
i)	1	3	9	~81	~37
ii)	2	6	6	~48	40
iii)	3	9	3	~37	50
iv)	4	12	0	~31	None

Scenario i) is not practically possible since we cannot win a bid at a price higher than $50

Scenario ii) involves us having a price very close to the current government price so it would not be easy to win over the established government player

Scenario iv) Even if we win 12 bids, we won't be making much of a profit. And it's possible the government, could match us at $31, for at least one bid.

Scenario iii) seems the most likely outcome where we should be aiming to win at least 3 bids through aggressive pricing. I am assuming that the government entity would be slow to reduce their price. For Scenario iii) where we win 3 bids (75% share), we should aim an average price point of around ~$37-$45 to be profitable.

For the first two rounds we could bid at around $45/$40 and once the government begins to react, we can even take the price it to $30 at which point they will not be able to compete.

Great, that seems like a good strategy. Thanks

Note the final part of the problem does not have an exact mathematical answer. It involves elements of game theory in which you need to predict what would be the response of the competitor. In this situation the interviewer is looking to see how you can use a combination of business judgment and structured thinking to arrive at a answer. The solution given is just one of the many possible ways of answering this question.

This case was contributed by Harish Varadharajan, BCG, Chartered Accountant(CA)

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.6.9 Case 41: 4G Telecom Company | ★ ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 50 min *Actual case time: __ min*

It's the year 2016. Our client is a large telecom player. Let's call them company A. They have customers with voice only plans as well as 2G, 3G & even 4G mobile subscriptions. This particular case will have two parts. Let's first begin with part 1.

Part 1 of case

Below is the revenue structure of our client. based on this, can you calculate

1) Voice revenues as a % of total revenues
2) Split of voice revenues across data-using and non-data using customers
3) Split of total data consumed across 2G, 3G, 4G subscribers

Note to interviewers: Ask each question after the candidate has solved the previous one. The purpose of the part 1 of the case is to familiarize the candidate with the below table and see his data interpretation skills.

SHOW INTERVIEWEE TABLE 1 ON NEXT PAGE

What do we mean by voice only customers?

These are customers who do not use internet on their mobile phones and only use it for calls and SMS.

What do we mean by voice revenues and data revenues?

Voice revenues is the revenue made when we charge customers for their call/SMS. Data revenues are linked to the internet usage of customers.

What does "Free voice over 4G mean"?

4G infrastructure and speeds enable customers to talk using internet. Since these calls do not cost much data, we provide them for free to attract customers.

Alright, here are my calculations...

1) Total voice revenues across all subscribers

= Voice revenues of (voice-only) subscribers + voice revenues of (voice + data) subscribers

= 30,0000 + (50 x 200 + 25 x 240 + 5 x 0)

= 30,000 + 16,000

= 46,000

Voice revenues as part of total revenues are 46,000 / 61,000 = ~75%

Data revenues account for ~25%

2) Split of voice revenues across data-using and non-data using customers

Voice revenues of non-data users is 30,000

Voice revenues of data users is 16,000

Table 1

Subscriber type	Number of subscribers (MN)	Voice revenue per month per sub. (Rs.)	Data consumed per month per sub. (MB)	Price per 1000 MB (Rs.)	Data revenue per month per sub.	Revenue (Voice + Data) per month per sub. (MN Rs.)	Total Revenue per month (MN Rs.)
	Y	A			B	A+B	(A+B) x Y
Voice only	200	150	-	-	-	150	30,000
Voice + Data (2G+3G+4G)	80						31,000
• **2G**	50	200	500	240	120	320	16,000
• **3G**	25	240	1,000	200	200	440	11,000
• **4G**	5	Free voice over 4G	5,000	160	800	800	4,000
Total Revenues per month (Rs. MN)							**61,000**

Split of voice revenues across data and non-data users is 66% and 34% respectively.

3) Split of total data consumed across 2G, 3G, 4G subscribers

Subscriber type	Number of subscribers (MN)	Data consumed per month (MB)	Total Data consumed (MN MB)
2G	50	500	25,000
3G	25	1,000	25,000
4G	5	5,000	25,000

Hence the split of 2G/3G/4G data consumption is 1:1:1

Good.

Part 2 of case

Please have a look at the data below. As per this data, average handset purchase price of a 4G user is 15,000 rupees, while the lowest priced handset supporting 4G technology is Rs. 4,000. You can assume that voice, 2G and 3G subscribers currently have handsets that do not support 4G.

Table 2

Subscriber type	Average handset purchase price by subscribers (Rs.)	Lowest priced handset supporting technology in the market (Rs.)
Voice only	1,200	750
2G	2,500	1,500
3G	10,000	2,000
4G	15,000	4,000

A famed industrial conglomerate, let's call them company B, is making a massive push in the telecom sector. They have invested heavily in developing their 4G infrastructure and are now rolling it out to prospective customers. They only have 4G infrastructure and none for 2G or 3G.

The client wants to know how company B's entry would affect our revenues.

They are pricing their data packs at Rs.100 per 1000 MB and providing free voice calls.

They are also providing unlimited data usage for first 3 months.

Can you estimate what would be the impact of this player's entry on our revenues over the next year? You can assume we will not change our pricing plans.

Do you want me to calculate how much the revenues of the client might decline?

Yes, please do that.

<u>Voice only customers</u>

Let's begin by looking at Voice only customers. Voice customers have phones which are not 4G compatible, hence cannot shift to Player B's network without upgrading their phone. These customers tend to use their phone till it stops working, we can assume a life cycle of 3 years.

Hence a third of the customers would have to choose whether to buy a 4G enabled handset for 4,000 rupees or purchase a new handset at Rs. 1,200. Their annual mobile bill is Rs 1,800 which would become zero. This means indirect cost for a new non-4G handset is Rs. 1,200 + 1,800 = Rs. 3000.

However, I believe voice customers would be unwilling to pay an extra 2,800 rupees upfront to purchase a 4G phone because of affordability concerns. Hence we can say that that revenues of voice only customers would be largely unaffected in the first year.

<u>2G customers</u>

The case for existing 2G customers upgrading to 4G enabled handsets is stronger. Assuming a life cycle of three years again, a third of 2G customers would be looking to buy a new mobile.

They will have to pay Rs. 1,500 more for a 4G enabled handset, but keeping their monthly bill of 320 rupees constant they can now get 3.2 GB of data + unlimited voice calls compared to only 500 MB of data and limited voice calls before. These users will shift to our rivals' network. Assuming that their mobile upgrade would be distributed throughout the year, we will lose 50% of the revenues from this segment.

