



ESADE Case Collection Book 2014

Written and collected by the ESADE MBA Consulting Club
in cooperation with the following consulting firms

Arthur D Little

BCG

McKinsey&Company

 **OLIVER WYMAN**

strategy&
Formerly Booz & Company





Acknowledgement

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ESADE Career Services

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- **Arthur D. Little**
- **The Boston Consulting Group**
- **McKinsey & Company**
- **Oliver Wyman**
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ESADE MBA Consulting Club Board, Members and Case Writers

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Contents

Contents	3
Introduction	5
# Section 1: Cases reviewed by Arthur D. Little	6
Case 1.1: US Luxury Brand	8
Case 1.2: European Airline	13
Case 1.3: Middle East Telecom	18
Case 1.4: Spain Consumer - Packaged Goods	21
Case 1.5: Brazil Football Stadium	24
# Section 2: Cases reviewed by The Boston Consulting Group	28
Case 2.1: Online Insurance Agent	30
Case 2.2: Online Food Delivery	34
Case 2.3: Spanish Gym Retailer	37
Case 2.4: International Expansion	40
Case 2.5: Bank Case	44
# Section 3: Cases reviewed by McKinsey&Company	48
Case 3.1: Video Game	50
Case 3.2: Shag Carpet	55
Case 3.3: Ice Cream Shop	59
Case 3.4: Potato or Bust Buyout	62
Case 3.5: MNO's Factory Funding	65



Contents

# Section 4: Cases reviewed by Oliver Wyman	67
Case 4.1: Fertilizer Factory	69
Case 4.2: Supermarket Discount	72
Case 4.3: Electric Vehicle Charge Stations	74
Case 4.4: Wooden Panels	77
Case 4.5: Structuring a Call-Center	80
 # Section 5: Cases reviewed by Strategy& (Formerly Booz & Company)	 83
Case 5.1: Gas Stations	85
Case 5.2: Concrete Manufacturer	88
Case 5.3: Fast Food Chain	91
Case 5.4: Industrial Packing	95
Case 5.5: Life Insurance	99
 Final Notes: Case & Author List + Special Thanks	 102

i

Introduction

The ESADE MBA Consulting Club is proud to present the “**ESADE Case Collection Book**” in collaboration with five top tier Consulting Firms.

We created this Casebook to help prepare ESADE students for case interviews, to increase their placement success and to strengthen our position as a top target school for consulting recruitment.

Cases are used to show and prove a candidate’s analytical and problem solving skills to recruiters. A standard recruiting process in consulting includes 3 to 6 case interviews. Nevertheless, we hope that this casebook is helpful to all students, as the case interview methodology is currently used across all sectors and industries in the selection processes to fill strategic positions.

Furthermore, case practice helps develop strategic thinking when facing challenges in both business and real life situations.

This book includes case practice material to improve capabilities for recommending actions in strategic management situations.

Recommended use of this book

- Practice some cases as an interviewer and some as a candidate to gain a perspective of both
- Make sure to practice with a variety of partners over time to get different feedback and recommendations
- Listen carefully and clarify uncertainties at the beginning of the case
- Remember that a good candidate leads the interviewer through the case
- Take notes and be structured, verbally and on paper
- Don’t forget to answer the initial questions with a clear recommendation at the end
- Practice often! People typically ask ‘how much practice is enough?’ More practice is always better!

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Company facts

Arthur D. Little, founded in 1886, is the world's first management consultancy. We are unique in linking Strategy, Innovation & Technology to master our clients' business complexity to deliver sustainable solutions. We are unique in the quality of our people, combining deep industry expertise and innovative thinking to create a client focused service offering. For over 125 years, the Arthur D. Little name has been synonymous with technological ingenuity and innovative thinking. Arthur D. Little's management consulting services were historically sought after not only by corporations but also by state and federal agencies and governments worldwide.

People are at the heart of Arthur D. Little's business. We are always looking for colleagues with a mindset for the future, a readiness to take on tomorrow's business challenges and a strong personal skillset. Our consultants have solid experiences in their respective industries. By working side-by-side™ with our clients, we prove to them that we are just as strongly committed as they are in understanding and addressing their challenges.

Arthur D. Little operates offices in 28 offices around the world. We are proud to serve many of the Fortune 500 companies globally, in addition to other leading firms and public sector organizations.



Specialities

Strategy and Organization,
Operations Management,
Technology Innovation
Management, Sustainability & Risk,
Energy and Utilities, Telecoms,
Information and Media, Risk
Management, Healthcare,
Automotive and Manufacturing,
Travel & Transportation



Recruiting / Interview Tips

- We look for innovative and creative personalities – just be yourself
- Convince us that you are not only smart but also a team player who is able to convince and motivate people for his ideas
- Tell us more about your specific interests, intercultural experiences and social engagements
- Be prepared to solve and present a case study as well as to perform tests
- Be informed about actual topics regarding economics
- Consider why you really want to become a member of ADL
- Show your humor and convince us that it is fun working with you!

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Situation

Client is a premium manufacturer and seller of women's leather handbags and shoes in the US. They are among the leaders in the segment in which they operate (mid-premium). They wish to grow rapidly and have approached you for possible options. Every store is selling both bags (80 sq. meters) and shoes (120 sq. meters), and in addition has non-revenue generating areas (such as the cash register), making the total size of each store slightly over 200 sq. meters.



Guide *(provide only if requested)*

- Grow how: client wants to increase revenues
- Position in market: market leader
- Market share: 40% of mid high-end segment
- Competitors: small and medium sized players
- Differences in product portfolio: no significant difference
- Cash/capital position: client has huge cash reserves at its disposal
- Manufacturing strategy: Sourcing and manufacturing at low cost destinations. Designs are created at the company's design studios in the US.

Question 1: What possible options do you have to increase revenue?

Suggested Solution

The candidate's framework should include but not necessarily be confined to the following options for revenue growth:

- Expanding customer base by attempting to enter either the ultra-premium or low end segments
- Increase sales through marketing
- Acquisitions (acquisition of direct competitor in the relevant market segment vs. competitor in another customer segment, to quickly reach scale vs. acquisition in another product segment)
- Launching new product categories
- International diversification

Cookies

Asking about the market share and cash position of the company

Traps

Missing the usual growth strategies, failing to focus on the fact that client is focused on growing the top line

The interviewee should proceed to explore each of the following options and eliminate the ones which are inadequate based on the data provided during the discussion.

Options

01 Expanding customer base by attempting to enter either the ultra-premium or low end segments

Information provided upon request:

- The ultra-premium segment has strong players and the customer loyalty to the current brands is a major barrier to entry.
- Client has considered penetrating the low end segment but is concerned that its positioning as a 'premium luxury brand' will be compromised and it would lose its existing customers

02 Increase sales through marketing

The candidate should conclude from the data provided above that as the client already has a market share of 40%, marketing campaigns cannot lead to a major increase in sales.

03 Acquisitions (acquisition of direct competitor in relevant product segment in order to quickly reach scale vs. acquisition of competitor in another product segment)

Candidate should mention advantages and disadvantages

Information provided upon request:

- The client had made a few acquisitions over the past few years but none of these have had the desired impact on revenues

Insight: Candidate should conclude that given historical precedents acquisitions are not the best way to increase revenues for this client.

04 Launching new product categories

Information provided upon request:

Client is considering launching 3 additional product categories- perfumes, sun glasses and wallets. They are not looking to expand retail area (open new stores or expand current stores) in the US due to real-estate prices. If the new categories are introduced they would have to be adjusted within the display areas of the existing stores.

Option 05

Information provided

Client feels that he is highly dependent upon the US for revenue generation and would like to reduce this risk.

Insight: The above information combined with the availability of huge cash reserves makes a strong case for international diversification.

Question 2: Should they target existing customers i.e. women or should they also target men?

Suggested Solution

Cross-selling to an existing customer base is simpler. However, candidate should be able to provide adequate supporting arguments for the option he recommends.

Question 3: Given the following information how would you analyse the impact of launching new product categories? Please keep in mind the company is not willing to expand its store size from the current size (slightly over 200 sq. meters).

Tip to Interviewee

Consider that the sales to space ratio is 1:1 i.e. if bags are to be sold, then entire 80 sq. meter bag display space is continuous and no other products can be placed within this space.

Facts to be provided

Product category	Display space (sq. m)	Unit price (\$)	Unit sales/month	Revenue/sqm
Bags	80	400	2500	12500
Shoes	120	250	2400	5000
Perfume	90	100	2700	3000
Sun glasses	30	150	600	3000
Wallets	50	110	850	1870

Suggested Solution

Based on the data interviewee should proceed to calculate the revenue/sqm to derive the most optimal product mix for the current store size (approx. 200 sq. meters).

Insight

Current product mix of bags (80 sq. meters) and shoes (120 sq. meters) generates the highest revenue per square metre of retail space. As client is not willing to expand retail space, launching the 3 new categories would decrease revenues.



Conclusion

A candidate should summarize the various options explored and state 'international diversification' as the final recommendation providing supporting arguments. Conclusion should also include a preferred mode of entry; candidate is expected to suggest one of the above based on comparative evaluation of pros and cons.

Question 4: When considering possible geographical locations for new stores or expansion, what factors would you consider?

Suggested Solution: A Porter or PESTEL framework can be used

Candidate should cover at least the following- market size, existing competition, customers (income levels, buying patterns, level of awareness about luxury brands), legal and regulatory environment, availability of suppliers and distributors.

Important point: Manufacturing strategy. Will it be possible to centralize design functions at the head-quarters in the USA? Are sourcing and manufacturing viable in the target destinations?

Note to interviewer: Candidate should be able to identify majority of these points though he/she is not expected to provide definite answers where sufficient background information is unavailable.

Question 5: What are the possible options for new market entry or expansion and what are the pros and cons of each?

Suggested Solution Candidate should cover all or most of the below

Mode of entry	Pros	Cons
Joint venture	Less time consuming, leverage knowledge of local partner	Revenue and margin sharing, reduced control
Acquisition	Complete control	Synergies may be hard to find, cumbersome process, no knowledge of existing market conditions
Licensing of brand to third party	Low capital investment as licensee is responsible for managing supply chain and points of sale	Lack of control over licensee and high risk as inappropriate actions by licensee could harm the brand
Export	Quick and easy	Price inflation due to excise and customs duties
Organic growth	Complete control, learnings from new markets	Huge capital investment, high break-even point, availability of value chain partners etc.

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Situation

Client is the 6th largest airline in Europe. They are a hybrid carrier, a combination of full service and low cost types. As a result of this, customers and the industry remain confused of their true positioning and the company has been garnering substantial losses. Their operations in Europe cater to the budget travel category and those outside the continent are of the long haul type. They offer different fares: flexible and regular.

The flexible fare allows customers to avail themselves of additional features (changing dates, time of flight etc.) by paying an additional fee.

The client has engaged you to recommend different types of tickets and services in the economy class to revamp their value proposition and generate additional revenue.

Question 1: What factors would you consider to determine market positioning for the client?

Suggested Solution

Factors to be considered are customers (target segments), competition, targeting the correct segment by designing products and services which conform to the value proposition, effectiveness of communication used for market positioning, customer satisfaction, customer values and opinions.

Cost structure is important factor.

Question 2: The client is focusing on the short-haul economy segment. The market trends are increasingly in favor of budget travel and EasyJet, a key competitor, is gaining strength. The client has decided to compete by launching 3 budget fare types: low-cost, medium and premium. Suggest airline offerings which could differentiate each of the 3 fare types.

Suggested Solution

- Buyers of the premium budget fare should be provided additional service such as pre-booking of seats, additional cabin baggage, check-in at the airport counters, priority queues for boarding, food and beverages in flight etc.
- Buyers of the medium budget fare can be offered a sub-set of the above. Costs incurred in providing these services should be the main consideration while determining the service package.
- Low-cost budget travellers should be offered the above for a price.

Question 3: What are the internal challenges that the client could experience if the client were to introduce the 3 budget fare types?

Note to interviewer: the purpose of this question is to judge the candidate's ability to structure his/her thought process.

Suggested Solution

The ideal answer would be to consider each step in the entire journey (booking of tickets; preparation for flight; at the airport; in-flight) and identify challenges associated with each.

Booking of tickets: On-line booking services would have to be revamped to include the 3 fare types.

The customers might get confused by three different options of fares and the provisions associated with each.

Preparation for flight: If the traveler needs to bring additional luggage after booking is complete he would have to buy extra slots- this should be specified to avoid inconvenience to customers on the day of the flight.

At the airport and in-flight: confusion arising out of 3 fare types as customer handling depends on the type of fare selected. Re-training of airline personnel required. Change management would be crucial.

