$\square$ MasterTheCase

TOP CONSUlTing INTERVIEW Prep



Kellogg Consulting Club 2020 Casebook

## Welcome to the Kellogg Consulting Club 2020 Casebook!

Over the summer of 2019, we made both major and minor changes to the Casebook. Changes have been made in response to feedback in the Spring 2019 KCC survey from 2019 and 2020 consulting candidates. The headline objective has been to bring more structure to the cases to benefit both interviewees and interviewers alike. A sample of changes is provided below:

- Fit questions: Appropriate Fit or Experience questions have been introduced at the beginning of every case.
- Case navigation: The first page of every case features a numbered list that now clearly aligns with subsequent case solving steps.
- Print-friendly: Exhibits now immediately follow the Case title page to facilitate economical printing of the most critical pages only.
- Case curriculum: A curated list of 25 cases and proposed timeline for traditional internship candidates (page 7).
- $\quad$ References: Easily searchable 3-character reference numbers simplify identification of desired cases by industry, business concept etc.
- Hyperlinks: Case contents now link to the relevant page of the Casebook.
- Difficulty ratings: Subjective case difficulty ratings have been removed with the intention to introduce evidence-based ratings next year.
- Cases archived: Removal of several cases deemed unpopular or out-of-date.
- Clear call-outs: For McKinsey-style interviewer-led cases, prompts to hand candidates Exhibits etc.
- Eco-friendly: Reduction in number of full-color pages and introduction of low-ink exhibits that are easy to read in black and white.

Please don't hesitate to contact us with any questions, suggestions or corrections that you may have regarding the Casebook.

## Rellii

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Kellogg 2020
KCC VP Training

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*See next page for detailed case contents

## Contents

## Detailed case contents

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| DigiBooks | 66 | Market entry | Retail \& CPG | Interviewer-led |
| Events.com ${ }^{\text {NEW! }}$ | 76 | Profitability | Technology |  |
| Garthwaite Healthcare | 86 | Profitability | Healthcare | Interviewer-led |
| Health Coaches | 94 | Operations | Healthcare |  |
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## Contents

## Detailed case contents (continued)

| Case | Page | Case type | Industry | Format (interview lead) |
| :---: | :---: | :---: | :---: | :---: |
| Sosland Sports NEW! | 209 | Market entry | Hospitality \& Leisure | Interviewer-led |
| Tactole | 217 | Profitability | Agriculture \& Food |  |
| Vitality Insurance | 233 | Profitability | Financial Services |  |
| Wildcat Wings | 243 | Operations | Transportation \& Logistics |  |
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How to use this book

## Planning your case preparation

## Case curriculum

- New in the 2020 casebook, the Case Curriculum provides a list of cases curated by the KCC Exec team to give candidates a wide range of 'classic' and 'unusual' cases from a variety of industries and Casebooks
- The curriculum is provided to support case selection for practice but is completely optional and in no way required
- The Curriculum features 25 cases, but this is by no means a minimum nor a maximum number of suggested cases
- Cases are of increasing difficulty (as determined subjectively by the KCC Exec team) so don't feel dejected if you feel as though you're not getting better at casing

|  |  | Case | Casebook |
| :---: | :---: | :---: | :---: |
|  | Easy <br> Cases selected to build familiarity with the case interview process (primarily profitability and cost cutting) | DigiBooks | Kellogg 2020 |
|  |  | Dark Sky | Kellogg 2020 |
|  |  | Zephyr Beverages | Kellogg 2020 |
|  |  | Sosland Sports | Kellogg 2020 |
|  |  | Orange Yoga Studio | Fuqua 2014 |
|  | Moderate <br> Straightforward cases that challenge candidates' reliance on pre-canned case-frameworks | Maine Apples | Kellogg 2020 |
|  |  | Chic Cosmetology | Kellogg 2020 |
|  |  | Goodbye Horses | Fuqua 2016 |
|  |  | LifeRenew | Haas 2015 |
|  |  | California Parking Lot | Columbia 2017 |
|  |  | Tacotle | Kellogg 2020 |
|  | Hard <br> Complex 'pressure' cases that challenge multiple skills and cannot be solved with traditional frameworks. | Orrington Office Supply | Kellogg 2020 |
| $\begin{aligned} & \frac{x}{\stackrel{y}{*}} \\ & \stackrel{y}{0} \end{aligned}$ |  | Mexico City Airport Taxi Services | Wharton 2009 |
|  |  | Garthwaite Healthcare | Kellogg 2020 |
|  |  | Salty Sole | Kellogg 2020 |
|  |  | Mustard Clinic | Kellogg 2020 |
|  |  | Desert City | Yale 2013 |
|  |  | Coyotes | Fuqua 2014 |
|  |  | Rock Band | Columbia 2017 |
| 鬗 | Confidence Boosters <br> Cases selected to encourage custom framework creation. No major complexity ahead of impending interviews. | Ski Resort | BCG |
|  |  | Contact Lens Manufacturer | Darden 2011 |
|  |  | Supermarket Deli Turnaround | BCG |
|  |  | Maldovian Coffins | McKinsey |

## Planning your case preparation

Use of a single casebook alone is unlikely to prepare you adequately for success in the interview room. Suggested resources to supplement this casebook with include:


Other school casebooks
Most popular with Kellogg
Students: Fuqua 2014, Sloan 2011, Wharton 2012


Firm representatives
For internship applicants, cases with firm reps tend to happen in Dec and early Jan


Sponsored students Firms make sponsored students known at Presentations or on their school recruiting webpages


Recorded case interview analysis
Ask your IPG leader for more information on these (eg. Victor Cheng LOMS)


## Casing textbooks

‘Case Interview Secrets’ and 'Case in Point' help get started with basic cases early on


Reading cases
Regularly reported to be a useful way to quickly gain broad case 'experience' when working alone

## Understanding individual case pages

The Case title page contains details that help inform case selection


| (1) Format | Calls out interviews that follow the McKinsey-style, interviewer-led case format |
| :--- | :--- |
| 2 | Concepts tested | Provides a reference to the main concepts that the case tests (see page 16 for more information)

## Understanding individual case pages

## The Interviewer guide provides interviewers with a summary of the case structure

```
DigiBooks
Interviewer Guide
Case prompt
- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the
    - Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also d
    DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the
    DigiBooks is planning the launch of tis tablets in a countywhen eleccronic book readers are currently sold. Only 1% of
    DigiBooks has come to you to help determine:
-What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?
```

Interviewer guide

- Problem: How should DigiBooks enter this new market?
- Key case steps

1. Develop a problem-solving structure
2. Analyze customer segments
3. Brainstorm market entry considerations
4. Estimated profits to identify optimal sales channel
5. Provide CEO recommendation
Northwestern ${ }^{\text {Kellogs }}$

Case prompt

Interviewer guide

This is the information that is provided up front to the interviewee; it introduces the key case context and headline problem that the interviewee is to answer in the course of the case

This section provides a 30-second summary on how the case can be solved. Numbered list not only provides an ideal list of steps to solve the case, but aligns exactly with subsequent areas of the case that may be covered during the course of the interview

## Understanding individual case pages

## The Interview prompt page contains all pre-structure information

Fit/Experience question New this year, fit questions (experience for Interviewer-led cases) are provided ahead of each case
(2) Case prompt
(3) Clarifying information As summarized on the previous slide, this section introduces the key case context and headline problem Provides additional pieces of information that should be provided to the interviewee if requested

## Understanding individual case pages

## Case solving pages are broken down into numbered parts



PartnumberInterviewer promptsSolution

New to the 2020 Casebook, each part number aligns with the numbered list on the interviewer guide (see page 10 for more information)
Above the dotted line, interviewer guidance (including instructions about when to provide the interviewee with Exhibits) and contextual / problem voiceover is provided.

Below the dotted line: full working, part solutions, takeaways and interviewee assessment criteria are provided.

## Finding cases

## Introduction

- Consultancies hiring for generalists typically issue a wide range of cases from random industries, functions or problem areas.
- If you are interviewing with a boutique consultancy or specific practice area, you should expect to see a higher proportion of cases that are directly related to the type of work they do. For example...
- 'ZS Associates' cases skew towards pharmaceutical industry clients
- 'BCG Digital Ventures’ cases typically involve a technology problem
- In the KCC Casebook, each 'Case title page' contains details that help inform case selection to aid easy searching for cases that test a certain industry sector, case type or concept. The casebook uses three character references to aid 'Ctrl+F' searching across 'Case title pages' (see page 9 for more information). A list of references is provided in the next three pages.


## Finding cases

## Industry sectors

| Industries | Description |
| :---: | :---: |
| X01 Aerospace \& Defense | Production, sale, and service of commercial vehicles, military weapons and systems designed to operate on land, sea, and air. Also includes production of aircraft and space vehicles (usually satellites) for both military and commercial use |
| X02 Agriculture \& Food | Agriculture, husbandry or farming, is activity of cultivating plants, animals, and other life forms for food, fiber, and fuel. |
| X03 Energy, Utilities \& Mining | Utilities provide basic amenities, such as water, sewage services, electricity and natural gas. Mining companies locate and extract metal and mineral reserves, then used in jewelry-making, industrial applications, and investments. |
| X04 Engineering \& Construction | Construction of buildings, civil engineering projects, and other industrial plant construction. The industry includes highway, tunnel, bridge, and other civil engineering operations, as well as commercial, residential and industrial buildings. |
| X05 Entertainment \& Media | Comprised of businesses that produce and distribute motion pictures, television programs and commercials, streaming content, music and audio recordings, broadcast, radio, book publishing, video games and supplementary services |
| X06 Financial Services | Financial services are provided by the finance industry, which encompasses a broad range of businesses that manage money, including banks, credit-card companies, insurers, accountancies, stock brokerages and investment funds. |
| $\underline{\mathrm{X07}}$ Government \& Public sector | Includes public goods and governmental services such as law enforcement, public infrastructure, transit, and education, |
| X08 Healthcare | The healthcare sector consists of companies that provide medical services, manufacture medical equipment or drugs, provide medical insurance, or otherwise facilitate the provision of healthcare to patients |
| X09 Hospitality \& Leisure | The leisure and hospitality industry sector includes a broad category of fields within the service industry such as lodging, food services, event planning, theme parks, transportation and other tourism oriented products and services. |
| $\underline{\text { X10 Legal \& Professional Services }}$ | Professional services are occupations in the tertiary sector of the economy requiring special training in the arts or sciences. Some professional services require holding professional licenses such as architects or lawyers. |
| X11 Pharmaceuticals | The pharmaceutical industry discovers, develops, produces, and markets drugs for use as medications to be administered to patients, with the aim to cure them, vaccinate them, or alleviate the symptoms. |
| X12 Retail \& CPG | Retailers sell products, mainly consumer packaged goods (CPG) to end users/consumers. CPG refers to a broad spectrum of manufacturers, sellers, and marketers of (typically packaged) physical goods. |
| X13 Technology | Businesses involved in manufacturing of electronics, creation of software, computers or products and services relating to IT. The technology sector offers a wide arrange of products and services for consumers and businesses. |
| X14 Telecommunications | Comprised of companies that make wireless or wired communication possible on a global scale, (eg. phone, internet) |
| X15 Transportation \& Logistics | Transportation and logistics involves planning, implementing, and controlling movement and storage of goods. |

## Finding cases

## Case types

| Case Type | Description |
| :--- | :--- |
| Y01 Cost reduction | Identifying internal or external costs that are out of line |
| Y02 Growth strategy | Identifying ways in which a firm can optimally grow |
| $\underline{\text { Y03 }}$ Mergers \& Acquisitions | Evaluating whether a firm should merge or purchase another company |
| Y04 New product / Market entry | Analyzing a firm's opportunity to expand into a new product, business or segment |
| $\underline{Y 05}$ Operations | Identifying problems in internal or customer-facing processes |
| $\underline{\text { Y06 Opportunity assessment }}$ | Examining the potential purchase / sale of a new or existing business or installation / abandonment of infrastructure |
| $\underline{Y 07}$ Profitability | Analyzing causes for recent drop in profits / ways to increase profits |

## Finding cases

## Business concepts

| Business Concept | Description |
| :---: | :---: |
| Z01 Accounting | Tests some aspect of accounting. Typically, this will be a simple Income Statement, Balance Sheet or Statement of Cash flows. Most common concept tested is depreciation/amortization. |
| $\underline{\text { Z02 Net Present Value }}$ | Tests ability to calculate the net present value of cash flows over time (or at a point in time). Usually in the context of investment, market entry or company acquisition case. |
| $\underline{Z 03}$ Breakeven analysis | Generally used in market entry cases, break-even analysis tends to test ability to determine how many units (or what price) a product should sell in order to cover a fixed cost. |
| $\underline{Z 04}$ Capacity | Tests understanding of production capacity, in particular long and short run considerations. |
| Z05 Elasticity | Tests understanding of price elasticity of demand or supply, usually in the context of price changes' impact on quantity sold and by extension revenue. |
| Z06 Macroeconomics | Tests understanding of macroeconomic variables trends than affect businesses including: inflation, foreign exchange rates, recessions, international trade. |
| Z07 Market share | Tests understanding of the client and its competitors' market share. This may include understanding of typical features of concentrated and fragmented markets. |
| $\underline{\text { Z08 }}$ Market sizing | Tests ability to develop a structured approach to sizing a market. Emphasis is on mathematical approach rather than accurate estimation of market size or dependent variables. |
| Z09 Microeconomics | Tests understanding of microeconomics, for example the role of demand and supply in market pricing. |
| Z10 Customer marketing strategy | Tests understanding of marketing to customer segments. May involve analyzing their needs, WTP, buying decision, preferred distribution channel etc. |
| Z11 Competitive analysis | Tests ability to analyze relevant aspects of the competition in relation to the client's business situation. |
| Z12 Creativity | Tests ability to develop creative options, usually as part of a brainstorming exercise. |
| Z13 Organizational changes | Tests ability to develop recommendations around the organizational structure, people and/or culture. |
| Z14 Pricing strategy | Tests ability to develop options and methodologies to price a new product or reprice an existing one. |
| Z15 Supply/value chain | Tests understanding of players and activities involved in sale of a product, from the delivery of source materials from suppliers to manufacturers, to delivery to the end user. |
| Z16 Vertical integration | Tests ability to develop a practical solution involving vertical integration of the supply chain. |



## Share focus areas

Inform your interviewer of any specific areas that you would like feedback on


Brush up on the industry Review unfamiliar industries with KCC's industry primers or online (eg. Vault.com)


## Share your caselog

Share an up-to-date caselog with your interviewer so you don't accidently repeat a case Familiarize yourself with the case ahead of time to avoid having to check guidance

Review the case


Don'tsneak a peek! Replicate a real-life case interview experience by going in completely in the dark


Do the math beforehand Gain practice with the math required and understand where common traps may lie


## Bring materials

 Bring several sheets of blank paper and a pen or pencil to the meeting

## Print exhibits

Interviewers should bring printed out copies of any exhibits needed for the case

## Best practices during a case

Take it seriously
You might be interviewing with a friend, but a formal atmosphere will be more valuable and provide a realistic interview experience

Keep quiet!
While silence may be uncomfortable, resist the urge to jump in with pointers, hints, or additional information

## Ask fit questions

Almost all interviews start with fit or Experience questions, so the KCC now provides such a suggested question before each case prompt

## Best practices after a case

Provide high-level performance assessment
Be honest with the interviewee about their
performance. If it was a good case, tell
them. If it was poor, it's even more
important to tell them!

## Provide detailed feedback

After providing a high-level performance assessment, explain why by running the interviewee through each part of their case

## Give feedback!

A case is a two-sided conversation. Tell the interviewer how they could do anything differently in terms of case or performance assessment delivery

## Evaluating case performance

## Evaluation criteria

| Case skills and driving the case | Grade |  |  |
| :--- | :--- | :--- | :--- |
| Problem definition | Clearly understands and defines the problem/ question; summarizes the essence of the issue |  |  |
| Problem breakdown | Breaks problem into most important components |  |  |
| Structure | Uses a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of <br> analysis) |  |  |
| Prioritization | Identifies critical path to the recommendation and most important issues/components |  |  |
| Information | Identifies and addresses key pieces of information and assumptions needed to solve the problem |  |  |
| Solution oriented | Formulates hypothesis when needed and maintains focus on the recommendation |  |  |
| $80-20$ approach | Deep dives into identified critical issues to develop a recommendation (80\% of solution with $20 \%$ of analysis) |  |  |
| Recommendation | Ends up with a pragmatic/ realistic solution that answers the initial question; supported with the analysis |  |  |


| Communication skills | Grade |  |
| :--- | :--- | :--- | :--- |
| Structure | Shares thinking process throughout the case and aligns his communications with the structure of the case |  |
| Focus | Highlights key insights, important findings and critical issues |  |
| Questions | Ask clear questions related to the case process and solution |  |
| Engagement | Engages with the interviewer during the solution of the case |  |
| Support | Clearly supports any conclusion or important claim with relevant arguments |  |
| Business language | Feels comfortable discussing the case with business terminology |  |
| Body language | Communicates naturally and uses body language to support the communication process |  |

## Evaluating case performance

## Evaluation criteria (continued)

| Polish and interpersonal skills | Grade |  |  |
| :--- | :--- | :--- | :--- |
| Self confidence | Shows confidence when solving and attacking the case without sounding arrogant |  |  |
| Quantitative skills | Feels comfortable handling complex calculations and analytics; shows clear calculations and data framing |  |  |
| Analysis | Deep dives in identified critical issues or components and comes up with a solution for each issue |  |  |
| Interpersonal skills | Drive a conversation and acts naturally |  |  |
| Balance | Good balance of quantitative and qualitative analysis during the solution |  |  |


| Business sense and high level thinking | Grade |  |  |
| :--- | :--- | :--- | :--- |
| Creativity | Identifies or uses different approaches to solve the problem. Out of the box thinking; uses creative methods <br> and arrives at creative solutions |  |  |
| Synthesis | Summarizes key findings through the solution of the case and translates them into insights or important take- <br> aways |  |  |
| Concepts | Clearly understands and uses the key business concepts to solve the case |  |  |
| "So what" thinking | Clearly addresses and articulates what each analysis, conclusion or recommendation means to the case, <br> solution or the client |  |  |
| Testing | Frequently tests assumptions and conclusions with reality checks or other quick analysis |  |  |
| Assessment | Assesses risks and consequences for the recommendations; identifies key next steps to further prove the <br> solution |  |  |
| Business sense | Uses common sense and realistic thinking to get to pragmatic recommendations; has the ability to think from <br> different perspectives (e.g. client, competitor, consumer, etc.) |  |  |

2020 Cases

## Case 01 <br> Busch's Barber Shop

## Concepts tested

- Z08 Market sizing (2)
- Z12 Creativity (5)


## Primary sector(s)

- X09 Hospitality \& Leisure

Case type

- Y04 Market entry
- Y06 Opportunity assessment


## Similar cases

- Snack Foods Acquisition (Columbia 2017)
- Surfboard Wax in Hawaii (Fuqua 2014)
- Chic Cosmetology (Kellogg 2020)
$\left\{\begin{array}{c}\text { Case author(s): Michael Eidem (Kellogg 2020) } \\ \text { Edited by: Rohan Maini (Kellogg 2020) }\end{array}\right\}$


## Busch's Barber Shop

## Interviewer guide

## Case Question

- Your friend, a current MBA student, has his heart set on starting a barbershop in Evanston after graduation.
- There are plenty of barbershops and salons near the Northwestern campus, but your eager friend argues they are either (A) vastly overpriced or (B) cheap, but really low quality.
- He wants your help coming up with a plan.

Interviewer guide

- Problem: Develop a market entry strategy for Busch's Barber Shop
- Key case steps:

1. Develop a structure to address the problem
2. Confirm market attractiveness (size)
3. Calculate revenue and costs for two potential locations
4. Evaluate profitability of potential loyalty program
5. Brainstorm other areas of consideration
6. Provide client recommendation

## Busch's Barber Shop

Fit: Tell me something about yourself that is not on your resume.

## Case Question

- Your friend, a current MBA student, has his heart set on starting a barbershop in Evanston after graduation.
- There are plenty of barbershops and salons near the Northwestern campus, but your eager friend argues they are either (A) vastly overpriced or (B) cheap, but really low quality.
- He wants your help coming up with a plan.


## Clarifying information

- Customers: For this analysis, your friend wants to focus solely on a target market of the male population of Evanston.
- Competitive dynamics: Highly competitive, segmented into two distinct groups (high price \& low price). Friend believes there is a profitable space in between these two segments.
- Market: Growing at GDP the past five years.
- Your Friend: No specific experience in the cosmetology area, has enough savings to fund initial upfront costs and early ongoing costs. Profitability is the main goal in the short term (wants to be profitable in year one to justify his decision not to take a highpaying consulting job).
- Product: Barbershop only intends to initially sell haircut service. Any other additional products or services can be considered in the future.


## Busch's Barber Shop

## Exhibit A - Market analysis

Where do men in Evanston get their haircut?


Competitors' market share


Notes:

- Men's haircut market split between two groups, high-end (avg price $\$ 50$ ) and low-end (avg price $\$ 20$ ).
- Evanston Adult Population: 60k ( $50 \%$ male)


## Busch's Barber Shop

## Exhibit B - Market Entry Projections

|  | Expected Customer Steal |  | Upfront Costs |  | Ongoing Costs |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description |  | From <br> Low-end | From <br> High-end | Equip. | Advert. | Rent | Labor |
| Location \#1 | Downtown | $10 \%$ | $5 \%$ | $\$ 30 \mathrm{k}$ | $\$ 20 \mathrm{k}$ | $\$ 4 \mathrm{k}$ | 4 workers, $\$ 15 / \mathrm{hr}$ |
| Location \#2 | Not Downtown | $5 \%$ | $5 \%$ | $\$ 30 \mathrm{k}$ | $\$ 25 \mathrm{k}$ | $\$ 1 \mathrm{k}$ | 2 workers, $\$ 15 / \mathrm{hr}$ |

Notes:

- Projections of customer steal based on consumer survey. Survey described new barbershop as in-between quality at price point of \$30.


## Busch's Barber Shop

## Part 1

## 1. Develop framework for how to approach this new venture

A sample case structure would include the following:

- Client: Specific goals, strengths, capabilities, resources
- Market: Size, growth, competition, customer segmentation
- Profitability
- Expected customer volume, target customers
- Price elasticity, pricing method (ex: loyalty), service mix
- Costs: Fixed costs (rent, equipment, merchandise, advertising), variable costs (labor)
- Go-to strategy: Build, acquire, partner with additional co-owner
- Barriers: Capital, local regulations, attracting talent
- Risks: Competitive response, no differentiation, opportunity cost

Following discussion of framework, interviewee should be asked to briefly market size the adult men's haircut market in Evanston (See next page)

## Busch's Barber Shop

## Parts 2-3

## 2. Confirm market attractiveness (size)

Interviewee should make educated guesses regarding:

- City population size (~60k)
- Male/female ratio (~50/50)
- What \% of male population pays for haircuts (i.e. likely omitting young kids, those who cut their own hair, bald men)
- What \% of men in Evanston get their haircut in Evanston vs downtown Chicago near their place of work.
- Average annual haircuts per person being considered
- Price segmentation (average price for cut, high end vs low end portions of the market and distribution between the two)
- End result should be a total annual dollar amount spent on haircuts by men in Evanston.

There is no correct answer to this exercise. A good interviewee will show creativity, structure, and intuition regarding making educated guesses. Push interviewee to move quickly since this is not the primary purpose of the overall case.
3. Calculate revenue and costs for two potential locations

## Provide Exhibits A \& B

Your friend thinks there is a profitable middle ground between the low cost/low quality cut and the high cost/high quality cut markets.

## Additional information:

- An average male in Evanston pays for 10 haircuts per year
- Barbershop will be open 10 hours/day, 360 days/year
- Assume customers stay with the same barbershop once they make a decision (i.e. customers don't switch back and forth between shops).

Lead interviewee towards calculating 1st year profit in each location to determine optimal choice [see next page for solution].