This would translate to 16,000 x 33% mobile upgraders x 50% revenue lost = ~Rs. 2,700 MN

<u>3G customers</u>

3G customers are more affluent and they typically replace their phones once every 2 years to keep up with technology. For the 50% of customers who are looking to upgrade their phones this year, company B's value proposition would be quite attractive providing them 4.4 times the data, if the user keeps his monthly bill constant. This coupled with the fact that company B is providing 3 months of data free would incentivize them to upgrade quicker.

We can assume we would lose all these 3G customers who are upgrading their phone to competition. Most of them would shift to competitor within 3 months, meaning we would lose ~90% of their revenues. This translates to a loss of 11,000 x 50% upgraders x 90% loss per upgrader = ~Rs. 5,000 MN

4G customers

4G customers would already have 4G enabled handset. They would be tempted by paying 60% lesser (Rs. 100 per GB instead of Rs. 160) on their data as well as the initial 3 months of free unlimited data.

However, these customers are typically more price insensitive. They might find it a burden to shift their mobile network because of the slightly tedious process. Nonetheless we can assume that we will lose 50% of them, most of them quitting in the first 6 months.

This translates to a revenue loss of 4,000 x 50% shifters x 75% loss per shifter = Rs. 1,500 MN

This translates to a total revenue loss of 2,700 + 5,000 + 1,500 = Rs. 9,200 MN or ~15% by end of first year.

Great. So, what would you suggest we should do to reduce this revenue loss.

We should look at bringing our 4G pricing from Rs.160 per 1 GB to Rs. 100 per 1 GB like competition and also provide a similar 3-month data pack so that we do not lose customers. However, we will have to see if this is reasonable from our cost angle.

Here is some data for you.

Table 3

Player	Current price per GB for 4G users	Cost per GB for 4G to company
Company A	160	120
Company B	100	80

As per this, our cost per GB itself is >Rs. 100. This means we cannot match our price with competition without reducing our cost per GB. Would you like me to see how we can reduce our cost?

Yes. The biggest component of our higher cost is the spectrum cost. We typically license spectrum through government held auctions. For simplicity, the cost per GB can be broken down as

Cost per GB = Spectrum cost per GB + Fixed Infra cost per GB (Rs. 40 for both A & B)

Spectrum cost per GB

= Annual spectrum investment / Annual data volume that can be handled on spectrum

= Annual spectrum investment / (# Subscribers that can be handled x Avg. data usage)

According to this, we can reduce our spectrum cost either by reducing our spectrum investment or by increasing the data consumption on our spectrum. The former is not possible since it's investment is a sunk cost but the latter can be done by reducing price to encourage greater 4G data usage.

Our current 4G spectrum has already been saturated with data volume.
How is it that company B has managed to reduce their cost per GB significantly?
They had invested heavily in the previous 4G auctions and were able to get the spectrum at a cheap rate capable of handling large volumes of data.
Then the only way to reduce our spectrum cost would be to buy additional spectrum at a cheaper price. However, my sense is that would be difficult to do in a competitive market.
Yes, that is true. Thanks for your suggestions. We can end the case here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):
1.

2.

3

6.6.10 Case 42: IT – BPO Firm | ★ ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 45 min *Actual case time: __ min*

Our client is a Business Process Outsourcing (BPO) company. Their customers are corporations based in the US who are looking to outsource certain functions to reduce labour costs. The client has offices in India where their staff is allocated for different outsourced operations of their customers.

The client has found out that while their service offerings are similar and in some cases even better than competition they are unable to grow as fast as them. They believe they need to improve their sales force effectiveness and have roped you in to analyze the same.

Preliminary Questions

What kind of business processes are outsourced by the client?

These can be Customer Service Operations, Finance or Accounting.

Has any one of these segments seen a greater decline than *others?*

We've largely seen a uniform decline across all three.

You mentioned the client has not been growing as fast as competition. Do we know how sales have been growing vis-a-vis competition?

Yes, while the sales of competitors are growing at 30%, we are growing at only 12%.

Overall approach

Since we know we are growing slower than competition, I would like to breakdown our Revenue into its components to see where is the slowdown coming from. Then we can analyze from the perspective of our sales processes to identify what seems to be the challenge.

Great. In fact, we have some data for you. We have an account linked to each of our client.

Account Size (Annual Revenue per account)	Total Sales Split	Growth Rate
Small: < $1 MN	10%	10%
Medium: $1 MN - $5 MN	40%	5%
Large: > $5 MN	50%	20%

Do we know how has the competition across the three segments?

Competition has seen a uniform 30% growth rate across all three segments.

I would like to begin by analyzing the deficit in growth rate in each segment with the following prioritization

i) Medium Accounts

ii) Large Accounts

iii) Small Accounts

Medium account growth rate: I would like to break as

= # Medium Accounts * Avg. Rev per account

Do we know how does the growth rate of each component compare vs competition?

Avg. revenue has remained the same for client and competition, however number of accounts have been growing faster for competition. We also know from experience that most new medium sized accounts are converted from small sized accounts which have stayed with us over a period of time.

Do we know what has the conversion rate been for ourselves and that of competition?

We don't have data on that, but we can provide you with the following information on small accounts

For Small Accounts (<$1 MN)

Table 1

	FY 14	**FY 15**
# **Accounts at beginning of year**	100	110
# **New accounts opened**	65	70
# **Existing Accounts lost (Attrition)**	55	60
#**Accounts at end of year**	110	120

We analyzed new small accounts opened across several years and found this

Table 2

Account size when opening new account	**Split by number of accounts**	**% Accounts lost after first year from opening**	**% Accounts lost after second year from opening**	**% Accounts lost after third year from opening**
<$250 K	60%	70%	90%	95%
$250 K - $500 K	30%	40%	70%	85%
$500 K - $ 1 MN	10%	10%	30%	50%

As per Table 1, while our new account growth rate is 65%, our attrition rate is very high at 55% leading to a net growth in small accounts of 10%.

As per Table 2, the high overall attrition is largely happening in accounts with opening sizes less than $500 K, but is lower in accounts between $500 K - $1 MN.

This leads me to hypothesize that $500 K+ accounts are most likely to convert/grow into medium sized $1M+ accounts because they have the lowest attrition rate and largest size amongst small accounts.

