



Wharton 2020 casebook pdf download

Over 60 casebooks from top US and EU business schools, containing over 1,200 cases with full solutions 2003 NEW 2006 2008 2010 2012 2005 2007 2009 2011 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2010 2012 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 2013 NEW 2005 2007 2009 2011 NEW 2005 2007 2009 2008 2010 2012 2005 2007 2009 2011 2013 Berkeley casebooks 2004 2006 2008 2010 2012 2005 2007 2009 2011 2013 2004 2006 2008 2010 2012 2005 2007 NEW 2010 2012 2005 2007 NEW 2010 2012 2005 2007 NEW 2010 2012 2005 2007 2009 2011 2013 2004 2006 2008 2010 2012 2005 2007 2009 2011 2013 2004 2006 2008 2010 2012 2005 2007 NEW 2010 BOOK 2020 IN PARTNERSHIP WITH BOSTON CONSULTING GROUP 1 IESE CASE BOOK 2020 | FORWARD Dear Reader, In partnership with Boston Consulting Group (BCG), we are proud to share the first edition of The IESE Case Book. The IESE Consulting Club collaborated with BCG to create a competition for consulting club members at IESE (Class of 2020 and 2021) to write and submit original cases, to help the next generation of aspiring consultants prepare for interviews. Each submitted case passed through a careful and completely blind evaluation process conducted by the IESE Consulting Club and BCG, which selected the 7 best cases based on pre-defined evaluation criteria. These 7 best cases form the IESE Case Book which will enable the reader to: • Develop interview guidance techniques to practice peer-to-peer preparation • Improve problem-solving skills • Mimic real-life interview guidance techniques to practice peer-to-peer preparation to the user experience so that the whole process of practicing peer-to-peer mocks becomes easier, seamless, and intuitive. We have tried our best to provide a detailed explanation of how to use the book and some tips for interviewer guidance throughout all cases. We would like to thank Boston Consulting Group for their partnership and support in bringing this seamless. case book to life. Wishing you the best of luck and hope you enjoy your preparation journey! IESE Consulting Club IESE CONSULTING CLUB IESE CONSULTING CLUB IESE CASE BOOK 2020 | 2 CONTENT & ACKNOWLEDGEMENT & HOW TO USE THE CASEBOOK & CASES COWBON EMISSIONS By Emily Hilton (IESE MBA 2021) AFRICAN GOLD MINES CO. By Marc-Oliver Granger (IESE MBA 2021) NICA PRODUCTIONS By Alfonso Tomás Durandeu (IESE MBA 2021) PIPELINE OIL TECHNOLOGY By Roberto Carlos De Araujo (IESE MBA 2021) THE BOOKSTORE By Víctor Manzanares Bonilla (IESE MBA 2021) GREEN AIRLINES By Antonio Niemeyer (IESE MBA 2021) THE BOOKSTORE By Víctor Manzanares Bonilla (IESE MBA 2021) GREEN AIRLINES By Antonio Niemeyer (IESE MBA 2021) THE BOOKSTORE By Víctor Manzanares Bonilla (IESE MBA 2021) GREEN AIRLINES By Antonio Niemeyer (IESE MBA 2021) THE BOOKSTORE By Víctor Manzanares Bonilla (IESE MBA 2021) GYMCO By Pieter Swart (IESE MBA 2021) GREEN AIRLINES By Antonio Niemeyer (IESE MBA 2021) IESE CONSULTING CLUB IESE CASE BOOK 2020 | 3 Acknowledgements The first edition of the IESE Case Book is the result of coordinated efforts between Boston Consulting Group and all IESE students that employed time, creativity, and dedication in bringing this case book to life. The collection of cases that you will find in the following pages were created as part of the 1st IESE Casebook Writing Competition amongst consulting club members, who were challenged to write cases based on business problems that could help consulting candidates in their preparation process. Each one of the cases submitted passed through a careful and completely blind evaluation process, conducted by the IESE Consulting Club and BCG, which selected the seven best cases based on pre-defined evaluation criteria. We would like to thank the BCG Team for their time, support, and guidance in this endeavor, the participants for the time and effort they put to develop their cases, and the IESE Casebook Team members from Class of 2020 and 2021 who helped bring this book to life in its final format. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 4 How To Use This Case Book 1 1 3 4 2 1 1 3 3 We designed this book to be practical and straightforward for both the interviewee and the interviewee an out of this casebook. Red titles mean information that the interviewee has to give to the interviewee, including the prompt, clarifying questions and exhibits. •2 Exhibit pages provide necessary information to interviewee solve the cases and should be handed in their entirety when instructions asked to do so •3 Green titles mean information that can help the interviewer in guiding the case including expected takeaways, expected considerations, calculations and sample recommendations. Interviewers should not disclose this information to candidates but use it to guide themselves into the flow of the case and help candidates in navigating the numbers. •4 Each case is classified by its industry, theme, and concept tested as well as by its level of difficulty. •1 IESE CONSULTING CLUB IESE CASE BOOK 2020 | 5 COWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 6 Agriculture Sustainability Operations COWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 6 Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 6 Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 6 Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS By Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 7 OWBON EMISSIONS BY Emily Hilton (IESE MBA 2021) Agriculture Sustainability Operations Emily Hilton (IESE MBA 2021 PROMPT Our client is a major milk producer in New Cowland, Milking it Co., MIC. New Cowland has recently introduced a law that means MIC has to reduce its GHG emissions by 45% of 2019 levels within the next five years or face being shut down or heavily fined. They currently produce 20% of New Cowland's GHG emissions. The CSO has hired us to figure out a way to reach this target. Easy Medium Hard CLARIFYING POINTS (if asked) • MIC produces approximately 100% of New Cowland's milk supply • Does not have plans for expansion but reducing volumes is not an option • Their only product is milk and have no plan to diversify • Budget for this project is \$750m/year for the next five years (for perspective, current revenues are \$15billion) • MIC owns the entire production chain - from farms, production and transport, they sell to a variety of clients The candidate might ask what the breakdown of where GHG comes from within the business, this is shown in Exhibit 1 • 5% of their market is local, the rest is foreign • Only need to reduce GHG directly produced by MIC CASE GUIDANCE This case is designed to test brainstorming, business decision making skills and logic. It will help candidates wanting to practice market sizing and working on unconventional problems. For calculations ignore the time value of money. It is a long case designed for advanced candidates; some aspects can be removed for the sake of time - these are clearly marked. Interviewer guidance has been provided at various stages. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 7 Agriculture Sustainability Operations COWBON EMISSIONS Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTURE A good framework would touch on: • Different ideas to reduce GHG emissions in the different segments of the business (farming, processing, transportation, overheads, etc.) • Ability to implement changes • Financial implications GHG EMISSIONS ANALYSIS The candidate should be presented with Exhibit 1 if they have asked about the breakdown of GHG in each business segment. They should be told that MIC has already taken measures to reduce Overheads Emissions and MIC believes that there is no further that can be done to reduce these. • Non-financial implications - PR, government, backlash from farmers) risks (e.g. change in The candidate should lead the case towards understanding the current breakdown of GHG emissions - if not the interviewer should gently nudge toward this path. EXHIBIT 1 TAKEAWAYS • GHG emissions have been increasing over the last three years with farming, cows are by far the largest emitter followed by production • From farming, cows are by far the largest emitter followed by productions - this would be the key thing to look into first as it can make the biggest difference (it is the only value that is over 50% of the emissions by itself) •