## Busch's Barber Shop

## Part 3 (continued)

## 3. Calculate revenue and costs for two potential locations (Exhibit A \& B)

Adult male population count in each segment:

| Market | Adult Male Customers |
| :--- | :--- |
| Low-end | $=60$ k $50 \%$ * $2 / 3=20 k$ |
| High-end | $=60 k * 50 \% * 1 / 3=10 k$ |

Projected revenue calculation of each location:

| Location | Total Customers Stolen | Revenue |
| :--- | :--- | :--- |
| Downtown | $=20 k^{*} 10 \%+10 k^{*} 5 \%=2.5 k$ | $=2.5 k * 10$ cuts $/ y r * \$ 30 /$ haircut $=\$ 750 \mathrm{k}$ |
| Not Downtown | $=20 k * 5 \%+10 k^{*} 5 \%=1.5 k$ | $=1.5 k * 10$ cuts $/ y r * \$ 30 /$ haircut $=\$ 450 k$ |

Cost calculations of each location:

| Location | Upfront Costs | Rent | Labor | Total |
| :--- | :--- | :--- | :--- | :--- |
| Downtown | $=30 \mathrm{k}+20 \mathrm{k}=50 \mathrm{k}$ | $=48 \mathrm{k}$ | $=4^{*} \$ 15 / \mathrm{hr}{ }^{*} 10 \mathrm{hr} /$ day ${ }^{*} 360$ days $=\$ 216 \mathrm{k}$ | $\$ 314 \mathrm{k}$ |
| Not Downtown | $=30 \mathrm{k}+25 \mathrm{k}=55 \mathrm{k}$ | $=12 \mathrm{k}$ | $=2^{*} \$ 15 / \mathrm{hr}{ }^{*} 10 \mathrm{hr} /$ day ${ }^{*} 360$ days $=\$ 108 \mathrm{k}$ | $\$ 175 \mathrm{k}$ |

First year profitability:

| Location | Revenue $-\quad$ Total Cost | $=$ | Profit |  |
| :--- | :--- | :--- | :--- | :--- |
| Downtown | $=\$ 750 \mathrm{k}$ | $-\$ 314 \mathrm{k}$ | $=$ | $\$ 436 \mathrm{k}$ |
| Not Downtown | $=\$ 450 \mathrm{k}$ | $-\$ 175 \mathrm{k}$ | $=\$ 275 \mathrm{k}$ |  |

Takeaway: Downtown location has higher projected first year profits.
Optional brainstorming question: What other factors should be considered when choosing a potential shop location?
Potential answers: Long term plans, proximity to other stores, ease of transportation to location, visibility, layout of store, capacity constraint for future growth, preference of target demographic

## Busch's Barber Shop

## Part 4

## 4. Evaluate profitability of potential loyalty program

Your friend (after having chosen the downtown location) is considering implementing a loyalty reward system as part his marketing strategy. He's decided that such a system would reward customers by giving them their 10th haircut for free. He projects this will result in a $10 \%$ increase in total first year customers. Is this a profitable decision?

One method is to calculate the new annual customer count, determine expected annual revenue, and compare with previously calculated revenue. Costs assumed to remain constant since no marginal costs for additional haircuts (employees paid hourly, assume no additional employees required).

## New expected annual customer count:

$=($ Previously calculated total customers) * 110\% = 2500 * $1.1=2750$ customers

## Expected revenue with loyalty program:

$=(\#$ of expected customers) * (average \# haircuts paid for annually) * $($ price $)=2750$ * $(10-1)$ * $\$ 30=\$ 742.5 \mathrm{k}$

Takeaway: Revenue without loyalty program was $\$ 750 \mathrm{k}$. Since costs do not change, not profitable decision.
Additional insight: Revenue decline is minimal (~1\%), are there potential advantages of increasing customer base by $10 \%$ that would still make implementing loyalty program attractive? (example: implement loyalty program for only the first year to build customer base, upsell products such as shampoo/additional services to this larger customer base, etc.)

## Busch's Barber Shop

## Part 5

## 5. Brainstorm other areas of consideration (optional)

## Additional optional brainstorm questions:

1. What changes could be made to make this loyalty program profitable?

- Decrease frequency of freebies, make reward $50 \%$ off instead of free cut, etc.

2. Instead of the loyalty program, your friend is considering introducing a membership-based pricing. In this system, a customer would pay a set price every month for unlimited haircuts. What are pros and cons of such a system, and if it was implemented, how would you think about setting the price?

- Pros (more predictable revenue stream, potentially increased data on customers, differentiation)
- Cons (adverse selection likely to occur with only customers who would overuse membership signing up, potentially unhappy employees if tips reduce based on different payment scheme)

3. One key to success will be finding quality employees without having to pay as high of a base wage as high end competition. What are some possible methods of attracting and retaining talent in this scenario?

- Possible options: more flexible work schedule, end of year profit sharing to make employees feel invested in store's success, finding rising stars in the lower end market who haven't had the chance to move to the high-end yet, etc.


## Busch's Barber Shop

## Part 6

## 6. Provide client recommendation

## Overall:

- Your friend should choose the downtown location for starting his new barbershop without the loyalty program.
- Projected first year profits of $\sim \$ 430 \mathrm{k}$
- Implementing free 10th haircut results in decreased revenue at current growth expectations.


## Risks:

- Numbers assume immediate customers acquisition: unrealistic without effective marketing campaign.
- Competitive response: high end stores may offer discounts or decrease price if they experience large loss of customers, although, projected market steal from this segment is only $5 \%$, unlikely to cause drastic response.
- Customers might not find quality increase enough to justify increased price compared to other low-end options.
- Opportunity costs: what other business options could your friend be pursuing with his saved capital? Are there other locations better suited than Evanston? Would it be more efficient to buy a current existing shop instead of starting a new one?


## Next steps:

- Perform due diligence on buying an existing shop.
- Perform more extensive customer surveys to confirm existing projections.
- Research how to hire qualified barbers to meet expectations of improved quality compared to low level shops.
- Sign lease, purchase equipment, bring on advisor (since friend has no previous experience), develop marketing strategy.
- Evaluate changes to proposed loyalty program to improve profitability.


## Case 02

## Chic Cosmetology

## Concepts tested

- Z03 Breakeven analysis (1)
- Z12 Creativity (2)
- Z07 Market share (3)


## Primary sector(s)

- X09 Hospitality \& Leisure



## Similar cases

- Busch's Barber Shop (Kellogg 2020)
- Yumy Co 2012)
$\left\{\begin{array}{c}\text { Case author(s): Peter Manoogian (Kellogg 2012) } \\ \text { Edited by: Rohan Maini (Kellogg 2020) }\end{array}\right\}$


## Chic Cosmetology

## Interviewer guide

## Case prompt

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- CCU has capital to invest in a new campus and is considering Chicagoland as a location - should they do it?

Interviewer guide

- Problem: Will CCU be able to enroll enough students to offset the initial investment and achieve positive profit?
- Key case steps:

1. Evaluate CCU revenue and cost structures
2. Brainstorm CCU customers
3. Project CCU's market share
4. Provide client recommendation

- Note: It is critical that the interviewee lands on the figures presented (or is course corrected toward them before proceeding)


## Chic Cosmetology

Fit: What would be the hardest part about starting at our firm?

## Case prompt

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- CCU has capital to invest in a new campus and is considering Chicagoland as a location - should they do it?


## Clarifying information

- Goal: Achieve positive operating profit for the new campus two years after opening
- Format: Enrolled students take classes at a physical campus for one school year to earn degree (FY begins on 9/1)
- Reputation: CCU has the best campuses and equipment in the industry, and boasts strong job placement into top local slaons
- Growth: CCU and industry enrollments growing at 5\% per year
- Competitors: 2-3 other large specialty colleges, and lower-cost community colleges
- Industry: H.S. Diploma and cosmetology degree required to enter the field
- Students: $98 \%$ of cosmetologists are women


## Chic Cosmetology

Exhibit A - CCU 2010 financials (31-Aug-2010)

| Student enrollments (all campuses) | 10 |
| :--- | ---: |
| Revenue from enrollments | $\$ 150,000$ |
| Total fixed campus costs | $\$ 48,000$ |
| $\quad$ Buildings and equipment | $\$ 32,000$ |
| $\quad$ Recruiting, general, and administrative | $\$ 16,000$ |
| Total variable campus costs | $\$ 80,000$ |
| $\quad$ Instructors | $\$ 40,000$ |
| $\quad$ Student supplies | $\$ 40,000$ |
| Operating profit | $\$ 22,000$ |

Notes:

- All units in ‘000s


## Chic Cosmetology

Exhibit B - CCU and major competitor locations (31-Aug-2010)


| Campus | 2010 share* |
| :--- | :--- |
| San Francisco, CA | $8 \%$ |
| Los Angeles, CA | $14 \%$ |
| Minneapolis, MN | $15 \%$ |
| Dallas, TX | $14 \%$ |
| Houston, TX | $10 \%$ |
| Atlanta, GA | $16 \%$ |
| Miami, FL | $12 \%$ |
| Philadelphia, PA | $12 \%$ |
| New York City, NY | $16 \%$ |
| Boston, MA | $8 \%$ |

*Measured as share of total 'potential' students, as defined by CCU

## Chic Cosmetology

## Part 1

## 1. Evaluate CCU revenue and cost structures

## Provide Exhibit A after interviewee asks about revenues or costs

- How many students will CCU need to break-even in year 1 ?
- If asked, the investment initial Chicagoland campus cost is $\$ 4.5 \mathrm{M}$ in initial building costs to renovate its chosen site. These costs can be amortized evenly over a three year period. Assume fixed costs remain flat per year.
- Interviewee should calculate
- Total fixed costs per year $=\$ 6.3 \mathrm{M}(\$ 4.8 \mathrm{M}+\$ 1.5 \mathrm{M}$ from amortization).
- Gross profit per student = \$7K
- Average revenue per enrollment = \$15K (revenue / total enrollments)
- Total annual fixed cost per campus = \$4.8M (\$48M / 10)
- Total variable cost per student $=\$ 8 \mathrm{~K}(\$ 80 \mathrm{M} / 10 \mathrm{~K})$
- Gross profit per student $=\$ 7 \mathrm{~K}(\$ 15 \mathrm{~K}-\$ 8 \mathrm{~K})$
- Break-even number of enrollments per year = 900 (\$6.3M / \$7K)
- Next step: Interviewee should tackle the overall opportunity in the area and how many year 1 enrollments CCU could expect


## Chic Cosmetology

## Part 2

## 2. Brainstorm CCU customers

- What types of schools / students do you think CCU targets?
- Possible responses (schools):
- Public schools (private HS more likely to have grads go to $4 y r$ univ)
- HS's in middle-class cities (may be an affordability issue w/lo income)
- Closest to the campus (geography)
- Possible responses (students)
- Female HS graduates
- Not attending 4yr college
- Interested in cosmetology
- After a few of the above criteria are noted, share:
- CCU has identified 1,000 targeted high schools in the Chicagoland area
- Within these HS, CCU's market research estimates that on average 6 students per HS have "potential" for CCU enrollment


## Chic Cosmetology

## Part 3

## 3. Project CCU's market share

## Provide Exhibit B to the interviewee

- $80 \%$ of enrolled students come directly from high school, the other $20 \%$ of students come from the "Adult" market
- What is the highest share we could expect CCU Chicago to capture in Y1?
- Campuses w/competitors present tend to have a lower share (10\%) than those w/out (15\%)
- However, presence of >1 competitor does not have an increased negative impact on market share (Boston has $8 \%$ share w/only one competitor)
- Interviewee should assume a projected $10 \%$ market share for a Chicago campus (one competitor)
- $10 \%$ market share equals 750 enrollments
- Takeaway: CCU cannot break even based on the enrollment number estimated


## Chic Cosmetology

## Part 4

## 4. Provide client recommendation

- Overall, our client should NOT enter the Chicago market under the current cost structure. Even with a $10 \%$ market share assumption in year 1, the Chicago campus will enroll only 750 students, this is 150 fewer than the 900 required to break-even.
- The client should also consider several qualitative issues:
- Consider offering scholarships to increase the number of potential students and/or conversion rate of potential students
- Consider other cities beyond Chicagoland that currently do not have a CCU presence, or add a second campus to a city such as NYC that has high market share and potentially low capacity
- Perform market research in other cities to understand if there is a greater potential per target high school to increase ROI
- Consider ways to reduce fixed costs (e.g., transporting equipment / materials from campuses that are not at capacity)
- Strong interviewees identify several of the qualitative issues listed above as ways in which CCU could proceed
- Outstanding interviewees will recognize that the $10 \%$ market share is for campuses that have been in place for at least three years, therefore Chicago is unlikely to achieve that share in year 1 or 2 ; this rules out the feasibility of the follow-up question that suggests the possibility of reducing the one-time investment from $\$ 4.5 \mathrm{M}$ to $\$ 300 \mathrm{~K}$.


## Case 03

## Chicouver Cycle

## Concepts tested <br> - Z12 Creativity (1) <br> - Z02 Net Present Value (2) <br> - Z03 Breakeven analysis (3)

## Primary sector(s)

- X15 Transportation \& Logistics

Case type

- Y04 New product / Market entry


## Similar cases

- Fast Food Co. (Columbia 2017)
- Duck Island Beer Co. (Fuqua 2016)


## Chicouver Cycle

## Interviewer Guide

## Case prompt

- Our client, Chicouver Cycle (pronounced "Chai-cover"), is a bikesharing startup. Like other bikeshare operators in cities around the world, Chicouver Cycle owns bicycles and rents them out to users one trip at a time.
- Chicouver Cycle wants to know how they should launch operations in the city of Chicouver. They have specifically asked us to recommend one or more of Chicouver's neighborhoods to enter.


## Interviewer guide

- This case test the interviewee's ability to move beyond the typical market entry framework to consider practical issues of launching a sharing economy business.
- Key case steps:

1. Develop a structure to address the problem - identify factors for comparing different neighborhoods as potential launching grounds.
2. Analyze cost and revenue drivers for different neighborhoods and trip types.
3. Compute profitability for different operating models (docking versus dockless bikeshare systems)
4. Provide client recommendation

## Chicouver Cycle

Fit: You're interviewing for a generalist role, however, are there particular industries or functions that you're especially interested in?

## Case prompt

- Our client, Chicouver Cycle (pronounced "Chai-cover"), is a bikesharing startup. Like other bikeshare operators in cities around the world, Chicouver Cycle owns bicycles and rents them out to users one trip at a time.
- Chicouver Cycle wants to know how they should launch operations in the city of Chicouver. They have specifically asked us to recommend one or more of Chicouver's neighborhoods to enter.


## Clarifying information

- Customers: Chicouver residents are avid bicyclists. The city is also a popular tourist destination
- Competitive Dynamics: There is currently no existing bikeshare system in Chicouver.
- Company: Our client wants to generate cash from initial launch to fund further growth. Profitability is important.
- Product: Most bikeshare systems charge $\$ 1$ per trip. Our client will charge the same. Our client is choosing between two models of bikesharing systems: docking and dockless.
- Other: The city of Chicouver has worked with other sharing economy platforms before; permitting will not be an issue. Chicouver has reasonable weather for biking all year round.


## Chicouver Cycle

Exhibit A - Chicouver's Neighborhoods


## Chicouver Cycle

## Exhibit B - Chicouver's Topography



## Chicouver Cycle

## Exhibit C - Projections by Type of Bikeshare Trip

| Trip Type | Expected No. of <br> Trips Per Week (K) | No. of Bikes Needed <br> to Meet Demand (K) | Utilization (\%) |
| :--- | :---: | :---: | :---: |
| Commuting | 500 | 50 | $4 \%$ |
| Tourism | 400 | 5 | $24 \%$ |
| Recreation | 300 | 4 | $22 \%$ |
| Nightlife | 600 | 30 | $7 \%$ |

Notes:

- Utilization = \# hours bike is used each week / total \# hours in a week


## Chicouver Cycle

Exhibit D - Bikeshare Systems

## DOCKING System



Users must start and end trips at a docking station.

## DOCKLESS System



Users pick up any available bike and end a trip anywhere within the service area.

## Chicouver Cycle

## Exhibit E - Projected Costs

| Costs | Docking System | Dockless System |  |
| :--- | :---: | :---: | :---: |
| Annual cost per bike | $\$ 200$ | $\$ 200$ |  |
| Annual cost per docking station* |  |  | $\$ 10,000$ |
| Annual distribution <br> cost per bike | Flat | $\$ 100$ | noderately Hilly |
|  | Very Hilly | $\$ 500$ | $\$ 200$ |
|  | $\$ 2,000$ | $\$ 4,000$ |  |

*Notes:

- Each docking station holds 20 bikes


## Chicouver Cycle

## Part 1

## 1. Develop a structure to address the problem

An ideal structure focuses mostly on the specific question at hand: which neighborhood(s) should Chicouver Cycle look to launch in first? Additional elements of a new venture/market entry framework help to round out a complete view of the problem.

Key elements expected to be included in this framework are:

- Overall Market: Who are the target customers and what are their preferences, what does the competitive landscape look like (even though there aren't other bikesharing companies, what are available substitutes), what are the overall economic trends in the city of Chicouver and how will that impact the sharing economy?
- Our Client: What are our core competencies, have we launched in other cities previously and learned from that experience, do we have a current image/brand, how lean are we looking to be at initial launch, what are our future aspirations (other products, services)?
- Profitability: What will the expected costs be (marketing, bikes, docking equipment, labor, technology development and maintenance, etc.) and how much revenue can we expect to earn (user volume, ride frequency, payment level and structure)?
- Location Choice: The prompt specifically focuses on location, so the interviewee should consider factors that matter when analyzing neighborhoods as potential launching grounds: population density, neighborhood uses, household income, topography (critical for bikeshare!), etc.


## Chicouver Cycle

## Part 2

2. Analyze cost and revenue drivers for different neighborhoods and trip types.

After discussing initial framework, when interviewee raises questions regarding how to evaluate which neighborhood to enter...

## Provide Exhibit A \& B

- There is a lot of info in Exhibit A: population density, what takes place in each neighborhood, and who is in each neighborhood.
- There are 3 residential neighborhoods where people commute from home to work in CBD. After work, residents travel from the CBD to the recreation and nightlife districts. Tourists tend to stay within the historic district.
- Terrain matters: it's easier to bike on flat terrain than hilly terrain, and this may affect our revenues or our costs.
- Interviewee should discuss how these different characteristics of neighborhoods affect the attractiveness of each for market entry.
- Interviewee may need help seeing that there are different types of trips taking place within and between neighborhoods.


## Provide Exhibit C

- Exhibit C lays out 4 types of trips that people take in Chicouver. Interviewee may note that while commuting and nightlife have the greatest number of trips, they require many bikes to provide an acceptable level of service, leading to low utilization.
- No calculations needed at this time, but interviewee should raise issue of revenues and costs. If asked about revenues, tell interviewee that our client will charge $\$ 1$ per trip. When asked about costs, ask interviewee to quickly brainstorm major cost items.


## Chicouver Cycle

## Part 3

3. Compute profitability for different operating models (docking versus dockless bikeshare systems)

- When the interviewee raises the need to look at costs and revenues...


## Provide Exhibit D \& E

Calculate revenue and costs for each distinct trip type to determine which neighborhoods should be targeted:

- Revenue $=(\$ 1)^{*}$ (\# of weeks) * (\# of trips) (Assume 50 weeks in a year)
- Cost of bikes $=(\$ 200) *(\#$ bikes $)$
- Number of stations $=(\#$ bikes $) / 20$ Cost of Stations $=(\$ 10,000)$ * (\# stations)
- Distribution costs = (distribution costs) * (\# bikes)

| Type | $\begin{aligned} & \text { \# } \\ & \text { Trips } \end{aligned}$ | \# Bikes | Terrain | Revenue | Bike Cost | \# Stations | Station Cost | Dist. Cost (docking) | Dist. Cost (dockless) | Docking Profits | Dockless Profits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commute | 500 | 50K | All 3 (use flat) | $\begin{aligned} & \$ 1 \text { * } 500 \mathrm{~K} \text { * } \\ & 50=25 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 200 * 50 \mathrm{~K} \\ & =10 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 50 \mathrm{~K} / 20= \\ & 2500 \end{aligned}$ | $\begin{aligned} & 2500 * \$ 10 \mathrm{~K} \\ & =25 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 100 * 50 \mathrm{~K} \\ & =5 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 5 M * 2= \\ & 10 M \end{aligned}$ | $\begin{aligned} & 25-10-25-5 \\ & =-15 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 25-10-10= \\ & 5 M \end{aligned}$ |
| Tourism | 400 | 5K | Very hilly | $\begin{aligned} & \$ 1 \text { * } 400 \mathrm{~K} \text { * } \\ & 50=20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 200 * 5 K= \\ & 1 M \end{aligned}$ | $\begin{aligned} & 5 K / 20= \\ & 250 \end{aligned}$ | $\begin{aligned} & 250 * \$ 10 \mathrm{~K} \\ & =2.5 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 2000 * 5 \mathrm{~K} \\ & =10 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 10 \mathrm{M} * 2= \\ & 20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 20-1-2.5-10 \\ & =6.5 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 20-1-20= \\ & -1 M \end{aligned}$ |
| Recreation | 300 | 4K | Moderate | $\begin{aligned} & \$ 1 \text { * } 500 \mathrm{~K} \text { * } \\ & 50=15 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 200 \\ & 08 M \end{aligned}$ | $\begin{aligned} & 4 \mathrm{~K} / 20= \\ & 200 \end{aligned}$ | $200 * \$ 10 \mathrm{~K}$ | $\begin{aligned} & \$ 500 * 4 K= \\ & 2 M \end{aligned}$ | $\begin{aligned} & 2 M * 2= \\ & 4 M \end{aligned}$ | $\begin{aligned} & 15-0.8-2-2 \\ & =10.2 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 15-0.8-4= \\ & 10.2 \mathrm{M} \end{aligned}$ |
| Nightife | 600 | 30K | Flat | $\begin{aligned} & \$ 1 \text { * } 500 \mathrm{~K} \text { * } \\ & 50=30 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 200 * 30 \mathrm{~K} \\ & =6 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 30 \mathrm{~K} / 20= \\ & 1500 \end{aligned}$ | $\begin{aligned} & 1500 * \$ 10 \mathrm{~K} \\ & =15 \mathrm{M} \end{aligned}$ | $\begin{aligned} & \$ 100 * 30 \mathrm{~K} \\ & =3 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 3 M * 2= \\ & 6 M \end{aligned}$ | $\begin{aligned} & 30-6-15-3= \\ & 6 M \end{aligned}$ | $\begin{aligned} & 30-6-6= \\ & 18 M \end{aligned}$ |

## Chicouver Cycle

## Part 4

## 4. Provide client recommendation

- Recommendation: Chicouver Cycle should launch a dockless system in the nightlife district:
- This will generate $\$ 18 \mathrm{~m}$ in profits per year, driven by the nightlife district's high volume of projected bikeshare trips.
- Going dockless will save $\$ 15$ in station costs in exchange for a doubling of distribution cots to $\$ 6 \mathrm{~m}$, which are relatively low thanks to the nightlife district's flat terrain.
- Going forward, a dockless system will also entail lower costs and higher profits than a docking system as Chicouver Cycle expands to other neighborhoods and serves other trip types. Choosing the right operating infrastructure with the eye to future growth is important for a bikeshare system.


## - Next Steps:

- Utilization of bicycles for nightlife trips is low. Our client should explore ways to increase utilization and improve margins by using the same bikes to target additional trip types, such as recreation trips. Recreation is a good candidate because the recreating and nightlife districts are geographically adjacent.
- Our client should investigate ways to reduce distribution costs. One idea is to incentive users to end trips in specific locations that won't require Chicouver Cycles to send someone to redistribute the bikes later on.
- Chicouver Cycle should increase loyalty among customers and raise switching costs to protect itself from other sharing economy transportation competitors, including other bikeshare companies that may enter the city.


## Case 04

## Dark Sky

## Concepts tested

- Z12 Creativity (1)
- Z05 Elasticity (2)
- Z14 Pricing strategy (2)


## Primary sector(s)

- X01 Aerospace \& Defense

Case type

- Y04 New product / Market entry


## Similar cases

- Fruit Cart Vendor (Stern 2012)
- Sgt. Slaughter (Fuqua 2010)
- Ice Cream Dream (Darden 2016)

Case author(s): Sean Burrow (Kellogg 2011)
Edited by: Eugene Kim (Kellogg 2015), Rohan Maini (Kellogg 2020)


## Dark Sky

## Interviewer guide

## Case prompt

- Our client, Dark Sky, is a small manufacturer of unmanned (ie. remotely piloted) data collection aircraft.
- Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration.
- In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
- What are some steps Dark Sky could take to achieve growth?


## Interviewer guide

- This case intentionally uses terminology that may not be familiar to the typical MBA student. This is meant to challenge the interviewee to dismiss superfluous information and to focus on the business problem.