The candidate should cover at least all the above mentioned points. Points to be deducted if change management is neglected

Question 4: The client currently offers only 1 fare type which is analogous to the medium budget fare in the proposed pricing structure. With reference to revenue what is the main risk in implementing the 3 fare scheme?

Suggested Solution

One of the main risks is to effectively promote and market each of the 3 fare types to attract the right amount of customers to each fare type to optimize the profitability of the whole scheme. As an example, customers who were purchasing the higher priced medium budget tickets would shift towards the low-cost budget type. It would be difficult to attract enough premium passengers to outweigh this, which would result in a lower revenue level compared to before.

Question 5: What would be the most effective way to optimize revenue from the 3 fare scheme?

Suggested Solution

The first step would be to analyse the spending patterns of the 2 different customer types: budget & business. Business travelers are more likely to purchase the premium budget fare and leisure travelers are more likely to purchase the medium and low-cost fare types. Based on the flying patterns (routes, frequency and time of travel) of each customer type the most relevant fare types should be made available while the availability of the others should be limited. For instance: business travelers opt to travel early morning or late night usually between certain destinations. On such flights the availability of medium and low cost budget fares should be limited.

New Situation

To be shared with interviewee:

Flight Patterns:

- 40% passengers early morning between 6:00 – 10:00
- 27% passengers during day 10:00–18:00
- 33% passengers evening/late night 18:00 – 24:00

Passenger segmentation: 50% of passengers of both customer groups continue to buy the medium fair ticket. For the sake of simplicity assume that business travelers purchase only premium and medium fare types. Leisure travelers purchase medium and budget fare types.



Insight / Conclusion

The new ticket fare makes sense, in this case (comparing 1,420,800 with 1,400,000)

Question 6: Please calculate the revenue that the client can expect to generate per day with the below pricing/customer information:

To be shared with interviewee:

Average Day: 10000 passengers

	Early Morning	During Day	Evening/ Late Night	Sum
Passengers	40%	27%	33%	100%
Business Travelers	75%	20%	60%	
Leisure	25%	80%	40%	
Budget Fare Price				EUR 100
Medium Fare Price				EUR 140
Premium Fare Price				EUR 180

(50% customers switching)

Business	3000 (1500)	540 (270)	1980 (990)
Leisure	1000 (500)	2160 (1080)	1320 (660)

Solution:

Daily EUR Revenue

Business in Medium	210,000	37,800	138,600	386,400
Business in Premium	270,000	48,600	178,200	496,800
Leisure in Budget	50,000	108,000	66,000	224,000
Leisure in Medium	70,000	151,200	92,400	313,600
				1,420,800

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Situation

Estimate the annual revenue for a telecom company operating in a city in the Middle East.

Additional Information:

Only provide if asked:

- Customers are only corporate clients, i.e. only businesses, as the company specializes in this sector
- Market share is 30% based on number of corporate customers

The candidate should then devise a way to estimate the number of businesses in the city (assuming all need internet)

Question 1: Calculate the total number of corporate employees

Only provide if asked:

- Population of 4 M
- Average of 5 people per household
- Average of 1.3 people eligible to work in a household (ask candidate to make assumption before providing)
- Unemployment rate: 10%
- Percentage of corporate employees: 90% of employed population

Suggested Solution

Total labour force: $(4 \text{ M}/5) * 1.3 = 1.04 \text{ M}$

Employed population: 90% of 1.04 M = 936 K

Number of corporate employees = 90% of 936 K = 842 K

Cookies:

Considering unemployment rate

Question 2: Calculate the total number of corporate customers

Only provide if asked:

- Percentage of small, medium and large companies: 70%, 25%, 5%
- Average number of employees in small, medium and large companies: 10, 50, 1000

Suggested Solution

Total number of organizations: $842 \text{ K} / (70\% * 10 + 25\% * 50 + 5\% * 1000) = 12115$

Total number of customers = 30% of 12115 = 3634

Question 3: Calculate total revenue

Only provide if asked:

- Monthly plans for small, medium and large companies: 100€, 600€, 15000€
- Company's share:
 - a. Small business segment: 30%
 - b. Medium business segment: 60%
 - c. Large business segment: 60%

Suggested Solution

Total revenue from small companies: $€ 100 \cdot 12 \cdot 30\% \cdot 70\% \cdot 12115 = € 3052980$

Total revenue from medium sized companies: $€ 600 \cdot 12 \cdot 60\% \cdot 25\% \cdot 12115 = € 13084200$

Total revenue from large companies: $€ 15000 \cdot 12 \cdot 60\% \cdot 5\% \cdot 12115 = € 65421000$

Total revenue: € 81558180



Insight / Conclusion

Total revenue for telecom company operating in a city in the Middle East is approx. \$81 billion

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Situation

Client, 'Exotic Juices' is a consumer packaged goods company in Spain that produces pulp and extracts for manufacturing different flavored beverages. It is a family owned business and has revenues of 100 million Euros/year.

The company sells its products through two distribution channels: to restaurants and retail stores. It has been facing a recurring problem of spoilage and has displayed higher spoilage rates as compared to its competitors. What can be done to reduce this?

Facts for Case (*Provided when asked*)

- Distribution channels: wholesale suppliers to restaurants, super market private labels
- Shelf life of 180 days with customers requiring 60 days
- High recipe switching costs
- Competitors' spoilage rates are one-fourth of our client's
- Spoilage occurring at client's distribution centres and not at the customers' facilities
- Capacity utilization is 80%

Question 1: Lay out the end-to-end value chain

Suggested Solution

Demand forecast, Sourcing, Manufacturing, Sales & Distribution

Question 2: Estimate the demand of pulp and extracts for our client

Only Provide if Asked

- 1 gram of extract is required per 200 ml of beverage (industry standard)
- Total market size of the restaurant channel: 1.5 billion litres
- Market share in the restaurant channel: 30%
- Total market size of the super market channel: 750 million litres
- Market share in the super market channel: 40%

Suggested Solution

Total demand for client's products: $(1 \text{ gram}) * (30\% \text{ of } 1.5 \text{ billion litres} + 40\% \text{ of } 750 \text{ million litres}) / 200 \text{ ml} = 3.75 \text{ million kilograms}$

Information to be provided next to interviewee:

Client's forecasting tools and methods are out dated and generate estimates that are not in tune with the current market demand. The tool generates production requirements of 4.9 million kilograms annually.

Interviewee should be asked for reaction and possible solutions:

The client over produces by 1.15 million kilo grams which would contribute to the problem of spoilage. The client also faces a severe problem of over-capacity. Candidate should suggest means by which capacity can be reduced (by selling off facilities) or effectively utilized (renting to other manufacturers).

Question 3: Where else in the value chain could there be possibility of wastage or spoilage?

Suggested Solution

Ideal candidate should examine each step in the value chain:

	Sourcing	Manufacturing	Sales & Distribution
Information to be provided if asked	Client sources its raw materials from 3 main suppliers. In recent years relations with one of them has soured and consequently quality of raw materials has declined considerably	Client has recently refurbished its production equipment, installing the latest available technology	2 distribution centres: in Barcelona and Sevilla. Some products have very low inventory turn overs exceeding the 180 day shelf life

Conclusion

Final recommendation should include a summary of all the problems analyzed with insights drawn from each clearly stated.

Strong candidates will include actions to be taken.

Insight

Spoilage could occur due to low quality of raw materials used. This in the long run can affect client's credibility in the market. Re-evaluate available options and consider changing suppliers

Manufacturing does not directly contribute to spoilage but due to mistakes in demand forecast there is a problem of over production

Rationalise product SKUs. Eliminate those with very low turn-over rates

Section 1

Case 1.1 US Luxury Brand

Case 1.2 European Airline

Case 1.3 Middle East Telecom

Case 1.4 Spain Consumer - Packaged Goods

Case 1.5 Brazil Football Stadium



Situation

In 2005, an investment fund is assessing a proposal to build a new stadium in Brazil. The firm will continue to own and operate the stadium for a period of 5 years post construction. After this period the investment fund is planning to sell the stadium to a new owner.

Question: Should the firm make this investment? Please prove the profitability of this project.

Suggested Solution

Information to be provided to interviewee:

- 4 years required to plan and build a stadium, initial investment of 500 M in year 0
- Revenue generation will start in year 4
- Capacity 50K
- Tickets types:

Ticket offers	Seats	Price/Seat
Super premium	5K	\$300
Premium	20K	\$100
Popular	25K	\$50

- Average stadium occupancy: 50% (assume that this holds for all 3 ticket types)
- The local team plays 50 matches/year 50% of which are played in the stadium
- COGS = \$120 000 (assume fixed)
- SG&A = \$1 200 000 (assume fixed)
- Depreciation (straight line) = 20 years
- For the purpose of the case consider that revenue from ticket sales, COGS and SG&A increase by 1.1% each year. Revenue from sales of food and beverages, merchandise and organization of events increases at 1.5% each year.
- For the first year assume that non-ticket revenue is 200 M (~ 3 times that of ticket revenue).
- Consider tax rate of 25 % and discount rate of 10%
- Consider 5 year time horizon (5 year NPV)



Conclusion

The firm should proceed with the investment due to positive NPV

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Investment	500M								
Revenues from ticket sales					59.4M	65.3M	71.8M	79M	86.9M
Additional revenue					200M	300M	450M	675M	1,012.5M
COGS					120,000	132,000	145,200	159,720	175,692
SG&A					1.2M	1.3M	1.4M	1.6M	1.7M
EBITDA					258.1M	363.9M	520.2M	752.3M	1,097.5M
Depreciation					25M	25M	25M	25M	25M
EBIT					233.1M	338.9M	495.2M	727.3M	1,072.5M
Net Income					174.8M	254.1M	371.4M	545.5M	804.4M
Depreciation					25M	25M	25M	25M	25M
Operating cash flow	-500M				199.8M	279.2M	396.4M	570.4M	829.4M
PV					136.5M	173.4M	223.8M	292.7M	386.9M
NPV	\$713.3M								



Conclusion

The firm should proceed with the investment due to positive NPV

Annual Discount Rate	10%
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Capacity	50,000
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Occupancy	50%
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Tickets Range	Capacity	Price	
Super Premium	5,000	300	1,500,000
Premium	20,000	100	2,000,000
Popular	25,000	50	1,250,000
Total	50,000		4,750,000

Considering Occupation	2,375,000
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Matches/year	50
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Matches in the stadium/year	25
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Revenues from tickets/year	59.4M
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Other revenues/year	
---------------------	--

Food	
------	--

Merchandising	
---------------	--

Events	
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Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Company facts

Year Established: **1963**

Number of Employees: **9,700** total staff



Specialities

BCG's expertise covers a wide range of industries: Automotive, Medical Devices & Technology, Biopharmaceuticals, Metals & Mining, Consumer Products, Private Equity, Energy & Environment, Process Industries, Engineered Products & Infrastructure, Public Sector, Financial Institutions, Retail, Hardware & Software, Social Impact, Health Care Payers & Providers, Telecommunications, Insurance, Transportation, Travel & Tourism, Media & Entertainment



Recruiting / Interview Tips

While there are no set rules on how to solve a case, we have found that some advice can help you succeed: Listen to the interviewer and ask questions. Structure the problem and develop a framework. Think before speaking. Focus on high-impact issues. Generate a hypothesis and explore options creatively. Demonstrate Business Judgment. Make quick and accurate calculations. Synthesize your thoughts and draw conclusions from your analysis. Don't rush into the analysis without developing an understanding of the problem. Don't panic if the answer is not apparent. Don't defend your solution at all costs. Don't internalize your thought process. Don't stick to an artificial framework. Don't circulate cases or use advance knowledge.

Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Situation

Your clients wants to open an online website that connects car insurance agents with customers virtually. In this website, agents could pay a fee to be listed on the website. The website would compare quotes from the various agents for the customer for free. The customer would then contact his preferred agent directly based on the price comparison.

Question 1: What factors could affect profitability?

Suggested Solution

Profitability can be analyzed in terms of revenues and costs:

- Revenue factors may be:
 - Ability to attain large volume of customers and variety of insurance providers to participate
 - Ease of use of website
 - Marketing/advertising efforts to consumer
 - Need for this product, revenue structure of the website (whether agents pay a flat fee, per customer they win, etc.)
- Cost factors could be:
 - Maintenance of the website
 - Marketing costs.

Question 2: What is the market size for this segment if this website is operated in Germany?