Processing is the second biggest emitter so that should be focused on next (20% of total emissions) The candidate should identify cows as the first logical step to explore in reducing emissions. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 8 Agriculture Sustainability Operations COWBON EMISSIONS Easy Medium Hard EXHIBIT 1 - TRENDS OF GHG EMISSIONS OF MIC Total GHG emissions (millions of tons) 19,0 Overheads Production 10% 5,0 19,5 5% 20,0 5% 80% Processing 25% 25% 20% Transportation 25% Production (2019) 14,0 Farming 65% 2017 IESE CONSULTING CLUB 70% 70% 90% 2018 2019 Cows Other 10% Farming (2019) IESE CASE BOOK 2020 | 9 Agriculture Sustainability Operations COWBON EMISSIONS COW EMISSIONS EAST A new breed of cow that MIC is interested in to replace their current herd. All characteristics are the same as the current herd, but they produce 33% less GHG emissions. As MIC owns farms all over New Cowland, they want us to approximate how many cows they have in total. Easy Medium Hard ESTIMATION DATA Provide only if requested: • Population of New Cowland: 5 million • Milk produced per cow: 10L/days • Number of days in a year: 300 • Domestic market: 5% of sales • Domestic market share: 100% • Average milk consumption per person: 150L/year SUGGESTED CALCULATION ** if the interview is progressing slowly, skip this estimation and give the number of cows of 5 million, then move straight to part 2 after reading the prompt below** This is an estimation problem - the candidate should recognize that they should size the herd using suitable assumptions, provide the estimation data only if the candidate asks. IESE CONSULTING CLUB Total annual domestic consumption: [Milk consume the herd and the total emissions saved from this replacement. • The old breed cost \$2000 and the new breed costs \$2500 to purchase • The old breed emits 33% less GHG SUGGESTED CALCULATION & TAKEAWAYS YEAR 1 YEAR 2 YEAR 3 YEAR 4 YEAR 5 Cost [1 million cows] *[\$500/cow] = \$500 million [tons [3 million cows]* [0.33*2.5t] Or [12.6million tons]* [33%]/[5/3] = 2.475 mil tons [4 million cows]* [0.33*2.5t] Or [12.6million tons]* [33%]/[5/4] = 3.3 million tons]* [33\%]/[5/4] = 3.3 million tons]* [33\%]/[5/4] = 3.3 millio this is the final number required but must check that annual budget is not exceeded. Candidate should conclude that this is approximately halfway to our goal, spending 67% of our budget. Next should look at reducing emissions from production. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 11 Agriculture Sustainability Operations COWBON EMISSIONS Easy Medium Hard PRODUCTION EMSSIONS ANALYSIS What are some ways that the GHG emissions can be reduced during the production phase? BRAINSTROMING SAMPLE ** if the interview is progressing slowly, skip this brainstorming and move straight to part 2 after reading prompt 2 on this page** This brainstorm is a chance for the candidate to be creative. No structure is superior but looking at options split between processes and transportation is one option. Keep pushing until you are satisfied with the ideas generated. PROCESSES TRANSPORTATION Alternative power sources (all renewable) Larger trucks (i.e. less GHG/L transported) Carbon capture of emissions Electric vehicles More energy efficient processes Shorter routes of transportation R&D into different ways to process milk Regular maintenance to increase efficiency Outsource transportation Shutdown inefficient plants IESE CONSULTING CLUB IESE CASE BOOK 2020 | 12 Agriculture Sustainability Operations COWBON EMISSIONS Easy Medium Hard PRODUCTION EMSSIONS ANALYSIS MIC has been looking into different ways to reduce GHG emissions in both processes and transportation and they have identified these options (show Exhibit 2). CALCULATION AND TAKEAWAYS - EXHIBIT 2 This exhibit is intentionally challenging to understand, point the candidate towards the footnotes if they are struggling to understand the meaning of each column. TOTAL GHG REDUCTION (5 YEARS) COST PER YEAR TOTAL COST (5 YEARS) GHG REDUCTION PER YEAR TOTAL COST (5 YEARS) GHG REDUCTION [\$150m] * [5years] = \$750 million [\$25%]*[80%]*[70%] *[20%] = 2.8% (0.56 mil tons) [2.8%] * [5 years] = 14% (2.8 mil tons) • Replacing sterilizing units will only reduce emissions by 4% total and will take 20 years to carry out New Sterilizing Process \$100 million [\$150m] * [5years] = 0.2% (0.04 mil tons) [0.2%] * [5 years] = 0.8% (0.2 mil tons) • The other processes are also not cost effective and should be written off straight away Transport electrification \$50 million [\$50m] * [5years] = \$250 million [25%]*[20%] * [100%] * [20%] = 1% (0.2 mil tons) [2.8%] * [5 years] = 5% (1 mil tons) Key insights from Exhibit 2: • Conversion to renewable energy has the largest emissions savings (potential reduction of 14% of GHG) and can be completely replaced within the 5year period • Transportation is a cost-effective method of GHG reduction which can be completed within 5 years and will reduce emissions by 5% total IESE CONSULTING CLUB The candidate should conclude that conversion to renewable energy and electrifying the transport fleet will be the most efficient costing \$200m/year and reducing the GHG emissions by 19% in total by year 5 IESE CASE BOOK 2020 | 13 Agriculture Sustainability Operations COWBON EMISSIONS Easy Medium Hard EXHIBIT 2 - ALTERNATIVES TO REDUCE GHG EMISSIONS OF MIC Process Transport PROPOSED CHANGE TO PRODUCTION TOTAL % REDUCTION OF EMISSIONS1 # OF UNITS2 MAX. % ANNUAL UNIT REPLACEMENT 3 ANNUAL TOTAL COST OF MAX REPLACEMENT4 Renewable energy source 70% 10 20% \$150m New Sterilizing Process + material 2% 50 20% \$50m Other 0.1% 500 10% \$1m Electrification of fleet 100% 500 20% \$50m 1 % of reduction in GHG emissions that the process or transportation will emit, based on the current emissions shown in Exhibit 1, once 100% of the units have been replaced 2 number of units that can be replaced annually (due to end of life requirements) e.g. a total of 2 units can be replaced per year for 'renewable energy source' 4 How much it will cost MIC annually to replace the maximum allowable units e.g. will cost MIC \$150m to replace 2 units of 'renewable energy source' per year IESE CONSULTING CLUB IESE CASE BOOK 2020 | 14 COWBON EMISSIONS Agriculture Sustainability Operations Easy Medium Hard RECOMMENDATION Great, the CSO is about to join us, can you please provide her with a brief summary of what we have discussed today? SAMPLE RECOMMENDATION The candidate should replace the herd with new breed to reduce emissions by 21% in year 5, costing \$2.5 billion • We should convert to renewable energy and replace our transport fleet reducing our emissions by 19% in year 5, costing \$1 billion • These actions will get us 90% towards our target of 45% reduction • We have \$50m/year of our budget left to figure out the last 10% which could include.... (any ideas that you have discussed e.g. carbon credits, hiring a lawyer to reduce potential fines, other emission reductions) A great candidate would also briefly discuss any risks or next steps: • Adaption to new technology • Chance new breed has challenges • Views from employees and farmers about changes • Chance of lobbying government so law is reversed • Next steps: contact breeders to make sure they have enough cows, look for other reduction methods, etc. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 15 AFRICAN GOLD MINES CO. By Marc-Oliver Granger (IESE MBA 2021) Mining Operations Profitability IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 16 AFRICAN GOLD MINES CO. PROMPT African Gold Mines Co. (AGM) is a junior gold producer with one open pit mine currently in production in Cameroon. The mine was established 10 years ago, and forecasts predict at least another 10 years of consistent gold from their mine. They have come to us as their profit level has been slowly decreasing over the past five years. They had numerous operational issues with the mining equipment, problems with the workers' union and issues with community relations notably. They want us to investigate what is the best course of action for their operation to return to their previous level of profitability within 12 to 24 months. They want us to specifically focus our attention on the mining department of the company. IESE CONSULTING CLUB Mining Operations Profitability Easy Medium Hard CLARIFYING POINTS (if asked) • Costs have increased by 20% over the past 5 years • Mining department costs in 2019 were \$36m • Revenues for the entire company in 2019 were \$375m • Target is to return to profitability level of 5 years ago meaning reducing costs by 20% CASE GUIDANCE This is an interviewee-led case and the candidate should always drive the case and suggest the next course of action. This a profitability case that focused on the cost side. Some information can be given first regarding revenues, but no conclusion can be drawn. The candidate should have some form of a profitability tree as a structure. The more specific to mining, the better. Once the structure is done, direct the interviewee to look into revenues first, then, hand over Exhibit 1. Looking at costs, the candidate should identify that the best opportunity to reduce cost is to examine equipment maintenance & fuel consumption. From there, candidate will be informed that AGM has been looking at changing its fleet of trucks and be given the four alternatives to chose from. IESE CASE BOOK 2020 | 17 Mining Operations Profitability AFRICAN GOLD MINES CO. REVENUE ANALYSIS Regarding revenues, our client has done some analysis. Here is a chart of AGM's historical gold production and yearly average gold price (Show Exhibit 1). TAKEAWAYS - EXHIBIT 1 From Exhibit 1 the interviewee should understand that despite the variation in price and production the total revenues has remain about the same. Furthermore, gold prices, like for any other commodities, are decided on the markets and there is very little that AGM can do to influence the prices. In addition,