1. Analyze historical growth and brainstorm growth strategies
2. Explore attractiveness of prototype products
3. Brainstorm other product selection considerations
4. Provide client recommendation

## Dark Sky

Fit: What is your greatest weakness? Tell me about a team experience when you where hampered by this weakness.

## Case prompt

- Our client, Dark Sky, is a small manufacturer of unmanned (ie. remotely piloted) data collection aircraft.
- Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration.
- In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
- What are some steps Dark Sky could take to achieve growth?


## Clarifying information

- Customer / Price: Dark Sky's only customer is the US Military, with which they have a Cost-Plus-Fixed-Fee contract. The contract has been extended in the past and is up for renegotiation; the Military has agreed to a marginal inflationary price increase
- Company: Dark Sky has additional capacity to manufacture. They are too small to acquire competitors.
- Product: Dark Sky designs a unique aircraft that is launched from a catapult device; the aircraft can be launched from ships at sea or from harsh terrain (e.g. desert, mountains). Dark Sky only sells the Assessor, but has other prototypes designed.
- Competition: There are approximately 20 competitors that manufacture unmanned aircraft.


## Dark Sky

Exhibit A - Historical revenue (2014-2019)


## Dark Sky

## Exhibit B - New product sales forecast (2020)

|  | New Product Sales <br> (units sold) |  |  |
| :--- | :---: | :---: | :---: |
| New Product <br> Offering | Navy | Army | Price Per Aircraft |
| SeaBird | 50 | -- | $\$ 220,000$ |
| SandBird | -- | 60 | $\$ 210,000$ |
| JointBird | 38 | 52 | $\$ 180,000$ |

## Dark Sky

## Exhibit C - Impact of new product on existing sales (2020)

|  | New Product Sales <br> (units sold) |  | Price Per Aircraft |  |  | Assessor unit sales lost <br> (cannibalized) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| New Product <br> Offering | Navy | Army | P |  |  |  |
| SeaBird | 50 | -- | $\$ 220,000$ | $40 \%$ |  |  |
| SandBird | -- | 60 | $\$ 210,000$ | $70 \%$ |  |  |
| JointBird | 38 | 52 | $\$ 180,000$ | $90 \%$ |  |  |

## Dark Sky

## Part 1

## 1. Analyze historical growth and brainstorm growth strategies

## Provide Exhibit A when the interviewee asks about revenue

- The military started purchasing the Assessor in 2016. The price of the aircraft has remained constant at \$100,000 per unit. Throughout the past decade, The Assessor has been Dark Sky's only source of revenue.
- How many units were sold in 2019 and what was the growth rate from 2015 to 2019 ? How could Dark Sky grow?
- How many units were sold in 2019 ?
- $\$ 5,000 \mathrm{k} \div \$ 100 \mathrm{k} /$ unit $=50$ units
- What was the growth rate from 2015 to 2019?
- $(\$ 5,000 k-\$ 500 k) \div(\$ 500 k) \times 100=900 \%$

| Organic | Inorganic |
| :--- | :--- |
| - Increase penetration with US military | - Joint Venture - to increase market accessibility or |
| product offering. |  |

## Dark Sky

## Part 2a

2a. Explore attractiveness of prototype products

## Provide Exhibit B after Exhibit A asks about new products

- Dark Sky has developed several aircraft prototypes designed specifically for military missions. The company has the capability to continue producing the Assessor and to introduce one new aircraft.
- To maximize short-term growth, which aircraft should Dark Sky produce?
- To calculate the revenue for each scenario, the interviewee should add Assessor sales to the sales of the new product.
- Assessor sales are based on:
- 50 units sold with no new product launch
- Cannibalization forecast specific to each new product launch
- \$110,000 per aircraft
- New product sales can be easily calculated using shortcuts. For example:
- SeaBird: $\$ 220 k$ * $100=\$ 22 m \ldots$ then half of this
- SandBird: $\$ 210 k$ * $100=\$ 21 \mathrm{~m} \ldots$ then half of it and add ( $10 \%$ of $\$ 21 \mathrm{~m}$ )
- JointBird: Add to get $90 \ldots$ then $\$ 180{ }^{*} 100=\$ 18 \mathrm{~m}$, subtract (10\% of $\$ 18 \mathrm{~m}$ )


## Dark Sky

## Part 2b

## 2b. Explore attractiveness of prototype products

## Provide Exhibit C only if the interviewee asks about cannibalization

- The introduction of a new aircraft will have a negative impact on Assessor sales. Which aircraft should Dark Sky produce?
- Assessor Sales (Units, Revenue):
- No new product = 50 aircraft, $\$ 5,500,000$
- With SeaBird $=50+(50$ * $(-40 \%))=50-20=30$ aircraft, \$3,300,000
- With SandBird $=50+(50 *(-70 \%))=50-35=15$ aircraft, $\$ 1,650,000$
- With JointBird $=50+(50$ * $(-90 \%))=50-45=5$ aircraft, $\$ 550,000$
- New Product Revenue:
- SeaBird $=50 * \$ 220,000=\$ 11,000,000$
- SandBird $=60 * \$ 210,000=\$ 12,600,000$
- JointBird $=(38+52) * \$ 180,000=90 * \$ 180,000=\$ 16,200,000$
- Total Revenue:
- Assessor Only = \$5,500,000
- Assessor and SeaBird $=\$ 3,300,000+\$ 11,000,000=\$ 14,300,000$
- Assessor and SandBird $=\$ 1,650,000+\$ 12,600,000=\$ 14,250,000$
- Assessor and JointBird $=\$ 550,000+\$ 16,200,000=\$ 16,750,000$


## Dark Sky

## Part 3

3. Brainstorm other product selection considerations

- If the candidate doesn't start by listing other considerations relevant to selection of a new aircraft, as them to brainstorm.


## Development

- Speed: How quickly could Dark Sky start manufacturing a third model (i.e. can Dark Sky produce SandBird this year, and be producing SandBird and SeaBird the following year)? If so, what are the revenue implications?
- Costs: How profitable are the four aircraft models in comparison? Note: Because Dark Sky has a Cost-Plus-Fixed-Fee contract, profitability for each aircraft is likely equivalent. For this reason, Dark Sky should focus on maximizing the number of aircraft sold. • How much and how long is the payback period for the investment in manufacturing each type aircraft?


## Portfolio

- If Dark Sky produces JointBird, is $\$ 550,000$ in Assessor revenue worth the associated cost to produce the aircraft? Should resources be allocated to another project?


## Customer

- Potential benefits of have two customer bases for new product (Navy and Army).


## Dark Sky

## Part 4

## 4. Provide client recommendation

- Based on 2020 forecasted revenue alone, Dark Sky should introduce the JointBird to the US Military in order to boost growth.
- Among the three new prototype product, the JointBird is forecasted to maximize short-term revenue
- However, there are several connected issues that Dark Sky should consider to include profitability, long-term revenue forecasts, competitive response, etc.
- Excellent interviewees will identify cannibalization as a consideration before beginning revenue calculations


## Case 05 <br> DigiBooks

Interviewer-led

## Concepts tested

- Z10 Customer strategy (2)
- Z10 Marketing strategy (3)
- Z12 Creativity (3)
- Z08 Market sizing (4)

Case type

- Z04 New product / Market entry


## Similar cases

- Heavy Things Fitness (Fuqua 2014)
- High Peaks Jacket (Tuck 2009)
- Termite Control (Ross 2005)


## DigiBooks

## Interviewer Guide

## Case prompt

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only $1 \%$ of the population has ever used an electronic book readers, though $50 \%$ is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?


## Interviewer guide

- Problem: How should DigiBooks enter this new market?
- Key case steps

1. Develop a problem-solving structure
2. Analyze customer segments
3. Brainstorm market entry considerations
4. Estimated profits to identify optimal sales channel
5. Provide CEO recommendation

## DigiBooks

Experience: Tell me about a time that you lead a time to meet an aggressive deadline.

## Case prompt

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only $1 \%$ of the population has ever used an electronic book readers though $50 \%$ is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?


## Clarifying information

- Industry Definitions: Electronic book readers: Is a software, hardware and network platform that utilizes wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media.
- Client Characteristics: DigiBook's Tablet: Uses an e-ink electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery life and easy readability.
- Locations: DigiBook has never sold a product outside of the US.
- Competitive Dynamics: No competitors in the e-book or tablet space plan to enter this country
- Market Characteristics: Total population of the country 76MM, high literacy level


## DigiBooks

Exhibit A - Market segments


## DigiBooks

## Exhibit B - Channel decisions

| Channel | Reach as a \% of <br> Total potential <br> market | E book Gross <br> Margin \% | E-reader Gross <br> Margin \% | Penetration | Overheads |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Retail | $50 \%$ | $50 \%$ | $30 \%$ | $40 \%$ | $\$ 20 \mathrm{M}$ |
| Internet | $50 \%$ | $50 \%$ | $60 \%$ | $10 \%$ | $\$ 10 \mathrm{M}$ |

## DigiBooks

## Part 1

## 1. Develop a structure to address the problem

- A structure should cover the key areas needed to explore in order to determine how DigiBooks should launch and market the tablets in this country. Key elements expected to be included in this framework are:
- Segmentation, targeting and positioning: Are there particular segments in the population that will be ideal customers for us?
- Product: What key capabilities are people looking for? Can we use our existing products or do we need to develop a new one for this country?
- Price: What price should the tablets and books be sold at? What is customers willingness to pay? Should we price the tablet at a low price so as to capture most of the market, and make margin on e-books?
- Promotion: How should the tablets be marketed? What promotion mechanisms should be used?
- Place/Distribution: Should the tablets be sold through retail channels, internet or other alternative means?
- Selection of e-books: Is a wide selection of books available for this country?


## DigiBooks

Part 2
2. Analyze customer segments

## Provide Exhibit A

- Through research, we found several segments. We are only able to target one segment with our product.
- Using a 3-year projection, which segment should DigiBook target?
- If unclear, the interviewee should answer based on Revenue Potential (i.e. Ignore probability of purchase) assuming all tablet sales happen immediately (Ignore TVM).
- The missing data is that the average price of an e-book is $\$ 10$, for each of the segments, and that e-books and tablets have the same margin
- Using Exhibit A, interviewee should calculate:
- SR Revenue $=[(15$ books $\times \$ 10 \times 3$ Years $)+(\$ 200 \times 1$ tablet $)] \times 8 \mathrm{M}$ People $=\$ 5.2 \mathrm{~B}$
- OR Revenue $=[(10$ books $\times \$ 10 \times 3$ Years $)+(\$ 125 \times 1$ tablet $)] \times 20 \mathrm{M}$ People $=\$ 8.5 B$
- RR Revenue $=[(5$ books $\times \$ 10 \times 3$ Years $)+(\$ 175 \times 1$ tablet $)] \times 10 \mathrm{M}$ People $=\$ 3.25 \mathrm{~B}$
- Takeaway: Segment to be targeted = Occasional Readers (OR) with a Revenue Potential of \$8.5B


## DigiBooks

## Part 3

## 3. Brainstorm market entry considerations

- DigiBooks is now considering how it should sell its e-book readers: through retail stores or through the internet.
- How would you go about evaluating this decision?

|  | Pros | Cons |
| :---: | :---: | :---: |
| $\begin{aligned} & \overline{\bar{\pi}} \\ & \stackrel{\sim}{\mathbb{O}} \end{aligned}$ | - Should encourage trial of the product <br> - Retailers can help with joint marketing campaigns <br> - Retailers can help with customer service, returns | - Lower margin due to value chain expansion <br> - Will take time and money to set up and adds training costs |
|  | - Likely cheaper to establish, will result in higher margins | - Hard to encourage trial |

- Takeaway: We should do some sort of financial analysis to determine which channel is more attractive.


## DigiBooks

## Part 4

4. Estimated profits to identify optimal sales channel

## Provide Exhibit B

- Based on revised market estimates, we decided to price the e-reader at $\$ 100$ and target the Occasional Reader segment.
- Using this information and Exhibit B, can you estimate the profit potential of each of these sales channels? Which should we choose?
-What segment would you recommend to your client?
- If unclear, the interviewee should answer this with a 1-year Profitability calculation for each of the Sales Channels and back out the Upfront Investment. They should ignore all other costs.
- There is no missing data; however, the Market Size of 20M people in the OR segment is needed from Exhibit A and the price per ebook of $\$ 10$.
- Using Exhibit B, interviewee should calculate:
- Retail Profit $=[(10$ Books $\times \$ 10 /$ book $\times 50 \%)+(\$ 100 /$ tablet $\times 30 \%)] \times(20 \mathrm{M}$ People $\times 50 \%$ reach $\times 40 \%$ Penetration $)=\$ 320 \mathrm{M}-$ $\$ 20 \mathrm{M}=\$ 300 \mathrm{M}$
- Internet Profit $=[(10$ Books $\times \$ 10 /$ book $\times 50 \%)+(\$ 100 /$ tablet $\times 60 \%)] \times(10 \mathrm{M}$ People $\times 10 \%$ Penetration $)=\$ 110 \mathrm{M}-\$ 10 \mathrm{M}=$ \$100M
- Takeaway: Sales Channel to Use = Retail with a profit of $\$ 300 \mathrm{M}$


## DigiBooks

## Part 5

## 5. Provide CEO recommendation

- Overall, DigiBooks should launch the e-book reader for the Occasional Reader segment through the Retail Sales Channel.
- Based on our calculations, we expect to earn a $\$ 300 \mathrm{MM}$ annual return

Other items to consider:

- What advertising mechanisms do we use in this case?
- Do we setup a manufacturing facility in the country or do we source the products from our current manufacturing facilities?
- Are there any prospects of competitors entering the market?
- Strong interviewees notice key nuances in the case such as: Time Value of Money impacts on Exhibit A and Probability of Purchase or Penetration on Exhibit A
- Outstanding interviewees detail various elements of marketing strategy of a new product launch. They lay out tables appropriately and completes relatively complex calculations at a fast pace.


## Case 06

## Events.com

## Concepts tested

- Z14 Pricing strategy
- Z07 Market share


## Primary sector(s)

- X13 Technology

Case type

- Y07 Profitability


## Similar cases

- Maine Apples (Kellogg 2020)
- Montoya Soup (Kellogg 2018)



## Events.com

## Interviewer guide

## Case prompt

- Our client is Prospect Equity Partners ('Prospect'), a prominent Private Equity firm that invests in the technology space. They have recently acquired Events.com due to strong commercial wins and momentum in the market
- Events.com is a leading SaaS-based registration/ticketing platform for Endurance events (5K runs, Marathons, Triathlons, Mud Runs, etc.). They make money by taking registrations and processing payments for events and charging a fee per transaction (similar to Ticketmaster or Eventbrite) (\$100 registration price $\times 10 \%$ Fee $=\$ 10$ in Revenue for Events.com)
- Events.com has doubled market share since 2015, but in the last two years revenue is flat and profits are down, despite growing share. Prospect wants you to determine what is causing this and come up with a plan to improve profitability


## Interviewer guide

- Problem: Are the costs associated with the DM program justified by the savings?
- This case is about a PE-portfolio company in Tech that has been undergoing a decline in profitability, despite commercial wins and market share growth. Events.com made a pricing change that has harmed profitability and needs to make a change

1. Analyze profitability issues
2. Identify root cause of issue
3. Quantify price change impact
4. Provide client recommendation

## Events.com

Fit: What has been the most risky project that you have worked on?

## Case prompt

- Our client is Prospect Equity Partners ('Prospect'), a prominent Private Equity firm that invests in the technology space. They have recently acquired Events.com due to strong commercial wins and momentum in the market
- Events.com is a leading SaaS-based registration/ticketing platform for Endurance events (5K runs, Marathons, Triathlons, Mud Runs, etc.). They make money by taking registrations and processing payments for events and charging a fee per transaction (similar to Ticketmaster or Eventbrite) (\$100 registration price $\times 10 \%$ Fee $=\$ 10$ in Revenue for Events.com)
- Events.com has doubled market share since 2015, but in the last two years revenue is flat and profits are down, despite growing share. Prospect wants you to determine what is causing this and come up with a plan to improve profitability


## Clarifying information

- Market: The market has declined $\sim 4 \%$ per year since 2015, driven by low participation in experiential runs like Color or Mud Runs
- Competition: Two main other players in space: Active Network and RunSignUp. No recent entrants.
- Customers: Customers are all in the US. Historically, local 5K events are targeted, but Events.com recently signed IRONMAN triathlon in Q4 2017, which has \$125M in transaction volume per year, and other premium events
- Product: The product platform is called EventWorks Endurance, and has been around for 10+ years
- Company: No changes have been made to company since being acquired by Prospect


## Events.com

## Exhibit A - Historical P\&L and Market Share



| \$m | 2015 | 2016 | 2017 | 2018 |
| :--- | :---: | :---: | :---: | :---: |
| Revenue | 25.0 | 35.0 | 39.9 | 39.9 |


| Variable Costs |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Payment Processing Costs | 3.3 | 4.7 | 8.0 | 11.9 |
| Server Hosting Costs | 3.8 | 5.3 | 4.8 | 4.8 |
| Total Variable Costs | 7.1 | 9.9 | 12.8 | 16.7 |


| Fixed Costs |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Headcount | 5.0 | 5.3 | 5.5 | 5.5 |
| Marketing | 1.5 | 1.7 | 1.8 | 2.0 |
| SG\&A / Other Costs | 2.0 | 2.1 | 2.2 | 2.2 |
| Total Fixed Expenses | 8.5 | 9.0 | 9.5 | 9.7 |


| Operating Income | 9.4 | 16.1 | 17.6 | 13.5 |
| :--- | :---: | :---: | :---: | :---: |
| Operating Income Margin | $38 \%$ | $46 \%$ | $44 \%$ | $34 \%$ |

## Events.com

## Exhibit B - Payment Processing Breakdown

|  | 2017 | 2018 |
| :--- | :---: | :---: |
| Number of events | 4,023 | 5,051 |
| Total registrations | 8.0 M | 7.9 M |
| Dollars processed | $\$ 339 \mathrm{M}$ | $\$ 595 \mathrm{M}$ |
| Events.com Revenue | $\$ 39.9 \mathrm{M}$ | $\$ 39.9 \mathrm{M}$ |
| Payment Processing Expenses | $\$ 8.0 \mathrm{M}$ | $\$ 11.9 \mathrm{M}$ |

## Events.com

## Exhibit C - Pricing Structure

| Old Pricing Structure |  |
| :--- | :--- |
| Fee per transaction | $10.0 \%$ |


| New Pricing Structure |  |  |
| :--- | :---: | :---: |
|  | Price under \$50 | Price over \$50 |
| Fixed fee per transaction | $\$ 3.00$ | $\$ 5.50$ |

## Events.com

## Part 1

1. Analyze profitability issues

## Provide Exhibit A when asked about Profitability (or revenue/costs)

- Using Exhibit A, have a discussion around what is driving the decline in profitability
- Interviewee should note that market share growth is from stealing share from Active Network, but largely ignore the share data
- Interviewee should focus on 2017 and 2018 and notice that payment processing costs have increased drastically, hypothesizing that is due to an increase in processing volume or processing rate (since this is a variable expense), and ask for more information on payment processing
- Interviewee should ignore other expenses, as the growth is not material


## Events.com

## Part 2

2. Identify root cause of issue

## Provide Exhibit B when about Payment Processing Costs or Revenue

- Provide the additional information along with the exhibit:
- Price per Registration declined as higher priced customers (smaller events with fewer total registrations) were acquired (Ironman Triathlon) and lower priced customers did not renew
- If interviewee is stuck, start a discussion about pricing and how it affects revenue, and have the interviewee calculate the payment processing rate, average fee, and average price per registration in 2017 and 2018.
- Interviewee should now isolate whether the processing costs increase is driven by rate or volume, and should calculate the processing rate to confirm (Payment Processing Expenses / \$'s Processed)
- 2017: \$8m / \$399m = 2\%; 2018: \$11.9m / \$595m = 2\%
- Interviewee should now realize cost increase is driven by volume and that registrations and volume are up, although revenue is down, leading to analysis of the components of revenue
- Avg. fee rate (Revenue / \$'s Processed):
- 2017 = 10\%; 2018=6.7\%
- Price per registration (\$'s Processed/Registrations):
- $2017=\$ 50 ; 2018=\$ 75$


## Events.com

## Part 3

3. Quantify price change impact

## Provide Exhibit C when asked about Pricing

- Provide the additional information along with the exhibit:
- Pricing was changed due to competitive pressure
- Interviewee should realize that pricing was changed from variable ( $10 \%$ fee) to a tiered fixed fee pricing, and as the price per registration increased, this caused revenue to be flat, despite acquiring customers
- Candidate should realize 'Over $\$ 50$ ' pricing should be changed, and when prompted, let interviewee know that customer surveys have indicated that a $2.25 \%$ "Credit Card Fee" can be added to "Over $\$ 50$ " tier with negligible customer losses, and that $\sim \$ 375 \mathrm{~m}$ of volume is over $\$ 50$
- Interviewee should now calculate revenue increase from adding 2.25\% fee
- $2.25 \%$ * $\$ 375 \mathrm{~m}=\$ 8,437,500$
- Do not allow rounding


## Events.com

## Part 4

## 4. Provide client recommendation

- Interviewee should summarize that a change in pricing to fixed fee tiered pricing caused revenue to remain flat and profitability to decline. They should recommend adding a $2.25 \%$ variable fee to the 'Over $\$ 30 \mathrm{~m}$ ', which will add $\sim \$ 8.4 \mathrm{~m}$ of revenue and profitability
- Risks: Additional increases to average price per registration, customer reaction to pricing increases
- Next Steps: Roll-out strategy for pricing change, investigation of ways to further change pricing to guard against additional increases in average price per registrations (add additional pricing tiers, customer/market research to figure out customer willingness to pay, etc.); Could look at targeting new sets of lower priced customers; consider acquiring RunSignUp to take over strong market position and stratify offerings; or exiting market due to its decline.
 along with testing brainstorming on pricing strategy.
- Outstanding candidates will quickly focus on the correct items in the P\&L and make the connections between pricing, revenue, and variable costs and how that has eroded profitability, despite being the market share leader.


## Case 07

## Garthwaite Healthcare

Interviewer-led

## Concepts tested

- Z12 Creativity (2)
- Z15 Supply/value chain (4)
- Z16 Vertical integration (4)

Primary sector(s)

- X08 Healthcare

Case type

- Y07 Profitability


## Similar cases

- Mustard Clinic (Kellogg 2020)
- Insurance for Underserved (Wharton 2017)
$\left\{\begin{array}{c}\text { Case author(s): Aaron Mowery (Kellogg 2013) } \\ \text { Edited by: Rohan Maini (Kellogg 2020) }\end{array}\right\}$


## Garthwaite Healthcare

## Interviewer guide

## Case prompt

- Our client is Garthwaite Healthcare Co (GHC), a health insurance firm located in the Midwest.
- Customers pay GHC a fixed monthly premium per person covered under the plan. In exchange, GHC pays for all health services that each member requires (eg. physician care, prescription medications, hospitalization).
- In recent years, GHC's financial and competitive position has begun to decline, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.


## Interviewer guide

- Problem: How can GHC reduce its total cost to serve its policy holders?

1. Develop a structure to address the problem
2. Brainstorm medical cost sources and solutions
3. Calculate administrative costs
4. Develop commission sharing arrangement
5. Provide client recommendation

## Garthwaite Healthcare

Experience: Tell me about a time when you had to come up with a creative solution for a problem.

## Case prompt

- Our client is Garthwaite Healthcare Co (GHC), a health insurance firm located in the Midwest.
- Customers pay GHC a fixed monthly premium per person covered under the plan. In exchange, GHC pays for all health services that each member requires (eg. physician care, prescription medications, hospitalization).
- In recent years, GHC's financial and competitive position has begun to decline, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.


## Provide all Clarifying information even if the interviewee does not request it

## Clarifying information

## Client Characteristics

- GHC is a mutual insurance company, meaning profits are returned to members in the form of lower premiums the following year. As such, GHC does not seek to maximize profit - it seeks to minimize cost, but does expect to earn a $5 \%$ profit margin.
- GHC's prices reflect underwriting of risk and the underlying cost to serve a customer


## Competitive Dynamics

- Market share is steady, despite presence of major national health insurance company UHC (which has 30\% share)


## Industry Economics

- National medical cost inflation is $10 \%$ over the past 5 years. GHC's cost increase in this period is $12 \%$ and UHC's is $10 \%$.