I would like to validate this hypothesis with data. What % of our medium sized accounts originally had an account opening size of >$500 K as opposed to <$500 K?

We did this analysis and looking across the last 3 years, 80% of our medium sized accounts had an account opening size of >$500K.

This is a very interesting insight. When we are opening new accounts, most of them have an account opening size of <$500 K. These accounts have the highest attrition rate and our least likely to convert into medium sized accounts. This is leading to poor growth rate in both small and medium accounts.

I would now like to find out why our account opening sizes are so low? Do we know what is the average account opening size for competition?

We know that they have an average opening size of $500 K.

This is much higher than ours. Let's look at what parameters the account opening size could depend on

1. Type of customers(corporations) targeted
    a. Are we targeting the right sized prospective customers (Annual Revenue of customers targeted)?
    b. Is the outsourcing opportunity (as % of Annual Revenue) large enough?
2. Product Offerings - We already know this is comparable to competition
3. Client's Brand - Do our prospective customers trust that we can work well with them
4. Sales Effort
    a. Are sales executive's incentives linked to opening larger account sizes?
    b. Do they have the ability to negotiate larger opening account sizes?

Our current sales executive incentives are linked to the total revenue they bring through acquisition of new customers.

And these incentives are not dependent on account opening sizes?

Yes, they are not.

Do we know what the incentive structure offered by competition is?

We are not aware of that.

Is opening a single $500 K account more difficult than opening two $ 250K account for a sales executive.

Yes, since it requires a higher level of commitment from the customer, hence more negotiation with the sales executive.

It seems then our incentive structure needs to account for this. We need to have greater incentives to encourage our sales executives to open new customers with account sizes >500 K.

This will have a long term impact on revenues since these customers are more likely to stick. They also become more likely to convert into a medium sized accounts by purchasing additional services.

To do this, we could have a higher sales margin for larger accounts, or we could link incentives to revenues generated across 2-3 years and not just the first year.

That is a great idea. Also analyze why large account growth rate has been slower?

<u>Large Account Growth Rate</u>: I would like to break sales from large accounts as = # Large Accounts * Avg. Rev per account

Do we know how has the growth rate of each component compare vs competition?

Our growth in # large accounts is at par with competition.

However, competitors are able to grow their average revenue per account, but we haven't been able to. This is happening because competitors are cross-selling value added services to the client. These value added services are analytics or consulting projects to improve efficiency of the corporation and help them boost profits.

Do we have such value added offerings?

Yes, but we are not able to cross-sell them.

What is the sales process for cross-selling?

Typically, the sales executive involvement is required since he is also the account manager for our customers. He/she is unable to devote time for pitching new value added services to existing accounts since he/she is busy acquiring new accounts.

Do we know how are our competitors able to cross-sell?

In the industry there are two types of roles - hunters (or sales executives) and farmers (or account managers). We have a hybrid system, where our sales executive acts as both the hunter as well as the farmer.

Why do we have this hybrid role, is there any advantage of it?

We were a new entrant in the market when we started small. Hence our sales executives had to do both the roles initially and that has continued even now.

Based on this information, it looks like for large accounts we need dedicated farmers so that they can spend enough time required to grow the account further. As such I would suggest we create more specialized roles of hunters and farmers, at least for our large accounts.

Great, we can end the case here. Can you provide us your recommendations and synthesize the case for us?

<u>Synthesis</u> - I would have two recommendations:

Firstly, we should link sales executive compensation to the opening size of new accounts acquired by them and not just total revenue across new accounts. This is because

- Medium account growth rate is lagging behind at 5% due to low conversion from small accounts
- Conversion rate is highest for small accounts with opening size >$500 K, but these make only 10% of new accounts opened
- Current compensation structure does not account for the increased effort needed for opening larger new accounts & their greater value than small new accounts

Secondly, for large accounts, the client should have dedicated account managers. This is because

- Large accounts can be grown through cross-selling of value added services
- Our sales execs are currently not able to give due time required for cross-selling since they are busy with acquiring new clients
- Competition has dedicated account managers enabling them to cross-sell

Excellent job. Thank you.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.6.11 Case 43: Student Credit Market | ★ ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 35 min *Actual case time:* __ *min*

Our client is a large non-banking financial company(NBFC). They wish to enter the student lending market and have asked you to tell them how they should go about it?

Preliminary Questions

I am not familiar with how NBFC's do their business. Could you please provide me a brief understanding of the business model?

Sure. NBFCs operate like banks, where they earn money through the interest rate difference charged to the lender vs paid to the borrower. However, NBFCs by regulation cannot accept deposits from regular retail customers like you and me and instead borrow money from banks.

I understand. So we borrow from banks and then lend the money at a higher interest rate. May I know who do we lend to currently?

We currently lend to both - businesses and individuals. But currently we are not lending to students and wish to explore if that is a good market to target.

On what parameters would you decide whether we should enter the market or not?

We would like you to tell us whether the market is large enough and whether there is a profitable business model around it?

What would you classify as a 'large enough' market?

Well, let's say if the total opportunity to make loans is >INR 1000 Cr. annually

Overall Approach

To understand whether we should enter the market, I would like to break it into two-sub questions that we are looking to address

1. Total market size in terms of the loans that can be made annually to students
2. If the business model is profitable

Market Size

I would like to first understand what would the students be using the loans for?

Why don't you take a shot at it?

According to me students would primarily be needing loans for

- Necessary spending - College Tuition, Text Books, Laptops, Mobile Phones
- Discretionary spending - Foreign travel, Cameras, other electronics

Great. Since we are lending money, we want to explore only necessary spend. Let's exclude textbooks since it is a small ticket size item.

If you had to size the total potential market for loans across the three categories of Tuition, Laptops and mobile phones, what would your approach be? I just want to know your approach.