Facts to be Provided: 10% people change insurance companies yearly on average (this includes people who buy new insurance ii) change insurance iii) no longer have insurance), it is unlikely that car ownership is growing in a well developed market like Germany

Only Provide if Asked: yearly car insurance fee in Germany around 1400 Euros. (*Extra points to the interviewee for mentioning different types of car insurance exist)



Conclusion

Online car insurance market in Germany is approximately \$1.4 billion Euro

Question 2 Continued:

Suggested Solution

1. Size of German population: 80 million (*interviewee should know, otherwise provide*)
2. Number of people that drive cars (*not to be provided to interviewee; interviewee should provide*):
 - a. Assume average life expectancy is 80
 - b. Segment market by urban vs. rural:
 - i. Urban: (60million people)
 - ii. Rural: (20million people)
 - c. Segment into families, 2 people/family: 30 mil urban families, 10 mil rural families
 - d. Car ownership: 100% in rural, 70% urban
3. Number of cars in Germany: $= (60 \text{ million} \cdot .5 \cdot .7 + 20 \text{ million} \cdot .5 \cdot 1) = (21 \text{ million} + 10 \text{ million}) = 31 \text{ million}$
4. Population who will shop for insurance online:
 - Assume people under age 20 don't own cars
 - Age 20 to 50: 90% willing to shop online for car insurance
 - Age 50 to 80: none buy online (older generation) $= 90\% \text{ of } 3/8 \text{ of population will shop for car insurance online}$
5. People who change car insurance each year
 $= .10 \cdot 31 \text{ million} = 3.1 \text{ million}$
6. People who would be willing to buy insurance online $= 3.1 \text{ million} \cdot (3/8 \text{ population shops online} \cdot 90\% \text{ willingness to buy insurance online})$
 $= 1 \text{ million}$

Revenue = 1 million * 1400 Euro = approx. \$1.4 billion Euro

Question 3: How much could the website charge agents for listing ads?

Facts to be provided: Agents pay based on how many searches customers make on the website.

Only provide if asked: Only 10% of insurance searches actually result in a purchase for each agent.

Suggested Solution

- Average revenue per customer search = 1400 Euro*10% success rate = 140 Euro
- Fee to agent per search should be less than the revenue insurance company receives per customer search (possibly 1-3% reasonable), therefore, fee charged to agent should be = 140 Euro* 3% = **4.2 Euro per customer search max** (interviewee could suggest from 1 Euro to 4.2 Euro)

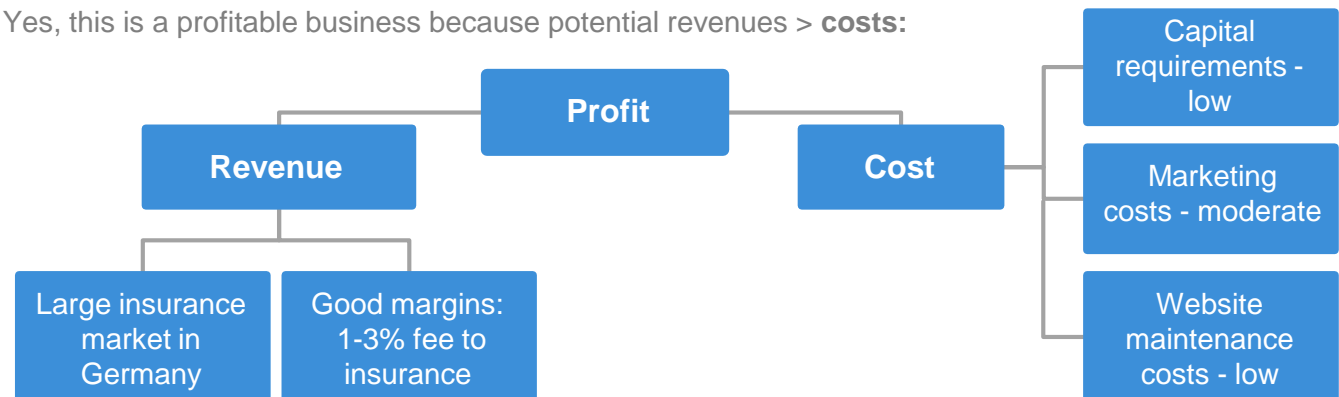
Excellent Response

Suggest different pricing fees based on cost/click or even cost/displaying ad (not even for clicks)

Question 4: Please advise the CEO whether this is a profitable business!

Suggested Solution

Yes, this is a profitable business because potential revenues > **costs**:



Risks: need for extensive marketing, potentially new business model for consumers, potential for new entrants who can easily copy business model.

Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Situation

Our client is an online platform start-up that would like to start an online food delivery business in Spain. The client would host a website which would list restaurants with delivery services. The client would use the website to order food from the restaurants. The restaurants would then be responsible for arranging their own delivery service. The client would attain revenues by charging a fee to restaurants for every customer order from the website.

Question 1: Estimate the market size of an online foods delivery service in Spain.

Only provide if asked: Population: approx. 48 million

Suggested Solution

Average price of each purchase: **12 Euro per person**

% Population that buys food online (segment by age, location distribution)

Segmentation of population by age:

- 0-10: approx. 6 million, 0% (no money or capability to call)
- 10-20: approx. 6 million, 20% usage, order 1x/2months
- 20-30: approx. 6 million, 30% usage, order 1 x/2months
- 30-40: approx. 6 million, 40% usage, order 1x/2months
- 40-60: approx. 12 million, 20% usage, order 1x/2months
- 60-80: approx. 12 million, 0%

Market Size Calculation:

$$= [(6\text{mill} \cdot .2) + (6\text{mill} \cdot .3) + (6\text{mill} \cdot .4) + (12\text{mill} \cdot .2)] \cdot 12 \text{ Euro} \cdot 6 \text{ orders/year}$$

$$= 7.8 \text{ million} \cdot 12 \text{ Euro} \cdot 6 \text{ orders/year} = 561.6 \text{ million Euros}$$

* Excellent response: Interviewee should note that the Spanish population distribution has a disproportionately higher amount of elderly, segmenting population in more detail, % that orders online from each age bracket, adding considerations such as Spanish economy (current vs. future market potential)



Conclusion

No, this is not an attractive business idea because:

1. Easy to copy
2. Acquiring a large enough distribution network difficult, as online food ordering not popular in Spanish culture
3. Small market: \$500 million
4. Large marketing budget would be necessary to gain market share

Question 2: What are the key success factors to gaining market share in this business?

Suggested Solution

- Ability to scale the website
- Advertising: online vs. print, social media advertising campaign
- Discounts/promotions: discount for first time users, free delivery, loyalty points
- Satisfaction guarantee: money back if not satisfied (risks of this)
- Purchase Competitor: gain market share quickly
- Ease of use of the website and possibility for online payment

Question 3: Is this an attractive business?

Suggested Solution

- Low maintenance costs, large marketing costs
- Consider whether client has strong core competencies for this business model
- Market is not saturated but also not growing rapidly
- Competitors: what is current competition like? Some small players already in market
- Business model is easy to copy; client will not be able to have first mover advantage,
- Although can try to quickly get a large market following to deter competitors

Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Situation

Your client is a Spanish gym retailer that wants to create an expansion plan in the UK. There are typically 2 types of gym segments: basic, premium. The client is considering targeting either segment.

Market Size

Market is approximately £2 billion per year

Question 1: What approach would you recommend to your client regarding entering the UK market?

Suggested Solution

- Gain understanding of UK market, as it significantly different from Spanish market
- Use synergies from Spanish market, such as: gym operations strategies, potentially using same gym equipment suppliers or marketing firm, etc.
- Find excellent location: easy access and high visibility to target market
- Minimize capital investment and maintenance costs to increase ROI
- Clearly define the segment to target and then utilize specific marketing strategies geared towards the target segment in UK
- In an already saturated marketing it's key to offer a differentiated product, find untapped market space

Question 2: Is £2 billion per year an appropriate target market for the gym segment (premium and basic) in the UK?

Suggested Solution

Segment the total population of 60 million (population of the UK) as follows:

1. Segment by age (assume lifespan of 0-80), Calculate % of each segment that would be premium members (fact: 12% of total UK population are members of gym):

0 - 10: 8 million, 0% premium and basic
11 - 20: 8 million, 1% premium, 8% basic
21 - 30: 8 million, 2% premium, 13% basic
31 - 40: 8 million, 2% premium, 13% basic
41 - 50: 8 million, 2% premium, 13% basic
51 - 80: 24 million, 2% premium, 10% basic

2. Calculate average gym revenue:

Premium membership: 60£/month = 720£/year

Basic membership: 25£ /month = 300£/year

3. Calculate total revenue:

Premium: $[(8\text{mill} \cdot .01) + (3 \cdot (8\text{mill} \cdot .02)) + (24\text{mill} \cdot .02)] \cdot 720 \text{ £} = 749 \text{ £ bill}$

Basic: $[(8\text{mill} \cdot .08) + (3 \cdot (8\text{mill} \cdot .13)) + (24\text{mill} \cdot .1)] \cdot 300 \text{ £} = 1.848 \text{ £ bill}$

Total: £2.6 billion



Conclusion

No, opening gyms in the UK is not attractive for the client.

Although the market is large, it is already saturated. In addition, there are few synergies that the company can transfer from the Spanish to the UK market. The client has a disadvantage to current UK market players

Question 3: Is opening gyms in the UK an attractive option for the client?

Suggested Solution

- Market size is large, however need many physical locations to reach this market (high costs)
- Highly capital intensive industry (considering client is opening up his own gym business and not franchise gym)
- Location of gyms is key to attracting customers
- Opportunity Cost: good ROI on the investment funds? May be better to use investment funds to start another type of business, such as shopping mall, etc.
- Competition: UK gym market is highly saturated
- Brand: client brand is not known in UK and brand awareness must be established

Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Situation

Your customer is a US software developer, who wants to start selling professional collaboration/file management sharing tools internationally. These tools are sold as a software package; they enable users to share files, instant message, hold meetings electronically, and video chat.

The market for this software would mainly consist of business customers, including SME and large corporations. However, this software will also be sold for personal use. The client is deciding into which market to launch this product.

Question 1: What factors should be considered when selecting the target market internationally?

Suggested Solution

Demand:

- Number of corporations and SME's within the country
- GDP/average income: capacity of population to buy product
- Price point at which product could be introduced
- Size of population and wealth distribution
- % of population which is already using this type of software
- % of population which potentially could be won with this software

Logistical capabilities:

- Infrastructure within country

Regulation:

- Political stability
- Acceptability of foreign investment

Competition:

- Size and number of competitors
- Level of technological advancement of competitors

Question 2: Please review the information and advise which country is the most attractive and why. Please also advise which is least attractive and why.

Brazil

- Largest economy in South America, GDP: \$2.5 trillion (World's 7th largest economy)
- Population: 200 million
- Working class: increasing middle/working class
- Technological advancement: 69 in IT ranking
- Competition: local players provide spreadsheet management solutions
- Regulation: liberal regulatory climate, government open to foreign investments, preferably new companies should enter through partnership

Spain

- Economy in crisis, GDP: \$1.4 trillion
- Population: 50 million
- Working class: 25% unemployment, large elderly population
- Technological advancement: 34 IT ranking
- Competition: large businesses are using spreadsheet analysis tools, small and medium business market is not fully mature yet
- Regulation: liberal regulation, government is highly encouraging foreign investments to stimulate economy

India

- GDP: \$1.7 trillion
- Population: 1.2 Billion
- Working class: median population age is 28, large working class, increase in informal workers in formal sector
- Technological advancement: 83 IT ranking
- Competition: businesses often have custom-made IT solutions, technology is cheaply generated
- Regulation: complex, government intertwined in business, bureaucratic processes, government slowly being more open to foreign businesses

Germany

- Mature market with slow economic growth, GDP: \$3.2 trillion
- Population: 80 million
- Working class: Aging population, "moderately free" economy, labor freedom and business freedom slipping; has large presence in commerce markets
- Technological advancement: 12 IT ranking
- Competition: several high end business tools are already being used by businesses, moderate competition
- Regulation: Regulation fairly liberal, although bureaucratic processes

Suggested Solution

Brazil is most attractive due to the growing middle class and only local competition, as well as large growth potential. India is least attractive due to low GDP per capita and regulatory uncertainty.

Question 3: Please provide a summary regarding next steps to the CEO.

Suggested Solution

1. Summarize the market dilemma of the client
2. Explain which key market is most attractive (3 key reasons)
3. Recommend next steps for the client:
 - a. Evaluate the new market further
 - b. Brainstorm few ideas of entry strategies
 - c. Risks and potential ways to mitigate those risks



Conclusion

Brazil is the most attractive market, preferably enter market through partnership for credibility in local culture, manage possible risks such as corruption, etc.

Section 2

Case 2.1 Online Insurance Agent Comparison

Case 2.2 Online Food Delivery Platform

Case 2.3 Spanish Gym Retailer

Case 2.4 International Expansion Case -
Collaboration Software

Case 2.5 Bank Case





Situation

The client is an international bank with both retail and commercial operations that would like to expand into the Romanian market.