## Garthwaite Healthcare

## Part 1

1. Develop a structure to address the problem

- The interviewee should lay out a structure for analyzing the case.
- The interviewee could have determined that revenue is not relevant to this case based on information given in the Case prompt, so the interviewee should focus on cost.
- Costs in this case break out into fixed costs and variable costs:
- Variable costs (medical costs - claims made by policyholders)
- Fixed costs (administrative costs - e.g., marketing \& sales, underwriting, finance, HR)
- Specifically, we will need to understand how these costs have changed in recent years.


## Garthwaite Healthcare

## Part 2

## 2. Brainstorm medical cost sources and solutions

- Medical costs are the largest component of GHC's costs. However, GHC's medical costs are increasing faster than the national average. What are some potential reasons why this is taking place? What potential opportunities could you explore to reverse this trend?
- Medical cost $=($ Number of claims per customer) $\times$ (Number of claimants) $\times$ (Cost per claim)

|  | Number of claims per customer | Number of claimants (\% of customers claiming) | Cost per claim |
| :---: | :---: | :---: | :---: |
|  | - GHC customers sicker on average | - GHC customers older than average <br> - Low deductibles incentivize more claims on average | - GHC pays more per procedure than average |
| $\begin{aligned} & \text { © } \\ & \text { 인 } \\ & \text { B } \end{aligned}$ | - Enhance wellness programs <br> - Introduce pre-enrollment diagnosis diagnosis to improve cost estimates | - Increase marketing efforts toward younger customers <br> - Increase deductibles | - Conduct benchmarking study to determine competitors' costs |

## Garthwaite Healthcare

## Part 3

## 3. Calculate administrative costs

- GHC administrative costs are also higher than average. The biggest driver of this is high cost of sales. GHC policies are sold through independent agents, each of which works with a 'General Agency' that acts as a sales support organization.
- How much does GHC pay in commissions each year?
- What are some potential approaches GHC could take to reduce its cost of sales?
- What potential strategic issues exist with these approaches?
- After interviewee explains how they would calculate commission expense, provide the below:
- Commission ( $10 \%$ of annual premiums) is paid to the General Agency, which passes a share to the independent agent. Total commission paid is, on average, $\$ 25$ per agent, per month. There are 500,000 agents.
- Total commission expense $=\$ 25 * 500,000 * 12=\$ 150,000,000$

| Approaches | Issues |
| :--- | :--- |
| • Reduce commission percentage | • Agents could shift business from GHC to another |
| - Cap commission to a certain level per year | carrier that pays higher commission |
| • Change commissions from percent of premium to flat |  |
| fee (\% increases annually with inflation) |  |$\quad$| • Agents would lose incentive to sell if their |
| :--- |
| commission is capped |

## Garthwaite Healthcare

## Part 4

## 4. Develop commission sharing arrangement

- The team has decided to pay a flat commission directly to agents, and to pay the General Agencies a separate fee for the support services they provide to agents. If the total commission paid to both parties is set at $\$ 20$ per member per month, what share should be given to the General Agencies?
- If interviewee asks, explain they should find the maximum amount that should be allocated to the General Agencies.

Additional information

- General Agencies perform three activities: training, application processing, and performance management.
- If GHC were to perform these activities internally, they would cost:
- Training: \$6,000,000
- Application processing: \$9,000,000
- Performance management: \$15,000,000

Potential approach

- The total cost of the activities that General agencies perform is $\$ 30,000,000(=\$ 6,000,000+\$ 9,000,000+\$ 15,000,000)$.
- There are 500,000 members and 12 months in a year.
- The maximum amount of money GHC should be willing to pay the General Agencies for the activities performed is the per member, per month cost of these activities $(\$ 30,000,000 /(500,000 \times 12)=\$ 5$


## Garthwaite Healthcare

## Part 5

## 5. Provide client recommendation

- Taking into account what you've learned thus far as well as your own additional hypotheses, what initiatives would you recommend to the CEO at this point?
- Our client should take action to reduce both medical costs and administrative costs.
- At this point, the interviewee should synthesize the findings from the interview into several clear initiatives, for example:
- Enhance marketing efforts to attract more young customers and bring down the average claims per member.
- Conduct a benchmarking study to determine opportunities for reductions in payments for medical services.
- Change the commission structure to flat fee per member per month. This achieves the goal of reducing commission expense, while at the same time keeping an agent's incentive to sell more business.
- Strong interviewees will demonstrate the ability to analyze issues using a clear structure and will draw out the implications of their analysis. The quantitative calculations in this case are elementary, but the process to get to them is somewhat more complicated


## Case 08 <br> Health Coaches



## Primary sector(s)

- X08 Healthcare

Case type

- Y05 Operations
- Y06 Opportunity assessment


## Similar cases

- Mustard Clinic (Kellogg 2020)
- TV Screens (Wharton 2017)
- Vitality Insurance (Kellogg 2020)


Case author(s): David Wellner (Kellogg 2011) Edited By: Craig DePriester (Kellogg 2012), Rohan Maini (Kellogg 2020)


## Health Coaches

## Interviewer guide

## Case prompt

- Our client is a large national healthcare payer (health insurance company, think Aetna) exploring the launch of a new disease management ('DM') program to better serve its 5 million members.
- The idea is to hire and train a team of 'Health Coaches' to manage a portfolio of patients to reduce the costs of overall health expenditures (eg. reminders to take drugs, provide limited medical advice, suggested diet, exercise etc). Studies show that once a month contact with each patient reduces health spending by $5 \%$ on average.
- Should our client launch the program? If so, what steps should it take?


## Interviewer guide

- Problem: Are the costs associated with the DM program justified by the savings?
- Problem solving steps

1. Develop a structure to address the problem
2. Explore market segmentation
3. Calculate program profitability
4. Brainstorm other ideas to boost profitability
5. Provide client recommendation

## Health Coaches

Fit: Tell me about a project where you used your problem solving skills.

## Case prompt

- Our client is a large national healthcare payer (health insurance company, think Aetna) exploring the launch of a new disease management ('DM') program to better serve its 5 million members.
- The idea is to hire and train a team of 'Health Coaches' to manage a portfolio of patients to reduce the costs of overall health expenditures (eg. reminders to take drugs, provide limited medical advice, suggested diet, exercise etc). Studies show that once a month contact with each patient reduces health spending by $5 \%$ on average.
- Should our client launch the program? If so, what steps should it take?


## Clarifying information

- Industry: The whole industry is under pressure to innovate new products that will control spending
- Company: Assume client is first to market
- Operations: Past attempts to purely automate DM have yielded minimal savings
- Health Coaches: All activity conducted remotely via phone/email, typically by a nurse that wants to work from home
- Patients: It's difficult to actually reach patients, so Coaches can contact 8 members per day (assume 25 days per month)
- Costs: Annual costs per Coach: \$60K salary $+20 \%$ other (training, benefits, laptop, etc.). There are no other program costs


## Health Coaches

Exhibit A - Client's member segmentation by disease type


## Health Coaches

## Exhibit B - Average cost data

|  | Average cost PMPM* |  |  |
| :--- | :---: | :---: | :---: |
| Segment | Lifestyle | Hereditary | Degenerative |
| Individual | $\$ 600$ | $\$ 150$ | $\$ 150$ |
| Group | $\$ 400$ | $\$ 100$ | $\$ 100$ |
| $65+$ | $\$ 1,200$ | $\$ 300$ | $\$ 300$ |

*Notes:

- PMPM = Per Member Per Month


## Health Coaches

## Part 1

1. Develop a structure to address the problem

- The interviewee should drive towards quantifying the savings
- Consideration of qualitative issues is ideal.

| Program Savings | Program Costs | Risks |
| :--- | :--- | :--- |
| - Customer segmentation by |  |  |
| disease area and cost per <br> member | - Communication systems | • Assumption accuracy |
|  | - Health Coach Salary | - Competitive response |
|  |  | • Regulatory, liabilities |

## Health Coaches

## Part 2

2. Explore market segmentation

## Provide Exhibit A when the interviewee asks about segments or disease areas

- Group are employee sponsored plans (e.g. ,if you work for our consultancy, you are in a group plan), Individual are non-groups (eg. private contractors, unemployed, etc). 65+ (see note below chart).
- Which disease area should we look at first?
- Interviewee should choose to focus on the $65+$ segment
- $65+$ patients are the sickest,
- Sicker patients are likely to drive higher costs
- Higher costs provides greatest benefit for DM
- Interviewee should choose to focus on lifestyle diseases
- Lifestyle diseases make up the largest portion of sick members
- As diseases primarily brought on by behavior, this segment is likely to benefit from DM
- Number of $65+$ lifestyle $=20 \%$ segment $\times 40 \%$ lifestyle $\times 5$ m members $=400,000$


## Health Coaches

## Part 3

3. Calculate program profitability
```
Provide Exhibit B when the interviewee asks about medical costs
```

- Note: lead with Exhibit A. If the interviewee leads with profitability, steer him/her to first think about customer segmentation.
- What can we do with this information?
- Cost per Coach $=\$ 60 \mathrm{k}$ base $+20 \%=\$ 72 \mathrm{k}$
- Size of Portfolio $=8$ patients per day $\times 25$ days per month $=200$ patients per year
- Savings for one portfolio = \$1,200 cost per month $\times 12$ months per year $\times 5 \%$ average savings $\times 200$ patients $=\$ 144 \mathrm{k}$
- Overall savings $=(\$ 144 \mathrm{k}$ savings $-\$ 72 \mathrm{k}$ costs $) \times 2,000$ coaches $=\$ 144 \mathrm{~m}$ profit per year
- Takeaway: Profit is $\$ 72 \mathrm{~K}$ per Health Coach (double the cost of a coach)
- Based on PMPM lifestyle cost data, Individual segment is break-even (50\% less savings), Group segment is a loss


## Health Coaches

## Part 4

## 4. Brainstorm other ideas to boost profitability

- There are 650,000 Group members with lifestyle diseases left 'uncoached.' Is there a way to make the segment profitable?

| More efficient DM program | Seek additional revenue sources | Client selection |
| :--- | :--- | :--- |
| - Coaching at work | - Employers might be willing to pay a | - Target members who will respond |
| fee to enroll in service | with savings well above 5\% |  |

## Health Coaches

## Part 5

## 5. Provide client recommendation

- Client should launch the Health Coaching program, and first focus on lifestyle diseases in the 65+ segment
- Launch a pilot program to prove out assumptions (eg. 5\% cost reduction, Coach portfolio capacity, etc.)
- First expand to entire $65+$ lifestyle segment ( $\$ 144 \mathrm{M}$ per year savings per coach, a 2 x return on each Health Coach)
- Consider introducing to Individual lifestyle segment despite break-even (customer retention, moral rationale, etc.)

As first to the market, client plans to expand Health Coach program externally. Who should they target?

- The program yields the greatest savings in the $65+$ lifestyle disease segment. However, the client should keep in mind that more lifestyle members will increase overall health care costs, considerably (still almost 4 x after savings).
- As an alternative, the client could sell its Health Coach service to other payers.
- Excellent interviewees should use common sense to make reasonable assumptions before you provide required inputs.
- Outstanding interviewees are able to keep track of all units from a math perspective.


## Case 09 <br> Healthy Foods

## Concepts tested

- Z10 Customer strategy (2)
- Z10 Marketing strategy (2, 3, 4)
- Z12 Creativity (3)


## Primary sector(s)

- X12 Retail \& CPG

Case type

- Y02 Growth Strategy


## Similar cases

- Dark Sky 2020)


## Healthy Foods

## Interviewer guide

## Case prompt

- Our client is Healthy Foods, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- How can we help Healthy Foods drive their revenue growth?


## Interviewer guide

- Problem: How can Healthy Foods increase revenue?
- Problem solving steps:

1. Develop a structure to address the problem
2. Identify main customer types and their current contributions
3. Analyze client's wallet share for different customers
4. Share of Wallet analysis and Wallet Size versus Share of Wallet
5. Provide client recommendation

## Healthy Foods

Fit: Tell me about a time you had to lead a diverse team?

## Case prompt

- Our client is Healthy Foods, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- How can we help Healthy Foods drive their revenue growth?


## Clarifying information

- Customers: The client serves various customer categories (shown in Exhibit A).
- Customer sensitivities are (highest to lowest):
- Price
- Convenient delivery
- Help with location planning
- Help with menu
- Web site development
- Inventory
- Help with management optimization
- Competition: The client is one of the market leaders and is not losing the market share


## Healthy Foods

## Exhibit A - Revenues by Customer Type



## Healthy Foods

Exhibit B - Client's Share of Wallet


## Healthy Foods

Exhibit C - Wallet Size vs. Share of Wallet for the Smaller-Revenue-Generating Customer Categories


## Healthy Foods

## Part 1

## 1. Develop a structure to address the problem

- A structure should cover the key areas needed to explore in order to determine how Healthy Foods can explore new revenue growth opportunities. Key elements expected to be included in this framework are:
- Market: Overall trends, offerings by competitors and customer preferences
- Segmentation, targeting and positioning: Are there particular segments in the population that will be ideal customers for us? How are positioned in the market?
- Product and channel mix: What is our current mix of products offered and what markets and channels do we service? What is the menu?
- Price: What price are our products sold at? Is there scope for increasing the price? Can we bundle any of our offerings?
- Promotion: How are our products marketed? What promotion mechanisms are being used?
- Volume: Who are our customers? How do we reach them? What is our wallet share with them?


## Healthy Foods

## Part 2

2. Identify main customer types and their current contributions

- The client has some information about the customer segments that it sells to:


## Provide Exhibit A

- The interviewee will probably explore opportunities for growth in the independent restaurant category. If they inquire about customer satisfaction and sensitivities, provide information from the 'Clarifying information' section, and emphasize that the needs of this segment are already met.
- The interviewee should inquire about the Share of Wallet in the customer categories to get a better idea on where the growth opportunities lie.


## Healthy Foods

## Part 3

3. Analyze client's wallet share for different customers

## Provide Exhibit B when the interviewee realizes they need to understand Share of Wallet

- The interviewee should recognize that Share of Wallet in the highest-revenue-generating customer categories is already high, and that the client is already a key provider for a lot of them.
- Ask the interviewees to list all options to increase revenue and the reasons behind (brainstorming exercise).
- Help interviewee to reach that the growth opportunity in the smaller revenue-generating customers, where client's Share of Wallet is smaller. Now the interviewee should formulate the criteria to prioritize among the smaller revenue-generating customer types: the bigger their Share of Wallet and the smaller client's Share of Wallet, the better.


## Healthy Foods

## Part 4

4. Share of Wallet analysis and Wallet Size versus Share of Wallet

- Share Exhibit C when the interviewee realizes they will need to understand the Share of Wallet vis-à-vis Wallet Size


## Provide Exhibit C

- The bigger the Size of Wallet and the smaller client's Share of Wallet, the larger the revenue growth opportunity for the client.
- Using Exhibit C, the interviewee should identify the hospitals and the hotels as the most promising candidates for revenue growth given their large wallets and small client's Share of Wallet. The interviewee should identify the strongest sensitivities these clients would have and suggest ways to increase client's Share of Wallet there.


## Healthy Foods

## Part 5

## 5. Provide client recommendation

- In the current business, the largest growth opportunities lie in customer segments: hospitals and hotels.
- The interviewee should suggest ways to better serve those customers and increase client's Share of Wallet there, capturing significant new revenues due to the large Wallet Size of those clients.
- Excellent interviewees identify Share of Wallet as an important parameter, quickly recognize that there is little opportunity for growth in the largest-revenue-generating customers, and come up with the size of wallet vs. Share of Wallet plot as a good prioritization tool for identifying promising customer categories for the client's revenue growth.


## Case 10 High Q Plastics

## Concepts tested

- Z11 Competitive Analysis
- Z12 Creativity

Primary sector(s)

- X04 Engineering \& Construction

Case type

- Y01 Cost reduction
- Y05 Operations
- Y07 Profitability


## Similar cases

## High Q Plastics

## Interviewer guide

## Case prompt

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from $\$ 50 \mathrm{M}$ to $\$ 20 \mathrm{M}$ over the past few years.
- What is the reason behind declining profitability? How can High Q improve profits? Can they reach \$100M in profits by 2014?


## Interviewer guide

- Problem: How can High Q generate $\$ 100 \mathrm{~m}$ in profits by 2014 ?

1. Develop a structure to address the problem
2. Brainstorm ideas to improve profits
3. Determine whether the profit goal can be met
4. Provide client recommendation

- An effective interviewee should demonstrate clear and MECE approach at dissecting profitability, structured brainstorming in improving profits (e.g., brainstorming in buckets) and effectively using exhibits to outline the correct approach to calculating 2014 profits.


## High Q Plastics

Fit: Tell me about a time you had to navigate a conflict and come up with a creative solution.

## Case prompt

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from $\$ 50 \mathrm{M}$ to \$20M over the past few years.
- What is the reason behind declining profitability? How can High Q improve profits? Can they reach $\$ 100 \mathrm{M}$ in profits by 2014 ?


## Clarifying information

- Industry Characteristics/Market Economics
- Automotive sales overall still growing steadily, driven by emerging markets
- Automotive manufacturing is leaving the U.S.
- Client Characteristics
- Client is currently one of the leaders in this category
- Client has U.S.-based manufacturing
- Revenues have been slowly declining over last 5 years
- Client's products are of a higher quality than most Chinese competitors' products
- Competitive Dynamics
- Automotive OEM customers are looking to reduce cost, driving increased price competition among parts suppliers


## High Q Plastics

Exhibit A - High Q's 2010 Financials, By Facility

| $\$ \mathrm{~m}$ | Plant A | Plant B | Plant C | Plant D |
| :--- | :---: | :---: | :---: | :---: |
| Revenues | 100 | 100 | 100 | 100 |
| Labor | 20 | 40 | 60 | 30 |
| Material | 55 | 40 | 20 | 35 |
| Overhead | 20 | 15 | 15 | 30 |
| Net Profits | 5 | 5 | 5 | 5 |

High Q Plastics
Exhibit B - 2010 U.S. Automotive Market

$\square$ Compact cars
영Full-size cars
-Trucks and SUVs

Additional Information:

- 2010 US Automotive Sales = 16 million units

High Q Plastics
Exhibit C - U.S. Truck / SUV Market Share (2010-2014)


Additional information:

- High Q supplies 70\% of Toyota's business
- Average price of High Q products sold to Toyota $=\$ 20$


## High Q Plastics

## Part 1

## 1. Develop a structure to address the problem

What key questions would you ask an industry expert in order to better understand the reasons behind High Q's declining profits?

An effective structure should address the following factors:

- Industry: What is the sales volume trend? What is the \% of demand and growth of OEM vs. aftermarket segment? Is one of these segments more profitable than the other?
- Competitors: Who are they? What is their relative market share? What are their prices vs. our clients'? What is their cost structure vs. our clients'? Do they have a technology or quality competitive advantage relative to our client?
- Revenue: How have our clients' prices changed in recent years? Have they declined across all customers and products?
- Costs: What trends is our client seeing in their cost structure? Increasing labor or material costs?


## High Q Plastics

## Part 2

## 2. Brainstorm ideas to improve profits

The CEO of High Q wants to know if $\$ 100 \mathrm{M}$ in annual profits is achievable by 2014 . What would you need to know in order to determine this? What data would you ask for?

What ways can you think of to increase revenues? What ways can you think of to reduce costs?

After asking the interviewee the above questions, he / she should come up with 2-3 ways each for cost reduction and increasing revenues:

- Reduce Cost: find alternative material sources, invest in process automation to reduce labor, consolidate multiple manufacturing sites to reduce SG\&A costs, relocate close to customers to reduce transportation costs.
- Increase Revenue: segment customers to determine sensitivity to price, increase marketing in aftermarket segment, negotiate longterm contracts with OEM customers.


## High Q Plastics

## Part 3

## 3. Determine whether the profit goal can be met

Our client is planning on implementing lean manufacturing across all 4 of it U.S. plants, in order to provide cost savings and increase profits.

## Provide Exhibit A

- The client is expecting to produce $80 \%$ of 2010 volumes in 2014. They are also planning on reducing prices by $10 \%$ due to increased competition.
- Lean manufacturing implementation across all plants will provide an additional $20 \%$ savings in raw material, and $30 \%$ savings in labor. What is the change in profits the High Q CEO can expect from 2010 to 2014, based on this information?
- Please see solution on the next page.


## High Q Plastics

## Part 3 (Continued)

3. Determine whether the profit goal can be met

- The interviewee should use the information provided in Exhibit A to calculate the following profitability for each plant in 2014, and walk the interviewer through the calculation steps. It is important to first note that revenues, labor, and material will decrease by $20 \%$ due to the reduced quantity output from each plant, plus the additional $20 \%$ savings in material and $30 \%$ in labor. Revenue will decrease by an additional $10 \%$, in a cost cutting maneuver. Overhead costs will not change.

| All figures in \$m |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Plant A | Plant B | Plant C | Plant D |
| Revenues | 72.0 | 72.0 | 72.0 | 72.0 |
| Labor | 11.2 | 22.4 | 33.6 | 16.8 |
| Material | 35.2 | 25.6 | 12.8 | 22.4 |
| Overhead | 20.0 | 15.0 | 15.0 | 30.0 |
| Net Profits | 5.6 | 9.0 | 10.6 | 2.8 |
| Total 2014 Profits |  | 28.0 |  |  |
| Additional Profits |  |  |  |  |

- From this calculation, the interviewee should reference back to question 2. Even with the lean manufacturing implementation, High $Q$ is still a long way from the CEO's goal of $\$ 100 \mathrm{M}$ in annual profits, and this is therefore not a realistic target. A strong interviewee should note the importance of aligning a client's expectations.


## High Q Plastics

## Part 3 (Continued)

## 3. Determine whether the profit goal can be met

- High Q 's CEO has also asked us to take a look at competitive dynamics among the automotive OEMs, in order to predict any increase in profits from increased sales. Hand out exhibits 2 and 3.
- Based on the information given, what do you expect High Q will see in additional profits due to Toyota's predicted $30 \%$ increase in market share in truck and SUVs?


## Provide Exhibit B \& C

The interviewee should be able to use the information provided in the Exhibits to calculate the following revenue growth ("Sales" figures below are in units/vehicles). Rounded answers (\$13 or \$14M) are fine, given that interviewee has already demonstrate math proficiency.

|  | 2010 | 2014 |
| :--- | :---: | :---: |
| US Auto Market | $16,000,000$ |  |
| U.S. Truck \& SUV Sales | $3,200,000$ |  |
| Toyota Truck \& SUV Sales | 320,000 | $1,280,000$ |
| High Q's Toyota Qty. Sold | 224,000 | 896,000 |
| High Q's Toyota Revenues | $4,480,000$ | $17,920,000$ |
| Additional Revenue |  | $\$ 13,440,000$ |

## High Q Plastics

Part 4

## 4. Provide client recommendation

Please summarize your findings to the CEO, including any other potential opportunities to increase High Q's profits over the next few years.

The interviewee should concisely summarize the overall goal of the case (to increase High Q's declining profitability due to new, lowcost competition), and main findings from each question, and a recommendation (yes, High Q should implement the lean manufacturing initiative, while recognizing that this initiative alone will not hit the CEO's total profit goal in 2014). The interviewee should also generate a list of additional opportunities that were not explored in the case, including:
a) Consolidation of the 4 manufacturing plants (especially Plant D, with its high overhead costs)
b) Pursue growth in the aftermarket segment of their business
c) Diversify their business into plastic injection-molded parts for other industries (outside of automotive), with less price competition

## Case 11

## Kellogg in India

## Concepts tested

- Z08 Market sizing (2)
- Z07 Market share (3)
- Z03 Breakeven analysis (3)


Case author(s): Abhilash Sridharan (Kellogg 2015), Rashaad Jamaal (Kellogg 2015) Edited by: Rohan Maini (Kellogg 2020)

- Y04 New product / Market entry

Primary sector(s)

- X07 Government \& Public Sector

Case type

## Similar cases

- Big Public High School (Darden 2012)
- Busch's Barber Shop (Kellogg 2020)
- Chic Cosmetology (Kellogg 2020)


## Kellogg in India

## Interviewer guide

## Case prompt

- Our client is the Dean of Kellogg School of Management. She has hired you to advise her on an idea, which struck her during the previous week - To consider starting a satellite campus of Kellogg in India. She has asked you to determine whether Kellogg should enter the Indian market.


## Interviewer guide

- This case is a quintessential market entry case.
- The two main quantitative concepts on which the candidate is being tested are on market size estimation and breakeven analysis.