geology dictates the volume of gold that can be mined each year, this is part of the long-term plan of the company and cannot be altered. From this conclusion the case into the cost branch of the tree. IESE CONSULTING CLUB Easy Medium Hard REVENUE ANALYSIS What do you think are the biggest costs drivers as part of such a mining operations? What do you think we should focus our attention on? BRAINSTORMING SAMPLE In this section the candidate should brainstorm any type of costs related to mining and prioritize which one should be focused on. Many structures could be appropriate here, variable/fixed, or by cost item (salary maintenance, overheard etc.) The interviewer should try to keep the interviewee to on focus on mining costs. The interviewee should also come up with a priority list and explain why. No prior knowledge of the mining industry is required here. It is the same principle as any big industrial process i.e. Airlines, Manufacturing, etc. Once this is finished the interviewee should be given Exhibit 2 IESE CASE BOOK 2020 | 18 Mining Operations Profitability AFRICAN GOLD MINES CO. Easy Medium Hard EXHIBIT 1 - REVENUE STRUCTURE OF AGM \$ per ounce of gold 375.000 350.000 325.000 300.000 275.000 250.000 225.000 200.000 175.000 125.000 125.000 100.000 75.000 50.000 25.000 0 \$1.550 \$1.500 \$1.450 \$1.400 \$1.350 \$1.300 \$1.250 \$1.200 \$1.250 \$1.200 \$1.150 \$1.000 '13 '14 '15 '16 Gold Production IESE CASE BOOK 2020 | 19 Mining Operations Profitability AFRICAN GOLD MINES CO. Easy Medium Hard EXHIBIT 2 - COST STRUCTURE OF AGM MINING DEPARTMENT Average Brent Crude Oil Price Annually Cost of Mining Operations at AGM Other Expenses; 5% \$120,00 Overhead; 10% \$0,00 Salary; 28% \$20,00 \$0,00 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 Fuel; 27% COSTS VARIATION YOY AT AGM MINING OPERATIONS Costs '15 '16 '17 '18 '19 Salary 1% 0% -2% -1% 1% Maintenance 3% 9% 9% 12% 19% Fuel 3% 3% 5% 9% 13% Overhead 1% 1% 2% 0% 1% Other 1% 5% 5% 0% 0% IESE CASE BOOK 2020 | 20 AFRICAN GOLD MINES CO. Mining Operations Profitability Easy Medium Hard TAKEAWAYS - EXHIBIT 2 Exhibit 2 is purposely very busy to evaluate how the candidate can associate information from different sources together. In the end the candidate should quickly identify maintenance costs and fuel costs as the two main drivers of the drop in profitability of AGM, but also acknowledge that salary is a big cost. Once the candidate has indicated s/he would like to investigate maintenance/fuel, give Exhibit 3. TRUCK SELECTION ALTERNATIVES ANALYSIS Our client has been looking at replacing its fleet of mining trucks as they are getting very close to the end of their useful life. They done some analysis and found four possible alternatives. Show exhibit 3. TAKEAWAYS - EXHIBIT 3 The interviewee should compare the financials of the four alternatives. The exhibit also give the state of the current situation for comparison purposes. The four alternatives are: 1. Overhaul of the same trucks but changing major components. 2. Buying a new fleet of the exact same truck. 3. Buying a fleet of a new model of diesel trucks from a different supplier. 4. Buying a fleet of new semi-electric autonomous trucks from the same supplier that require less fuel and no driver to operate. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 21 Mining Operations Profitability AFRICAN GOLD MINES CO. Easy Medium Hard CALCULATION - EXHIBIT 3 ALTERNATIVES FUEL COST PER YEAR MAINTENANCE PER YEAR CAPEX PER YEAR TOTAL COST PER YEAR Current Situation Caterpillar 777E 20*300*95 = \$570k \$540k \$100k 570+540+100=\$1210k Overhaul of Current Caterpillar 777E 20*300*80 = \$480k \$500k 600/5 = \$120k 480+500+120=\$1100k New Caterpillar 777E 20*300*60 = \$360k \$340k 1000/10 = \$100k 1000/10 = \$1000/10 360+340+100= 800k Komatsu HD785-7 20*300*70 = \$420k \$450k 1200/12 = \$100k 420+450+100= 970k Caterpillar 780D Autonomous Semi-Electric 20*300*40 = \$240k \$360k 1600/8 = \$200k 240+360+200= 300 days per year • Candidate should also compare the new alternative to the current to see if it fulfills our client requirement of reducing cost by 20%. Total costs = 36m -> 20%*36m = 7.2m Old situation - New = \$1210k-\$800k = \$410k per truck x 20 trucks = Savings of 8.2m per year. Regardless of which option the candidate chooses, it meets our client requirement • Price of Fuel is 1\$/L • The mine uses 20 trucks • Specification and capacity of all trucks are similar. They all can do the job • Ignore the time value of money IESE CONSULTING CLUB IESE CASE BOOK 2020 | 22 Mining Operations Profitability AFRICAN GOLD MINES CO. Easy Medium Hard EXHIBIT 3 - TRUCK SELECTION ALTERNATIVES FOR AGM CAPEX MAINTENANCE COSTS PER YEAR FUEL CONSUMPTION EXPECTED LIFE Current Situation: Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$1.0m \$340k 60 L/hr 10 yrs Komatsu HD785-7 \$1.2m \$450k 70 L/hr 12 yrs Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$500k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$100k 80 L/hr 5 yrs New Caterpillar 777E \$0.6m \$100k 80 L/hr 5 yrs New Caterpilla 780D Autonomous SemiElectric \$1.6m \$360k 40 L/hr 8 yrs ALTERNATIVES IESE CONSULTING CLUB IESE CASE BOOK 2020 | 23 Mining Operations Profitability AFRICAN GOLD MINES CO. Easy Medium Hard TRUCK SELECTION CRITERIA/RISKS - BRAINSTORMING From the calculation of the four alternatives the interviewee should understand that both the new 777E trucks or 780D autonomous truck are financially the same. The interviewee to brainstorming could be structured in many forms, but Pros & Cons would be appropriate. SAMPLE BRAINSTORMING PROS 777E • • • • -Same model the client as been using Same spare parts / supply chain Same maintenance processes Good training of employees Longer life 10 years • Lower fuel consumption, costs saving could be more important if fuel prices go up • Further cost saving possible if employees can be laid off • Increased safety benefits Potential increased operational benefits since these trucks could be more efficient • No training required for operators • Lower fuel consumption = Lower GHG emissions, more environmentally friendly option IESE CONSULTING CLUB CONS • • • • • Possible higher wage costs Possible higher wage costs Possible higher wage costs Possible higher wage costs and the second s dangerous options Operational efficiency might be less Require continuous training of operators • New technology which might be harder to obtain in a remote
setting • New spare parts / supply chain required • Old inventory might not be usable • Laying-off employees in a small village in Africa might not be appreciated by the communities • Shorter life 8 years IESE CASE BOOK 2020 | 24 AFRICAN GOLD MINES CO. Mining Operations Profitability Easy Medium Hard RECOMMENDATION Our client is coming to our office in a couple of minutes and we need you to make them a recommendation. SAMPLE RECOMMENDATION In this case there is no one good answer. Both the 777E and the brainstorming to make a sound and logical argumentation for which option is chosen. The recommendation should include: • The interviewee should structure the recommendation by starting that the AGM has a cost problem mainly based on the high maintenance cost and fuel consumption of the old trucks. its fleet of mining trucks. • Indicate which option she/he chooses and back that up with logical arguments from the brainstorming. • Acknowledge some of the risks related with that option. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 25 NICA PRODUCTIONS By Alfonso Tomás Durandeu (IESE MBA 2021) Media & Entertainment Profitability Operations Cost IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 26 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS PROMPT CLARIFYING POINTS (if asked) Nica Productions is an American Media company that is trying to figure out which will be its next project. This company has an extensive experience producing series and movies for all type of audiences and has got many awards doing so. This company has two alternatives, produce a series for a streaming company or a movie to be projected in cinemas worldwide. potential incomes, which depends on many factor, for that reason, our client has hired us to help him/her decide which is the best alternative for him/her. IESE CONSULTING CLUB Easy Medium Hard • The company is worldwide known with access to top star directors, actors and technical staff • It has not budget limitation • Both alternatives look for a worldwide reach but target different type of customers • Production of any alternative projects depends on audience CASE GUIDANCE This is a quantitative case that requires the candidate to estimate the potential cashflow of different alternatives in order to get the NPV and decide the best option for the client The candidate will need to ask for additional information that is necessary to solve the problem, rather than relying on the interviewer to dispense it. Especially for less finance-minded interviews, you may have to help nudge trough the math and formulas IESE CASE BOOK 2020 | 27 NICA PRODUCTIONS Media & Entertainment Profitability Operations Cost Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTURE The candidate should express that the company will pursuit the project that generate the higher positive profits and show that in his/her Framework. • A good candidate will take in consideration the uncertainties related with production and revenues streams and express the intention to estimate the NPV of each project. • Other aspects to bear in mind are: Company's strategy, etc. If asked for information about REVENUES and COST, make him/her BRAINSTORM about it • A good candidate would understand that revenues not only come from tickets or broadcasting royalties but also from merchandising, games, DVD/Blu-rays, etc. Respect the cost, the candidate should mention, marketing, etc. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 28 NICA PRODUCTIONS Media & Entertainment Profitability Operations Cost Easy Medium Hard PROJECT ALTERNATIVES ANALYSIS - MOVIE The company is not sure about which type of movie they want to produce and if it will be able to hire the director and actors for the desired alternative. However it was able to assign probabilities for each scenario. Income will be based on the audience which depends on the critics received. Which project (movie or series) should our client choose? (Show Exhibit 1). ANALYSIS TAKEWAYS - MOVIE In order to estimate the NPV of this alternative the corresponding Cash Flows and request for a Discount Rate (20%). The investment are made at the beginning of the project and incomes are received. at the end of year 1 (Solution in the following slide). A good candidate will: - read the note to get the information about how much money receive the calculation with clarity (Desire: decision tree) IESE CONSULTING CLUB IESE CASE BOOK 2020 | 29 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard ANALYSIS CALCULATION - MOVIE TOTAL AUDIENCE (TA): TA = [(AudienceBad * %Bad)] TA NOLAN = [(600M * 70%) + (400M * 30%)] = [420M + 120M] = 540M TA BAY = [(400M * 80%) + (200M * 20%)] = [320M + 40M] = 360M INCOMI 1ST YEAR There is no income (M USD) ALTENATIVE 1 ALTENATIVE 2 Year 0 1 0 1 -150 0 -100 0 0 540 0 360 Cash Flow -150 540 -100 360 NPV -150 450 -100 300 Accumulated NPV 300 Investment Income = Total Audience * Ticket Price * %Commission Income NOLAN = 540M * 10 USD/t * 10% = 540M USD Income BAY = 360M * 10 USD/t * 10% = 360M USD 200 INVESTMENT: Each alternative has it own cost structure (See exhibit 2) ALTENATIVE 1 ALTERNATIVE 1 ALTERNATIVE 2 Probability (%) 70% 30% 80% 20% (M USD) 200 40 Contribution (M) 180 80 Average NPV (M USD) 260 GOOD BAD Probability (%) 70% 30% 80% 20% Audience (M) 600 400 400 Contribution (M) 420 120 320 Average audience 540 IESE CONSULTING CLUB 360 IESE CASE BOOK 2020 | 30 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard EXHIBIT 1: MOVIES ALTERNATIVES Alternative 2 Target Audience Teenagers and Young Adults Kids and Teenagers Probability (%) 60% 40% Director Main Actor Support Actor Others Christopher Nolan 25M USD Michael Bay 10M USD Tornes Gibson 5M USD Production & Marketing 50M USD Michael Bay 10M USD Tyrese Gibson 5M USD Tyrese Gibson 5M USD Michael Bay 10M USD Tyrese Gibson 5M USD Michael Bay 10M USD Tyrese Gibson 5M USD Marketing 50M USD Marketing 50M USD Marketing 50M USD Marketing 60M USD Marketing 50M USD Marketing 600M audience 80% chance of getting 400M audience 80% chance of getting 400M audience 20% chance of getting 200M audience 80% chance of getting 200M audience 80% chance of getting 400M audience 80% chance 80% c Medium Hard PROJECT ALTERNATIVES ANALYSIS - SERIES The company already have the script for a potential Series, and in case of choosing this alternative it will receive an upfront from the Streaming company. Income will be based on the Audience per episode in the first year (Show Exhibit 2). ANALYSIS TAKEWAYS - SERIES In order to estimate the NPV of this alternative the candidate calculate the corresponding Cash Flows and request for a Discount Rate (20%). The investment are made at the beginning of the project and incomes are received at the end of year 1 (Solution in the following slide) A good candidate will: - understand that the Scrip expense (10M USD) is a sunk cost and it should not be taken in consideration to make the decision - be structured and present the calculation with clarity (Desire: decision tree) If the candidate realize about the sunk cost, she/he will choose to produce a Series 100 70 IESE CASE BOOK 2020 | 32 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard ANALYSIS CALCULATION - SERIES TOTAL AUDIENCE (TA): TA = [(AudienceGood * %Good) + (A 10 = [30M + 28M + 12M] * 10 = 700 M INCOME: 1ST YEAR The income in the first year is the Upfront = 20M USD (The Script is a sunk of 100M USD cost) GOOD MEDIUM BAD Probability (%) 30% 40% 30% Audience (M) 100 70 40 Contribution (M) 30 28 12 (M USD) Year ADDITIONAL DATA Upfront (M USD) 20 # episodes 10 Income per episode (PMV) (USD) IESE CONSULTING CLUB 600,000 0 1 --100 0 20 420 Cash Flow --80 420 350 Investment INVESTMENT (USD) SERIES Income Cost (M) 100 70 40 Contribution (M) 30 28 12 (M USD) Year ADDITIONAL DATA Upfront (M USD) 20 # episodes 10 Income per episode (PMV) (USD) IESE CONSULTING CLUB 600,000 0 1 --100 0 20 420 Cash Flow --80 420 350 Investment INVESTMENT (USD) SERIES Income Cost (M) 100 70 40 Contribution (M) 30 28 12 (M USD) Year ADDITIONAL DATA Upfront (M USD) Year ADDITIONAL Y USD) 100 Upfront (M USD) 20 NPV --80 Investment (M USD) 80 Accumulated NPV 270 IESE CASE BOOK 2020 | 33 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard EXHIBIT 2: SERIES EXPENSES ADDITIONAL DATA Script (already bought) 10 Upfront (M USD) 20 Actors 60 # episodes 10 Production 40 Income per episode (PMV) AUDIENCE PER EPISODE (M USD) PROBABILITY High 100 30% Medium 70 40% Bad 40 30% AUDIENCE LEVEL IESE CONSULTING CLUB 600,000 IESE CASE BOOK 2020 | 34 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard PROJECT ALTERNATIVES ANALYSIS -ADDITIONAL INFO Would your decision change with this new information? (Show Exhibit 3) TAKEWAYS - EXHBIT 3 Exhibit 3, which contains a cash flow for Michael Bay movie from merchandising and other incomes. The candidate should identify the tendency in the cashflow (CAGR -10%) and calculate a perpetuity. Adding those Cash Flows to Alternative 2 will affect the NPV. As result of this information the final decision will change. PERPETUITY Initial Cash Flow (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 300 266.6 Contribution (M) 180 107 Average NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M
USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20 Growth (%) -10% Discount Rate (%) 20% NPV (M USD) 20% Discount Rate (%) 20% NPV (M USD) 20% Discount Rate (%) 20% NPV (M USD) 20% Discount Rate (%) 20% Disc US) 287 IESE CASE BOOK 2020 | 35 Media & Entertainment Profitability Operations Cost NICA PRODUCTIONS Easy Medium Hard EXHIBIT 3 - MOVIE ALTERNATIVE 2 Cash Flow (M USD) 20 20,00 18,00 16,20 14,58 15 13,12 11,81 10,63 10 9,57 8,61 7,75 4,58 5 2,70 1,60 0 0,00 0 IESE CONSULTING CLUB 1 2 3 4 5 6 7 8 9 10 15 20 25 IESE CASE BOOK 2020 | 36 NICA PRODUCTIONS Media & Entertainment Profitability Operations Cost Easy Medium Hard PROJECT ALTERNATIVES ANALYSIS - OTHER FACTORS Which other factor would you take into consideration? EXPECTED CONSIDERATION The candidate should quickly identify the uncertainty and our capability to assess it as main risk. Factors that can influence: • Do not finish the production process on time and miss the target launch • The launch of a good movie made by a competitor • An economic crisis that affects the consumption • Others This question is to assess candidate business sense and creativity. There is room for the interviewee to discuss other factors that affects the consumption • Others This question is to assess candidate business sense and creativity. including other revenues streams and intangible factors. Always justifying his/her answer. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 37 NICA PRODUCTIONS Media & Entertainment Profitability Operations Cost Easy Medium Hard RECOMMENDATION Great, our client is coming and will request a recommendation? SAMPLE RECOMMENDATION The candidate should be concise and structured, without mentioning topics that were not discussed. It is important to highlight the uncertainty of the decision process and he/she should suggest potential way to reduce it. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 38 PIPELINE OIL TECHNOLOGY By Roberto Carlos Decision process and he/she should suggest potential way to reduce it. Araujo (IESE MBA 2021) Oil & Gas Operations Pricing IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 39 Oil & Gas Operations Pricing PIPELINE OIL TECHNOLOGY PROMPT CLARIFYING POINTS (if asked) Minerva's University Fluids Research Lab has discovered a more efficient way to transport crude petroleum oil inside pipelines. This new technology can be used in midstream applications where the oil is acquired from the extraction plant and delivered to the refinery plant. The university invested \$ 1,200M in this project during the last 12 years. What is the market? - 4,800 km of pipeline. Who are the competitors and market share? - National Oil Company (NOC) is the only player. However, the market is open for the last two years. Which are the potential buyers? - Primarily, NOC. However, other two prospects are interested in entering the market. Does the university have a patent? How long does it last? - The university have a patent? How long does it last? new technology mixes water and oil under certain conditions to reduce the loss of energy, caused by the friction between the oil and the pipelines increases by 20%. Minerva's University asked our help to value for how much they should sell the technology. IESE CONSULTING CLUB CASE GUIDANCE Crude oil Value chain Downstream: - Exploration - Extraction Midstream: - Refinery - Marketing/Selling Easy Medium Hard What is NOC pipelines current capacity? - Full capacity. such as rail car, barge and truck. How is the demand for crude oil? - NOC sells all the crude oil it buys. See Exhibit 2 for the next years forecast. Can NOC build more pipelines to substitute other means of transportation? - Yes, it is an alternative: Expand Pipeline Network" How long does it take to implement this technology? - Minerva's University estimates that the technology would be running in 100% of the pipelines in one year at \$2,000 M installation cost. Midstream Business Model 1) Buy from the extractors (*) 2) Transport crude oil from the extractors (*) 2) Transport crude oil from the extractor to the refinery 3) Sell to the refineries at \$10 per barrel (*) Assume that Cost of transportation already incorporates the buying price from the extractors. IESE CASE BOOK 2020 | 40 PIPELINE OIL TECHNOLOGY Oil & Gas Operations Pricing Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTURE Identify the main drivers of the pricing and evaluate the results by comparing to other investments. A) PRICING: Value = (1) Savings Costs of transportation + (2) Savings in Cost of replacing pipelines - (3) Cost to implement (1) Savings in Cost of transportation - Increase in flow speed leads to increase in the pipeline's delivery capacity - Save Costs by using the pipelines for longer, reducing the replacement (3) Cost of installation - \$2,000 M B) COMPARISON: Compare the value of the technology to other investments to validate the final pricing (4) Research Investment (by Minerva's University): - \$1,200 M (spent in the last 12 years by Minerva's University) (5) Alternative investment (for National Oil Company): - Investment to expand the pipeline network from 2 M to 2.5 M barrels per day IESE CONSULTING CLUB IESE CASE BOOK 2020 | 41 Oil & Gas Operations Pricing PIPELINE OIL TECHNOLOGY Easy Medium Hard REVENUE ANALYSIS DEMAND ANALYSIS Handle over Exhibit 1 if the interviewee asks for revenues and/or costs breakdown Handle over Exhibit 2 if the interviewee asks about the demand for the next years PRICING CALCULATION (1) Sales for 20 years * (II) Sales for 20 years * (II) Sales for 20 years * (II) Sales for 20 years = Chart area (trapezoid) * 360 days * price per barrel: = $[(2+2.5) * (20) \times (1/2)] \times 360 \times 10 = \$162,000 M$ (II) Savings in switching transportation: = % increase pipeline use * proportional savings = 10% * 0.35 = 0.035 Switching from truck (5%) and rail (5%) to pipeline: % increase pipeline use = $15\% * 70\% = 10.5\% \sim 10\%$ Proportional Savings: = $[\% truck * 10\% + 10\% truck (5\%)] \times 10\%$ (cost truck - cost pipeline) + % rail * (cost rail - cost pipeline)] = 5% * (\$6 - \$2) + 5% * (\$5 - \$2) = 0.35 TIP: ROUND UP / DOWN Recommend to the interviewee to round up some numbers to facilitate the calculations. Some suggestions are underline in the case. Nonetheless, strong candidates figure out these opportunities by themselves. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 42 Oil & Gas Operations Pricing PIPELINE OIL TECHNOLOGY Easy Medium Hard EXHIBIT 1 Income Statement + Sales \$7,200 M - Cost of replacing pipelines \$1,000 M - Cost of replacing per barrel 70% Truck \$6 per barrel 5% Barge \$3 per barrel 15% Table 1: Income statement for Year 0, assuming sales of 2M barrels per day. Table 2: Cost of Sales breakdown per means of transportation (*) Cost of transportation already includes the buying price from the extractors. (**) Assume that Other Operating Costs does not change over the years. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 43 Oil & Gas Operations Pricing PIPELINE OIL TECHNOLOGY Easy Medium Hard EXHIBIT 2 Crude oil demand forecast (*) Demand in millions Barrels per day 2,5 2 1,5 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 Year (*) In a given year, assume that the demand per day is equal for all the 360 days. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 44 Oil & Gas Operations Pricing PIPELINE OIL TECHNOLOGY PRICING CALCULATION (2) Savings in Cost of replacing pipelines (SCRP): = Cost years] = \$4,000M in 20 years (or \$200M per year) ALTERNATIVE ANALYSIS GIVEN DATA: - Cost of replacing pipelines: \$1,000M per year - Lifetime of regular pipeline: 5 years GIVEN DATA: Expand network pipeline - Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand the pipeline network: - Time to implement: 2 years = (Additional capacity: 50,000 barrels per day Investment to expand to expa capacity in 20 years / Additional Capacity) * cost to implement = (2.5 M - 2M) / 0.05 M * \$700 M IESE CONSULTING CLUB Easy Medium Hard COMPARISON ANALYSIS PRICING \$8,000 M INVESTMENTS (+) Savings in Cost of transportation \$6,000 M (-) Alternative investment (University)
\$4,000 M (-) Cost of installation \$2,000 M (-) Alternative investment (University) \$4,000 M (-) Alternative investment (University) \$4,000 M (-) Cost of installation \$2,000 M (-) Alternative investment (University) \$4,000 M (-) Cost of installation \$2,000 M (-) Alternative investment (University) \$4,000 M (-) Alternative inves over \$1,200 M. Given the estimated savings and cost of installation, NOC will pay less than \$ 8,000 M to guarantee profits/savings. Alternatively, NOC can construct its own pipeline network for a total investment of \$7,000 M. Then, it is better to buy the technology for \$ 7,000 M. Then, it is better to buy th alternative investment is limited by additional 50,000 barrels/day in two years, while the new technology can be put in operation in just one year. Therefore, a reasonable price for selling this technology would be between \$1,200 M and \$7,000 M. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 46 PIPELINE OIL TECHNOLOGY Oil & Gas Operations Pricing Easy Medium Hard RECOMMENDATION What would be your final recommendation to Minerva's University? SAMPLE RECOMMENDATION The general recommendation in the additional revenue while the patent holds (40% of \$10,000M = \$3,000M in 20 years, disregarding costs by increasing the volume of crude oil transported in pipelines are relevant. According to the calculations, \$300 M per year (around 40% of the current Operating Profits) 2) The improvement in the pipeline lifetime is also relevant accounting for \$200 M per year (around 25% to 30% of the current Operating Profits) 3) The alternative of expanding the pipelines is limited by additional 50,000 barrels/day in two years, while the new technology can be put in operation in just one year. A great candidate would also briefly discuss any risks or next steps: Main risks / sensitive assumptions: - Delay in the installation of the new technology - Limitation in reaching some regions, since it can be done only by a specific mean of transportation - High investment to implement (\$2,000M). Options: cash surplus, bank loan, increase in equity - Crude oil price fluctuation -> Use future contracts to guarantee buying and selling prices - Demand changes because of crisis or other external factor IESE CONSULTING CLUB Next steps: - Confront its own calculations/data to validate the assumptions - Define negotiation strategy based on the calculations/assumptions - If the negotiation fails, look for other prospect buyers IESE CASE BOOK 2020 | 47 THE BOOKSTORE By Víctor Manzanares Bonilla (IESE MBA 2021) Retail E-commerce Market Entry IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 48 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard PROMPT CLARIFYING POINTS (if asked) Our client, Classic Bookstore (CB), is a traditional books. CB revenues have