The client has retail banking operations in several other European markets.

Question 1: Our client wants to open new bank branches in Romania to serve 1 million retail clients. This client target market has average annual income and its constituents are considered to be “middle class.” The client’s goal is to become a well-known bank throughout Romania. How should the bank enter the Romanian market?

Suggested Solution

- Enter big cities first/later smaller cities
- Mold business model to target market (middle class in this case, low cost with full service offering)
- Marketing aimed at middle class market
- Open sufficient locations to increase “convenience” of bank- important for middle class

Question 2: How many branches should the client open for potential to serve 1 million clients?

Suggested Solution

1. Start with population of Romania: 20 million(client wants 5% market share)
2. Geographic dispersion of Romanian population (to be given if asked by interviewee):
**11 mill. live in urban locations, 9 million live in rural locations (rural areas=90% country)*
 - a. 2 million in Bucharest (capital)
 - b. Romania has 6 other cities with population over 200,000
 - c. Romania has 11 other cities with population over 100,000
 - d. Approx. remaining 15 million live in smaller cities
3. In order to make the business model most effective, focus on serving the central urban areas
4. Average clients served per each branch:
 - a. One teller can serve approx. 1 client/10 min/9 hour day= approx. 50 clients/day,
250 days per year= 12,500 clients/year
 - i. Teller utilization rate: 80% (tellers are unoccupied 20% of the time)
 - ii. Considering utilization, one teller serves 10,000 clients/year
 - a. Typical branch holds 3-6 tellers, serves 30,00 to 60,000 clients/year
 - i. 1m clients served among smaller branch (30,000 clients)= 33 branches
 - ii. 1m clients served among bigger branch (60,000 clients) = 17 branches

Approx. 30 branches are needed to reach 1 mill. clients

5. Branch locations could be dispersed as below:
 - a. 10 in the capital
 - b. 6 (one each) in cities over 200,000 people
 - c. 14 branches in the 14 next largest cities

Suggested Solution

30 branches to reach 1 million clients



Conclusion

Marketing tools geared towards the agricultural customers include special banking instruments and outreach techniques

Question 2 (cont.): How many branches should the client open for potential to serve 1 million clients?

Excellent response:

Interviewee should note that more than 30 branches may actually be needed to reach 1 million customers, as some additional branches may need to be opened in key locations which are less profitable and have fewer consumers simply in order to compete with other local banks and to get market share. Essentially, the bank may need to have a few underutilized or even smaller but convenient locations in order to increase its brand image in this new market. 40-50 new branch openings may be a more realistic. In addition, the interviewee should mention that the bank should consider opening stores with a variety of sizes and formats to meet the client demand in each particular target client region.

Question 3: The client's bank has a large focus on the middle class urban population. However, the bank would also like to reach the agricultural consumer, as farmers still make up a significant portion of the Romanian population. With what tactics could the bank target the agricultural consumer?

Suggested Solution

1. The client should alter its business model and strategy slightly when targeting the agricultural customer as opposed to the average urbanite
2. Offer attractive loans: farmers oftentimes need to buy large machinery and oftentimes require financing
3. Marketing format that targets agricultural segment: many Romanian farmers may not be comfortable with technology, mail offerings or phone calls or personal visits may be best marketing tools
4. Create a specialized account for farmers that includes insurance, such as crop or capital protection from natural disasters
5. Enable phone banking and travelling bankers basically visiting smaller cities in rural locations in which bank branches are not present

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Company facts

Year Established: US **1926**; Spanish office **1977**

Number of Employees: More than **19,000** total staff



Specialities

We have 22 industries and 8 functional areas



Recruiting / Interview Tips

1. The first step of our process is the Problem Solving Test (PST). The PST is a 26-question multiple choice test that will help us learn about your ability to think through the types of business problems McKinsey consultants face. The test was developed so that no business experience is required or expected. You do not need to bring anything with you and calculators are not permitted.
2. The second step of the process is the first round interview (case study and experience based interviews). During these interviews you will meet with consultants to discuss your past experiences and achievements, and you will work through case studies that are representative of the type of work our consultants do.

We look for students with any degree type and subject

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Situation

Our client has recently developed a simple, yet addictive puzzle game for mobile devices. They are considering how to maximize their revenues in the next few years. Games tend to have short life cycles. A game receives the vast majority of its revenues within a year of release.

Question 1: There are several types of business models for mobile games. Considering the brief descriptions of each model below, can you list the pros and cons of adopting each model?

Traditional	charge one-time fee for players to download onto their device
Free-to-Play	free for players to download, pay for micro-transactions (small payments) for extra lives, special items, etc.
Freemium / Advertising-Based	free for players to download, displays advertising in game
Subscription	free for players to download, pay monthly fee to continue to play (subscription usually starts after first month)

Suggested Solution

Model	Pros	Cons
Traditional	Upfront revenue does not depend on how long players continue to play after buying. More reliable sales forecasts. Possibility to change model if sales are lower than forecast.	Revenue tends to come only at the beginning of the product cycle. Less players will download due to upfront cost.
Free-to-play	Free game leads to more downloads and potentially micro-transactions. Highest revenue potential if game is a hit, as players get addicted to buying content	Players will look for ways around paying for content even if they enjoy the game. Hard to get the balance between useful in game items for sale and frustrating players by forcing them to buy items.

Question 1 (cont.): There are several types of business models for mobile games. Considering the brief descriptions of each model below, can you list the pros and cons of adopting each model?

Model	Pros	Cons
Freemium	Free game leads to more downloads. Advertising provides a steady stream of income if players are retained.	Players do not like advertising. Must focus on getting advertisers as well as players. High need for retention means continuous teasers required to entice players to remain (higher costs).
Subscription	Players like ad-free content and lower upfront cost. Steady income stream from subscription.	Higher drop-off rates as players do continue to pay if they are not playing regularly. Need to have discounts/free trial periods at the beginning which decreases revenues (revenue leakage).

Question 2: What metrics could be used to help estimate revenue for these models?

Suggested Solution

Model	Metrics
All	<ul style="list-style-type: none"> • Number of downloads • Player drop-off rate
Traditional	<ul style="list-style-type: none"> • Price of a download
Free-to-play	<ul style="list-style-type: none"> • Average number of micro-transactions per player • Average price per micro-transaction
Freemium	<ul style="list-style-type: none"> • Revenue from advertisers (cost per view? Cost per click?)
Subscription	<ul style="list-style-type: none"> • Cost of subscription – monthly? Discounts for longer periods? • Average length of subscription per player • Number of players that buy subscription after trying game

Facts to be Provided

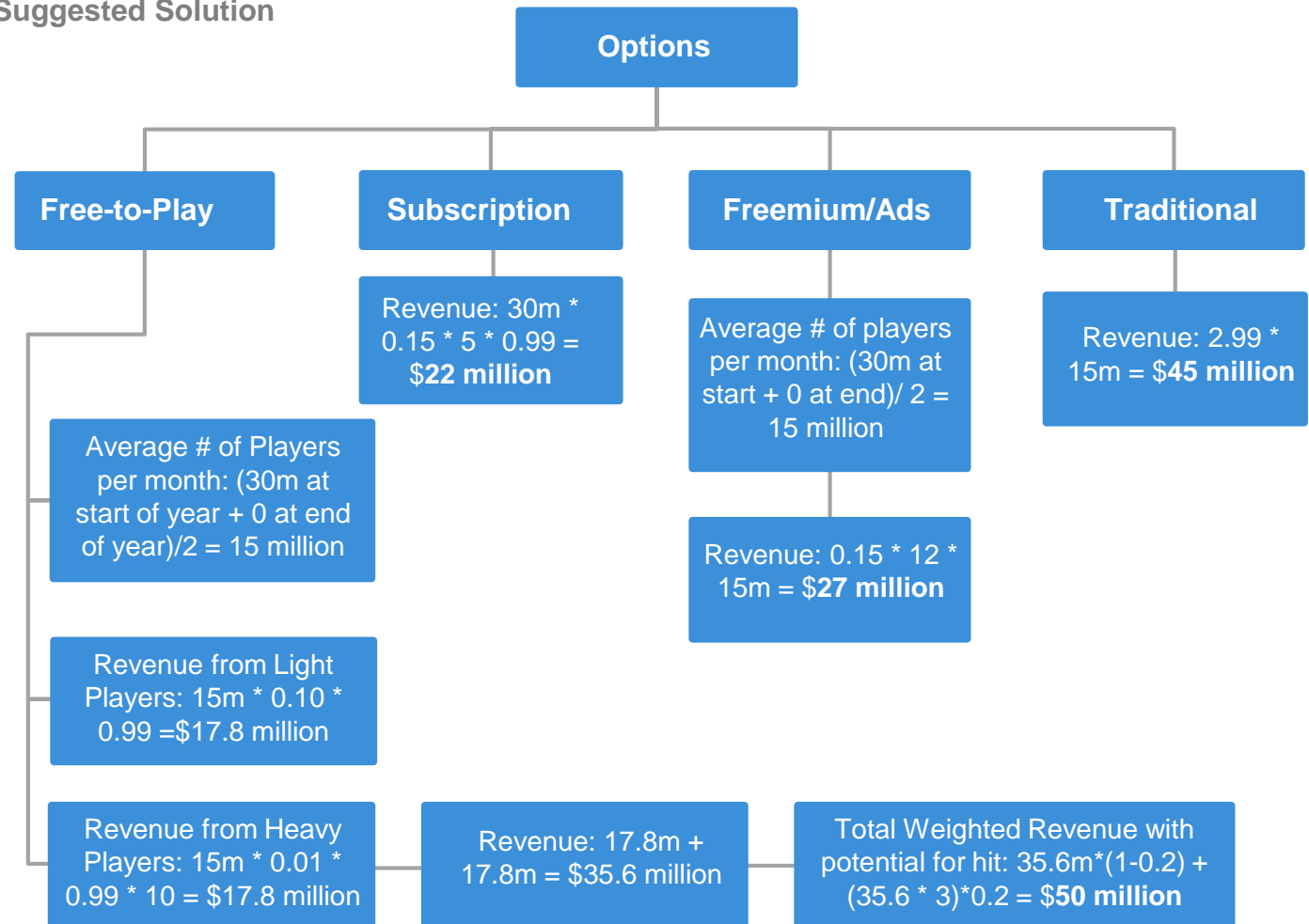
Overall: the lifecycle of a game, especially a mobile version, is very short compared to other products. Therefore, except for a few huge hits (like Candy Crush Saga), the vast majority of revenue will be captured within a year. Make your calculations with this in mind.

Question 3: The client has estimates for downloads and pricing strategies for each business model. Calculate the potential revenues for each option and suggest the most attractive option

Traditional	<ul style="list-style-type: none"> • Downloads: 15 million • Price: \$2.99
Free-to-play	<ul style="list-style-type: none"> • Downloads: 30 million within first month • Price/Micro-transaction: \$0.99 • The first month has the most downloads, then the number of players using the game drops steadily and consistently over a year • Light Players (10% of players): Buy an average 1 item/month • Heavy Players (1% of players): Buy an average 10 items/month • If game is a hit, then revenue is tripled. • Chance of a Hit: 20%
Freemium	<ul style="list-style-type: none"> • Downloads: 30 million within first month • Revenue from Advertisers: 0.15 cents a month per user (number of users averaged over the month) • The first month has the most downloads, then the number of players using the game drops steadily and consistently over a year
Subscription	<ul style="list-style-type: none"> • Downloads: 30 million total • Subscription Price: 0.99 cents per month • Percentage of Players that start subscription: 15% • Average Life of Subscription: 5 months

Question 3 (cont.): The client has estimates for downloads and pricing strategies for each business model. Calculate the potential revenues for each option and suggest the most attractive option

Suggested Solution



Excellent Response

1. Noting that choosing the Free-To-Play model depends on having a higher risk tolerance, as the revenues are only greater if the game is a hit
2. For using the hit probability to determine the Free-to-play revenue potential