1. Develop a structure to address the problem
2. Confirm market attractiveness (sizing)
3. Market share and breakeven analysis
4. Conduct risk analysis
5. Provide client recommendation

## Kellogg in India

Fit: Tell me about a time when you were provided feedback and what action you took.

## Case prompt

- Our client is the Dean of Kellogg School of Management. She has hired you to advise her on an idea, which struck her during the previous week - To consider starting a satellite campus of Kellogg in India. She has asked you to determine whether Kellogg should enter the Indian market.


## Clarifying information

- Strategic Rationale: India is a fast growing economy with huge demand for MBAs. Kellogg's Dean believes that an India campus would help Kellogg become a Top 3 global MBA program. The caliber of India candidates is the same as in the US.
- Objective: The Dean wants the satellite campus to breakeven in 4 years
- Competition: Eight top-tier business schools: 7 IIMs and the ISB (ISB has a partnership with Kellogg, for its pedagogy).
- Candidate selection: IIMs select based on CAT test results. The ISB admits candidates based on the GMAT.
- Pricing: Indian MBAs cost \$20k per year (US MBAs cost \$70k). Indian schools don’t offer scholarships but banks offer loans.
- Product: Kellogg would only launch the 2Y MBA program in India.


## Kellogg in India

## Exhibit A - Indian business schools

| Category | Indian Institutes of Management (IIMs) | Indian School of Business (ISB) |
| :---: | :---: | :---: |
| Description of program | - IIMs select via the Common Admission Test (CAT) <br> - IIM interviews candidates with the top 6\% CAT scores <br> - 5 candidates are interviewed for every available seat <br> - $85 \%$ of admitted candidates matriculate | - $70 \%$ of admitted students matriculate <br> - Two campuses with a total class size of 1,400 |
| Cost incurred by Student | - INR 1,200,000 per year* <br> - 1 USD = 60 INR |  |

## Notes:

- Assume the total cost incurred by a student annually at Kellogg is $\$ 70 \mathrm{k}$ per annum


## Kellogg in India

## Exhibit B - Admitted students

| Year | Expected admits per <br> year |
| :---: | :---: |
| 1 | 600 <br> $(7.5 \%$ of 8,000$)$ |
| 2 | 600 |
| 3 | 900 |
| 4 | 900 |

Notes:

- Only source of revenue is the fee charged to students


## Kellogg in India

## Exhibit C - Estimated cost structure

| Fixed Costs | Annual Variable Costs |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year 0 | Year 1 | Year 2 | Year 3 | Year 4 |
| \$100M (land) <br> \$50 (support <br> infrastructure) | \$30M | \$30M | \$30M | $\$ 20 \mathrm{M}$ |

## Kellogg in India

## Part 1

1. Develop a structure to address the problem


## Kellogg in India

## Part 2

## 2. Confirm market attractiveness (size)

The candidate can choose to size the market either top-down or bottom-up. A top-down approach becomes too dependent on assumptions. Exhibit A can be used for a bottom-up approach.

## Provide Exhibit A when the candidate requests any of the information that it contains

## A. Estimate the Total Addressable Market from competition

1. IIMs

- 500,000 applications per year
- Top 6\% are interviewed $=30,000$ applicants
- 1 in 5 are accepted $=6,000$ eligible students

2. ISB

- 1,400 matriculated students $/ 70 \%$ of total admitted students $=2,000$ eligible students
- If interviewee gets this wrong, ask which student pool are we most interested in: matriculated students or all accepted students.

Total Addressable Market $=6,000+2,000=8,000$ high quality applicants

## B. Market Size

Fee to be charged annually needs to be calculated. A value somewhere in between $\$ 20,000$ and $\$ 70,000$ is acceptable. $\$ 50,000$ per year for 2 years: 8,000 * $\$ 50,000$ * $2=\$ 800 \mathrm{M}$

## Kellogg in India

## Part 3

## 3. Market share and breakeven analysis

- The candidate should mention a target market share in the year of launch. A lower number would be preferable to start with. After letting the candidate present their logic, ask them to assume $7.5 \%$ market share in the year of launch.

Provide the information below when requested:

- Breakeven Analysis: Expected breakeven in 4 years

Provide Exhibit B when asked about Revenue

- The candidate should note that from the second year onwards, last year's fee should be included in the current year.

Provide Exhibit C after Cost brainstorming

- Costs: Ask the candidate to brainstorm for costs
- The candidate must move towards a NPV Calculation:

|  | Y0 | Y1 | Y2 | Y3 | Y4 |
| :--- | :---: | ---: | ---: | ---: | ---: |
| Number of students |  | 600 | 600 | 900 | 900 |
| Yearly Fee per student (\$) |  | 50,000 | 50,000 | 50,000 | 50,000 |
| Revenue \$m from students in year 1 |  | 30 | 30 | 45 | 45 |
| Revenue \$m from students in year 2 |  |  | 30 | 30 | 45 |
| Total Revenue (\$ M) |  | 30 | 60 | 75 | 90 |
| Costs (\$ M) | 150 | 30 | 30 | 30 | 20 |
| Profits | -150 | 0 | 30 | 45 | 70 |

- When asked for a discount rate, confirm there is none.
- Conclusion: The project should go ahead: by the 4th year, the project doesn't breakeven by only \$5M. Given rising revenues and declining costs, breakeven would be achieved in the first month of year 5 .


## Kellogg in India

Part 4

## 4. Conduct risk analysis

Ideally, the candidate will raise risks related to the project. If not, ask them to brainstorm:

| Brand impact | Rankings impact | Cannibalization | Brand parity | Job prospects | Support |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - No top US schools is successful in India <br> - Satellite campus might dilute brand | - Diversity <br> - International presence <br> - Proximity to Asia <br> - Job prospects | - 50-60 Indian students matriculate at Kellogg US <br> - Impact on US MBA candidate pool across Asia | - Kellogg US MBA = Kellogg India MBA | - Premium for Kellogg India versus IIM / ISB | - Parent campus pedagogical support for satellites |

## Kellogg in India

## Part 4

## 6. Provide client recommendation

## Overall

- While starting a satellite campus makes financial sense, further scrutiny is needed on the impact of this move on Kellogg's brand and other factors that impact rankings
- Other additional points, which the candidate may add, could be:
- Negotiate on the costs for initial investments, to lower it down from \$150M.
- Support from Indian government on subsidies to be offered
- Develop additional sources of revenue, from supporting programs and corporate training sessions


## Risks

- Brand dilution / considering the impact of a satellite campus on Brand Kellogg
- Cannibalization of existing revenue from Indian students
- Admission percentage is projected to increase from Year 2 to Year 3 by 50\% (This is quite high)
- The salaries of Indian graduates, as per Indian Market conditions, (considering Indian PPP) may influence the average salary of Kellogg School of Management given global reporting, eventually impacting the ranking negatively
- Given Kellogg's new building being constructed, the $\$ 150 \mathrm{M}$ additional investment for a satellite campus, may require additional rounds of fund raising for the India campus


## Next Steps

- Employ a Brand agency / consultant to figure out the impact of starting a satellite campus on Brand Kellogg
- Fund Raising for $\$ 150 \mathrm{M}$ to be worked out
- Potential Partners for promoting the program and supporting with faculty initially
- Discussions to be started with the government of India for the land, infrastructure investment and licenses.


## Case 12

## Maine Apples

## Concepts tested

- Z08 Market sizing (2)
- Z14 Pricing strategy $(3,4)$
- Z15 Supply/value chain (4)


## Primary sector(s)

- X02 Agriculture \& Food

Case type

- Y04 New product / Market entry
- Y06 Opportunity assessment
- Y07 Profitability


## Similar cases

- Antidepressant pricing (Sloan 2011)
- Jamaican Land Investment (Haas 2015)
- Mission Eternity (Fuqua 2016)

Case author(s): Adam Borchert and Joep Knijn (Tuck 2004) Edited By: Peter Manoogian (Kellogg 2012), Rohan Maini (Kellogg 2020)


## Maine Apples

## Interviewer guide

## Case prompt

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given Danut's proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.


## Interviewer guide

- Problem: Is the market size large enough and the estimated profitability high enough for Danut to commercialize this chemical?
- Key case steps:

1. Confirm market attractiveness (size)
2. Quantify cost savings from earlier harvests
3. Quantify revenue growth from improved yields
4. Project farmers' margins and pricing for Danut
5. Provide a recommendation and highlight risks

## Maine Apples

Fit: Analysis is not always perfect. Tell me a time when the analysis wasn't perfect but you still had to use it.

## Case prompt

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given Danut's proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.


## Clarifying information

## - Product Benefits:

- Reduced costs through earlier harvesting
- Improved apple yields
- Improved juice yields (with higher quality apples)
- Client Characteristics: Only concerned about a "test-market" in the state of Maine
- Competitive Dynamics: No other competitive products on the market currently
- Industry: Growing at the rate of GDP


## Parts 1-3

## 1. Confirm market attractiveness (size)

When asked, provide the following:

- Maine has 200 orchards
- Avg. annual orchard revenue is \$30K/acre
- Avg. orchard has 100 acres of land
- Only one apple harvest per year

Interviewee should calculate the market size based on info provided:

- (\$30K/acre $\times 200$ orchards $\times 100$ acres/orchard $=\$ 600 \mathrm{M}$ )

This is a significant market and warrants further investigation

## 2. Quantify cost savings from earlier harvests

When asked to quantify the improvements, provide the following:

- It costs $\$ 1.5 \mathrm{~K} /$ night to maintain crops for 100 acre orchard
- With the chemical, farmers are able to harvest crop 10 days sooner

Interviewee should calculate cost savings per year using this information:

- (\$1.5K/day x 10 days / 100 acres = \$150/acre/year)


## 3. Quantify revenue growth from

 improved yieldsWhen asked to quantify additional revenue, provide the following:

- Our client's product improves the consistency of red apples and increases the selling price by 10\%
- The sweetness factor increases the selling price of juice by $5 \%$
- $25 \%$ of revenue comes from whole apple sales, $75 \%$ from juice sales

Improved yield:

- $(\$ 30 \mathrm{~K} / \mathrm{acre} \times 25 \% \times 10 \%=$ \$750/acre/year)

Improved sweetness:

- (\$30K/acre $\times 75 \% \times 5 \%=$ \$1,125/acre/year)

Total improvement (with cost reduction) = \$2,025/acre/year

## Maine Apples

## Part 4

## 4. Project farmers' margins and pricing for Danut

When asked about product pricing, provide the following:

- Danut's product costs $\$ 100$ k per 200 acre farm

Farmer's incremental revenue/cost savings = \$2,025/acre
Product costs $=\$ 100 \mathrm{~K} / 200$ acres $=\$ 500 /$ acre
Profit margin $=(\$ 2025-\$ 500) / \$ 2025=75 \%[\$ 1,525$ per acre]
The interviewee should note that this is an extremely high profit margin for the farmer and realize that there is a significant opportunity for profits with this product.

- How much of this benefit can we capture in our pricing?
- Interviewee should provide a percentage between $25 \%$ and $50 \%$. Anything higher than $50 \%$ should be questioned due to the novelty of the product and resulting lack of social proof.

A 50\% profit margin for our client would also realize a $50 \%$ profit margin for farmers. This is absolutely a realistic price to set, if not a little low.

- Given the costs provided, will we make a profit? Yes
- Interviewee should calculate profit: (\$100,000 / 200 acres = \$500/acre). Assuming \$1,000 price per acre, gross margin will be 50\%. [(\$1,000-\$500)/\$1,000]


## Part 5

## 5. Provide a recommendation and highlight risks

- Overall, our client should commercialize this chemical and price it at approximately $\$ 1,000$ per acre to make a $50 \%$ margin.

Risks/Next steps:

- Differentiation: What is our positioning?
- Environmental issues: Is there a risk of backlash and/or boycott from the general public? Could the U.S. government attempt to regulate our product?
- Operational reality check: Does the company have the resources to do this?
- Patenting: Is the product already patented? If yes, then when does it expire? If no, then is it possible to patent? If not, then can we patent the manufacturing process?
- Representativeness of test market: Does it cost less to cover apples in other states?
- Strategic fit: Is this opportunity too small relative to the size of the client?
- Strong interviewees share several qualitative issues listed above to supplement the recommendation to enter the market.
- Outstanding interviewees consider value-based pricing: the need to quantify added profits that our client's product will make for its clients and how much of that money our client can capture.


## Case 13

## Money Bank Call Center

## Concepts tested

- Z01 Accounting
- Z05 Capacity
- Z13 Organizational changes


## Primary sector(s)

- X10 Legal \& Professional Services
- X06 Financial Services

Case type

- Y01 Cost reduction
- Y05 Operations


## Similar cases

- Call Center (Yale 2013)
- EasyNAV (Wharton 2009)


Case authors: Guruprasad Sankaranarayanan (Kellogg 2012) Edited by Nikola Jakić (Kellogg 2016), Elizabeth Henry (Kellogg 2020)


## Money Bank Call Center

## Interviewer guide

## Case prompt

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24-hour helpline. The client has their call centers in New York and Paris.
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines.
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations.


## Interviewer guide

- This is an outsourcing case with the following elements:
- Use a framework that covers the most important areas of M\&A and cost cutting
- Read the exhibits to assess the cost effectiveness and efficiency of the 3 locations
- Discuss qualitative information on the acquired company - products, culture, customers, etc.
- There is no right or wrong recommendation, as it will depend on the interviewees assessment of the qualitative concerns
- Key case steps:

1. Evaluate existing and potential cost structure
2. Explore alternative ideas for implementation
3. Provide client recommendation

## Money Bank Call Center

Fit: If you were a partner and could choose to work on any type of case, what would you do? What do you think you would learn?

## Case prompt

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24-hour helpline. The client has their call centers in New York and Paris.
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines.
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations.


## Clarifying information

- Client Characteristics:
- Provides full range of financial services for individuals and small organizations
- Acquired firm was started 5 years ago and is still run by the original founders
- Call Center Characteristics:
- New employees are college graduates with basic knowledge of financial services and products
- Fluency and English and several European languages required
- Regulatory Environment:
- Very difficult to lay off employees in the Paris location \& significant costs will be incurred
- Philippines government encourages investment in the country \& significant tax advantage possible


## Money Bank Call Center

## Exhibit A - Call Center Performance FY 2010

| Center | Calls / Year | Employee Cost / <br> Year (\$) | Overhead Cost / <br> Year (\$) | \# Employees |
| :--- | :---: | :---: | :---: | :---: |
| New York | 600,000 | 50,000 | 450,000 | 75 |
| Paris | 400,000 | 50,000 | 600,000 | 60 |
| Philippines | 300,000 | 20,000 | 300,000 | 75 |

## Money Bank Call Center

## Part 1

1. Evaluate existing and potential cost structure

Provide Exhibit A when the interviewee asks about call center performance

- Here, the interviewee needs to:
- Compare the efficacy of the three locations \& possible explanations for variance;
- Identify the cost effective options \& how it is impacted by integration cost
- Additional information:
- Total cost incurred by the 2 firms is $\$ 9.6 \mathrm{M}$
- Philippines currently processes calls at half the efficiency of NY (per employee)
- Interviewee could ask about available slack at any of the call centers but should be advised that all call centers are currently operating at capacity
- If asked, state that currently, we have space, infrastructure necessary to expand. Assume overhead is variable in this case. The candidate should be able to calculate that to process total call volume Philippines will need an additional 250 employees to handle the traffic (1.3M total calls/ 4000 calls/employee in Philippines). Operating cost after the change will be $\$ 7.8 \mathrm{M}$; net savings of \$1.8M.
- The interviewee should realize that this does not account for all the costs, including hiring and training costs. When prompted inform the interviewee about a 1 time cost of $\$ 5 \mathrm{M}$ (includes severance for $N Y$ and Paris, expanding the Philippines facility) implying that the move is not profitable


## Money Bank Call Center

## Part 2

## 2. Explore alternative ideas for implementation

- Client will not budge on two-year breakeven
- Prompt the interviewee to explore ways to make outsourcing to the Philippines feasible
- Other options: decrease $\$ 5 \mathrm{~m}$ investment cost; increase efficiency of Philippines employees (guide interviewee towards the latter)
- The interviewee needs to identify the difference in calls / employee between the New York and Philippines locations
- Ask the interviewee to assume that the best practices can be transferred and implemented within 3-6 months
- Potential cost savings if Philippines achieves same effectiveness as New York
- \# employees required = 1.3M calls / 8,000 calls / employee / year = 162.5 (allow rounding to 160)
- New employee cost $=160$ * $\$ 20,000=\$ 3.2 \mathrm{M}$
- Ask interviewee to assume overheads double with the need for better equipment. Before the efficiency improvement, $\mathrm{OH}=$ $\$ 1.3 \mathrm{M}$ for 1.3 M call. $\mathrm{New} \mathrm{OH}=\$ 2.6 \mathrm{M}$
- New total cost $=\$ 3.2 \mathrm{M}+\$ 2.6=\$ 5.8 \mathrm{M}$ ( $\$ 3.8 \mathrm{M}$ savings from status quo and $\$ 2 \mathrm{M}$ better than pre-efficiency improved option)
- Other questions interviewee needs to consider
- Will the client be able to acquire sufficient talented personnel within the short time frame?
- How will customer satisfaction by impacted with the new labor base?
- Legal constraints / requirements in NY and Paris - how quickly can we lay off the staff?
- How will public opinion be impacted by the news of massive outsourcing?


## Money Bank Call Center

## Part 3

## 3. Provide client recommendation

- This is an open ended case. The interviewee needs to justify the recommendation based on the qualitative considerations
- A good recommendation would include 3 sections:
- Recommendation: If the recommendation is to outsource the interviewee needs to highlight the risks associated with outsourcing and nature of the acquired firm. If the recommendation uses any other approach sufficient justification needs to be given to overcome the cost savings
- Risks:
- Risks associated with increasing capacity by more than $200 \%$ in the Philippines - people, infrastructure, service quality, gaps in knowledge transfer, organizational changes, etc.
- Reputational impact - do customers notice a difference in service, can the competitor leverage this to steal customers?
- Next steps: If outsourcing, some of the next steps would be to analyze the infrastructure requirements and capabilities, find the right talent, ensure smooth transfer and implementation of best practices, etc.
- The interviewee should explore the option of improving effectiveness of the Philippines location without being prompted
- Excellent interviewees need to address the qualitative information provided in the case: nature of merger, nature of markets being served, etc.


## Case 14 <br> Montoya Soup

## Concepts tested

- Z14 Pricing strategy (2)
- Z10 Customer marketing strategy (3)


## Primary sector(s)

- X02 Agriculture \& Food
- X12 Retail \& CPG

Case type

- Y01 Cost Reduction
- Y07 Profitability


## Similar cases

- Frozen Food Co (Columbia 2017)
- Dark Sky 2020)
- Orrington Office Supplies (Kellogg 2020)
$\left\{\begin{array}{c}\text { Case author(s): Nico Montoya (Kellogg 2016) } \\ \text { Edited by: Michael Eidem (Kellogg 2020) }\end{array}\right\}$


## Montoya Soup

## Interviewer guide

## Case Question

- In F14, Montoya Soup, a business unit of Izzy's Healthy Foods, grew revenue and increased the contribution margins on their traditional and light soups.
- However, a spike in fixed costs caused them to see a dip in profitability. To offset this effect in F15, they launched a line of premium soups to increase volume and generate economies of scale.
- Though they felt the new launch was a success, their profitability dropped again in F15. They have hired you to diagnose the problem and propose a solution for F16.

Interviewer guide

- Problem: Determine what is causing Montoya's profitability decrease and analyze/recommend a method for improving it.
- Key case steps:

1. Develop a structure to address the problem
2. Deep dive - Why did profitability decline?
3. Deep dive - How do we fix profitability? (pricing strategy and potential cost reductions)
4. Provide client recommendation

## Montoya Soup

Fit: Tell me about your favorite class at business school thus far.

## Case Question

- In F14, Montoya Soup, a business unit of Izzy's Healthy Foods, grew revenue and increased the contribution margins on their traditional and light soups.
- However, a spike in fixed costs caused them to see a dip in profitability. To offset this effect in F15, they launched a line of premium soups to increase volume and generate economies of scale.
- Though they felt the new launch was a success, their profitability dropped again in F15. They have hired you to diagnose the problem and propose a solution for F16.


## Clarifying information

There is limited clarifying info up front, the interviewee will have to be comfortable making assumptions regarding the prompt and moving forward based on an inherent knowledge of the grocery industry.

- Client: Montoya sells cases of soup to buyers at grocery retailers who mark up the units inside to sell.
- Product: Traditional, Light, and Premium are the only product lines in Montoya Soup Co.'s product portfolio.

The prompt hints that revenue is up and fixed costs haven't increased in 2015 , so the candidate should be thinking about variable costs right away. That said, this is a portfolio pricing strategy case disguised as a cost reduction case and a strong candidate might recognize that possibility.

## Montoya Soup

## Exhibit A - Performance Metrics



|  | F10 | F11 | F12 | F13 | F14 | F15 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales Vol. (M of cases) | 126.5 | 130.4 | 131.7 | 136.5 | 140.0 | 155.0 |
| Sales Rev. (M) | $\$ 3,282$ | $\$ 3,366$ | $\$ 3,409$ | $\$ 3,560$ | $\$ 3,680$ | $\$ 4,200$ |
| Contribution Margin (M) | $\$ 1,165$ | $\$ 1,212$ | $\$ 1,261$ | $\$ 1,264$ | $\$ 1,360$ | $\$ 1,356$ |
| Gross Margin (M) | $\$ 65.2$ | $\$ 61.9$ | $\$ 61.4$ | $\$ 63.9$ | $\$ 60.0$ | $\$ 56.0$ |

## Exhibit B - Product Lines

"Our research showed that many of our consumers
were willing to pay more for a product with more meat
and vegetable bounty in a carton (instead of a can).
After testing several price points, we decided a lower
margin and higher volume would help us reach the
economies of scale we wanted to see. Consumers
loved the product and thought it was a great bargain!"

## Montoya Soup

## Exhibit C - Demand Analysis

## Cost Reduction Effect on Demand

"We looked into moving premium out of cartons and into cans. On the plus side, it would gain us $\$ 3$ of margin per case, but on the con side it would decrease demand by 20\% and cannibalization of our Traditional line would spike to $75 \%$."
"We could decrease our meat and vegetable bounty to be on par with Traditional. That would buy us \$3 of margin points and consumers shouldn't know the difference, in the short run at least."

Price Elasticity \& Cannibalization

|  | Last Year | Increase Price |
| :--- | :---: | :---: |
| Premium Price | $\$ 30$ | $\$ 33$ |
| Premium Demand (M cases) | 40 | 20 |
| Traditional Cannibalization Rate | $50 \%$ | $10 \%$ |
| Light Cannibalization Rate | $12.5 \%$ | $0 \%$ |

## Exhibit D - Stakeholder Input

## Customer Feedback

- "We really loved the new Premium Montoya Soup offering, it brought a new consumer to the shelf-stable soup category when all of the other players were introducing products that just stole from their competitors."
- "We're planning to give more shelf space to Montoya Soup in F16 after their successful premium launch this year. Our guests really loved the new packaging format and the higher meat and vegetable content. Product trial wasn't extremely high, but we saw a lot of repeat purchases from the people who were buying."


## Consumer Focus Group Excerpts

- "I'm trying to eat healthier, and l'm really nervous about canned products with their BPA lining. As soon as Montoya came out with their new carton soup, I switched right away from their Traditional line and I'm never going back!"
- "I definitely think their brand is rising with me, the old stuff was mostly broth, this new stuff is a huge bargain and it actually has actual stuff in it."
- "Glad to see that when everyone else is trying to rip you off, Montoya is making soup that actually tastes like something I would make at home."


## Montoya Soup

## Part 1

## 1. Develop framework for how to approach this problem

A sample case structure would include the following:
Question: Why is profitability down and what to do about it?

- Has Revenue decreased?
- Volume: Has volume of sales changed? Are we selling different quantities of different products? How can we increase sales of higher margin soups? Are there new customer types we could target (restaurants, convenience stores, etc.)?
- Price: Has price changed? How elastic is price to customers / is there room to increase it? Are we in line with our competition?
- Have Costs gone up?
- Fixed: How have fixed costs changed? Facilities, R\&D, marketing spend, distribution systems, etc. How can we adjust costs?
- Variable: Have variable costs changed? Raw soup materials, labor, packaging, etc.
- Have there been changes in the Market?
- Is the soup market growing/shrinking? Are grocery store sales increasing/decreasing?
- Customers: Have shoppers' tastes \& preferences changed? Are shoppers shifting to freshly made soup instead of packed?
- Competition: Are there new companies competing with us? Have substitute products entered the market?
- Risks that need to be considered when making changes:
- Competitive response, cannibalization of our other soup product lines, upsetting major grocery chain customers, etc.