I would consider the following factors

1. Population
2. Age group
3. Enrollment ratio (% enrolled in college programs from age group)
4. Income split across lower middle, middle and upper class
5. Most students would need to pay tuition fees, ~30% would have laptops and ~80% would have mobile phones
6. Avg. tuition fees (India & abroad) / laptop price / mobile phone price
7. Frequency of purchase (Ex - Laptop typically purchased once every 4 years)
8. % students who could potentially take loans
9. Down payment

Great, that's quite comprehensive. Let's say we did this analysis and find that the market size is as follows

Type	Tuition Loans	Laptop Loans	Mobile Phone Loans
Market Size - Annual Loan Disbursal (Cr.)	60,000	5,000	5,000

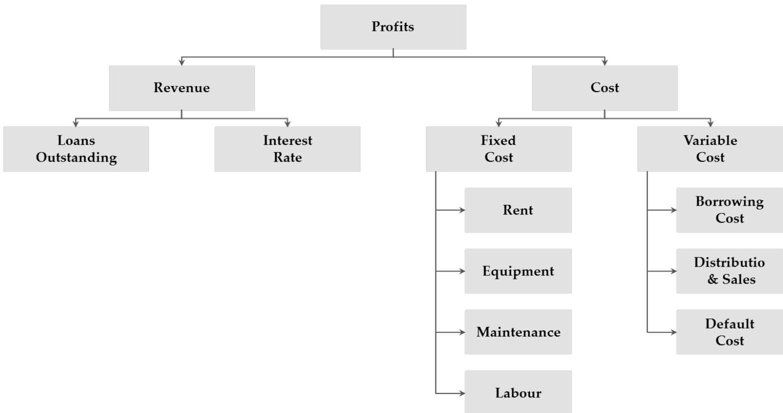
Hmm. Based on this Tuition loans is the biggest segment which is 6X compared to Laptop and Mobile Phones combined. And each of the three segments are >1,000 Cr., so all of them qualify as per our market size opportunity consideration.

Next I would like to check if the business model is profitable.

Let's, do that; how would you break down the profit structure for this kind of a business?

<u>Business Model Profitability</u>

We could break it down as follows. (Default cost is the cost of loans which are not re-paid)



Great, we in in-fact have some data we would like you to analyse.
When looking at the current players in the market offering tuition loans, this is how their profit structure looks like. You can assume fixed cost has been accounted in Operational expense.

Profit Model	As % of total loans outstanding
Yield (or Interest earned)	12%
Cost of Borrowing	6%
Operational Expense	3%
Default Expense	4%
Net return on loans	-1%

According to this the current players are making a loss. If we have loaned a total of Rs. 100 Cr., this would mean a loss of -1 Cr. that year, right?
Yes.
Do we know what is the growth rate of the market?
The market for student loans is growing at a rate of 3-4%.
That is surprising, although the players are making a loss the industry is growing. What kind of players are these, I'm assuming many of them would be banks like SBI?
Yes, >90% of the market consists of public sector banks.
Why are they willing to bear a loss, it doesn't make sense…?
Majority of the loss that PSU banks make is borne by the government. This is because the government wants to encourage banks to provide loans to students as per its policy.
So net-net, it a zero loss venture for PSUs almost?
Yes.
And can we assume, that is the profit structure for all players in the tuition market?
Yes.
Can we get a similar subsidy from the government, to cover our loans?
Only after we cross ~1000 Cr. in loan book and become a significant player, practically speaking. Before that it would be difficult.
Hmm. Then the only case it makes sense for us to enter this 60,000 Cr. segment is if we can do something unique which would allow us to be meaningfully profitable

- Increase our yield - I would assume this is not possible because of competition? *Yes*
- Reduce cost of borrowing - Our cost of borrowing would in-fact be higher since we borrow from banks instead of depositors.
  - Do we know what it would be?
    9%

I see, this would take us further into loss

- Would you like me to see if we can reduce operational / default expense?

  No, that's fine.

I think at this point it is fair to say, that it would not make sense to enter the tuition lending market since it would not be profitable for the following reasons

- Existing players are all loss making with losses covered by the government
- Our cost of borrowing is higher by 3%
- It's likely we won't be able to reduce operational and default expenses significantly

Let's now look at the laptop and mobile phones market. Do we have similar data on the profit structure there?

We in fact have some data. Before that could you take a guess of whether each row item for laptop/mobile phones would be higher or lower as compared to tuition loans…

Profit Model	Tuition Loans	Laptop / Mobile Loans	Reason
Yield (or Interest earned)	12%	Higher	Few options for students, so we can charge higher
Cost of Borrowing	6%	Higher	We are borrowing from banks instead of taking deposits so higher
Operational Expense	3%	Higher	Loan ticket size is smaller for same amount of operational work
Default Expense	4%	Similar	Default rate should be similar assuming similar profile of students

Good. This is our estimation of what the profit structure could look like.

Profit Model	As % of total loans outstanding
Yield (or Interest earned)	20%
Cost of Borrowing	9%
Operational Expense	7%
Default Expense	1%-10%
Net return on loans	**?**

Okay, according to this there is a wide range for us on the default expense line. Why is this so?

We do not know what the default rate is going to be, frankly.

Okay, so to be profitable our default rate would have to be lesser than 4%.

Correct. We would like you provide us as many ideas as you can on what we could do to reduce prevent defaults.

We could do one of the two things

1. Qualifying our customers better when approving their loan application
2. Collecting re-payments more effectively from defaulters

1. Qualifying customers better

a. Gauge ability to pay

   i. Check Financial background

      1. Current Finances - Bank Balance, Income Streams(internships), Expenses
      2. Past Credit History - Any other loans, past repayment history

   ii. Check Family Background - Hometown, Parents' jobs

b. Gauge likely intent to pay

   i. Use college, department & CPI info as indicators

   ii. Facebook profile / Linked-in Profile - Gauge person's social network strength

   iii. Identity Verification - Eliminate fraud by cross-checking information provided by student (Ex - cross-check college location info through GPRS on mobile or as mentioned on FB profile)

2. Collecting payments from defaulters

a. Genuine Defaulters: those having difficulty in paying due to financial constraints / personal emergency

   i. Remind students about upcoming payment via SMS / Calls

   ii. Allow them to make their EMIs flexible, so that they can pay later despite missing a few EMIs

b. Non - genuine defaulters: those willfully choosing not to pay

   i. Make the person aware of consequences of defaulting such as inability to get loan in the future for any purpose because of poor credit rating

   ii. Apply soft pressure by informing parents of students as well as friends

   iii. Hire student interns who can be campus ambassadors to check on defaulting students (we will have to see how much this increases operational expense costs)

   iv. Disabling mobile / laptop through software when payment is due for extended period of time - however this would be a last resort option and only for willful defaulters

I'd like to add that since these are students we should approach this sensitively. We should also be transparent about our policies and take consent of the student when asking for personal information.
Alright, these are useful suggestions. We'll take your suggestions forward and see if this can reduce default rates. Thanks.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				
9	Creativity				

Candidate notes (Key learning and insights gathered):
1.

2.

3.