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Situation

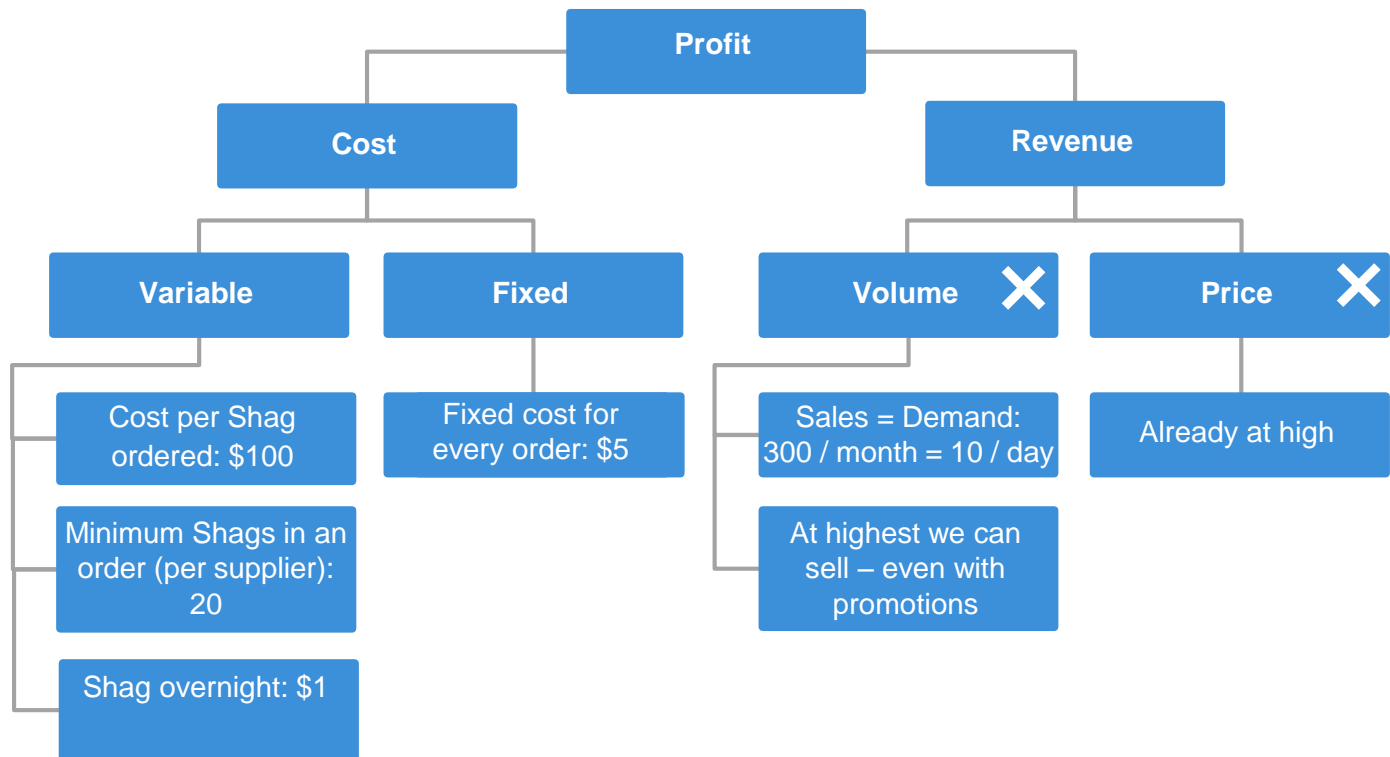
Our client owns a specialty carpet store. One of their most popular items is the chartreuse shag carpet. However, they would like to improve their profit on this product.

Question 1: Please evaluate some possible ways to improve their profit

Suggested Solution

Interviewee should break the problem down into price, volume, and cost. Using the chart below, direct their answer towards cost.

Provide the below only if requested and necessary:



Facts to be Provided

The data in the graph in Question 1

Provided EOQ formula if needed (interviewee is not expected to know the formula):

EOQ formula = $\sqrt{\frac{2 \times \text{Demand} \times \text{Order Cost}}{\text{Holding Cost}}}$

Question 2: The client has discovered that a pile-up of inventory and high ordering costs can be blamed for the low profits on their carpet. Could you think of some ways to reduce these costs?

Suggested Solution

- Order less inventory using demand forecasts as guides
- Work with supplier to reduce order costs
- Reduce cost of inventory storage

Question 3: The client has decided to optimize its inventory ordering costs by calculating the optimal amount of carpets to order to keep inventory at the lowest cost level. Calculate this value.

Suggested Solution

10 Shag Carpets in Inventory

Interviewee should either use the EOQ formula or logic. An *example* of possible logic would be to use something like the tables below to determine EOQ:

Order 20 Carpets at a time	Day 1	Day 2	Day 3
Shags in inventory	20	10	20
Cost (\$)	5 (order cost)	10 (cost to store 10 carpets)	5 (order cost)
Remaining inventory	10	0	10

Order 10 Carpets at a time	Day 1	Day 2	Day 3
Shags in inventory	10	10	10
Cost (\$)	5 (order cost)	5 (order cost)	5 (order cost)
Remaining inventory	0	0	0

Question 4: What is your final recommendation to the client for lowering costs?

Suggested Solution

Interviewee first should summarize information then suggest possible strategies:

- Convince supplier to reduce the minimum order to 10 carpets
- Lower inventory storage cost to \$0.50 per day



Conclusion

In order to lower costs, client should reduce minimum order size and lower inventory storage cost

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Situation

Our client is interested in starting an online ice cream delivery shop.

Question 1: What factors should you consider with this type of business?

Suggested Solution

Internal Factors / Value Chain

Supplier Types

- Local ice cream shops
- Third party bulk ice cream distributors (wholesalers)
- Buy ice cream at store and store in freezer for internally controlled distribution

Distribution

- Rely on local shops (similar to online florists)
- In company owned freezer trucks

External factors / Market

Advertising

- Where to advertise?
 - Bonus for suggesting real potential options like Google AdSense
- Which markets and segments to target?

Delivery Methods

- Rely on local ice cream shops (similar to online florists)
- In company owned freezer trucks

Competitors

- Market Size (will people order ice cream online, and why?)
- Grocery stores and other brick and mortar ice cream shops

Seasonality

- Can you achieve sales year round or only during hotter months
- Changing flavors, and therefore inventory, for the time of the year

Question 2: Estimate the market size (in \$) in the United States for online ice cream delivery (averaged over the year)

Suggested Solution

- Determine population of country (*To be provided if asked: approximately 300 million*)
- Calculate portion of population that eats ice cream
 - There are many types of ice cream and it is a popular food item
 - Roughly half of the population eats ice cream regularly, and it is evenly distributed across income, age, and gender (*interviewee should provide*)

$$= 50\% * 300m = 150 \text{ million}$$

- Find part of population that would be willing to order ice cream online
 - 20-30 year old population is more likely to order online, especially for gifts
 - Average life expectancy is around 80 years, so percentage of population in the target age range would be $(30-20)/80 = 12.5\%$
 $= 12.5\% * 150m = 18.75 \text{ million}$
 - Percentage of this age group population that would order online is 20%

$$= 20\% * 18.75m = 3.75 \text{ million}$$

- Estimate the average size of the order (price per order) to find the total market size (note: exact numbers are not important, provide them if asked)
 - Customers are likely to order larger quantities if ordering online due to delivery costs
 - Average price of normal pint is around \$3 (to be provided if asked)
 - Average online order is 2 pints, giving an average order of \$6
 - Average person orders once or twice a year

$$= 4 \text{ million} * \$6 * 2 = \$48 \text{ million}$$

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Situation

Potato Peeler, Inc. is looking to buy out its competitor, Potato or Bust (POB). POB is profitable and is expected to have steady, continued growth for the foreseeable future. POB has offered to sell for \$650 million.

Question 1: What are some methods for valuing Potato or Bust?

Suggested Solution

- Discounted Cash Flow
- Comparables / multiples from similar companies
- Multiples such as price to earnings ratio, price to sales, assuming that information is available

Question 2: Using a simple DCF, is an acquisition at POB's price of \$650 million a good idea?

Suggested Solution (Basic) *Only Provide Below Information if Asked*

- Discount Rate (WACC): 11%
- Growth Rate: 3%
- Yearly Cash Flow (for foreseeable future): \$50 million

Simplified Discounted Cash Flow = Perpetuity = Cash Flow / (Discount Rate – Growth)
= 50 / (0.11 – 0.03) = \$625 million

The asking price of \$650m is not a good deal.

Suggested Solution (Advanced)

Use this version if interviewee should know how to calculate the WACC. Only Provide if Asked (NOTE: could add a couple of years of differing cash flows if want question to be more complex)

Market Risk Premium: 8%	Potato Or Bust's Beta: 1	Percentage of Debt: 20%
Risk Free Rate: 5%	Tax Rate: 30%	Cost of Debt: 5%

- Cost of Equity = Risk Free Rate + Beta * Risk Premium = 5% + 1 * 8% = **13%**
- WACC = % of Debt * Cost of Debt * (1 – Tax Rate) + % of Equity * Cost of Equity
 = 20% * 5% * (1 – 30%) + 80% * 13% = **11%**
- The DCF valuation is the same as the basic version from this point, resulting in a lower valuation than the asking price.

Question 3: Can you think of risk factors or other considerations that could be taken into account when making the buyout decision?

Suggested Solution

1. The Discount Rate is quite high, is it possible that POB is less risky and deserves a lower discount rate?
2. Can Potato Peeler add any value to POB that will increase cash flow, lower costs at Potato Peeler, or add other synergies that might increase the value of the acquisition?

Section 3

Case 3.1 Video Game

Case 3.2 Shag Carpet

Case 3.3 Ice Cream Shop

Case 3.4 Potato or Bust Buyout

Case 3.5 MNO's Factory Funding



Situation

Company MNO needs some capital to build a new factory. Demand for their products is high and this factory will let them meet this demand.

Question 1: What are the potential funding options?

Suggested Solution

- Equity (issue stock/shares)
- Short term or long term debt
- Hybrids like debt convertible to equity (Coco bonds) (advanced)

Question 2: Given the information below, what is the most attractive option and why?

Facts to be provided:

Debt (Currently 70%)

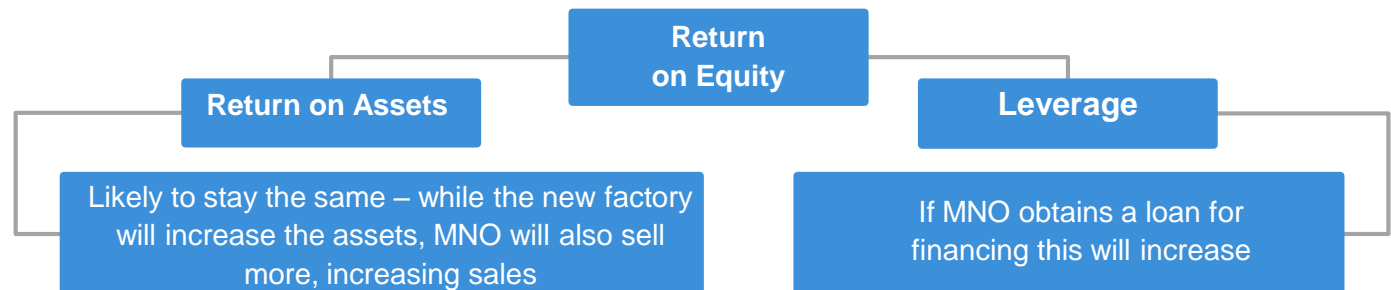
- Short term loan: 3% with cash payments of \$7 million per year
- Long term loan: 6% with cash payments of \$2 million per year
- Getting the loan will increase percentage of debt to 75%

Equity (Currently 30%)

- Current Return on Equity is low compared to the industry
- Getting new equity will increase the percentage of equity to 42%

Suggested Solution

Due to the low return on equity, a loan seems like a better idea, although MNO is pretty highly leveraged already. Since the capital is for a long term asset (factory), then the loan should also be long term. A long term loan should also help MNO meet their interest payments as the payment amounts will be lower.



Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center



Company facts

Year Established: **1984**

Number of Employees: **3,500** global staff



Specialities

Automotive, Aviation, Aerospace & Defense, Business Services, Communications, Media & Technology, Distribution & Wholesale, Energy, Financial Services, Health & Life Sciences, Industrial Products, Retail & Consumer Products, Surface transportation



Recruiting / Interview Tips

- Use some time (1-2 minutes) to prepare the structure of the case before beginning with the calculations
- You are expected to generate hypothesis and educated guesses when hard data is not available
- Your hypothesis may be challenged. Do not take as a negative sign, as it is a way for the interviewer to check your assumptions.
- “Think aloud”: the interviewer cannot know the reasoning behind your notes unless you explain it to him
- Ask any doubt you have – you are not supposed know everything and asking relevant questions is a plus
- Do not try to boil the ocean! Focus only on the most relevant issues of each question and apply the 80/20 rule
- Be prepared to do calculations on the top of your head
- Most times there is no right answer, so focus on the approach, not just on the result
- If you feel you are stuck or you are not doing the right analysis, raise your concerns and propose a new line of reasoning
- Write down clear notes of the different steps, assumptions and conclusions
- Ask the interviewer for feedback: it will help you to identify your errors and therefore improve your chances to pass interviews

Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center



Situation

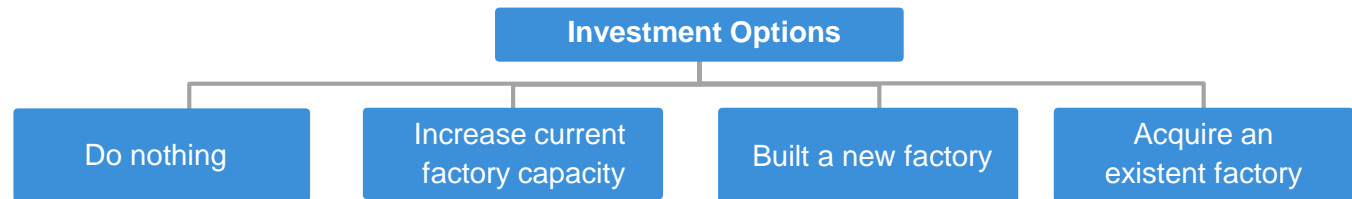
A fertilizer factory installed in the extreme border of a continental country has been running at full capacity in the last year. The current market growth represents a relevant opportunity to the business.