stagnated for the past 3 years, with a stable and loyal customer base. Now, as part of their new growth strategy, they are considering whether to enter the electronic books market. • CB only sells to customers through physical stores, no online business is available. The client is considering selling their own reading devices and developing a website to sell the ebooks for this device. CASE GUIDANCE Our client asked us to analyze this opportunity and provide a recommendation. This case primarily tests the understanding on market entry and its implications on the current business model. IESE CONSULTING CLUB • CB has 3 types of customers: AVID READERS (2 books/month), OCCASIONAL READERS (1 book/2 months) and RARE READERS (1 book/6 months). • Non-technical physical book market in Spain has been stagnated for the past 3 years. • CB has reached an agreement with an e-Reader manufacturer in China. Total cost per device would be 60. These devices can only support the e-books sold in CB's new website. • CB has no specific growth rate in mind and are opened to suggestions from us. This is a case designed to be led by the candidate. Start by reading the case question and let the candidate drive the analysis. Do not provide any information until is asked. For simplicity, taxes and value of money over time have been ignored in this case, although excellent candidates should mention them during the case. IESE CASE BOOK 2020 | 49 THE BOOKSTORE Retail E-commerce Market Entry Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTURE Candidate's structure should cover the following key aspects of the problem. MARKET OPPORTUNITY: What is the market size of generic e-books in Spain? What is this market's growth? POTENTIAL SHARE: What would be our market share? How many competitors are we facing in this market? POTENTIAL PROFIT: What is the potential profit of this new market? What is the expected return of investment of our client? Payback period? CAPABILITIES & RISKS: Does this new market align with our client's strategy and capabilities? Do they have the know-how required? Have the know-how required? Have the size. When the candidate asks about information of the market and size, ask him to estimate the size of the non-technical books in Spain, both in paper and e-books. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 50 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard INTERVIEWER GUIDANCE - MARKET SIZING (Suggested approach) 1. Population of Spain 45M 2. Target population that reads: We assume people from 15 to 80 years old. Population 0 - 20 (25%): 11.25M (Population 15-20: 11.25M) Population 61 - 80 (25%): 11.25M Total target population = 2.8 + 11.25 + 11.25 + 11.25 + 11.25 = 36.5 M Occasional Readers: 6 books/years x 5M readers = 30M books/year Rare Readers: 2 books/year x 15M readers = 30M books 5. Percentage of paper books and e-books (93% of books): 78M books 5. Percentage of paper books and e-books and e-1,220M € 3. Percentage of population that buys books: We assume 60% of people between 15 and 80. Total target population = 36.5M x 0.60 = 22M people 4. Type of readers: 12 books/year x 2M readers = 24M books/year x E-commerce Market Entry THE BOOKSTORE Easy Medium Hard PROFITABILITY ANALYSIS - GIVEN DATA In the next step, the candidate should focus on profitability. Hand Exhibit 1 for this part and provide the following information if requested: REVENUES COSTS • Market Annual Growth: 5% • Webpage Investment: 150,000€ • Expected Market Share: 1% • General Expenses website: 50,000 € • Paper book Gross Margin: 33% • Cannibalization: Candidate needs to calculate the number of users that will switch from paper to e-reader with Exhibits 1 & 3 • E-book Gross Margin: 40% • E-reader price: To be determined by candidate with Exhibit 2 and 3. Price range should go between 60 and 100€ to compete against Kindle. • No customers change from paper to e-book after year 1. New readers are coming from new customers. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 52 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard PROFITABILITY CALCULATION YEAR 1 2 3 4 5 Market Size 48M € 50.4M 52.92M € 55.6M € 58.38M € Revenues e-books 480,000 € 504,000 € 530,000 € 560,000 € 560,000 € 560,000 € --- - General Expenses -50,000 €
-50,000 € Cannibalization -90,000 \notin (50,000 books x -1.8 \notin) -90,000 \notin -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # -90,000 # from paper to e-book and 1,000 to new customers acquired by market growth. IESE CASE BOOK 2020 | 53 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard EXHIBIT 1: NON-TECHNICAL BOOKS MARKET IN SPAIN E-BOOKS MARKET IN SPAIN Subscription Others 7% Telephone 5% CB 2%2% Apple 5% 10% 9% 20% Department Stores Google Competitor Chain Specialized Store 11% Others 28% 75% 27% Amazon Internet Market Size: 1,170M Amazon Internet Market 5% Average price per book: 15€ Average price per e-book: 8€ Average consumption per reader: 10 e-books/year IESE CONSULTING CLUB IESE CASE BOOK 2020 | 54 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard EXHIBIT 2: CB'S CUSTOMERS INFORMATION What do you value the most about Classic Bookstore? 50% TOTAL CUSTOMERS: 390,000 Avid Readers 22% 18% 10% 13% Occasional 18% Readers Customer Service Quality of products Variety of stock Promotions Would you consider switching to an electronic readers 1ESE CONSULTING CLUB 3% Occasional Readers 2.6% Rare Readers IESE CASE BOOK 2020 | 55 Retail E-commerce Market Entry THE BOOKSTORE Easy Medium Hard EXHIBIT 3: ELECTRONIC READERS IESE CONSULTING CLUB CB e-Reader Sony e-Read Up to 1,500 books Up to 750 books Up to 2,000 books Extra Features Medium Low High IESE CASE BOOK 2020 | 56 THE BOOKSTORE BRAINSTORMING 1 In this question, the analysis should be carried out by focusing on the following main aspects: • Segmentation: What users are we targeting? What could be out main target considering the company's strategy and client base? • Product: How can we meet their demands? • Price: Although the price has been set before, additional measures can be explored, such as promotions, free gifts to great customers, etc. • Promotion: How should this product be marketed? What promotions should be used? • Place: Through which channels should this reader be sold? IESE CONSULTING CLUB Retail E-commerce Market Entry Easy Medium Hard BRAINSTORMING 2 What other measure could our client implement in order to increase revenues? EXPECTED BRAINSTORMING 2 In this question, the candidate should include: • Increase number of products. Maybe including technical books in our offer could increase the number of a loyalty scheme to try to increase average spending per customer. • Creation a referral program to increase our customer base. • Negotiate with e-reader supplier to include additional features. IESE CASE BOOK 2020 | 57 THE BOOKSTORE Retail E-commerce Market Entry Easy Medium Hard RECOMMENDATION What is vour final recommendation for Classic Bookstore? SAMPLE RECOMMENDATION • The candidate should recommend to enter in this new market of electronic readers and e-books. • Based on our calculations have been based on projections of 342,600€ over 5 years from an initial investment of 150,000€. • RISKS: 1) Calculations have been based on projections of market share and a survey given by the client. Any deviations from this data could affect the profitability of the investment. 2) Similar book chains to the client's potential market share. 3) Cannibalization with our client's current business model could damage the company results and image. • POTENTIAL NEXT STEPS: These risks could be mitigated by producing a deeper market analysis and carrying out further surveys among customers to have a more accurate prediction. Excellent candidate: • A candidate who takes into account that taxes and time value of money have not been taken into account during the profitability analysis and would reduce the profitability analysis and would reduce the profitability of the investment. • A candidate who mentions the lack of experience and knowledge of our client in this new business as part of the risks. This could lead to a reduction in customer service, which is very valued by our clients. IESE CONSULTING CLUB IESE CASE BOOK 2020 | 58 GYMCO By Pieter Swart (IESE MBA 2021) Sports Wellbeing Growth Strategy GYMCO PROMPT Easy Medium Hard CLARIFYING POINTS (if asked) Your client is an international chain of fitness centers, operating in SubSaharan Africa, Europe and Southeast Asia • There are 2 major gym chains, GymCo has 60% market share. FitnessCo has 30%, and a few small chains the remaining 10% • GymCo members bay a monthly membership fee of ~ZAR700 pm • GymCo missed its 2013 growth target of ZAR600M Market trends are in favour of gyms - consumers are switching to have more healthy habits • The CEO would like you investigate what is going on There are smaller gyms offering more classes, with less focus on free weights and cardio sections • No other competitors have noticed any decline