6.6.12 Case 44: Telecom infrastructure | ★ ★

Interviewer Name: ____________ *Date: _______________*

Estimated case time: 40 min *Actual case time: __ min*

Your client's company manufactures telecom towers. Over the past couple of years, they have witnessed a decline in profits. What is going wrong and what is your recommendation for them?

<u>Preliminary Questions</u>

Where does the client operate?

India alone.

The client's customers are the Telecom companies, I take it? I'd like to know what exactly our client does for them.

Yes. The client manufactures and installs Telecom towers for their customers according to their requirement. They are expected do a quarterly maintenance of the towers they install. There is also a replacement market where every 10 years, the tower needs to be replaced.

Does the client have competitors in the market? Are their business models any different?

There are 3 major competitors and multiple smaller regional competitors. Everyone has the same business model.

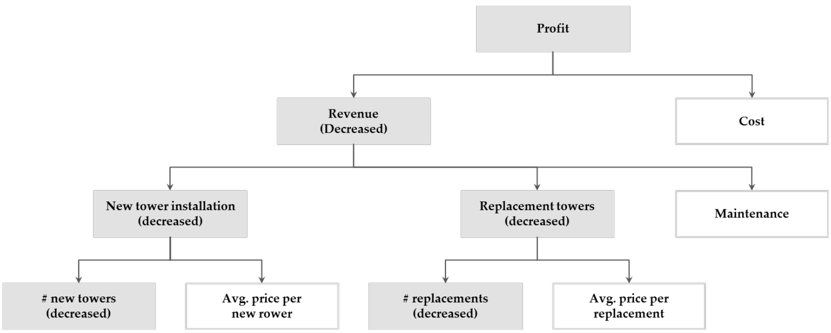
Who is our biggest customer? Do we / anyone of our competitors have any sort of exclusive contract with any of the telecom companies?

Vodafone is our largest account. No, there aren't any exclusive contracts. Tenders for tower installation (typically for 10-100 towers) and replacement are floated. The lowest bid gets the contract.

<u>Overall Approach</u>

I would like to study the profit structure of our client in Mumbai to see what has changed to identify the reason for profits decline and then proceed to discuss what can be done.

Okay



We observe that:

1. New tower installations have reduced
2. Towers replaced have reduced

New tower installations

\# towers installed = (# tenders floated) *
(conversion % of tenders) *
(avg. # towers under each tender)

Assuming we are able to manufacture and install towers for all tenders we win, one of the above is reducing.

Good. Fewer tenders were floated in the market.

In that case, one of the following must be happening:

1. Telecom companies have started installing the towers in-house (Do we have evidence for the same?)
2. Manufacturers are circumventing the tender process and getting contracts (Do we know how our competitors are performing?)
3. Demand for such towers has reduced

Good breakdown of the problem. Turns out the demand for such towers has reduced.

Alright. Looks like,

New towers demand = (Total area left to be covered) *
(1/ Coverage area of each tower)

Fantastic. The market is indeed getting saturated. Also the coverage area of each tower is increasing marginally - a constant phenomenon as technology becomes better.

In that case, we have identified that the major reason for a reduction in new installations is the saturation of the market.

<u>Replacement demand</u>

Replacement demand = # replacement towers for towers installed 10 years back by the client

- \# replacement tower contracts lost by competition and won by the client
- \# replacement tower contracts lost to competition

Correct. # of replacement contracts for our old towers has reduced.

Oh so our clients aren't replacing all of our towers. We already did the demand analysis for the towers. Since the coverage area of towers has been increasing every year, I expect over the 10 years, the requirement of towers has also reduced.

That is correct.

So the profits have been declining due to

- Saturation of the new tower market in India, and
- A steady decline in the Indian tower replacement market - driven by towers with better coverage area

Let's now look at what the client can do to battle this. The client can:

1. Focus on improving the current business - we shall look at how we can boost our revenues and reduce costs
2. Use their current manufacturing expertise to enter a new business line
3. Enter the telecom infrastructure business in a new geography

Let's explore entering a new geography. How would you select which geography to enter?

The client should enter a geography with a good business opportunity. I'd like to select the geography on the basis of:

- Business potential: market size, growth, expected profits
- Investment appetite and other operational feasibility
- Breakeven period

Okay. We know that Africa, being a developing country, has a growing telecom industry with a good market opportunity of ~$250MN, annually. What are the various operating models the client could use?

1. Manufacturing parts in India, distribution to Africa
2. Manufacturing, distribution and assembly in Africa
3. Tie up with a 3rd party manufacturer in Africa

Do we have data around investment and costs for the above?

Refer to the following table and use any data you find relevant

Cost Headers (All costs in INR)	Option 1 (Manuf. In India)	Option 2 (Manuf. in Africa)	Option 3 (3rd party manuf. In Africa)
Land	Rs. 10,000 / sq. ft.	Rs. 5,000 / sq. ft.	Rs. 5,000 / sq. ft.
Machinery (per factory)	20 Cr.	20 Cr.	-
Employee (avg. cost)	3,00,000 pa	5,00,000 pa	5,00,000 pa
Distribution	100 Cr. pa	50 Cr. pa	50 Cr. pa
Business Development	50 Cr. pa	50 Cr. pa	50 Cr. pa
Cost of 1GB data	100	100	100
Raw material	50 Cr. pa	50 Cr. pa	150 Cr. pa (finished product)
Miscellaneous	50 Cr. pa	50 Cr. pa	50 Cr. pa

I had a few questions on the data above:

- Do we know what are market share would be like, to calculate revenue
  - Assume 20%. We will rake in revenues of $50M.
- How many sq. ft. of land will we need for factories to meet such a production? How many factories would be needed? How many people per factory? Will our current factories be able to meet the manufacturing requirement?

We will need a total of 3,00,000 sq. ft. across 4 factories. Every factory needs about 200 people. Only 2 new factories will be needed if we decide to manufacture in India.

- How often will we need to change the machinery? I would like to distribute the cost over the lifetime of the machinery

  4 years.
- For Option 3, what will the land cost and employee costs be since we won't be manufacturing anything?

  Assume an annual expense of 30 Cr. for office and labour cost.
- Okay. The cost of 1 GB data is irrelevant here

Computing the costs (all figures in INR Cr.) and assuming 1$ = INR 70,

<u>Option 1 (manufacturing in India),</u>

Land = 10,000 * 1,50,000 sq. ft. = 150 Cr.