Candidate should recommend one of the alternatives to develop an additional analysis

Question 1: The CEO wants to take advantage of this trend to grow the business, but he is concerned about the production capacity and asks you for advice.

Suggested Solution

Candidate must start a qualitative analysis about the options:



Possible qualitative Insights

- Efficiency at a factory level driven by high utilization rates
- Risk of options, no investment means lower financial leverage
- Realization of scale economies (is this a market with high or low scale economies potential?)
- Limited growth → Limited value
- Too small to compete? (is it a market with high or low concentration?)

Candidate must start a qualitative analysis about the possible options, listing pros/cons

Full capacity dilemma	Do nothing	Increase	Build	Acquire
Short terms margins	✓	×	×	=
Long term margins	×	=	✓	=
Risk	✓	✓	×	×
Potential reward	×	=	✓	=
Market conditions	=	✓	✓	✓

Ticks and crosses are illustrative, different rationales can lead to different outputs. E.g. Acquisition is high risk or low risk? Could be high because of the financial risk, or could be low from an operational perspective, since it involves acquiring a business which is already running (operations, clients, etc.), compared to building a new factory

To be Provided

Market growth rate:
15%/year

Good Response

Candidate must consider
Current capacity + New
factory capacity

Excellent Response

- Candidate must realize that forecast of market demand will represent that factory will operate at full capacity again in year 5
- Candidate must recommend construction of new factory.
- Reasons: supply demand and reduced costs

Question 2: After this high level analysis, the CEO believes that capacity increase and build are the two best options, so let's run some numbers to decide what would be the optimal option. He wants your advice to weather increase the current factory capacity or to build an additional factory.

Only provide if asked:

- Initial Investment new factory: R\$ 300 Mn
- Actual Capacity – 750 ton/dia
- New factory capacity – 750 ton/dia
- Incremental Variable Cost of actual factory (logistic)– \$3/ton

- Actual factory is located far from the customer market
- Market share stays the same
- Production variable costs are the same in both cases (apart from transportation ones)
- Financial costs are not included in the calculation

Suggested Solution

Market growth rate	15%
	Demand (tones)
Year 1	224,250
Year 2	257,888
Year 3	296,571
Year 4	341,056
Year 5	392,215

	Current Factory	New Factory
Actual Capacity (ton/day) (a)	750	0
Additional Capacity (ton/day) (b)	300	750
Total Capacity (ton/day) (c=a+b)	1050	1500
Work days/year (d=5*52)	260	260
Capacity/year (ton) (e=c*d)	273,000	390,000
Additional Capacity/year (ton) (f)	78,000	195,000
Investment (\$ Mn) (g)	100,000	300,000
Variable Cost due to transport (\$/ton) (h)	3	
Additional Variable Cost due to transport (\$/year) (i=f*h)	234,000	0
Fixed Costs + Variable Costs (j=g+i)	334,000	300,000

Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center



Situation

A supermarket offers a price promotion in a specific brand of milk powder for babies. The Chief Marketing Officer affirms that the price reduction is a profitable initiative. The demand for milk powder is quite stable and there are several brands in market

Question 1: The CEO suspects that the price promotion is not a good idea and asks you support to evaluate it.

Only provide if asked

- Initial Price: \$10
- Discount: 25%
- Initial profit margin 50%
- Initial volume: 150
- Additional volume due to the promo: 150
- Additional traffic does not reflect in more purchase of other products of the supermarket.

Suggested Solution

Candidate should consider the profitability analysis of the initiative

	Price/unit (\$/unit) (a)	Discount (b)	Profit Margin (c)	Profit (\$/unit) (d=a*c)	Costs (e=a-d)	Volume (g)	Profit (\$) (h=d*g)
Regular Scenario	10	25%	50%	5	5	150	750
New Scenario	7.5			2.5	5	300	750

As the volume of short-term profits is the same for both options, the candidate should explore additional pros and cons to assess the promotion:

- The promotion will not increase the market volume for feeders due to the stable nature of their demand. Exceptions: if promotion is able to shift demand to the feeders market, from one of its substitutive goods
- Products for babies have price elasticities much lower than average so the volumes of the promotion could be challenged
- If the promotion does not increase overall demand, it will have two different effects:
 - Steal market share from competitors; in this case, there is potential for customer acquisition
 - Reduce future demand as consumers stock up, as consumers can foresee future product needs; in this case, short-term profits will be the same, but the promotion will cannibalize future sales, hence reducing mid-term profits
- Additionally, such a promotion would entail additional costs (advertising, labeling, changes in billing systems, etc.)
- Based on the previous items, the candidate should evaluate if the promotion is beneficial or not

Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center

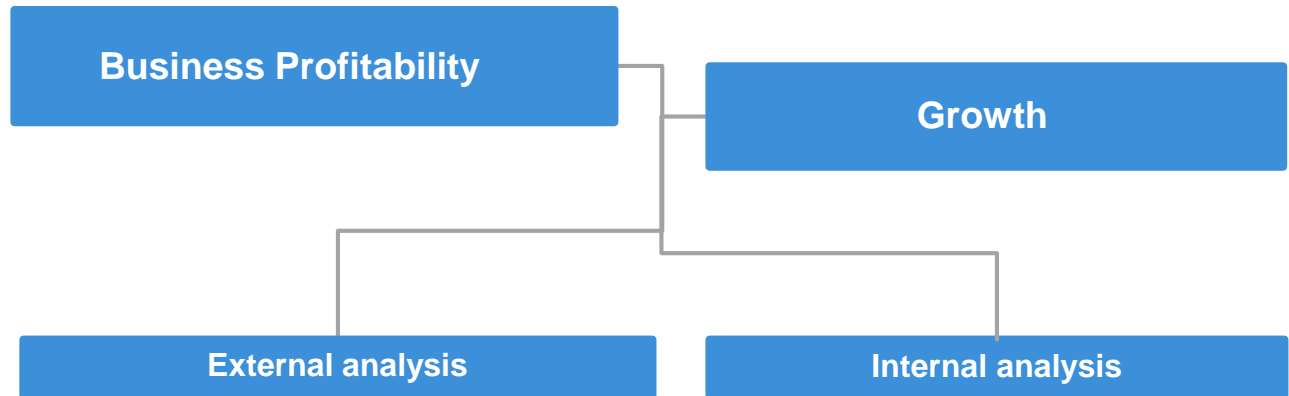


Situation

“Energin” is a provider and distributor of electricity in Spain. The company wants to enter in the distribution of energy to electric vehicles (cars and motorcycles).

Question 1: How would you structure a study to see the business attractiveness and what elements and factors would you consider in this analysis?

Suggested Solution



Customer <ul style="list-style-type: none"> Market size of electric cars in Spain (current, growth, fleet renew) Segmentation and specific needs Price elasticity Preferred distribution channel 	Company <ul style="list-style-type: none"> Current capabilities on which to leverage (customer base, presence in distribution channels, brand, size, capacity to invest)
Competitors <ul style="list-style-type: none"> Number of competitors, degree of competition, characteristics of the competitors (offering only power for cars or vertically integrated energy operators), current market dynamics, potential alliances 	Product <ul style="list-style-type: none"> Nature of the product, Stage of the lifecycle Identify substitutive and complementary products Potential for differentiation, etc

Question 2: How many electric charging stations are needed to supply the Spanish electric vehicle market?

Provide when asked (interviewee should guess figures prior to data being provided):

- Many people have at home charging stations they use to charge their vehicles, on-road recharging stations are used sparingly as needed
- Spanish population: 48 million
- 60% of all people in Spain have a vehicle
- 0.2% of all vehicles in Spain are electric vehicles
- On average, each vehicle is charged every 5 days
- Avg. number of plugs per charge station: 2
- Avg. charge time: 1 hr.
- Recharge station utilization: estimate that plugs are only used at 30% capacity

Spain population	48,000,000	Avg. number of plugs per station	2
Spanish owning vehicles	28,800,000	Avg. charge time/plug	2 hr
Spanish driving electric veh.	57,600	Recharge station capacity utilization	30%
% Elect. veh. charged daily	20 %	# elec. vehicles/station/day	7
# Elec. vehicles that need to be charged daily	11,520		

$$\# \text{ Elec vehicles} / \# \text{ veh charged /station} = 11,520 / 7$$

Approximately 1,600 charging stations

Excellent response

- Mention the fact that electric recharge stations are not as widely available as regular gas stations, assume availability in the 20 biggest cities in Spain, therefore not evenly spread among population

Response

Approx. 1,600 electric car charging stations are needed

Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center



Situation

Your client is a producer of furniture and wooden panels. The client is the local market leader. The CEO is concerned about the growth of the ready-to-assemble furniture market and the loss of market share in the last years.

Question 1: CEO wants to understand what could potentially be the main drivers of the loss of market share in the past few years

To be provided:

- Company produces not only ready to assemble furniture but also other items made of wood.
- Main competitors produce in China
- Factory sells to other manufacturer factories, distribution chains (retail)
- Sector is composed by small local players

Suggested Solution

External Analysis

Competitors

- Number of competitors
- Characteristics of the competitors (Low cost of Chinese products, margins for retailer, current market dynamics, potential alliances)



Strong competition and threat of substitutes

Customer

- Behavior of new consumers (need more convenience, less costs)
- Segments and how they differ in terms of needs,
- Price elasticity



Reduced cost of Chinese products might be a driver

Question 2: Considering that price is one of the largest drivers of a purchasing decision and that lowering the price may significantly increase sales, estimate the costs involved in both options to determine the break-even price to cover costs in each option.

Only provide if asked:

Cost is a driver:

- Price of Chinese panels in the market: \$ 200
- Retail = 15% of margin
- Cost to produce panel local \$ 100
- Cost of final panel local \$130
- Other costs (logistic, distribution, pieces..) = \$70

There is no need to explicitly tell the interviewee the values for each parameter. The interviewer may ask the interviewee for an approximate estimation (and use it if reasonable). If the analysis reflected an inconsistent / non-intuitive result, ask the candidate to review the numbers to identify which hypothesis may be not accurate

Question 2 (cont.)**Suggested Solution**

Price of Chinese wooden panel in the market (\$)	200
Retail Margin	15%
Cost of Chinese wooden panel in the market	170
Cost of wooden panel producing in-house	100
Costs of other RM producing in-house	30
Distribution costs	70
Total cost of local product	200
Retail price of local product	~235

Response:

The difference 200 vs 235 between the competitors' and the company's offer is a relevant factor in the purchase decision by the consumer.

Question 3: What are the options to reduce costs? What is your advice?**Suggested Solution**

Candidate should brainstorm possible ways to reduce costs, and if moving the production to China was one of the proposed actions, the different options to implement it should be considered with the pros and cons

Cost reduction options	Keep with local manufacturing	Split production Local/China	Outsource Production
Cost reduction	×	✓	✓
Speed to market	✓	=	×
Investments	×	=	=
Control / Risks	=	=	×
Overall market advantage	=	✓	✓

Recommend to outsource part of production to China to reduce costs and continue to produce more premium products locally

Excellent Solution

Asses implications of the outsource:

What parts of the value chain can or cannot be offshored (considering price, quality control, brand image, intellectual property, key functions for differentiation, value contribution by function, etc.)?

Section 4

Case 4.1 Fertilizer Factory

Case 4.2 Supermarket Discount

Case 4.3 Electric Vehicle Charge Stations

Case 4.4 Wooden Panels

Case 4.5 Structuring a Call Center



Situation

Some car manufacturers have a banking operation to support the purchase of its cars. One of these banks started to finance the vehicles to final consumers in Brazil.

They want to structure a call center for these new clients and hired you to help.

Question 1: Estimate how many attendants are necessary in the call center.