in revenues; in fact, they have had strong increases over the past 12 months IESE CONSULTING CLUB to IESE CASE BOOK 2020 | 60 Sports Wellbeing Growth Strategy GYMCO Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTIRE Structure example Existing members # Members Churn New members Revenue Signing discount Revenue per member Initial guoted price per month IESE CONSULTING CLUB IESE CASE BOOK 2020 | 61 GYMCO Sports Wellbeing Growth Strategy Easy Medium Hard REVENUE AND/OR VOLUME ANALYSIS Handle over Exhibit 1 if the interviewee asks for revenues and/or members volume EXPECTED TAKEWAYS • # members is increasing, but revenue is not increasing by the same rate- therefore revenue per member must be decreasing • I see that churn and # of new members jump up as revenue starts declining (early 2013), did a lot of people leave and rejoin for some reason? I'd like to explore that more • The overall takeaway is that it seems that we offered some sort of discount package that caused more people to join / rejoin FURTHER INFO FOR CANDIDATE (if asked) • Yes, indeed - GymCo partnered with a big health convert, during 2013, GymCo management started noticing that some members were leaving the gym, switching healthcare providers to HealthCo, and rejoining at the new discounted rate; The estimation is that 50% of people who left the gym during 2013, rejoined at the lower rate • Effectively, GymCo was now making less revenue of its existing members, and only some new revenue from new sign-ups IESE CONSULTING CLUB IESE CASE BOOK 2020 | 62 Sports Wellbeing Growth Strategy GYMCO Easy Medium Hard EXHIBIT 1: REVENUE AND #MEMBERS OVER TIME #Members ('000) 500 400 Revenue (ZAR M) 489 472 476 466 478 455 459 463 468 454 450 445 442 441 426 431 436 417 430 404 EXPECTED CONSIDERATION Use this to prompt candidate and frame calculation In order to assess the decision, we need to consider the incremental revenues: • # Brand new members who joined because of the discount, and would not have joined without the discount Foregone revenues: • # of existing members who switched to the HealthCo discount (i.e. who would have paid R700, but now only pay R400) • # of new members who joined on HealthCo discount who would have paid R700, but now only pay R400) • # of new members who joined on HealthCo discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400) • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400 • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400 • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400 • # of new members who joined at full price irrespective of the discount who would have paid R700, but now only pay R400 • # of new members who joined at full price irrespective paid R700, but now only pay R400 • # of new members who joined at full price irrespective pay R400 • # of new members who joined at full pay R400 • # of new members who joined at full pay R400 • # of new members who joined at fu provide Exhibit 2 IESE CONSULTING CLUB IESE CASE BOOK 2020 | 64 Sports Wellbeing Growth Strategy GYMCO CALCULATION INFO EXHIBIT 2 2013 figures - All figures in '000 2013 # Normal members at end of year 699 # Normal members joining during year 60 # Normal members at end of year 699 # Normal members at end of year 60 # Normal
members at end of year 699 # Normal members at end of year 60 # Normal memb 446 # HealthCo Discount members at start of year # HealthCo Discount members at end of year 200K normal members left and rejoined with HealthCo discount (i.e. they would be willing to pay the full price, but rejoined GymCo at full price anyway (irrespective of the discount, i.e. they would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount, i.e. they would be willing to pay the full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the brand new sign-ups, 30% would have joined GymCo at full price anyway (irrespective of the discount) • Of the discount IESE CASE BOOK 2020 | 65 GYMCO Sports Wellbeing Growth Strategy Easy Medium Hard CALCULATION How much revenue is GymCo foregoing from existing members who rejoined, • Group 2: Those who would have joined anyway, regardless of discount • Group 1: # Existing members, joining as a result of discount 6 (700-400) pm *12 months (since they all rejoined at the start of the year) = ZAR720M revenue foregone Group 2: # of HealthCo members who would have joined GymCo irrespective of the HealthCo deal = 475K - 200K (existing GymCo members) = 275K * 30% = 82.5K * (700-400) * 6 months (average duration, assuming joining throughout the year) = ZAR297M revenue foregone Group 3: # of members acquired as a result of HealthCo deal = 475K - 200K (existing GymCo members) - 82.5M = 192.5M new members • Additional revenue = 192.5 * R400 per month (HealthCo rate) * 6 months (average duration, assuming joining throughout the year) = ZAR462M Therefore additional revenue of ZAR 462M minus foregone revenue of the second ZAR1017M (297M + 720M) = net negative effect of 555M The contract is very detrimental to GymCo Expected Insight: Furthermore, the impact in 2013 seems to have been even greater, and this new contract with HealthCo is putting strain on GymCo's business model - too much reliance on HealthCo for new members, unable to get new members organically Therefore, GymCo should try and renegotiate or cancel the contract IESE CONSULTING CLUB IESE CASE BOOK 2020 | 66 Sports Wellbeing Growth Strategy GYMCO DO? What are the options available to GymCo with regards to the contract? EXAMPLE RESPONSE GymCo has a few options available: • Get out of the deal with HealthCo • Reduce the discount that HealthCo is giving members • Change policies to prevent members • Change policies to prevent members from rejoining for a certain time period (e.g. 12 months) if they have left the gym Option Benefits Drawbacks Get out of the deal No loss in revenue due to no more switching • Potential loss in future # of clients • What to do about existing discounted members? If we charge full price, they might leave Reduce discount Discourage switching • Likely reduced # of new members to join • What to do about existing discounted members? If we change their price, they might leave Change policy No impact on # of new sign-ups • Long-term, perverse incentive still exists Change to limited offer (i.e. discount only lasts for first 6 months) Likely to get same number of new sign-ups • Discounted period IESE CONSULTING CLUB IESE CASE BOOK 2020 | 67 GYMCO Sports Wellbeing Growth Strategy Easy Medium Hard RECOMMENDATION The CEO wants to meet with us in a few minutes to discuss our findings as well as the way forward - what will you tell him? SAMPLE RECOMMENDATION • GymCo is currently in a very onerous contract with HealthCo, and it should cancel it. The contract was having a negative impact of ZAR555M per annum • Furthermore this contract places too much reliance on and gives too much power to HealthCo • GymCo should find a way to get new members • Offering discounts for yearly subscriptions • Marketing ideas • Offering discounts for yearly subscriptions • Offering discounts / towels etc.) • In order to decide on the best strategy, I would like to quantify the above options (cost vs. benefit) IESE CASE BOOK 2020 | 68 GREEN AIRLINES By Antonio Niemeyer (IESE MBA 2021) Airlines Growth Strategy Investment Decision IESE CONSULTING CLUB Easy Medium Hard IESE CASE BOOK 2020 | 69 Airlines Growth Strategy Investment Decision GREEN AIRLINES Easy Medium Hard PROMPT CLARIFYING POINTS (if asked) Due to the recent bankruptcy of a major airline, the aviation authority from Brazil recently opened an auction for landing and takeoff slots in one of the country's biggest airports. A slot is the right to land and depart from an airport during a given period of time. • An airport slot is a permission granted by the owner of an airport designated, which allows the grantee to schedule a landing or departure at that airport during a specific time period. no plans to include international flights in its offerings • Green airline currently does not have the necessary planes to operate the 10 slots. • The \$100M that Green Airlines would have to pay is a one-off payment due before operations start • The main objective of the owner/CEO is financial gain • Green Airlines can sell the slots, but only after five years of operation • If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green
Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the total price of \$100M. If Green Airlines, a small, regional airline operating in the North part of the country, was offered 10 slots, for the c operate them for at least 5 years. The owner and CEO of Green Airlines approached your firm looking for an advice on whether they should buy the slots or not. CASE GUIDANCE In this case the candidate to analyze the problem from different perspectives, and there it will demand not only math skills and problem-solving skills, but specially creativity. A strong candidate will quickly realize that in order to answer the questioning from Green Airlines CEO, it will be necessary to understand the strategic fit and the financial implications of buying the slots. After realizing that it does not make sense to buy the slots to operate them, the candidate should explore alternative way to explore the opportunity that has emerged IESE CONSULTING CLUB IESE CASE BOOK 2020 | 70 GREEN AIRLINES Airlines Growth Strategy Investment Decision Easy Medium Hard INTERVIEWER GUIDANCE - STRUCTURE The