Machinery = 20 Cr. * 2 factories = 40 Cr. (10 Cr. per year)

Employee = 3L * 200 people * 2 factories = 12 Cr.

Distribution = 100 Cr.

Raw Material = 50 Cr.

Business Development + Miscellaneous = 100 Cr.

<u>Option 2 (manufacturing in Africa),</u>

Land = 5,000 * 300,000 sq. ft. = 150 Cr.

Machinery = 20 Cr. * 4 factories = 80 Cr. (20 Cr. per year)

Employee = 5L * 200 people * 4 factories = 40 Cr.

Distribution = 50 Cr.

Raw Material = 50 Cr.

Business Development + Miscellaneous = 100 Cr.

<u>Option 3 (3rd party manufacturer in Africa),</u>

Land = 0

Machinery = 0

Office + Employee = 30 Cr.

Distribution = 50 Cr.

Finished product cost = 150 Cr.

Business Development + Miscellaneous = 100 Cr.

Cost headers (All costs in INR Cr)	Option 1 (Manuf. In India)	Option 2 (Manuf. in Africa)	Option 3 (3rd party manuf. In Africa)
Land	150	150	0
Machinery	10	20	0
Employee	12	40	30
Distribution	100	50	50
Sales + Miscellaneous	100	100	100
Raw material	50	50	150 (final product)
Cost	272	260	330
Expected revenue ($50MN = INR 350Cr.)	350	350	350
Annual profit	78	90	20
Breakeven (months)	23	20	0
Upfront investment (land + machinery)	190	230	0

Observations:

1. Option 3 (3rd party manufacturing in Africa) is the appropriate choice if making an upfront investment is an issue
2. Option 1 and 2 (manufacturing yourself) rake healthy profits of 78 Cr. and 90 Cr. respectively - much more compared to Option 3. Given the breakeven is 1.5-2 years, these 2 will help log higher cumulative profits in the third year of operation itself.
3. Between options 1 and 2, manufacturing in Africa is a clear winner given a shorter break-even period and higher profits - driven by lower distribution cost. Upfront investment is a little higher though.

The client has the capital to make an upfront investment. Could you please synthesize the case?

Synthesis

We recommend the client expand their operations to Africa and set up manufacturing factories - an investment of INR 230 Cr., for three reasons:

1. The Indian market for tower installations is saturated and the tower replacement market is steadily declining (due to better coverage area of towers)
2. The African market has a growing telecom industry with expected annual revenues of $50M
3. Favorable distribution costs with annual profits of INR 90 Cr. a break-even of 20 months

Further I would want to analyze the ease of implementation given that we are entering a completely new market.

Thanks. We can stop here.

Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

6.6.13 Case 45 Tesla Motors | ★ ★ ★

Interviewer Name: ____________ *Date:* _______________

Estimated case time: 40 min *Actual case time: __ min*

It's the year 2016. Tesla Motors is an electric car company based in the US. They have just announced that in 2018 they will begin sales of their new mid-premium car, the Model 3. Tesla currently sells their other car models in North America, Europe and China primarily. They wish to enter the Indian market with the Model 3 and want our view if that is a good idea?

<u>Preliminary questions</u>

What would be the goal of the market entry? On what parameter should we evaluate that entering the Indian Market is a good idea?

It would be worth our time entering the Indian market if at least 2% of our expected global sales of Model 3 can come from India and if we can break-even on our fixed investment in 5 years.

What are the expected global sales for Model 3?

We expect to sell 350,000 cars / per year of Model 3 by 2020 globally.

So we need to be able to

a) Sell at least 7,000 cars per year by 2020
b) Break-even in 5 years

if we are to enter the market.

Yes.

Where does Tesla have plans to sell Model 3 except India?

We expect our sales split to be as follows North America: 50%, Europe: 25%, China: 15%, Others: 10%, based on pre-registrations received for Model 3. Pre-registrations involved a $1000 upfront refundable deposit.

How many pre-registrations did we receive from India?

We received ~10,000 from India of a total 400,000 pre-registrations so far.

Where do we lie in the value chain?

We manufacture at our factories, ship the cars through third-parties and retail through company owned galleries and online channels.

Where are our present factories located?

We have one in the US and another one is coming in China which will be ready by 2018.

<u>Overall approach</u>

I would like to break the problem down into two parts -

1) How many cars can we expect to sell by 2020 = Market Size x Market Share
2) Can we breakeven in 5 years. For this
   a) Expected profits from 2018 - 2022 > Fixed investments in India

I would like to begin by first estimating the market size for the Model 3 in India

We have some data for you that maybe helpful

Expected car sales in India	2018	2019	2020	2021	2022
Annual sales (MN units)	3.5	3.8	4.0	4.2	4.5

Price Segment (Incl. Tax)	% of Annual Car Sales
< INR 5,00,000	70%
INR 5,00,000 - INR 10,00,000	20%
INR 10,00,000 - INR 20,00,000	7%
INR 20,00,000 - INR 40,00,000	2.5%
> INR 40,00,000	0.5%

Take USD to INR as: $1 = INR 60

Do we know what would be the price - point for the Model 3 in India?

We would actually like you to compute what should it be. Here is some information:

US price: $35,000

China price (once China Factory is ready): $ 35,000

Profit margins: 10%

So our price outside India is $35,000 we make roughly $3,500 as profit per car.

Yes.

What would be the shipping charges if we had to transport the car to India?

Shipping Charges from US to India: $2000 per car

Shipping Charges from China to India: $1000 per car

In India (as in many other countries), there is also an import duty charged on cars by the Government:

	Fully built car import	Car assembled in India	Car manufactured in India
Import Duty (applied on car price + shipping)	60%	30%	0%

(i)Fully built up cars are those imported in one piece from the manufacturing country

(ii)Assembled cars involve critical car components imported from outside but assembled to make a car in India.

(iii) Manufactured cars have even the critical car components manufactured in India.

So let's look at each of the models and see what price we can get.

<u>Fully built car import</u>

Price to customer = \$35k + \$1k (Shipping from China) + \$21.6k (60% duty) = \$57.6k

You can take USD to INR conversion as: 1 USD = 60 INR

Then this results in a price of INR 34,56,000

<u>Assembled Car</u>

Will the cost to ship the components be different than that of shipping the car?

You can consider it to be the same for the case. Also you can assume profit per car would remain \$3,500.