Only provide if asked:

- Just inbound calls: it receives call of current customers only. No need to consider prospect clients.
- As other channels can be used to access the service, assume that only 40% of the customer base utilize the call center. Consider also just one use per client.
- Manufacturer has 20% of market share
- On average, 80% of new cars are financed.
- 50% use bank of car manufacturer.
- On average the financial service is provided for 48 months
- On average, clients buy a new car every 4 years
- 1 call = 5 min
- Each attended works 6h/day
- Call center operates 5 day/week, 6~20h
- Consider at least 2 shifts per day
- Rate People/family = 4
- Rate Car/Family = 1
- Family change cars are every 4 years (new vehicles)

Suggested Solution

Market Size

Population (a)	200.000.000
Family (of 4) (b=a/4)	50.000.000
High Income families (c)	10%
Medium Income families (c')	50%
Potential families of customers (d=b*(c+c'))	30.000.000
Families that buy a new car (e)	60%
# years on average that a consumer wait to purchase a new car (f)	4
New cars sold every year (g=d*e/f)	4.500.000

Manufacturer's mkt share (h)	20%
Cars sold (i=g*h)	900.000
Financed cars (%) (j)	80%
Financed cars (units) (j'=i*j)	720.000
Cars financed by manufacturer's bank (%) (k)	50%
Cars financed by manufacturer's bank/year (units) (k'=j'*k)	360.000

Customers base (l=f*k')	1.440.000
Assuming that 40% of the customer base makes call (m=l*40%)	576.000

Average minutes/call/attendant (n)	5
Hours worked/attendant/day (o)	6
Days worked/attendant/week (p)	5
Calls/week/attendant (q=60/n*o*p)	360
Calls/year/attendant (r=q*52 weeks)	18.720

Attendants needed (s=m/r)	31
----------------------------------	-----------

Question 2: Now the bank wants to estimate operations of the call center working 24h/day and 7days/week. How many employees should be hired? (Employees working 7 days a week now)

Suggested Solution

Assuming fixed demand...

Total Demand per year (min) ($t=m*n$)	2,880,000
New days worked/attendant/week (u)	7
Total supply per attendant per year (min) ($v=52*60*o*u$)	131,040
Attendants needed ($x=t/v$)	22

Response: Assuming fixed demand, the call center can work with only 22 employees, BUT: this assumes that every attendant works 7 days/week with no vacation

The candidate should proof to be able to understand the different processes and constraints in a call center, and how these affect overall productivity, rather than just calculating values

Excellent Response:

- Assuming there are some peak hours, candidate can increase the number of attendants to 25 or 26 (candidate must comment about the variation of inbound call distribution – working days/weekends/holidays/sleep time)
- The candidate may propose intermediate solutions (7 days per week, but not 24h), since working hours from 22h to 7h should have almost no inbound traffic.
- Inbound calls to the call center include customers and potential customers (who call to ask for information but finally don't become clients). They are not included in the calculation.
- As time/call is assumed to be 5 minutes, no unproductive or administrative time is considered and therefore might be a concern raised by the candidate.
- After contacting a client, some work may be required, introducing data to the system, etc.

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

Case 5.3 Fast Food Chain

Case 5.4 Industrial Packing

Case 5.5 Life Insurance



Company facts

Year Established: **1914**

Recruiting contact: **Mariluz Espinosa** Spain.recruiting@strategyand.pwc.com

Number of Employees: **3,000** Global staff in 57 offices

Strategy& is a global team of practical strategists committed to helping you seize essential advantage. We do that by working alongside you to solve your toughest problems and helping you capture your greatest opportunities. We bring 100 years of strategy consulting experience and the unrivalled industry and functional capabilities of the PwC network to the task. We are a member of the PwC network of firms in 157 countries with more than 184,000 people committed to delivering quality in assurance, tax, and advisory services.

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

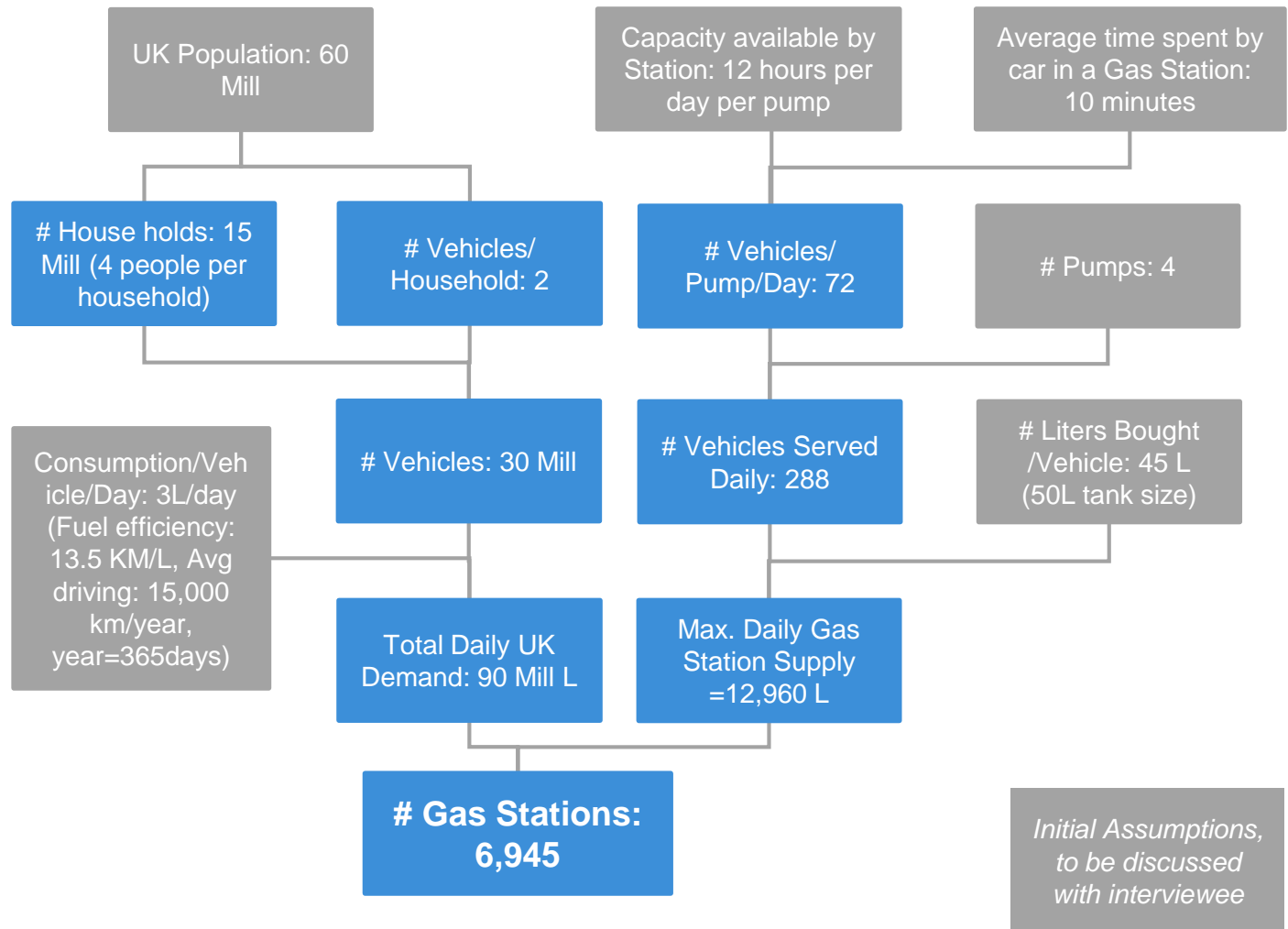
Case 5.3 Fast Food Chain

Case 5.4 Industrial Packing

Case 5.5 Life Insurance

Question 1: What is the minimum number of gas stations in the UK in 2014?

Suggested Solution



Case Approach

Please note that this case can be solved via the **Top-Down Approach** by starting the analysis with the number of gas stations observed in a location and scaled to whole country.

On the contrary, the above **Bottom-Up Approach** can be used. It may be beneficial to ask the interviewer which approach is preferred.

Points to be noted and evaluated by the candidate:

- The candidate must specify the average capacity used per Gas Station
- Also the candidate should indicate the average time spent by car in the Gas Station
- Candidate could check number of Gas stations per square meter
- Candidate could check number of Gas Stations per habitant

Suggested Excellent Solution

- In the calculation of number of vehicles some additional insights could be used
 - Number of rental cars
 - Number of taxis
 - Number of trucks
- Knowing that the number of Petrol stations in the UK has been declining (from over 12,000 in the last decade) due to the fact that: 1) small players can't compete with large players 2) increasing focus on sustainability and lesser use of car transportation 3) rising costs of oil causes consumers to buy less.
- Some remote towns should need to be covered by a gas station, even though the demand would be really low. This could increase the analysis by a 5 – 10%
- Also it is important to note that in some countries the calculation for fuel consumption is by calculating the average consumption per 100 Km (e.g. 6 liters per 100 Km / 50 km per day → 3 liters per day)

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

Case 5.3 Fast Food Chain

Case 5.4 Industrial Packing

Case 5.5 Life Insurance



Situation

Your client, a concrete manufacturer is considering acquiring a small local firm which is also active in the concrete manufacturing industry

Question 1: What factors should be considered? After considering these factors, would you recommend the acquisition?

Only provide if asked:

01

Client information

- 20% profit margin
- Barcelona based
- Economies of scale in operations
- Customers are big construction companies – commercial buildings, infrastructure

02

Target company information

- Barcelona based
- 10% profit margin (expected to remain 10%)
- Customers are small business, local owners, contractors of individual houses
- Has a strong network of loyal customers
- Expected sales to double post acquisition

03

Market

- Commercial market saturated
- Smaller house-hold construction market is growing

04

Financing the acquisition

- Bank financing at an interest rate of 10%
- Acquisition price at 3 times the sales target of the firm pre-acquisition

Suggested Solution

Acquisition price = 3 x Sales

- **Financial Perspective:** Interest paid to the bank = $10\% \times \text{Acquisition Price} = 30\%$ of Target Sales before acquisition. However the profit margin of target company remains 10% of Sales after acquisition, which means that the profit margin of the target would not be big enough to cover the full interest payment. Since the interest payment will be worth 30% Sales, with the target's margin of 10% of its Sales, 20% of Sales worth of interest payments will not be covered by the target's profit margin. Hence financially the acquisition does not look attractive because the expected profit is not enough to cover interest expenses, even with expected doubling of sales post-acquisition, unless:

The client manages to renegotiate the loan with better conditions. In particular he needs to calculate the maximum interest rate in % he would be willing to pay. Critical point will be when Expected Profit \geq Interest Payments

There are improvements in sales due to economies of scale and economies in processes from the client, which could make the economics different

- **Strategic Perspective:** But from a strategic perspective our client can leverage the target company's networks - access to raw materials and to final customers critical. Additionally, process and technology can bring additional efficiencies in terms of fabrication costs. Geographical proximity and cultural similarity are added advantages and can ease the integration process. With all these reasons, on a strategic perspective the acquisition could be recommended, as it would allow diversification in the customers and revenues.
- **Economic Considerations:** However, market competitiveness and especially economic cycles or downturns should be carefully considered, analyzing both the future perspectives for both lines of incomes: (1) commercial buildings and infrastructure business, and (2) the individual houses business.
- **Recommendation:** If the acquisition was to happen in 2009 after the financial market crisis, the recommendation would be NO. If it were today, maybe (depending on your optimism about economic recovery)

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

Case 5.3 Fast Food Chain

Case 5.4 Industrial Packing

Case 5.5 Life Insurance



Situation

Your client, a fast food chain owner, has purchased a meat-processing unit to introduce fresh hamburgers to the customers. Cows either walk or run into the processing unit to begin the hamburger meat production cycle.

Question 1: The client is not clear whether to have the cows walk or run into the processing unit. Can you guide him?