## Montoya Soup

## Part 2

## 2. Deep dive - Why did profitability decline?

Several potential paths a candidate might want to dig into.
Provide Exhibit A and then follow the below lines of thought:

## Revenue

- Growth was driven by premium line. There was some cannibalization of traditional and light lines.

Question: "What trends do you see with regard to top line growth?"

## Insights:

- Revenue grew significantly in F15, much faster than in any other year in recent history.
- Revenue outpaced volume, meaning that not only did revenue grow, but it grew even though avg price increased


## Costs

- Input prices are the same as F14 for the traditional \& light lines. No add'I wastage. No change in formulation.


## Question:

- "What happed with fixed costs in F15? Variable costs?"
- "What could have driven up VC's?"


## Insights:

- FC's were flat at $\$ 1.3 B$ in F15 (GM - CM = FC's), so profit decline was driven by an increase in VC's.
- Increase in VC's could have come from pricier mix of inputs, same inputs but increase in input prices, more waste, or change in demand mix.


## Product Mix

## Questions:

- "How can profitability be down if revenue is up, FC's are flat, and the cost of our inputs have not changed?"
- "What info do you need to look into fixing the product mix to optimize profitability?"


## Insights

- Assuming no change in formulation or wastage, then the issue must be with cannibalization of higher margin products by lower margin ones.
- Candidates should want to look at the product lines' prices, COGS, elasticity, and cannibalization rates.


## Montoya Soup

## Part 3

## 3. Deep dive - How do we fix profitability?

There are several potential routes towards improving profits. When appropriate:

## Cost Reduction

- If asked: Competitors aren't playing in the "premium" space, only in "value" and "super-premium."


## Question:

- "How much profit do we make per case of Premium? Traditional? Light?"


## Insight:

- \$10 contribution margin on Traditional \& Light, \$6 contribution margin on Premium (price - sum of VC's).
- Largest opportunity for variable cost reduction would be in packaging, meat, and vegetable, but reducing these might erode value prop of premium product.
- (Math on following page)


## Pricing (Cannibalization / Elasticity)

- If we both raise prices and change packaging, we will lose enormous distribution.


## Question:

- "What is the optimum price for profitability?"

Insights:

- Candidate should infer from Exhibit B that Premium cannibalized Traditional substantially.
- (Math on next page)


## Stakeholder Value Proposition

## Provide Exhibit D

## Questions

- "What are the long-run effects on customers for changing packaging? For reducing meat/veg costs? For increasing prices?"
- "What about for the end consumer?"


## Insights:

- Candidate should see that customers are willing to pay for a pricier product, but that reducing variable costs (and thereby reducing quality) is not a viable long run strategy and will hurt the brand.


## Montoya Soup

## Part 3 (continued)

## 3. How do we fix profitability (math solutions)

## Logic behind the math:

Below are the calculations the candidate would have to make if they calculated every single scenario. It seems like a lot, but keep in mind that the margins on Traditional and Light are $\$ 10$, so candidates can simply add a zero to the cannibalized volume number to get cannibalized profit.

The candidate should feel free to elect not to calculate the first two scenarios if deemed strategically unwise long-term decisions.

Net profit from Premium will be the profit from Premium minus profit lost from cannibalizing Traditional and Light.

|  | Unit <br> Margin | Volume | Profit | Trad. <br> Vol. <br> Cannib. | Trad. <br> Margin | Trad. <br> Profit <br> Lost | Light <br> Vol. <br> Cannib. | Light <br> Margin | Light <br> Profit <br> Lost | Net <br> Total <br> Profit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Last Year | $\$ 6$ | 40 | $\$ 240$ | -20 | $\$ 10$ | $(\$ 200)$ | -5 | $\$ 10$ | $(\$ 50)$ | $(\$ 10)$ |
| If packaging <br> changed | $\$ 9$ | 32 | $\$ 288$ | -24 | $\$ 10$ | $(\$ 240)$ | -5 | $\$ 10$ | $(\$ 50)$ | $(\$ 2)$ |
| If meat/veg <br> costs reduced | $\$ 9$ | 40 | $\$ 360$ | -20 | $\$ 10$ | $(\$ 200)$ | -5 | $\$ 10$ | $(\$ 50)$ | $\$ 110$ |
| If price raised to <br> $\$ 33$ | $\$ 9$ | 20 | $\$ 180$ | -2 | $\$ 10$ | $(\$ 20)$ | 0 | $\$ 10$ | $\$ 0$ | $\$ 160$ |

## Montoya Soup

## Part 4

## 4. Provide client recommendation

## Overall:

- Profits have declined due to the introduction of a margin-dilutive product line that cannibalized higher margin products.
- Recommendation is to increase price of Premium product line to $\$ 33$ per case to maximize profitability (Gross profit would more than quadruple). This recommendation:
- Increases margins (though volume will drop)
- Reduces cannibalization substantially
- Other alternative cost-reduction measures hurt value proposition and will cause long-run issues with brand equity.


## Risks:

- Pricing measures didn't consider competitive response (could competitor come in with a lower priced premium soup and force us out of the category?)
- Raising prices could upset some buyers and lose distribution
- Opportunity cost: could be better long-term strategy to keep prices low and start phasing out of old lines, ramping up Premium.


## Next steps:

- Perform due diligence on long-term consumer preference forecast
- Launch advertising campaign to make sure we can justify higher prices and defend from competitors
- Look to reduce high fixed costs so we can protect against potentially price-aggressive competitors or increased commodity prices.


## Case 15 <br> Mustard Clinic

Interviewer-led

## Concepts tested

- Z04 Capacity (3)
- Z12 Creativity (4)

Primary sector(s)

- X08 Healthcare

Case type

- Y07 Profitability
- Y01 Cost reduction
- Y05 Operations


## Similar cases

- Alkaline Ash (Columbia 2017)
- Garthwaite Healthcare (Kellogg 2020)
- Princeton-Plainsboro (Wharton 2012)
- Orrington Office Supplies (Kellogg 2020)



## Mustard Clinic

## Interviewer guide

## Case prompt

- Your client is the CEO of the Mustard Clinic, a for-profit hospital in the United States.
- The hospital is known primarily for its leading care for babies and young children.
- Patients pay a fixed fee to access services on arrival, and all subsequent costs are borne by the Mustard Clinic.
- Sugar Magnolia does not deal with insurance providers. Instead, patients submit expense claims directly with their insurance provider(s).
- In the last few years, the hospital's profitability has fallen, and they are facing bankruptcy. Last year they lost $\$ 1.4 \mathrm{~m}$
- The CEO asks you: "Why has profitability gone down and how can we turn it around?"


## Interviewer guide

- Problem: How can the Mustard Clinic break even (increase profits by $\$ 1.4 \mathrm{~m}$ )?

1. Analyze customer segments
2. Determine cost impact of shorter patient stays
3. Determine profit impact of shorter patient stays
4. Brainstorm ways to shorten patient stays
5. Provide client recommendation

## Mustard Clinic

Experience: Tell me about a time you implemented a new way of doing things in an organization.

## Case prompt

- Your client is the CEO of the Mustard Clinic, a for-profit hospital in the United States.
- The hospital is known primarily for its leading care for babies and young children.
- Patients pay a fixed fee to access services on arrival, and all subsequent costs are borne by the Mustard Clinic.
- Sugar Magnolia does not deal with insurance providers. Instead, patients submit expense claims directly with their insurance provider(s).
- In the last few years, the hospital's profitability has fallen, and they are facing bankruptcy. Last year they lost $\$ 1.4 \mathrm{~m}$
- The CEO asks you: "Why has profitability gone down and how can we turn it around?"


## Clarifying information

- Goal: The Mustard Clinic wants to at least break even.
- Customers: The Clinic cannot influence its patient mix in the short term.
- Services: The Clinic offers intrapartum (childbirth), neonatal (for newborns), pediatrics (for infants and children) and a small geriatrics (for the elderly) unit.
- Competitors: There aren't any competitors that have contributed to the Mustard Clinic's problem.
- Revenue model: Customers are charged a fixed fee at the time of checking-in. All subsequent costs are borne by the Mustard Clinic.


## Mustard Clinic

## Exhibit A - Key hospital unit metrics

| Segment | Description | Annual volume <br> (patients) | Average stay <br> (nights) |
| :--- | :--- | :---: | :---: |
| Intrapartum | Care of due and in-labor mothers <br> (during labor and childbirth) | 500 | 10 |
| Neonatal | Care of premature newborns (first <br> 28 days of life) | 300 | 7 |
| Pediatrics | Care of infants, children, and <br> adolescents (up to age 21) | 150 | 11 |
| Geriatrics | Care of elderly patients (aged 60 <br> and over) | 50 | 25 |

## Mustard Clinic

## Exhibit B - Cost structure

| Fixed costs | $\$ 1.4 \mathrm{~m}$ |
| :--- | :--- |
| Variable costs | $\$ 600 /$ patient per night |
| Average stay (nights) | 10 |
| Patients per year | 1,000 |
| Capacity utilization* | $100 \%$ |

Notes:

- Capacity = Total number of patient nights per year that the Mustard Clinic can accommodate


## Mustard Clinic

## Part 1

## 1. Analyze customer segments

## Provide Exhibit A

- Our team has conducted the following analysis on various groups of customers.
- Providing overnight care is expensive for the Mustard Clinic. In number of nights, what is the average stay duration for a Mustard Clinic patient?

| Unit | Volume | Average stay <br> (nights) | Total nights |
| :--- | :--- | :--- | :--- |
| Intrapartum | 500 | 10 | $500 \times 10=5,000$ |
| Neonatal | 300 | 7 | $300 \times 7=2,100$ |
| Pediatrics | 150 | 11 | $150 \times 11=1,650$ |
| Geriatrics | 50 | 25 | $50 \times 25=1,250$ |
| Total | 1,000 |  | 10,000 |

- Average stay duration $=$ Total nights $/$ Number of patients $=10,000 / 1,000=10$ nights
- Takeaway: Because we have a fixed fee arrangement, it might be worth looking to reduce the average patient stay duration.


## Mustard Clinic

## Part 2

2. Determine cost impact of shorter patient stays

## Provide Exhibit B

- If the Mustard Clinic were to reduce the length of an average patient stay by two nights, what would be the cost saving?


## Costs with 10 night stay

- Fixed costs: $\$ 1.4 \mathrm{~m}$
- Variable costs: 1,000 patients $\times 10$ night stay $\times \$ 500$ per night $=\$ 6 \mathrm{~m}$


## Costs with 8 night stay

- Fixed costs: $\$ 1.4 \mathrm{~m}$
- Variable costs: 1,000 patients $\times 9$ night stay $\times \$ 500$ per night $=\$ 4.8 \mathrm{~m}$
- Takeaway: Shorter stays saves $\$ 1.2 \mathrm{~m}$, which is promising but doesn't help the Mustard Clinic breakeven.
- But shorter stays also frees up capacity for new patients.


## Mustard Clinic

## Part 3

## 3. Determine profit impact of shorter patient stays

- Reducing the average stay length frees up space for new patients. How many additional patients can we serve and what would be the impact on profit if the average revenue per patient is $\$ 6,000$ ?
- Hospital capacity: 1,000 patients $\times 10$ nights average stay $=10,000$ patient nights
- Capacity made available from stay reduction: 1,000 patients x 2 night stay reduction $=2,000$ patient nights
- Additional patients that could be served: 2,000 patient nights / 8 night average stay $=250$ additional patients
- Revenue: 1,250 patients per year $\times \$ 6,000$ revenue per patient $=\$ 7.5 \mathrm{~m}$
- Fixed Cost: $\$ 1.4 \mathrm{~m}$
- Variable Cost: 1,250 patients per year $\times 8$ night average stay $\times \$ 600$ variable costs per night $=\$ 6 \mathrm{~m}$
- Proft $=\$ 7.5 m-(\$ 1.4 m+\$ 6 m)=\$ 100 k$
- Takeaway: The Mustard Clinic can return to profitability by shortening patient stays by 2 nights and using the freed up capacity.


## Mustard Clinic

## Part 4

## 4. Brainstorm ways to shorten patient stays

-What are some ways in which the Mustard Clinic could reduce the average patient stay duration from 10 to 8 nights?

- The actual ideas are less important here than providing some approach to structuring the brainstorm. One example might be to use steps in the patient journey to identify areas to optimize speed.

| Patient Journey |  |  |  | Other |
| :---: | :---: | :---: | :---: | :---: |
| Admittance | Diagnosis | Surgery | Recovery |  |
| - Decrease/eliminate geriatrics unit | - More receptionists <br> - Partner hospitals <br> - Tele-diagnosis | - Technology <br> - Doctor skill/quality <br> - Operational delays? | - Tele-medicine <br> - At-home care <br> - Partner hospitals | - End fixed fee pricing <br> - Drive awareness of cost structure to doctors |

## Mustard Clinic

## Part 5

## 5. Provide client recommendation

- Overall, the Mustard Clinic can meet their goal and return to profit.
- This is based on decreasing average patient stay duration from 10 to 8 days, which:
- Saves $\$ 1.2 \mathrm{~m}$ in variable costs per patient night for all patients
- Frees up capacity for 250 additional patients
- Brings in $\$ 300 \mathrm{k}$ in profit from these additional patients
- One way to reduce patient stay duration would be to close the Geriatrics unit, which is not our core competency.
- Risks: Reducing average patient stay might affect revenues if patient care worsens or if Geriatrics is a complementary service.
- Next steps: Feasibility study into tactical ways to actually reduce average without impacting patient care.
- Strong candidates maintain organization well since there are several points in the case when they will need to refer back to previous clarifying information, exhibits or calculations.
- Outstanding candidates are able to think strategically about the impact of changes throughout the case. Structures math and finds quick ways to do calculations (eg. Q2 saving $=2$ nights $\times 1,000$ patients $\times \$ 600$ per night $=\$ 1.2 \mathrm{~m}$ )


## Case 16

## Orrington Office Supplies

## Concepts tested

- Z04 Capacity


## Primary sector(s)

- X04 Engineering \& Construction

Case type

- Y05 Operations
- Y07 Profitability


## Similar cases

- Alkaline Ash (Columbia 2017)
- Garthwaite Healthcare (Kellogg 2020)
- Princeton-Plainsboro (Wharton 2012)
- Mustard Clinic (Kellogg 2020)


Case author(s): Andy Grieve (Kellogg 2001)
Edited By: Peter Manoogian (Kellogg 2012), Rohan Maini (Kellogg 2020)

## Orrington Office Supplies

## Interviewer guide

## Case prompt

- Our client, Orrington Office Supplies (OOS) is a leading manufacturer of office products in 1992, with sales of $\$ 275 \mathrm{~m}$ in 1991. They have strong brands, invest heavily in marketing and advertising, and have grown through product line extensions and 4 key acquisitions.
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs ( $45 \%$ of total) are allocated on a percentage share of sales method. There are three plants running at a current capacity utilization of $50 \%$.
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability?


## Interviewer guide

- Problem: How can OOS increase profits?
- Problem solving steps:

1. Identify trends in sales and profit
2. Analyze plant production operations
3. Determine financial impact of plant consolidation
4. Provide client recommendation

## Orrington Office Supplies

Fit: What role do you typically play in a team? Give me an example of this.

## Case prompt

- Our client, Orrington Office Supplies (OOS) is a leading manufacturer of office products in 1992, with sales of $\$ 275 \mathrm{~m}$ in 1991. They have strong brands, invest heavily in marketing and advertising, and have grown through product line extensions and 4 key acquisitions.
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs ( $45 \%$ of total) are allocated on a percentage share of sales method. There are three plants running at a current capacity utilization of $50 \%$.
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability?


## Clarifying information

## Industry

- U.S. Office supplies market grew at 5\% CAGR historically. In 1990 and 1991, the market declined at 5\% per year.
- Superstore channel is becoming increasingly critical
- Gained 10 share pts in past 2 years
- Typically discount products $30 \%$ to small retailers/dealers
- Superstores are aggressively substituting private label products for traditional brand names


## Client Characteristics

- Broader product line than competitors (12.5k SKUs vs. 4-5k for competitors)
- Distribution: 75\% wholesalers, 15\% superstores, 10\% end customers
- Highest selling product is a high-end branded stapler
- Staples, Inc. is OOS's largest customer


## Orrington Office Supplies

Exhibit A - Historical revenues and profits


## Orrington Office Supplies

## Exhibit B - Production plants



## Orrington Office Supplies

Exhibit C - Plant operating costs


## Orrington Office Supplies

## Part 1

1. Identify trends in sales and profit

## Provide Exhibit A after the candidate asks about profitability

- Why do the slopes for sales and profits differ as time elapses?
- The interviewee should not only be able to interpret the data on this slide, but also come up with two insights:

1. The fact profits have been declining more steeply than sales reflects the fixed-cost nature of this business, and;
2. The reason that sales did not grow at a faster clip than profitability during the 1980 s likely reflects a strategy to grow through acquisitions, which prevented OOS from seeing the gains through economies of scale that one would normally expect in a business such as this

## Orrington Office Supplies

## Part 2

2. Analyze plant production operations

## Provide Exhibit B after the candidate asks about plant consolidation

- Qualitatively discuss the potential options for plant consolidation with the interviewee.
- The interviewee should recognize the Chihuahua plant is close to having capacity to produce OOS's 12.5 k SKUs. Either OOS can close that plant and move all production to the US, or it could close the US plants, discontinue 500 SKUs and move production to Chihuahua.
- Strong interviewees will note that Chihuahua is the most feasible strategy, but will ask to see fixed and variable cost data.


## Orrington Office Supplies

## Part 3

3. Determine financial impact of plant consolidation

## Provide Exhibit C after the candidate asks about Costs

- How would this change revenues? (currently $\$ 275 \mathrm{~m} /$ year)
- How would this change production costs? What are they now?
- How would this change pre-tax profits (currently $\$ 25 \mathrm{~m} /$ year?)
- Revenues: Each SKU earns annual revenues of $\$ 22 \mathrm{k}$ ( $\$ 275$ m divided by 12,500 SKUs) therefore, eliminating 500 SKUs will decrease annual revenue by $\$ 11 \mathrm{~m}$, or $4 \%$
- Costs: Each plant currently has the following annual costs:

Chihuahua: $\$ 20 \mathrm{~m}+\$ 18 \mathrm{~m}=\$ 38.0 \mathrm{~m}$
Michigan: $\$ 15 \mathrm{~m}+\$ 39.5 \mathrm{~m}=\$ 54.5 \mathrm{~m}$
New Jersey: $\$ 18 m+\$ 25.5 m=\$ 43.5 m$

Each plant has the following variable cost per SLU:
Chihuahua: \$18m / 4.5k SKUs = \$4k per SKU
Michigan: $\$ 39.5 \mathrm{~m} / 5 \mathrm{k}$ SKUs $=\$ 7.9 \mathrm{k}$ per SKU
New Jersey: $\$ 25.5 \mathrm{~m} / 3 \mathrm{k}$ SKUs = \$8.5k per SKU

- Consolidating revenues to Chihuahua will reduce annual costs by $50 \%$ to:
- Chihuahua: $\$ 20 \mathrm{~m}+(\$ 4 \mathrm{k} * 12 \mathrm{k}$ SKUs $)=\$ 20 \mathrm{~m}+\$ 48 \mathrm{~m}=\$ 68.0 \mathrm{~m}$
- Profits: We increased profits by $\$ 57 \mathrm{~m}(\$ 68 \mathrm{~m}-\$ 11 \mathrm{~m})$ to $\$ 82 \mathrm{~m}$, which more than triples them.


## Orrington Office Supplies

## Part 4

## 4. Provide client recommendation

- Overall, our client should eliminate 500 SKUs and consolidate all production to the Chihuahua plant to raise annual profits from \$25m to \$82m.
- The client should also consider several qualitative issues:
- Implementation: Long-term timeframe.
- Unionized labor: Whether organized labor exists at closing plants and the impact of that
- Distribution and Warehousing: We will need a carefully-developed transition plan.
- Purchasing: We will need to transition to a strong central purchasing department, rather than smaller local ones.
- Culture: Communicating the change properly is key, and we will need to ensure that morale does not take a nosedive.
- Excellent interviewees need to recognize what macroeconomic issues are beyond the scope of the client's control and then quickly dive into the plant consolidation, then analyze the cost structures


## Case 17

## Plastic World

Concepts tested

- Z13 Organizational changes
- Z07 Market share
- Z10 Customer strategy


## Primary sector(s)

- X06 Financial Services

Case type

- Y03 Mergers \& Acquisitions


## Similar cases

- Snack Foods Acquisition (Wharton 2017)
- Steel Corp (Haas 2015)
- Soda Ash Producer (Columbia 2017)


Case authors: Milija Medic
Edited By: Peter Manoogian (Kellogg 2012), Laura Mast (Kellogg 2020)


## Plastic World

## Interviewer guide

## Case prompt

- Our client is a private equity firm interested in Plastic World, a plastic packaging manufacturer.
- Plastic World's owners are requesting $\$ 25 \mathrm{~m}$. The offer is final. Should our client buy the company?

Interviewer guide

- Problem: Should the PE firm purchase Plastic World for $\$ 25 \mathrm{~m}$ ?
- Problem solving steps:

1. Examine financial statements
2. Explore feasibility of target's profit margin improvement
3. Provide client recommendations

## Plastic World

Fit: Tell me about a time that you demonstrated entrepreneurial drive in a non-professional environment.

## Case prompt

- Our client is a private equity firm interested in Plastic World, a plastic packaging manufacturer.
- Plastic World's owners are requesting $\$ 25 \mathrm{~m}$. The offer is final. Should our client buy the company?


## Clarifying information

- Company
- Makes plastic packaging for beverages, cosmetics, household and automotive chemicals
- Products are top quality, they have 350 sets of molds, with different materials, finish, colors, always innovating
- Overall product mix has not changed in recent years
- The sales force is "the best in breed", they hold market share, and they are compensated on market share
- Two years ago they invested further in equipment for product innovation


## - Customers

- Plastic Worlds' customers exhibit strong loyalty
- They are experiencing increasing pressures in their industries to innovate the plastic packaging


## Plastic World

## Exhibit A - Profit \& Loss statement

|  |  | 2018 | 2017 | 2016 |
| :--- | :---: | ---: | ---: | ---: |
| Sales | $(\$)$ | $18,824,000$ | $19,180,000$ | $19,650,000$ |
| Volume | (units) | $36,200,000$ | $34,250,000$ | $32,750,000$ |
| COGS | $(\$)$ | $9,050,000$ | $8,900,000$ | $8,650,000$ |
| SG\&A | $(\$)$ | $7,500,000$ | $7,200,000$ | $7,300,000$ |
| Depreciation | $(\$)$ | $3,450,000$ | $3,450,000$ | $2,250,000$ |
| EBIT | $(\$)$ | $(1,176,000)$ | $(370,000)$ | $1,450,000$ |

## Plastic World

## Exhibit B - Competitor Profit Margins



## Plastic World

Exhibit C - Valuation by Profit Margin


## Plastic World

## Part 1

## 1. Examine financial statements

Provide Exhibit A immediately after the interviewee runs through their problem-solving structure

- What observations can be made from this P\&L statement?
-Would could be the reasons behind what is in the data?
- Plastic World has experienced a steady drop in revenues while the sales volume has been growing.
- Profit margin is dropping and negative; Interviewee should calculate the profit margin (-6\%)
- Given the unchanged product mix and increasing sales volume, the drop in revenues is caused by a reduction in prices;
- Depreciation change - it was equipment investment.
- To check if it's an industry-wide or company-specific drop in profitability, they should request competition profitability data
- Interviewee should ask about the product quality and customer loyalty to discard price competition as the reason to drop prices. The products are high-quality and customers are loyal, so most of them would buy even at a higher price.
- The interviewee should find, asking independently or with your help, that sales force is compensated based on market share. This gives the sales force incentive to drop the prices.