Price to customer = \$35k + \$1k + \$10.8k (30% duty) = \$46.8k = INR 28,08,000

<u>Manufactured Car</u>

Price to customer = \$35,000 = INR 21,00,000

What would be our profit per car in this case? \$3,500?

Yes.

From a customer point of view manufacturing the car in India would make most sense, but we will also have to see what are the fixed investments to be made in each of these cases and see if it makes sense from a company standpoint. Do we know what are the fixed investments?

Yes. We will have two types of investment - factory cost and charging infrastructure mainly.

	Fully Built Car import	**Car Assembled in India**	**Car Manufactured in India**
Factory Cost	0 (No Factory)	\$200 MN (Assembly unit)	\$2 BN (Full Factory)

Additionally, we would have to setup the charging station infrastructure in India which would cost us ~\$50 MN.

In all three cases, our price range lies in the INR 20,00,000 to 40,00,000 bracket. We need to meet two conditions

1. Have sales of more than 7,000 cars by 2020. This would mean our market share has to be 7000 / (4 MN X 2.5%) = (7000)/ (100,000) = 7%
2. Recover our fixed investment cost of
    - Option A: \$50 MN in case we will be importing cars
    - Option B: \$250 MN in case we will be assembling the cars in India
    - Option C: ~\$2 BN in case we have a full-fledged factory in India

For Option A, to recover fixed investment, we need to sell ~14,000 vehicles ($50 MN / $3,500) across 5 years. However, here meeting the second criteria of selling 7,000 vehicles in 2020 would be the bigger challenge. To do this we need to achieve a 7% share in the corresponding price segment. We will evaluate this further.

For Option B to be viable, we need to sell ~70,000 vehicles ($250 MN / $3,500) across 5 years, which would translate to an average market share of 14% (70,000 / 500,000) across 5 years. We will have to evaluate this further.

For Option C to be viable, across 5 years, we would need to sell ~600,000 vehicles ($2 BN / $3,500). The total market size itself is (20 MN x 2.5 %) = 500,000 cars across 5 years. Hence Option C will not be feasible unless we cater to demand outside India from this factory? *Our China factory has enough capacity for that.* Okay, then we can exclude option C.

Market Share

To choose, between Option A & B, I would now like to estimate what would be our possible market share in both the options to see which one is feasible. Here I would like to benchmark our car with respect to competition. I would like to benchmark ideally on the following parameters

- Price, Fuel Cost (Gasoline vs electricity)
- Life of Vehicle, Design, Performance, Brand Identity
- After sales Service, Incentives / Schemes

We have some data which you can use to arrive at market share.

	Tesla Model 3	Rival A	Rival B	Rival C
Price	?	30,00,000	25,00,000	30,00,000
Share in segment	?	20%	40%	20%
Fuel Type	Electric	Diesel	Diesel	Petrol
Fuel Cost Efficiency	★★★★★	★★★	★★★	★★★
Car Performance	★★★★★	★★★	★★★★	★★★★
Car Design	★★★	★★★★	★★★	★★★
Brand Identity	★★★	★★★★	★★★★★	★★★★

Additionally, we are also providing the Tesla Model 3 with autonomous driving hardware, and in the future, our customers will have the option to upgrade their car with autonomous driving capabilities by purchasing the required software.

Based on the information, the Model 3 is a clear winner in terms of a) being the only electric car b) having the best performance and c) the best fuel cost efficiency. We are comparable in terms of car design with our rivals.
However, our brand recognition is lower compared to the legacy players in the arena. Brand identity in India can be built over time, and we have a great story to tell in terms of being pioneers in bringing a mass market electric car to the market. We also already have 10,000 customers from India who have pre-registered the car.

Most of our rivals are priced between 25,00,000 to 30,00,000. If we can price ourselves at that point, we will have a clear differentiated advantage in terms of Performance, Fuel Efficiency and being an all-electric car. I would expect us to be able to capture a significant share of 20-30% at least. This can happen if we go ahead with Option B where we will be priced at ~ INR 28,00,000.

If we go with option A, our price would be INR 34,56,000. We will be priced higher than competition and here we would need to take a bet on whether Indian customers would be willing to shell out the extra 5-10 lakhs, for the Tesla. Though I believe, we could still get a share of 10%, I would be less confident about it.

As such I would recommend, going with Option B, of setting an assembly unit. We should be able to comfortably achieve a 20% market share, above our break-even point of 14% share, and we would be selling at least 20,000 vehicles by 2020 in India.

I think those are reasonable assumptions. Good work. We'll take your ideas forward with Mr. Musk. Thanks

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Case performance sheet (Tick in the appropriate box)

#.	Fields	Excellent	Good	Average	Below par
1	Preliminary questions				
2	Overall approach				
3	MECE Structuring				
4	Synthesis				
5	Business Insight				
6	Communication				
7	Presentation				
8	Mathematical Calculations				

Candidate notes (Key learning and insights gathered):

1.

2.

3.

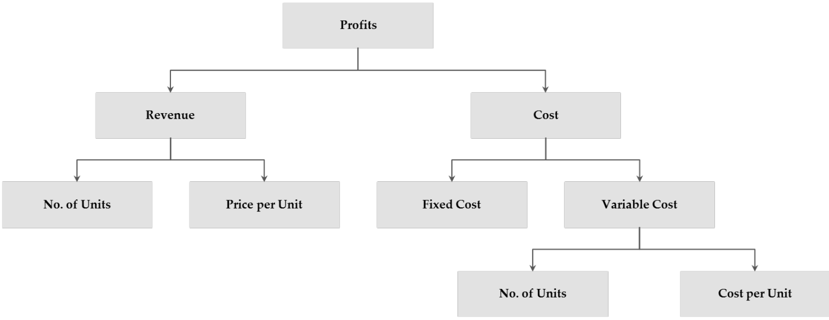
Chapter 7: Appendix

7.1 Frameworks

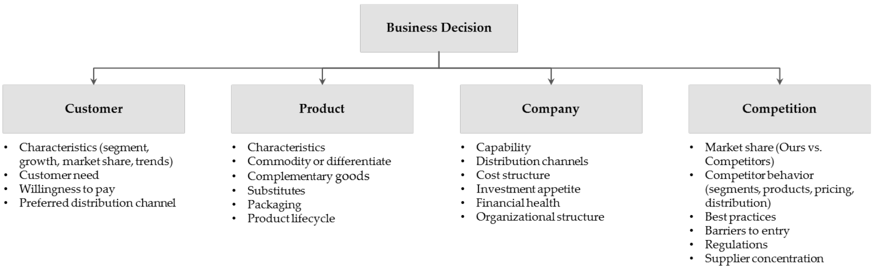
There are two frameworks that are used in conventional approaches as shown below: (1) Profitability framework, and (2) Business situation framework.