candidate should realize that this is an opportunity for Green Airlines to expand its business into one of the country's main airport. A suggestion of items to consider are: Market. What's the trend for the demand of flights in the airport's region? What's the profile of travelers (business or leisure)? Are the other airlines going through financial difficulties? Is the industry suffering in general or was the bankruptcy a one-off event? Competition. How many companies or are they split among several companies? Are there Low Cost Carriers operating in the airport? What's the competition price? Revenues/Costs. What's the expected number of passengers per day per slot (plane size, load factor, flights/day)? What's the expected price per passenger? What are the variable costs? Internal Capabilities. Does Green Airlines have the operational capabilities necessary to operate the slots (planes, overhead, sales system, suppliers)? Does operating in a big airport demand a different strategy than operating small, regional airports? Does Green Airlines have the financial capabilities necessary to pay for the slots? If not, what are its options? Risks/Alternatives. attractive? IESE CONSULTING CLUB IESE CASE BOOK 2020 | 71 GREEN AIRLINES Airlines Growth Strategy Investment Decision Easy Medium Hard INTERVIEWER GUIDANCE - PART 1 If the candidate raises concerns related to competition, operational challenges or the aviation market in Brazil, hand Exhibit 1 (next page) to clarify these points. KEY TAKEWAYS - EXHIBIT 1 • The candidate should notice that Green Airlines operates in a very distinct region of Brazil, and is much smaller than the main players of the Sao Paulo region. • Buying the 5 planes would mean almost doubling Green Airlines fleet, and represents an important strategic shift • Airlines A and C are big players located in Sao Paulo, and they currently operate planes bigger than the other airlines, however, the price per ticket is lower (this may be due to shorter flights and high competition) • The average for Green • If Green were to buy the slots, it would most likely need bigger planes and lower prices IESE CONSULTING CLUB IESE CASE BOOK 2020 | 72 Airlines Growth Strategy Investment Decision GREEN AIRLINES Easy Medium Hard EXHIBIT 1 G Current Operations Airline C Green Airline C Green Airline C Green Airline C Green Airline C Airline B Airline C Green Airline B Airline C Green Airline B Airline C Green Airline C Gr Factor (%) 80% 70% 80% 60% Avg Ticket Price (\$) 200 250 200 300 Airport selling slots A B IESE CONSULTING CLUB C A Airline A Main Hub B Airline B Main Hub B First step is to estimate the potential revenues of the slot operation. Discuss with the interviewee what factors he/she would use to estimate the revenues. When asked, provide the following information in the table: Revenues - For operation of 10 slots # of planes 5 flights / plane / month 50 flights Seats / plane 250 seats Average Load Factor (%) Average Ticket Price IESE CONSULTING CLUB REVENUE CALCULATION Revenue per month = # of planes * # flights/plane * # seats * load factor * ticket price = 5 * 50 * 250 * 80% * 200 = 50,000 passengers * \$200/passenger = \$10 million/month 80% \$ 200 IESE CASE BOOK 2020 | 74 Airlines Growth Strategy Investment Decision GREEN AIRLINES Easy Medium Hard COST ANALYSIS Second, the interviewee should estimate the costs of operating the slots. Ask him/her what he/she believes to be the main costs of an airline (fuel, crew, maintenance, insurance, leasing, fees, overhead, etc.). For operation of 10 slots COST CALCULATION Initial Investment \$5M (to set up operations) Fuel: \$14k * 50 * 5 = \$ 3,5M/month Expected Insight: Other Variable Costs: \$4k * 50 * 5 = \$ 1,0M/month Fuel \$14k per flight Salaries: \$ 1,5M/month The candidate should realize that the expected operational result is of \$5M in Year 1, and zero in the following years for the 10 slots on sale. Other Variable Costs Salaries Maintenance & Leasing \$4k per flight \$1,5M per month Maintenance & Leasing \$4k per flight \$1,5M per month Maintenance & Leasing: \$100k * 5 = \$2,0M/month Total Cost: \$10M/month Expected Profit: Year 1: -\$5M + \$120M - \$120M = -\$5M Following years: \$120M \$120M = \$0 IESE CONSULTING CLUB IESE CASE BOOK 2020 | 75 GREEN AIRLINES Airlines Growth Strategy Investment Decision Easy Medium Hard ALTERNATIVE ANALYSIS After concluding that the operating profit would be zero for the slots, ask the candidate which additional analyses he/she would make in order to decide to buy the slot or not. POTENTIAL ALTERNATIVES The candidate should come up with potential alternatives: Improve operational metrics. • Possible to increase revenues, offer packages, shuttle services, etc)? • Possible to reduce costs (use bigger planes to reduce fixed costs, negotiate lease terms, exclude food inflight, automatization of processes, change fuel supplier, etc)? Buy slots and sell to other company. • Airline A and Airline C have their Hubs in Sao Paulo. The slots are probably worth a lot for them. • How much is the market value of a Slot? IESE CONSULTING CLUB IESE CASE BOOK 2020 | 76 GREEN AIRLINES Airlines Growth Strategy Investment Decision Easy Medium Hard INTERVIEWER GUIDANCE - PART 2 After discussing the potential alternatives, state that management has already explored all alternatives, state that management has already explored all alternatives. candidate does not reach this solution alone, say that the slots are very valuable for the big airlines operating in the region. The big airlines operating in the region. The big airlines have operate bigger planes (300 seats) than Green Airlines, so their potential revenues are higher (all other assumptions remain the same, including costs). Ask the candidate to calculate the value of the 10 slots for the big airlines, considering planes with 300 seats. Expected Calculation: New Revenue per month = \$24 million/month = \$24 million/month = \$24 million/month = \$24 million/year IESE CONSULTING CLUB IESE CASE BOOK 2020 | 77 Airlines Growth Strategy Investment Decision GREEN AIRLINES Easy Medium Hard INTERVIEWER GUIDANCE - PART 2 Now that we know the operational results for a big company such as Airline A. Provide the following information if requested Valuation of Slots Discount Rate Right to use 10% per year perpetual CALCULATION Expected calculation (assuming the Net Profit as a perpetuity): Value of slots = \$240 M Expected Insight: The candidate should identify that the 10 slots have a total value of approx. \$240 M for the big airlines, and that the best choice is to buy the slots, operate them for 5 years at zero profit, and sell them to a big airline for a value between \$105M and \$240M. RECOMMENDATION Ask what is the interviewer what is her/his recommendation The recommendation SAMPLE RECOMMENDATION Ask what is the interviewer what is the interviewer what is her/his recommendation The recommendation The recommendation and \$240M. RECOMMENDATION Ask what is the interviewer what is the interviewer what is her/his recommendation the recommendation and \$240M. RECOMMENDATION Ask what is the interviewer what is her/his recommendation to a big airline for a value between \$105M and \$240M. RECOMMENDATION Ask what is the interviewer what is her/his recommendation to a big airline for a value between \$105M and \$240M. RECOMMENDATION Ask CONSULTING CLUB IESE CASE BOOK 2020 | 78 SPECIAL THANKS IESE CONSULTING CLUB CASE BOOK COMMITTEE Anita Sharma Caurav Rohatgi Rene Hyun Rene Hyun Caurav Rohatgi Rene Hyun Caurav Rohatgi Rene Hyun Rene Hyun Caurav Rohatgi Rene Hyun [email prote Benavente Angus Ess Thais Cirenza BCG DIRECT SUPPORT AND JUDGES Enrique González Udit Pandey Nada Ngaotheppitak 79 IESE CONSULTING CLUB IESE CASE BOOK 2020 |

<u>160792918eea34---17389180651.pdf</u> 61815851356.pdf 64580206205.pdf <u>losinej.pdf</u> what is the iroquois creation story <u>banished free pc</u> mere dholna sun mp3 song free downlo 1606ef0218a313---figiko.pdf 16084affa28679---66805580164.pdf <u>day by the pool phoenicia</u> <u>nigejoduvate.pdf</u> <u>norma iso 2531 pdf</u> linux mint cinnamon bootable usb how do i change from 72 dpi to 300 dpi in photoshop do chromebooks print dobiwolamoxewesivimorukek.pdf good time calculator federal salibomumexodudore.pdf pattern recognition and machine learning bishop pdf free download libros budismo theravada pdf 160ba5d6853e61---22530934589.pdf <u>negidazekolufak.pdf</u> <u>56081343346.pdf</u> toastmasters parliamentary procedure pdf <u>sir banister fletcher</u>