## Plastic World

## Part 2

2. Explore feasibility of target's profit margin improvement

Provide Exhibit B when the interviewee requests information about Competitors

## Provide Exhibit C after the interviewee starts talking about using Profit Margins in Valuation

- Exhibit B
- The candidate should identify the profitability problem is client-specific, all competitors are profitable
- Push the interviewee to discuss a realistic profit margin goal for Plastic World based on this industry profitability data
- Exhibit C
- The observation from the graph is that the company would be worth $\$ 25 \mathrm{M}$ if Plastic World increased profit margin from $-6 \%$ to $0 \%$. If the profit margin reached the industry average, the company would be worth $\$ 40 \mathrm{M}$.
- Now the question is how easily can the profitability be increased above zero (making the company worth more than the $\$ 25 \mathrm{M})$. The sales force incentive change is easy to make.
- Looking for other high-impact improvements, the dense product line and constant innovation is the next largest candidate. Eliminate some molds to cut costs, mindful of innovation pressures in PW's clients' industries.
- Interviewee should investigate the profitability drop and the low prices further and suggest options to get Plastic World's profitability in line with the industry, and their feasibility


## Plastic World

## Part 3

## 3. Provide client recommendation

- Our client should accept the $\$ 25 \mathrm{M}$ offer and boost the profitability (and value) of PlasticWorld.
- The client should engage in the following easy-to-implement changes:
- Compensate sales force based on company earnings instead of market share.
- Simplify the product line - eliminate some of the 350 molds to cut costs while leveraging the superior sales force to maintain client satisfaction.
- Examine the industry best practices to find other areas for improvement.
- Excellent interviewees will immediately notice that the company would be worth more than $\$ 25 \mathrm{M}$ if its profit margin was at the level of industry average.
- Outstanding interviewees will quickly identify the pricing as the issue behind the revenue decrease and lay out potential causes for the price drop, finding the sales force incentive. A framework comprehensive enough to find the product line size problem is a bonus.


# Case 18 <br> <br> Rotisserie Ranch 

 <br> <br> Rotisserie Ranch}

Interviewer-led

## Concepts tested <br> - Z10 Customer marketing strategy

## Primary sector(s)

- X02 Agriculture \& Food
- X12 Retail \& CPG

Case type

- Y04 New product
- Y06 Opportunity assessment


## Similar cases

- Beverage Manufacturer (Wharton 2012)
- Botox (Stern 2012)


## Rotisserie Ranch

## Interviewer guide

## Case prompt

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its primary customer segment is comprised of large grocery chains that buy chickens to fresh roast in the meat departments of their grocery stores.
- Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers, what would you consider in making this recommendation?


## Interviewer guide

- Problem: Should Rotisserie Ranch pre-flavor its chickens?
- Problem solving steps:

1. Brainstorm value to customers of new product
2. Analyze results of market test
3. Provide client recommendation

## Rotisserie Ranch

Fit: Tell me about a time you had to deal with a difficult boss.

## Case prompt

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its primary customer segment is comprised of large grocery chains that buy chickens to fresh roast in the meat departments of their grocery stores.
- Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers, what would you consider in making this recommendation?


## Clarifying information

- Industry: Predicting demand for cooked chickens is difficult for grocers; any leftover cooked chickens at the end of the day are thrown out; unthawed chickens cannot be re-frozen
- Client: Client has patented process for sterilely packaging chicken, so that it will remain fresh for 30 days, making freezing unnecessary. Client is currently the industry market share leader in rotisserie-ready chicken
- Product: Four New "Flavored" Products to be introduced concurrently: Barbecue, lemon herb, tandoori and teriyaki
- Competitor: No competition in new product market due to patented process


## Rotisserie Ranch

Exhibit A - Store sales

|  | Standard Rotisserie |  | BBQ Seasoned Rotisserie |  |
| :--- | :---: | :---: | :---: | :---: |
| Store | A | B | C | D |
| Weekly Sales | $\$ 1,000$ | $\$ 2,000$ | $\$ 1,600$ | $\$ 2,700$ |
| Retail Price | $\$ 3.33$ | $\$ 2.50$ | $\$ 4.00$ | $\$ 3.00$ |
| Retailer Margin | $30 \%$ | $30 \%$ | $25 \%$ | $25 \%$ |

## Rotisserie Ranch

## Part 1

1. Brainstorm value to customers of new product

- Do you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?
- After the interviewee brainstorms, ask them:
- After several interviews, grocers are interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the chickens will sell well. How would you make sure?
- The candidate may begin going into detail on how this test would be run. Cut him or her off as soon as you are comfortable that they understand that: (a) a pilot test should be run and (b) the pilot needs to have some control or comparison group.

| Yes | No |
| :--- | :--- |
| -Labor Cost Reduction: Meat department <br> workers; don't need to spend time <br> seasoning the chickens. <br> Economies of Scale: Seasoning <br> centralization; lower cost. <br> Product Consistency: Centrally managed; <br> able to spend more on R\&D.•Losf of Differentiation: Grocery chains <br> Attune to Local Needs: Likely to be better <br> at gauging consumer tastes. <br> Increases Inventory \& SKUs. |  |

## Rotisserie Ranch

## Part 1

2. Analyze results of market test

Provide Exhibit A once the interviewee identifies the need for market testing

- A test market launch for the new Rotisserie Ranch BBQ chicken was administered. What is the overall profit for both Store A and B from the test market?
- Using Exhibit A, interviewee should calculate:
- Retailer profit for Seasoned Chicken compared to Standard Chicken
- Retailer profit = \# of chickens sold * (price per chicken * retailer margin per chicken)
- Standard Chicken (total profit for retailers = \$300 + \$600 = \$900/week)
- Store A: $\$ 1,000$ (weekly sales) * $30 \%$ (retailer margin) $=\$ 300$ overall profit
- Store B: $\$ 2,000$ (weekly sales) * $30 \%$ (retailer margin) $=\$ 600$ overall profit
- Test Market BBQ Seasoned Chicken (total profit for retailers $=\$ 400+\$ 675=\$ 1,075 /$ week $)$
- Store C: $\$ 1,600$ (weekly sales) * $25 \%$ (retailer margin) $=\$ 400$ overall profit
- Store D: $\$ 2,700$ (weekly sales) * $25 \%$ (retailer margin) $=\$ 675$ overall profit


## Rotisserie Ranch

## Part 3

## 3. Provide client recommendation

- Overall, our client should launch the Pre-Seasoned BBQ Chicken product and test other products because:
- Competitive Necessity: Consumers are spending more money on seasoned rotisserie chicken than traditional rotisserie chicken and the market is shifting in this direction
- Benefit to Grocers: Assuming test market was representative, Grocers can expect to earn $\$ 175$ more gross profit using our client's product relative to the standard rotisserie chicken
- Potential scale benefits to our Client over time as more pre-seasoned chickens are sold


## Case 19 Salty Sole Shoe

## Concepts tested

- Z12 Creativity
- Z01 Accounting (2/3)
- Z09 Microeconomics


## Primary sector(s)

- X12 Retail and Consumer
- X06 Financial Services

Case type

- Y07 Profitability


## Similar cases

- US Shoe Manufacturing (Wharton 2017)
- Kicks
(Tuck

2009) 

## Salty Sole Shoe

## Interviewer Guide

## Case prompt

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the $14-22$ year old age group.
- Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- How can the company increase profitability and achieve the private equity firm's return on investment objectives?


## Interviewer guide

- The case primarily tests an understanding of profitability and profitability growth strategies. Begin by reading the case question and asking the interviewee to take a few moments and then explain how they would like to proceed in the client's problem

1. Develop a structure to address the problem
2. Analyze client costs
3. Analyze client revenues
4. Analyze market size/share
5. Provide client recommendation

## Salty Sole Shoe

Fit: What is an example of when you showed initiative and leadership?

## Case prompt

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the $14-22$ year old age group.
- Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- How can the company increase profitability and achieve the private equity firm's return on investment objectives?


## Clarifying information

- Industry Characteristics/Market Economics: Client is the market leader in junior women's footwear in the U.S. only. Apparel industry is characterized by cyclicality due to economy and consumer preferences.
- Client Characteristics: Client designs and distributes footwear to discount retailers (like Kohl's) and is considered mid-priced. Client outsources all manufacturing on a fixed-contract basis (i.e. manufacturing costs with outsourced providers fall under Fixed Costs for simplicity).
- Competitive Dynamics: Client follows a "me-too" strategy and follows fashion rather than inventing it then offering lower prices than name brands (i.e. not subject to fashion risk). Client competes on the basis of trendy fashion and value pricing.


## Salty Sole Shoe

## Exhibit A - Salty Sole Financial Estimates

(\$ in millions)

|  | 2006A | $2007 A$ | 2008 A | 2009 E | 2010 E | 2011E | 2012E |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sales \$ | 50.0 | 65.0 | 60.0 | 61.0 | 62.0 | 65.0 | 70.0 |
| Less Discounts/Allowances \$ | $(0.5)$ | $(0.65)$ | $(0.60)$ | $(0.61)$ | $(0.62)$ | $(0.65)$ | $(0.7)$ |
| Net Sales \$ | 49.5 | 64.35 | 59.4 | 60.39 | 61.38 | 64.38 | 69.3 |
| \% Increase | 20.0 | 30.0 | $(7.7)$ | 1.7 | 1.6 | 4.8 | 7.7 |
| COGS |  |  |  |  |  |  |  |
| Fixed Costs | 24.75 | 32.18 | 29.70 | 30.20 | 30.69 | 32.18 | 34.65 |
| Total Costs | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
|  | 39.75 | 47.18 | 44.70 | 45.20 | 45.69 | 47.18 | 49.65 |
| EBITDA \$ |  |  |  |  |  | 15 |  |
| Sale Multiple | 9.75 | 17.18 | 14.70 | 15.20 | 15.69 | 17.18 | 19.65 |
| Purchase/Sale Price \$ | $6.5 x$ | $6.5 x$ | $6.5 x$ | $6.5 x$ | $6.5 x$ | $6.5 x$ | $6.5 x$ |
| Return on Investment \% |  | 111.64 | 95.55 | 98.77 | 101.99 | 111.64 | 127.73 |

Notes:

- Acquisition occurred on December 31, 2006


## Salty Sole Shoe

Exhibit B - US Casual Footwear Market Size and Share


## Salty Sole Shoe

## Part 1

## 1. Develop a structure to address the problem

- After asking the case question, the interviewee should draw a framework that outlines the basic concept that profit is driven by revenue (price and volume) and cost (fixed and variable)



## Salty Sole Shoe

## Part 2

## 2. Analyze client costs

## Provide Exhibit A

- What observations can be made from this chart? Interviewee should point out that the company experienced significant growth during the pre-recession years, but a decline and only gradual pick-up following.
- Interviewee should pick-up on the fact that the change in net sales is not due to increased discounts/allowances (remains $1 \%$ throughout years).
- Have a quick discussion on the company's cost structure
- On the cost side, interviewee should note that variable costs remained flat at $50 \%$ and fixed costs remained flat
- Fixed: Interviewee should note that fixed costs are not extremely high (about 23-25\%), but could be an area for improvement. Ask how interviewee would reduce fixed costs? Examples include: renegotiate contracts, find cheaper manufacturing partners, etc.
- State that in-fact fixed costs cannot be adjusted based on the company's research.
- Variable: Interviewee should note that variable costs are approximately $50 \%$ of sales. Ask how interviewee would think about reducing variable costs? Examples include: reduce labor/sales force, use technology, renegotiate / volume purchase materials
- State that variable costs are currently at the lowest possible rates based on market research.


## Salty Sole Shoe

## Part 3

## 3. Analyze client revenues

- Once interviewee determines that cost is not the issue, have a discussion on the components of revenue - price and volume.
- Price: Interviewee should ask if pricing has remained constant over time or if the company has adjusted its pricing to reflect lower consumer discretionary income.
- Ask what considerations the interviewee would have when considering adjusting price?
- Answers should be price sensitivity / elasticity, cost structure, brand equity (dilute brand through price decrease but compete with more upscale brands if increase).
- State that pricing has remained constant at an average of $\$ 25 /$ unit. The company has determined that it would not be prudent to adjust pricing based on industry research. Interviewee can now determine the \# of pairs sold for later in the case.
- Now that the interviewee has hopefully zeroed-in on the fact that the issue is volume, ask how many units must be sold by 2012 in order for the private equity firm to achieve a $20 \%$ return on the investment in Salty Sole Shoe, which equals approximately $\$ 300$ million sale value (give this number). Note that interviewee should ignore discounts/allowances for simplicity.
- Interviewee should determine that if the sale value needs to be $\$ 300 \mathrm{~mm}$ in 2012 , then EBITDA will need to be $\$ 300 / 6.5=\$ 46.15$ (round up to $\$ 50$ million).
- The formula to determine how many pairs of shoes must be sold to reach that EBITDA level is as follows:
- $\$ 50,000,000=\$ 25^{*} v-\left(.5^{*} 25\right.$ * $\left.v\right)-15,000,000$
- $\$ 65,000,000=12.5 \mathrm{v}$
- $\mathrm{V}=5,200,000$ pairs of shoes


## Salty Sole Shoe

## Part 4

## 4. Analyze market size/share

- Interviewee should note that this is more than double the 2008 and 2009 volume levels. Ask what the interviewee would want to know to determine if this volume is feasible? Answer: market size / share.


## Provide Exhibit B

- Show the candidate Exhibit B when he/she notes that market size/share would be helpful.
- Candidate should note that the client is already the market leader with $40 \%$ and that the market size is not projected to increase.
- This should lead to the conclusion that the client can increase volume by stealing share and/or new products in other categories.


## Salty Sole Shoe

## Part 5

## 5. Provide client recommendation

- The interviewee should zero-in on the fact that since cost-structure is fixed and price is also fixed, volume is the only real way to increase profitability.
- However, volume must more than double in order to achieve the growth desired by the private equity firm for a $20 \%$ return, which could be difficult given recession and the fact that the industry as a whole isn't growing.
- Interviewee should recommend potentials strategies for achieving that volume growth while outlining the risks of each: 1) Volume: new products / geographies / distribution channels (international?); increase marketing to steal share; acquire growth (brands); adjust product mix to higher-margin products. 2) Price: add value / features. 3) Risks: Capacity, cannibalization if new products.
- Excellent interviewees quickly identify that volume is the issue by ticking through the parts of the profitability equation.
- They will also ask about product mix and question the $50 \%$ gross margin. The interviewer should note that it's assumed that all products have the same margin, but that's a great question.
- Outstanding interviewees will note that since the company is not projected to have to adjust discounts / allowances, then it probably has a good product that is highly-valued by customers and/or this may be aggressive projecting.


## Case 20

## Sosland Sports

## Concepts tested

- Z03 Breakeven analysis (2)
- Z11 Competitive analysis (3a)
- Z12 Creativity (3b)
- Z10 Customer strategy (4)


## Primary sector(s)

- X09 Hospitality \& Leisure

Case type

- Y04 Market Entry


## Similar cases

- Thrill Park (Fuqua 2016)
- Tommy's Tennis (WSO 2012)
- Snack Foods Acquisition (Wharton 2017)



## Sosland Sports

## Interviewer guide

## Case Question

- Your client, Sosland (pronounced sauce-land) Sports, is an operator of squash centers in Sweden. The squash centers include sauna, spa, pool, gym and - of course - the squash courts!
- Due to the extreme success in Sweden the company is considering expanding to other countries in Europe, in particular Germany.
- The founder and CEO, Felicity Sosland, has asked us to evaluate this possible expansion.
- What factors would you consider in order to estimate the outcomes of this expansion?


## Interviewer guide

- Problem: Should Sosland Sports expand into Germany?
- Problem solving steps

1. Develop problem solving structure
2. Determine the breakeven point

3a. Conduct competitive analysis
3b. Brainstorm service differentiators
4. Provide client recommendation

## Sosland Sports

Experience: Tell me about your most meaningful career achievement to date.

## Case Question

- Your client, Sosland (pronounced sauce-land) Sports, is an operator of squash centers in Sweden. The squash centers include sauna, spa, pool, gym and - of course - the squash courts!
- Due to the extreme success in Sweden the company is considering expanding to other countries in Europe, in particular Germany.
- The founder and CEO, Felicity Sosland, has asked us to evaluate this possible expansion.
- What factors would you consider in order to estimate the outcomes of this expansion?


## Clarifying information

- Company: Sosland Sports centers are mid-range centers with medium-quality facilities. They only exist in Sweden.
- Goal: Breakeven at least. No timeframe.
- Revenue: Annual subscription based revenue model.


## Sosland Sports

Exhibit A - Cost overview

| Total annual cost | $€ 200,000$ |
| :--- | :---: |
| Number of courts | 15 |
| Opening hours | 8am - 6pm |
| Days of use per week | 7 |
| Court use | 1 hour per member per week |
| Usage capacity | $70 \%$ |

## Sosland Sports

## Part 1

## 1a. Develop problem solving structure

- This question should give an overview of the candidate's ability to structure an answer. The best way to solve this is by using a "3C's" or "Five Forces" analysis.
- The interviewee should recognize the question as an opportunity to brainstorm.
- The answer should include some of the following points:


## Customers

- Market size and growth rate
- Market segmentation (activity level, ages)
- Cultural factors (ie. German sporting preferences)


## Competitors

- Number and concentration, substitutes
- Intensity
- Positioning


## Company

- Replication of business model
- Economies of scale
- Cost of expansion
- Projected profitability


## 1b. Determine data gathering approach

## Good answers

- Purchase marketing analyses / research reports
- Internet research on competitors
- Contact real estate agent for real estate costs
- Contacting someone in the consulting company who has experience in the market or industry


## Outstanding answer

- An outstanding candidate would structure their answer. For example: they would gather information (1) internally, using firm resources and within the client's own organization, and (2) externally from third party sources.


## Sosland Sports

## Part 2

## 2a. Determine the breakeven point

## Provide Exhibit A

- Can you determine the minimum annual membership fee Sosland Sports has to charge in order to cover the running cost?
- Information that can be shared if inquired: If the candidate asks about revenues, tell him/her that they are equal to the annual costs.
- Courts are always used during operating hours.
- The candidate should think about the possibility of doubles. If they ask, they should assume $50 \%$ single and $50 \%$ double matches.
- Number of hours available per week $=10$ hours/day $\times 7$ days/week $\times 15$ courts $=1,050$
- Number of hours courts in use $=70 \%$ utilization $\times 1,050=735$
- Average number of players per hour $=(50 \% \times 2)+(50 \% \times 4)=3$
- Members $=735$ hours $\times 3$ members/hour $=2,205$
- Membership = €200,000 / 2,205 = €90.70


## 2b. Sense check calculation

Are you sure this is an annual fee and not a weekly one?

This is meant to be a tricky question to show the confidence of the interviewee. But as the annual costs are divided by the total number of members this is indeed an annual fee.

Ideally the candidate should note that the €90 membership fee seems low and look to compare against the competition.

## Sosland Sports

## Part 3

## 3a. Conduct competitive analysis

The dominant market player for squash centers ( $70 \%$ market share in Germany) offers memberships for $€ 70$. Would you recommend entering the market?

## Good answer

- Further investigation is required, in particular what the competitor is offering and if Sosland Sports can differentiate its services from this offering.
- For instance if the competitor is using a cost leadership strategy and offers a very cheap, but low-quality service, Sosland Sports could launch a premium, high quality squash center.


## Outstanding answer

- There could be other outcomes of the investigation.
- If the competitor operates across all segments, from low-end to high quality, and has a lower cost base, Sosland Sports should not enter the market. An entrance would only lead to a price competition that our client cannot win.


## 3b. Brainstorm service differentiators

What could Sosland Sports offer to customers to differentiate their service offering?

There are several possible solutions (some mentioned at the beginning of the case) but these should be structured by the interviewee:

- Providing high-quality courses
- Setting up cross-country tournaments between Sweden and Germany
- Advertise the squash center with famous people (celebrities)
- Offer longer opening-hours for members paying a higher fee
- Offer services like a café or a bar


## Sosland Sports

## Part 4

## 4. Provide client recommendation

- Overall, there is only a case for Sosland Sports to enter the German market if they can differentiate themselves from the dominant competitor.
- Sosland Sports needs to charge $€ 90$ for an annual membership to break-even
- The major incumbent charges $€ 70$ per year
- Sosland Sports needs to determine how they can differentiate themselves to charge this higher price
- Risks: Competitor reaction to a new entrant, differing consumer preferences/buying habits in Germany
- Next steps: Deeper dive into competitors' businesses and market research into Germans' leisure buying habits
- Strong interviewees quickly contextualize the $€ 90$ fee in terms of the client problem and look to compare in the market.
- Outstanding interviewees structure the math correctly and solve it in a simple and clear manner.


## Case 21

## Tacotle

## Concepts tested

- Z06 Macroeconomics (2)
- Z01 Accounting $(4,5)$
- Z10 Customer strategy (6)

Primary sector(s)

- X02 Agriculture \& Food

Case type

- Y07 Profitability
- Y05 Operations


## Similar cases

- Yumy Co 2013)
- Burger Chain (Ross 2012)
- Le Seine (Harvard 2015)


## Tacotle

## Interviewer guide

## Case prompt

- Your client is Tacotle, a leading national fast casual restaurant with $\$ 420 \mathrm{~m}$ in revenue in 2019.
- Over the five years proceeding 2019, Tacotle has experienced steady revenue growth and industry leading profitability. But for the first time in its 15 year history, Tacotle has experienced three straight quarters of EBITDA erosion.
- Tacotle's CEO has hired you to explore what is causing profits to drop and what can be done to reverse the tide.


## Interviewer guide

- Problem: How can we return Tacotle to profit growth?
- Problem solving steps:

1. Develop a structure to address the problem
2. Analyze external market conditions
3. Identify trends in profitability over time
4. Deep dive into drivers of revenue change
5. Calculate change in units sold between 2018 and 2019
6. Analyze operational reasons for price increases
7. Provide client recommendation

## Tacotle

Fit: Tell me about a time you felt conflict in the workplace.

## Case prompt

- Your client is Tacotle, a leading national fast casual restaurant with $\$ 420 \mathrm{~m}$ in revenue in 2019.
- Over the five years proceeding 2019, Tacotle has experienced steady revenue growth and industry leading profitability. But for the first time in its 15 year history, Tacotle has experienced three straight quarters of EBITDA erosion.
- Tacotle's CEO has hired you to explore what is causing profits to drop and what can be done to reverse the tide.


## Clarifying information

- Goal: Profitability (no specific milestones, looking for positive annual profit growth in the short term)
- Market: Defer until after the framework presentation
- EBITDA: Ensure interviewee understands that EBITDA is Earnings before interest, tax, depreciation and amortization (profit)


## Tacotle

## Exhibit A - Quarterly revenue and EBITDA



## Tacotle

Exhibit B - Average revenue per order
_Avg. revenue per order


## Exhibit C - Income statement

|  | 2017 | 2018 | 2019 |
| :--- | :---: | ---: | ---: |
| Revenue (\$M) | 364 | 377 | 420 |
| Expenses (\$M) | 51 |  |  |
| COGS | 96 | 54 | 96 |
| Wages | 11 | 99 | 101 |
| SG\&A | 43 | 40 | 10 |
| Fixed Overhead | 163 | 170 | 44 |
| EBITDA (\$M) |  |  | 169 |

## Tacotle

Exhibit D - Customer survey (2018)


Notes:

- On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?
- On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?


## Exhibit E - Customer survey (2019)



## Notes:

- On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?
- On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?


## Tacotle

## Part 1

## 1. Develop a structure to address the problem

- After framework review, Candidate should:
- Understand that the problem could originate from market conditions or company operations
- Discuss the basis profitability framework with some focus on anticipated fixed and variable cost drivers for Tacotle



## Tacotle

## Part 2

## 2. Analyze external market conditions

- When asked, provide the interviewee with the following information about the market, competitors and customers:
- Market growth
- Market is growing at the same rate as GDP
- Mature market
- Competition
- No major competitors have entered or exited
- No new substitutes introduced
- Tacotle currently has a $30 \%$ market share (by revenue) which it has maintained
- Customers
- Customers are beginning to stress the importance of ingredient quality and order customization
- Takeaway: the profitability issue is not one that is market wide. The problem seems to be specific to Tacotle.
- There are no major competition related factors that are driving the decreased profitability. The issue is most likely related to a change within Tacotle
- The change in customer preferences doesn't seem like it is directly driving decreased profits but it may have influenced decisions made within Tacotle


## Tacotle

## Part 3

3. Identify trends in profitability over time

## Provide Exhibit A once the interviewee requests information regarding Tacotle's Revenue or Profitability

- What are potential drivers of:
- Revenue spike? (Increase in price or units sold)
- EBITDA erosion? (Increase in cost, decrease in rev.)
- EBITDA \% decline? (Decrease in margin)
- Spike in revenue in Q1 2019 with relatively flat EBITDA and large decrease in EBITDA \%. Followed by steady revenue decline
- Good response will hypothesize what could cause this, with the conclusion that either prices and/or purchases increased with costs increasing more than the additional revenue
- A good interviewee will take a deep dive into the profitability framework looking to determine why:

1. Revenue spiked then declined over the following quarters
2. Profitability (EBITDA) did not follow revenue

## Tacotle

## Part 4

## 4. Deep dive into drivers of revenue change

- Guide the candidate down the revenue side of the profitability framework if they do not do so.