Conventional frameworks:

1. Profitability Framework



2. Business Situation Framework



Although these are MECE, they are not easily adaptable to a vast number of cases and have their downsides. We recommend the **evolved** Profitability and Market Entry frameworks, explained with examples in Chapter 5: Conventional vs. Evolved Approach. We've showcased how these can be more methodical and beneficial in the case solving process. Using the principles of these two, pretty much any business situation can be easily tackled.

7.2 Data Sheet

This section has certain basic statistics that keep recurring in cases. Most of the times you can come with the numbers in the right range on your own. We've just put some of these numbers in one place so that you don't need to go looking for them or worry about the accuracy of the source.

Population segmentation by income

- All India (Avg. household* income)
  - Middle Class (> Rs. 16,000 pm): 30%
  - Lower Middle Class (Rs. 8,000 - Rs. 16,000 pm): 40%
  - Below poverty line** (< Rs. 8,000 pm): 30%

**Avg. household size in India is between 4 and 5*

***Poverty line defined as living below $1.25 per person per day*

Note, numbers 8,000 and 16,000 translate to roughly 1 Lakh and 2 Lakhs respectively on an annual basis.

- Mumbai/Delhi/Chennai/Other Metro cities (Avg. household* income)
  - Upper Middle Class (>32,000 pm): 10%
  - Middle Class (16,000-32,000 pm): 30%
  - Lower Middle Class (8000-16,000 pm): 40%
  - Below poverty line (<8000p month): 20%

**Avg. household size is 4 in Urban India*

Consumption patterns in India

Avg. Consumption rate in India ~75% of income (varies with income segment)
Avg. Savings rate in India ~25% of income (varies with income segment)
Avg. Discretionary spending rate is 25% of total consumption

Avg. Consumption in India (varies with income segment)

Segment	Share of income
Food	40%
Housing	10%
Transport	15%
Education	5%
Health	5%
Discretionary spending	25%

The above is meant as a simple guideline, good enough for case-interviews and not an accurate representation. As income increases essential spending on Food decreases, while discretionary spending increases.
You do not need to remember the exact numbers, just remember expenditure on food is on average around 40%.

Population pattern in India/Mumbai

India: 1.25BN (can be taken as 1BN for ease in calculation)
50% of Indian population lies below the age of 25.

Region	Population	Area	Population Density
Mumbai	*20mn*	*600 sq. km*	*~35,000 per sq. km*
South-Bombay	20% of total	15% of total	~45,000 per sq. km
W Suburbs	25% of total	25% of total	~35,000 per sq. km
E Suburbs	25% of total	25% of total	~35,000 per sq. km
North Mumbai (Thane, Vashi)	30% of total	35% of total	~30,000 per sq. km

In terms of average household income, South-Bombay is the richest area followed by Western Suburbs, Eastern Suburbs and finally North Mumbai.

Try and do a similar analysis for your city if is different from Mumbai

7.3 Case Evaluation Metrics

Evaluation of your performance after each case is important in order to track your performance trajectory. The table below can be used as a benchmark while rating the interviewee. Bear in mind that this is just a guideline – the interviewer may choose to assign greater importance to certain aspects depending on the exact nature of the case.

#	Fields	Case performance			
		Excellent	Good	Average	Below par
1	Preliminary questions	Asks clear, brief and relevant questions to understand the problem statement and client context	Questions are good but some important ones are still missed	Questions delve too much into the core issues of the case which should be dealt with in a more structured fashion later on in the case	Questions are vague with little relevance to the case background. Important questions missed.
2	Overall approach	Develops a clear approach upfront with a prioritized list of areas. Uses it throughout	Develops clear approach upfront with prioritizations but deviates from it mid-way	Constant switching of areas of prioritization with no rationale provided to the interviewer	Does not narrow down on an approach upfront but develops it while going through the case
3	MECE structuring	Develops MECE structure at the beginning of the case and takes interviewer through it to ensure all factors are accounted	Structure fails to be completely MECE in cases where the problem statement is too abstract	Parts of the structure are MECE, while other parts might seem like shots in the dark	Does not structure the problem into multiple buckets - line of questioning does not follow a logical flow
4	Synthesis	Effectively summarizes recommendation with all relevant supporting analyses. Flags out next steps if any	Effectively summarizes recommendation but better supporting reasons could be given	Summary of recommendation is lengthy and might miss some key supporting analyses	Does not summarize recommendations crisply; leaves interviewer in dark on how conclusions were arrived
5	Business insight	Factors in industry related context to refine analysis and recommendations	Customized analyses and recommendations to the industry and business context to a certain extent	Exhibits understanding of the business in some places but fails to incorporate it into the analyses and recommendations	Shows lack of understanding of the business which reflects in the comprehensiveness of the analysis

#	Fields	Case performance			
		Excellent	Good	Average	Below par
6	Communication	Calm and confident communication of analyses and findings. Clear, structured sentences that are well thought out	Calm and confident communication however needs work on clarity and crispness in places	Confident communication only at junctures in the case where the candidate is doing well	Incoherent and nervous communication
7	Presentation	Neat working sheet, with an easy to follow; different parts of the case are clearly demarcated	Neat working sheet with structure that can be followed only with candidate's guidance.	Exhibits structure in few places during the course of the case.	Uses the sheet only for himself and not for communicating with interviewer. Written flow is not legible.
8	Mathematical calculations	Makes no mathematical errors, is able to simplify complex calculations process successfully	Makes the odd minor mistake but is able to course correct without any prompting from the interviewer	Makes the odd careless mistake which does not impact the overall case.	Makes simple mathematical errors and is uncomfortable around large numbers
9	Sanity check	Proactively performs sanity checks when required	Performs sanity checks in cases where the numbers seem unlikely	Identifies and struggles to perform sanity checks effectively	Is unable to identify or perform sanity checks even when probed
10	Creativity	Presents 1-2, strong out-of-the-box ideas / recommendations, which are feasible in the case context and make sound business sense.	Presents few good ideas / recommendations, which make sound business sense.	Presents ideas which might be too ambitious to implement in the case context	Follows conventional structure and provides only run of the mill suggestions, despite case having adequate room for creativity