Suggested Approach

1. Understand the capacity (meat produced) via both the scenarios
2. The cost implications
3. Estimate the demand

Finally take a decision which scenario suits the demand facts to be provided:

- 3 step process: cow enters, meat is processed, and meat is delivered to the fast food centres
- Each cow can make 25 hamburgers
- Shop open 8 hours, 5 days a week, 4 weeks in a month

Only provide if asked:

- If a cow walks: 10 cows can be processed in 1 hour
- If a cow runs: 20 cows can be processed in 1 hour
- Number of chains the unit serves: 5; Assume each locality has a population: 70,000. Only one chain on each locality.
- 3 competitors equal market share: 25%

Excellent Response

Mention that running the cows helps to lower unit cost of meat production (costs drop by 7 cents/hamburger)

Suggested Solution**1. Understanding the capacity**

- Number of hamburgers produced when the cow walks, in a month = $10 \times 8 \times 5 \times 4 \times 25 = 40,000$
- Number of hamburgers produced when the cow runs, in a month = $20 \times 8 \times 5 \times 4 \times 25 = 80,000$

2. The cost implications

Only provide if asked:

Processing and Overheads cost estimates for both the scenarios

	Walk	Run
Processing & Labour	24,000	48,000
Overheads	20,000	35,000
Total Cost	44,000	83,000
Cost per burger	1.1	1.03

3. Demand can be estimated as follows:

Total demand: $5(\text{chains}) \times 70,000(\text{area})/4$ (equally distributed among competitors) * 40% (target age group) * 1 (eat one burger per month) = 35,000

→ This demand can be **managed with “walk”** to maintain the freshness of meat.

Alternative approach:

1. Calculate potential customers (on targeted age group): $5(\text{chains}) \times 70,000(\text{area})/4$ (equally distributed among competitors) * 40% = 35,000
2. Elaborate a bit more on consumption patterns for targeted group. E.g.:
 - Children: Maybe not all children are allowed to eat hamburgers? Then estimate # of hamburgers eaten per month on average
 - Adults: estimate # of hamburgers eaten per month on average

Final Recommendation

1. Although looking through the production point of view, it seems to be worth to have the cows running into the process unit (lower unit costs by 7 cents/hamburger), the recommendation is to just to walk the cows. Analysis shows that the demand is lower than the capacity, therefore no matter whether cows are running or walking, the increase in Total Costs which results from the implementation of the running scenario is an unnecessary cost with the current demand.
2. As there is excess capacity and the potential for per unit cost savings when larger volumes are produced, the client should consider methods to increase demand, such as the below, to be able to leverage production economies of scale:
 - Invest in marketing efforts for the burgers
 - Create industry partnerships so that the burgers can be sold in more restaurants/chains.
 - Rent production capacity space to a third party

Final Recommendation

Cows should walk through process unit and company should aim to increase market demand to be able to capitalize on economies of scale.

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

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Case 5.5 Life Insurance



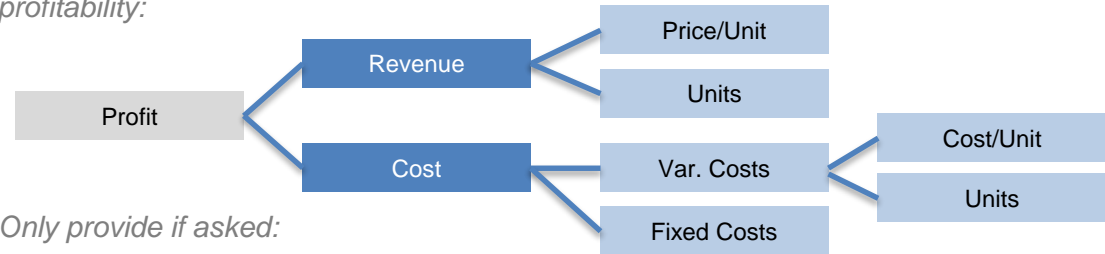
Situation

Your client – Company BL - needs help to improve the company's industrial packing unit profitability. Industrial Packing (IP) is a business of manufacturing and selling of steel barrels. Barrels are cylindrical in nature and mainly used for packing liquid products for transportation or storage of products

Question 1: What are the characteristics of IP industry that help drive profitability?

Suggested Approach

Candidate should assess the drivers evaluating each of the elements that affects the profitability:



Only provide if asked:

Revenue:

- What is the current price comparing to the market (premium/average/low cost)
- What is the demand elasticity? What drives the demand?
- Does BL have any differentiated positioning/asset (patent/ distribution channel)?
- Does BL have any volume fluctuation? Why?
- How is the rivalry and entry barriers in this industry? Not a patented product, low Capex requirements, easy access to raw material
- Customers: Want suppliers with an ability to meet flexible demands? Tendency to shift to light weight substitutes (easily available)? Are customers willing to pay premium for superior quality?

Costs:

- Variable costs: What are BL's variable costs? Raw material (steel), shipping, energy?
- Fixed costs: What are BL's fixed costs? D&A, capital costs and R&D might be drivers
- Supply: High fluctuation in steel prices, limited suppliers.

Thus in IP industry two of the main profitability drivers are:

1. Ability to utilize capacity and manage demand peaks
2. Provide high quality product and service

Question 2: Your client agrees with these drivers. Now what are the important aspects that should be considered in the supply chain to manage demand fluctuations and maintain quality?

Inbound Logistics	Production	Outbound Logistics	Sales & Marketing	Customer Support
1. Strategic alliance with supplier: long term contracts to hedge price fluctuations	1. Aim for product quality certification	1. Own transportation vehicles to manage demand	1. Ability to manage short notices to lower customer switching	1. Develop customer loyalty programs to stabilize demand and price
2. Proximity to steel suppliers	2. Spare Capacity for peak seasons		2. Promote the BL brand	2. Involve customer in product development to increase loyalty
	3. Warehouse cost optimization			

Question 3: BL is particularly interested to prioritize between costs of over stock to manage demand variability vs. reducing warehouse cost. Can you help them to decide?

Only provide if asked:

Average demand per week = 10,000 barrels;
Demand fluctuation = +/-20%; varies twice per month; Barrel Price = €10 Cost of production per barrel = €5; Cost of storage per barrel = €5;

Assume 60% out of lost customers (due to insufficient production) place the order next time (this means 40% orders that are not met are lost)

Suggested Solution

Thus the monthly demand projections are as follows

Week	1	2	3	4
Demand	10,000	12,000	10,000	8,000



Conclusion

Based on the above scenarios currently it costs BL more to produce barrels at peak capacity and store in-house rather than opportunity cost of losing sales.

Recommendations

- To produce barrels at average demand level and develop customer loyalty programs to stabilize demand.
- Cross-functional team – Marketing, Sales, IT and Operations to collaboratively forecast demand accurately.
- Aim to reduce the inventory storage cost. A €1 per barrel i.e. 20% cost reduction storage cost makes it more favorable option.

Suggested Solution

Scenario 1

Risks:

Loss of trust and reliability by customers, outperform by competitors

		Week 1	Week 2	Week 3	Week 4	
Production	Volume	10,000	10,000	10,000	10,000	
	Unitary Cost	5	5	5	5	
	Cost	50,000	50,000	50,000	50,000	
Demand	Total	10,000	12,000	11,200	8,720	
	Weekly	10,000	12,000	10,000	8,000	
	Lost	0	2,000	1,200	0	
	Recovered	0	0	1,200	720	
Sales	Volume	10,000	10,000	10,000	8,720	
	Unitary Price	10	10	10	10	
	Revenue	100,000	100,000	100,000	87,200	
Storage	Volume	0	0	0	1,280	
	Unitary Cost	5	5	5	5	
	Cost	0	0	0	6,400	
Profit		50,000	50,000	50,000	30,800	180K

Suggested Solution

Scenario 2

Risks:

Production losses due to unsold stocks

		Week 1	Week 2	Week 3	Week 4	
Production	Volume	12,000	12,000	12,000	12,000	
	Unitary Cost	5	5	5	5	
	Cost	60,000	60,000	60,000	60,000	
Demand	Total	10,000	12,000	10,000	8,000	
	Weekly	10,000	12,000	10,000	8,000	
	Lost	0	0	0	0	
	Recovered	0	0	0	0	
Sales	Volume	10,000	12,000	10,000	8,000	
	Unitary Price	10	10	10	10	
	Revenue	100,000	120,000	100,000	80,000	
Storage	Volume	2,000	2,000	4,000	8,000	
	Unitary Cost	5	5	5	5	
	Cost	10,000	10,000	10,000	40,000	
Profit		30,000	50,000	20,000	20,000	80K

Section 5

Case 5.1 Gas Stations

Case 5.2 Concrete Manufacturer

Case 5.3 Fast Food Chain

Case 5.4 Industrial Packing

Case 5.5 Life Insurance



Situation

Your client is a life insurance firm INS. INS is one of the leading companies in a fragmented market of around 10 major players. The CEO of the company is observing a very sluggish growth in the past 2-3 years and has approached you for help.

Question 1: The profits are decreasing in the past 5 years. What factors could affect profitability?

Suggested Approach

Only provide if asked:

- Revenues are increasing at a decreasing rate, costs constants
- Increasing new customers every year, repeat customers decreasing

Revenues incremental premium from new customers, recurrent premium from existing customers, interests from investments (if mentioned, the candidate demonstrates excellent knowledge of insurance business). Need to distinguish between B2C and B2B segments cost – operational costs, reclaims (related to the “risk profile” of the customer base), branding.

Suggested Solution

Thus the loss in the premium from repeat customers is causing the decrease in profits. In what segments (B2C, B2B or both) is this decrease happening? Assume problem is concentrated in the B2C segment.

Question 2: Well now that we know INS is facing issues of retaining B2C customers. How would suggest approaching this problem? Ask for some hypothesis to see how creative the candidate is.

→ For each hypothesis candidate can assess by market research, with personal interviews with customers that have defected the client. Assume that hypothesis 3 is supported by the market research.

Hypothesis 1:

- Bad product.
- Product is too expensive compared with competition?
- Benefits of the life insurance lower vs. competitors?
- Not enough “value-for-money”?
- Are reclaims well managed?
- Is life insurance “packaged” with other types of insurances (e.g. health) in the market? Are we packaging this product too?

Question 2 (contd.)

Hypothesis 2:

- Are competitors targeting the customer base with specific promotions or offers?
- Do competitors offer bundles of life+health+other insurance to our customer base?

Hypothesis 3:

- Customer care channels do not retain customers

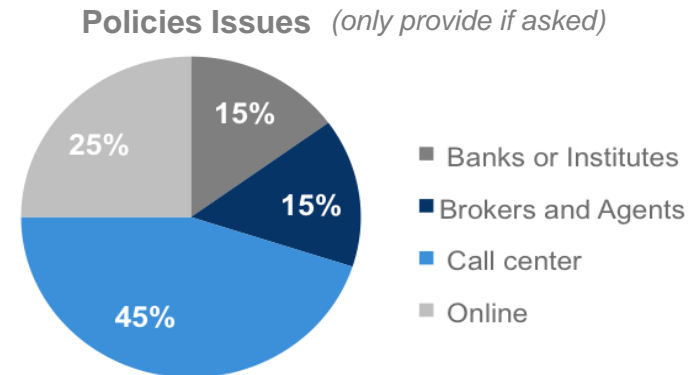
Suggested Approach

Analyze the insurance B2C channels that target/care the potential customers

1. Tie up with banks or institutes
2. Brokers and agents
3. Call center
4. Online

Suggested Solution

Call center approves maximum policies and most of these customers do not continue with the policy in the subsequent



Question 3: What would you recommend the CEO to tackle this issue?

Suggested Solution

- Leverage the results of the market research: why customers are defecting us?
- Re-design the customer care process. What are the elements that upset our customers the most?
- Initiatives for the agents based on number of clients retained and not just converted
- Workforce quality: agent turnover in call center? Salary is adequate? Employees satisfaction is high / low?
- Customer loyalty initiatives: decrease premium for loyal customers, offer promotions or discounts in other products

Final Notes

Final Notes | Case & Author List

#	Case	Author
Reviewed by Arthur D. Little		
Case 1.1	US Luxury Brand	Maumita Sinhamahapatra
Case 1.2	European Airline	
Case 1.3	Middle East Telecom	
Case 1.4	Spain Consumer Goods	
Case 1.5	Brazil Football Stadium	
Reviewed by The Boston Consulting Group		
Case 2.1	Online Insurance Agent	Justyna Charytoniuk
Case 2.2	Online Food Delivery	
Case 2.3	Spanish Gym Retailer	
Case 2.4	International Expansion	
Case 2.5	Bank Case	
Reviewed by McKinsey&Company		
Case 3.1	Video Game	Galyn Norwood
Case 3.2	Shag Carpet	
Case 3.3	Ice Cream Shop	
Case 3.4	Potato or Bust Buyout	
Case 3.5	MNO's Factory Funding	

#	Case	Author
Reviewed by Oliver Wyman		
Case 4.1	Fertilizer Factory	William Kuratani
Case 4.2	Supermarket Discount	
Case 4.3	Electric Vehicle	
Case 4.4	Wooden Panels	
Case 4.5	Structuring a Call-Center	
Reviewed by Strategy& (Formerly Booz & Company)		
Case 5.1	Gas Stations	Mridul Joshi
Case 5.2	Concrete Manufacturer	
Case 5.3	Fast Food Chain	
Case 5.4	Industrial Packing	
Case 5.5	Life Insurance	

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