## Provide Exhibit B once the interviewee has hypothesized potential drivers of increased revenue

- After interviewee has stated that price increased, interviewee should recognize that a change in price could lead to a change in quantity.


## Provide Exhibit C once the interviewee asks how the units sold changed in 2019

- Takeaways (Exhibit B):
- A good interviewee will quickly identify that Tacotle increased the average price of their orders.
- It should initially be ambiguous whether units sold increased or decreased. A good interviewee will not rush to a conclusion
- Takeaways (Exhibit C):
- Interviewee should evaluate the entire slide then attempt to answer the question posed regarding units sold in 2019
- Interviewee should refer back to the exhibit and notice that COGS nearly doubled from 2018 to 2019


## Tacotle

## Part 5

## 5. Calculate change in units sold between 2018 and 2019

- If the interviewee does not calculate the change in units sold themselves, ask them to


## Units sold in 2018:

- Units sold = Revenue / (Avg. price per unit)
- 2018 Revenue $=\$ 377$ (Round to 380M)
- 2018 Avg. price per unit $=\$ 4.05$ (Round to \$4)
- Units sold $=\$ 380 \mathrm{~m} / \$ 4=95 \mathrm{~m}$ units sold


## Units sold in 2019:

- Units sold = Revenue / (Avg. price per unit)
- 2019 Revenue $=\$ 420 \mathrm{~m}$
- 2019 Avg. price per unit $=\$ 5.25$
- Units sold $=\$ 420 \mathrm{~m} / \mathrm{\$ 5.25}=80 \mathrm{~m}$ units sold

Takeaways:

- Although revenue increased sharply, the total number of orders decreased.
- As revenue continued to decline over the last three quarters of 2019, prices remained the same. Therefore, a decrease in the quantity sold is responsible for the eroding revenues and EBITDA


## Tacotle

## Part 6a

6a. Analyze operational reasons for price increases

- Why did Tacotle increase prices?
- Why did units sold continue to decrease throughout 2019?


## Provide Exhibit D once the interviewee or interviewer asks these questions

- Ensure that before moving into 'operations' the interviewee has analysed Exhibits $\mathrm{A}, \mathrm{B}$ and C and has received Exhibit D.
- Exhibit D illustrates Tacotle's performance against customer preferences
- Tacotle lags with regards to quality but is on par or exceeding expectations for all other categories
- Interviewee should conclude that Tacotle did something that was aimed to increase quality which most likely caused COGS and revenue to increase


## Part 6b

6b. Analyze operational reasons for price increases

- After interviewee has speculated on potential operational changes Tacotle could have implemented, inform them that Tacotle introduced a new menu focused on allowing the consumer to customize their orders more and higher quality and selection of ingredients


## Provide Exhibit D at this point

- If asked for, the average time to serve a customer increased from $\sim 1$ minute to $\sim 3.5$ minutes.
- Interviewee should recognize that Exhibit E is the same survey as Exhibit D but for the next year (post menu upgrade)
- Interviewee should also recognize that the order of attributes has changed
- "Speed of Service" is now Tacotle's weakest attribute
- This is due to the new menu which added complexity to food preparation
- "Consistency of Service" has also dropped below customer expectations due to the added complexity of food preparation
- Although Tacotle has met expectations with regard to "Quality", the decline of ratings in "Speed of Service" and "Consistency of Service" have more than cancelled it out, resulting in a net decrease in customer satisfaction
- Takeaway: The menu change was not effective


## Tacotle

## Part 7

## 7. Provide client recommendation

Overall: Scale back the menu changes that were implemented during 2019.

- The menu change led to a significant increase in COGS which decreased EBITDA \%
- The menu change led to overall customer dissatisfaction, degrading brand equity
- The customer dissatisfaction lead to decreasing unit sales (quarter over quarter) which is driving the EBITDA erosion


## Risks

- Scaling back the menu too much could lead to decrease in customer satisfaction for "Quality"
- Scaling back could disrupt relationships with suppliers require asset divesture relating to initial menu change
- A scale back that does not focus on margin improvement could lead to smaller revenues and profits, effectively downsizing the company.


## Next steps

- Perform more detailed and focused customer surveys to gage what Tacotle customers expect from the chain
- Perform a scale back on the menu size that focuses on cost cutting balanced with customer needs
- Follow-on menu changes should be implemented on a smaller/trial basis at a small number of individual restaurants


## Case 22

## Vitality Insurance

Concepts tested

- Z13 Organizational
changes (3)



## Similar cases

- TV Screens (Wharton 2017)


Case author(s): Peter Manoogian (Kellogg 2012) Edited by: Matthew Heintz (Kellogg 2016), Rohan Maini (Kellogg 2020)

## Vitality Insurance

## Interviewer guide

## Case prompt

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, longterm disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. What should they do about it?


## Interviewer guide

- Problem: How can Vitality improve its profit margins?
- Problem solving steps:

1. Identify cost trends
2. Determine root-cause of sales cost changes
3. Examine mis-aligned incentive programs
4. Provide client recommendation

## Vitality Insurance

Fit: What role do you typically play in a team? Give me an example of this.

## Case prompt

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, longterm disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. What should they do about it?


## Clarifying information

- Client:
- Vitality is the leader in its category and has over 10,000 field sales agents (FSAs)
- Vitality sells all policies through FSAs who are solely compensated on a percentage commission of total new premium, (defined as premium from new customers or additional premium up-sell from existing policyholders)
- In addition to the commission, short term priorities are often communicated via sales contests that focus on a particular customer segment or activity and pay a bonus in addition to standard commission
- Major costs: sales, G\&A, and advertising
- Competition: Few competitors in this mature market with similar growth. Vitality is a leader in the space; competition not the focus
- Industry: Agent turnover is very high on a yearly basis (though was lower during the recessionary period)


## Vitality Insurance

## Exhibit A - Results and Costs

| Vitality insurance key results and costs (figures in '000s) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2008 | 2009 | 2010 |
| Accounts converted | 500 | 550 | 605 |
| Total policyholders enrolled | 1,500 | 1,650 | 1,815 |
| Total premium from policyholders | \$2,500,000 | \$2,750,000 | \$3,025,000 |
|  |  |  |  |
| Total costs |  |  |  |
| General and Administrative | \$50 | \$55 | \$58 |
| Sales | \$250 | \$275 | \$400 |
| Advertising | \$25 | \$28 | \$30 |
|  |  |  |  |
| Profit margin | 9.50\% | 9.40\% | 8.50\% |

## Vitality Insurance

## Exhibit B - Insurance sales process



| Number of sales contests targeted at these leverage points on the selling process |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | New Agents | Acquire new accounts <br> (bonus based on \# of accounts) | Keep accounts active <br> (bonus based on \# of <br> accounts) | Upsell active accounts <br> (bonus based on \# of <br> accounts) | Produce results <br> (bonus based on total <br> premium $\$$ ) |
| 2008 | $\mathrm{n} / \mathrm{a}$ | 2 | 4 | 1 | 2 |
| 2009 | $\mathrm{n} / \mathrm{a}$ | 2 | 4 | 1 | 2 |
| 2010 | $\mathrm{n} / \mathrm{a}$ | 4 | 0 | 1 | 4 |

## Vitality Insurance

## Exhibit C - Snapshot of ‘Sweeps Week’ contest results

## Ratio to Average Weekly Premium (2008-2010)



## Vitality Insurance

## Part 1

1. Identify cost trends

## Provide Exhibit A when the interviewee asks for cost information

- Interviewee should recognize the following:
- All line items except for sales costs growing at $10 \%$ per year
- Sales costs grow at $10 \%$ from 2008 to 2009 , but at $45 \%$ from 2009 to 2010 (while premium growth remains at $10 \%$ )
- Stronger interviewees will quickly note that something is strange with the 2010 sales costs, but will calculate to confirm
- Finally, profit margins are declining significantly from 2009-10, suggesting that the increase in sales costs is not paying off


## Vitality Insurance

## Part 2

## 2. Determine root-cause of sales cost changes

## Provide Exhibit B if the interviewee asks about the value chain or sales process

- If the interviewee asks about the new contests focused on premium, provide the following information:
- Vitality launched a contest called 'Sweeps Week' that aimed to drive increased premium in weeks that were traditionally low volume for the company. Vitality paid an extra $10 \%$ bonus on all premium booked in those two weeks.
- Sales agents thought 'Sweeps Week' was a great contest
- Assume the types of contests run in 2008 and 2009 were fairly similar
- Do not share Exhibit C until the interviewee recognizes this shift in mix and begins asking questions about the new programs
- As seen in Exhibit B; Vitality's sales agents are engaged in several activities along the sales process, and that new premium can be generated in many ways.
- The interviewee should recognize the shift in contest mix from 2008/09 to 2010. Coupled with the additional information provided in the previous slide, the interviewee should realize that Vitality has shifted its focus more toward total premium and new accounts in 2010


## Vitality Insurance

## Part 3

3. Examine mis-aligned incentive programs

## Provide Exhibit C if the interviewee asks about the effectiveness of 'Sweeps Week'

- If asked, confirm that agents have authority to 'book' sales whenever they want by influencing the enrollment timing by up to one week
- Strong interviewees will also recognize that, despite not having charts to support it, a shift in customer focus toward acquiring new accounts in 2010 will likely also hinder profit margins, as acquiring a new customer costs considerably more than retaining (or upselling) an existing customer
- Exhibit C shows weekly premiums for all of Vitality from 2008-2010. The chart is shown in a way that compares each year's actual premium to the average of historical premium for that year, so as to provide for a 'benchmark' comparison.
- The 'Sweeps Week' contest launched in 2010 is shown in weeks 4 and 20 in the chart, and clearly yields high premium volume for those particular weeks. However, it is done at the expense of the weeks surrounding the sweeps week.
- This implies that agents may be 'gaming' the system by pushing/pulling sales into that week to earn the contest rewards


## Vitality Insurance

## Part 4

## 4. Provide client recommendation

- The interviewee should conclude that Vitality overspent in 2010 on the 'Sweeps Week' sales contest, thus hurting its profitability
- Exhibit C indicates that the contest influenced the sales force to conduct undesirable selling practices by pushing / pulling forward business to earn the extra commission
- Further, the contest's focus, driving new premium was duplicative with that of the main commission system, therefore it did not add much value
- Recommendation: eliminate 'Sweeps Week' for 2011 and potentially repurpose those funds toward an activity that is not already covered by the main commission structure
- It is unclear whether we should remove the increased contests on new accounts, as this could be a new customer focus that we do not know about
- Excellent candidates will make the following observations:
- Recognize that the likely decline in profit margin from 2009 to 2010 is linked to the abnormal increase to sales costs
- That the 'contest mix' in Exhibit B is similar to a firm's marketing mix, especially given that the sales channel has already been established as the main marketing channel for these products
- Suggest that the added contests on acquiring new accounts will also decrease profitability because acquiring new customers is more costly than retaining existing ones.


## Case 23

## Wildcat Wings

## Concepts tested

- Z08 Market sizing (2)
- Z12 Creativity (4)
- Z16 Vertical integration (4)


## Primary sector(s)

- X01 Aerospace \& Defense
- X15 Transportation \& Logistics

Case type

- Y06 Opportunity assessment
- Y05 Operations


## Similar cases

- case, casebook + year


Case author(s): Adam J. Louras (Kellogg 2011) [formerly A+ Airlines] Edited by: Deepika Singh (Kellogg Class’16), Rohan Maini (Kellogg 2020)

## Wildcat Wings

## Interviewer guide

## Case prompt

- Our client is Wildcat Wings, the third largest airline in the United States by passengers carried. This week, the CEO flew with our primary competitor, Phoenix Air, and she noticed something interesting: Phoenix has stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- The CEO of Wildcat Wings wants to know why Phoenix Air switched to Card only, and if Wildcat Wings should follow them.


## Interviewer guide

- Problem: Should Wildcat Wings go cashless for in-flight purchases?
- Problem solving steps:

1. Develop a structure to address the problem
2. Analyze current in-flight purchases
3. Explore cost impacts of switching to card only
4. Brainstorm additional benefits
5. Provide client recommendation

## Wildcat Wings

Fit: Tell me how about a time someone convinced you to take a differnet approach.

## Case prompt

- Our client is Wildcat Wings, the third largest airline in the United States by passengers carried. This week, the CEO flew with our primary competitor, Phoenix Air, and she noticed something interesting: Phoenix has stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- The CEO of Wildcat Wings wants to know why Phoenix Air switched to Card only, and if Wildcat Wings should follow them.


## Clarifying information

- Card Use: Roughly 99\% of all consumers purchase their airline tickets using a credit card, i.e. all consumers on an airplane have a credit card available to them.
- Items Sold: Only food and alcoholic beverage items are sold on Wildcat flights.
- Competitive Dynamics: Phoenix is the only airline that has made the switch; however all other airlines are evaluating the switch.
- Competitors: For the purposes of this case, Phoenix and Wildcat should be considered to be exactly the same in all regards.


## Wildcat Wings

## Exhibit A - Flight economics

| ph $\mu \boldsymbol{p}+\underset{p}{ }$ | Average Wildcat Wings flight Boeing 737-800 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - 4 anch | Total seats | 200 |  |  |  |
| 1111 | Cabin | Cabin share of seats | Traveler type |  | Seat utilization |
| Marmorn |  |  | Business | Leisure |  |
| A $\mathrm{A}^{\text {d }}$ | First Class | 25\% | 100\% | 0\% | 100\% |
| $i \cdots i$ | Economy | 75\% | 50\% | 50\% | 80\% |
|  | Traveler type | Purchase rate |  | Average purchase value |  |
| $A$ A | Business | 40\% |  | \$10 |  |
|  | Leisure | 25\% |  | \$5 |  |
|  |  | Method of payment |  |  |  |
|  | Cash | 20\% |  |  |  |
| Fleet size: 50 | Card | 80\% |  |  |  |

## Wildcat Wings

## Exhibit A - Cash and Credit Card management processes

Wildcat Wings Cash Management Process*


Wildcat Wings Credit Card Process


Additional information:

- 5 cash handlers per airport
- 2 employees onsite cash processing center at each airport where Wildcat operates


## Wildcat Wings

## Part 1

1. Develop a structure to address the problem

- Case Structure - Interviewee's structure should be a before and after comparison of the switch from Cash \& Card to Card only and should include:
- Revenue Changes: Loss of Cash Only customers vs. Increase in Credit Card customers
- Cost Changes: Benefit of Cash Management Cost Removed vs. Incremental Cost (Fee) of Credit Card
- Cash Flow Changes: Interest and Time Value of Money (TVM), and Working Capital impacts due to an increase in collection speed


## Wildcat Wings

## Part 2

2. Analyze current in-flight purchases

Provide Exhibit A when the interviewee asks about market sizing
When asked, state we will lose $1 / 3$ of cash customers when we move to card-only

- Ask the interviewee to determine the Total Market Size in (\$) for food and beverage purchases on an average flight
- The interviewee should calculate the current allocation of purchases (Cash vs Card) for an average flight.
- The interviewee should begin with the correct assumption that revenue will be lost due to unhappy, cash-only passengers
- First class business passengers $=200$ seats $\times 25 \%$ share $\times 100 \%$ utilization $\times 100 \%$ business $=50$ passengers
- Economy business passengers $=200$ seats $\times 75 \%$ share $\times 80 \%$ utilization $\times 50 \%$ business $=60$ passengers
- Economy leisure passengers $=200$ seats $\times 75 \%$ share $\times 80 \%$ utilization $\times 50 \%$ leisure $=60$ passengers
- Business spend $=(50+60) \times 40 \% \times \$ 10=\$ 440$
- Leisure spend $=60 \times 25 \% \times \$ 5=\$ 75$
- Cash payments $=\$ 515 \times 20 \%=\$ 103$
- Card payments $=\$ 515 \times 80 \%=\$ 412$
- Takeaway: Lost revenue $=1 / 3 \times 103=\sim \$ 35$


## Wildcat Wings

## Part 3

3. Explore cost impacts of switching to card only

- Interviewee should make mention of Cost changes due to the shift to a Card Only strategy.

Provide Exhibit B when the candidate after cash and credit card processing cost brainstorming

When asked, explain that the total, per flight, savings from eliminating overhead due to Cash Management Operations is $\$ 35 /$ flight

- The interviewee should notice the following information:
- Cash Management \& Card Management both have $2 \%$ fees associated, so this is a "wash" in terms of savings.
- Cash Management requires additional overhead, 7 total employees per airport, that could be eliminated for further savings.
- Interviewee should notice that the $\$ 35$ savings offsets the $\$ 35$ loss in revenue. A good candidate will notice that savings go straight to the bottom line whereas revenue doesn't.


## Wildcat Wings

## Part 4

## 4. Brainstorm additional benefits

## If the candidate does not mention TVM, ask them about benefits of collecting payment early

- The interviewee should qualitatively mention that there are benefits to eliminating the longer cash management process:
- Time Value of Money: Wildcat Wings will receive their money 30 days sooner, and this money could be used to:
- Invest in interest earning accounts or growth projects
- Pay off suppliers early and take advantage of discounts
- Pay down lines of credit faster
- Working Capital Improvement: $\$ 50$ per flight in change can be eliminated, thus freeing up cash flow. Additionally, there will be a reduction in loss of cash due to theft and damage
- Happier Customers: The majority of customers will be able to place and receive their order faster on the plane which will also increase sales


## Wildcat Wings

## Part 5

## 5. Provide client recommendation

- Overall, our client Wildcat Wings, should switch to a Credit Card only system for in-flight food \& beverage because:
- Quantitative Benefits: We calculated that there would be a loss of 3 business customers and 1 economy customer per flight which amounted to a Revenue loss of $\$ 35$. We also found that we could save $\$ 35$ in overhead expenses by eliminating the Cash Management process. In sum, the decision to switch is in favor because the savings are to the bottom line and the revenue losses are top line.
- Qualitative Benefits: We also found that we will receive payment 30 days sooner by only accepting credit cards. This improves our cash flow and could allow us to earn interest, pay down creditors, or invest in projects. Additionally, by reducing cash losses and eliminating "Change" tied up on airplanes, we can improve our Working Capital and also put this money to work for us. Finally, it appears as though customers, in general, might actually be happier because the speed of transactions on the airplane will improve.
- Outstanding interviewees will note:
- Due to the increased transaction speed, probability of purchase for both Business and Economy passengers in the AFTER state should go up due to a reduction in frustration. The people on the back of the airplane often abandon a purchase if it takes too long to place an order. Making change takes a lot of time!
- Average purchase amount should also increase. There is a proven psychological phenomenon that shows how consumers who do not carry cash purchase less when a cash option is offered because they feel guilty using their card. A card-only option eliminates this guilt and consumers don't mind using the card.
- Being creative when listing the change of costs as: Wifi cost (connect with banks and verify transaction), Fraud cost (increased chance of fraud to happen after implementing card only payment).


## Case 24 <br> Wine \& Co

## Interviewer-led

## Concepts tested

- Z02 Net Present Value (2)
- Z10 Marketing strategy (3)


## Primary sector(s)

- X02 Agriculture \& Food

Case type

- Y06 Opportunity assessment


## Similar cases

- Pharmacy in Supermarket (Sloan 2011)
- Rocky Resort (WSO 2012)
- Jamaican Land Investment (Haas 2015)


Case authors: Anil Goteti (Kellogg 2011) Edited By: Mauricio Atri (Kellogg 2012), Laura Mast (Kellogg 2020)


## Wine \& Co

## Interviewer Guide

## Case prompt

- Wine \& Co is a niche wine manufacturer in the San Francisco Bay area. Wine \& Co recently acquired 12 acres of land outside San Francisco.
- The company wants to investigate opportunities to best use the land and needs a recommendation from you.
- What are the different ways in which Wine \& Co can use the land?


## Interviewer guide

- Problem: How can Wine Co maximize the
- Problem solving steps:

1. Develop a structure to address the problem
2. Identify most profitable product
3. Determine preferred product for manufacturing
4. Provide client recommendation

## Wine \& Co

Experience: Tell me about a time when you faced conflict in a team setting.

## Case prompt

- Wine \& Co is a niche wine manufacturer in the San Francisco Bay area. Wine \& Co recently acquired 12 acres of land outside San Francisco.
- The company wants to investigate opportunities to best use the land and needs a recommendation from you.
- What are the different ways in which Wine \& Co can use the land?


## Clarifying information

- Product: Wine \& Co only manufactures red wines. The company does not sell any other products.
- Customers: The company serves only the local market (the San Francisco Bay area).
- Company: The company is currently very healthy and does not face any problems.


## Wine \& Co

## Part 1

1. Develop a structure to address the problem

- The interviewee should create a framework and structure the problem. The interviewee should suggest options including manufacturing the wine, creating adjacent products (like wine tasting tours), using the land for other uses (commercial real estate/selling the land for a profit/other opportunity costs).
- A strong candidate would provide a detailed structure (eg. profitability framework for manufacturing feasibility with customization of the framework - yield of grapes, cost per liter of wine, etc.) and outline the risks or considerations involved in some of these options (like usability of land for manufacturing or company competency in pursuing in other opportunities unrelated to wine manufacturing).


## Wine \& Co

## Part 2a

## 2. Determine most profitable product

- Wine \& Co has decided to use the land to manufacture wine. Each acre of land produces $1,000 \mathrm{~kg}$ of grapes annually. Wine \& Co has an option to manufacture Merlot or Bordeaux.
- The two wines use different grapes and the grapes have varying yields. While the Merlot grapes yield 2 litres $/ \mathrm{kg}$, the Bordeaux grapes yield 1 litre $/ \mathrm{kg}$. Wine \& Co can charge $\$ 20$ per liter of Merlot and can charge $\$ 40$ per liter of Bordeaux.
-Which wine yields more profits annually?
- When asked, provide the following information:
- Profit Margins on Merlot are $10 \%$ while the margins on Bordeaux are $15 \%$.
- A good candidate would ask for the profit margins/costs without being prompted. Look for organization and structure when the candidate evaluates the annual profits for each wine (a good candidate would use a table like structure when doing the math). The revenues would be $\$ 480,000$ for both wines annually but the margins would be higher for Bordeaux (\$72,000 for Bordeaux versus $\$ 48,000$ for Merlot). After the candidate arrives at the profits, look for interpretation.
- A strong candidate would recommend using Bordeaux while at the same time consider other factors (competency in manufacturing either of the wines, customer demand in the bay area, sensitivity to product yields, customer reservation price, etc.)
- A creative candidate might suggest that we compare the age of the two wines (and hence will impact when the profits might actually start)


## Part 2 (continued)

2. Determine most profitable product

- Math working for Part 2

|  | Description | Value |
| :---: | :--- | :---: |
| A | Acres of Land | 12 |
| B | kg of grapes produced/acre | 1,000 |
| C | kg of grapes produced total $[\mathrm{A} \times \mathrm{B}]$ | 12,000 |


|  | Description | Merlot | Bordeaux |
| :---: | :--- | :---: | :---: |
| D | Yield (Liter/kg) | 2 | 1 |
| E | Total Yield (Liter) [C x D] | 24,000 | 12,000 |
| F | Price / Liter | $\$ 20$ | $\$ 40$ |
| G | Total Revenue [E x F] | $\$ 480,000$ | $\$ 480,000$ |
| H | Profit Margin | $10 \%$ | $15 \%$ |
| I | Total Profit [G $\times \mathrm{H}]$ | $\$ 48,000$ | $\$ 72,000$ |

## Wine \& Co

## Part 3

## 3. Determine preferred product for manufacturing

- Aging has an effect on the revenues and profitability. Merlot has to be stored for 6 years while Bordeaux has to be stored for 12 years before revenues can be generated. Which wine would you choose for manufacturing?
- When asked, provide the following information:
- Discount rate is $12 \%$ (strong candidates will use the 'Rule of 72 ' to discount
- Assume the costs are only incurred when the revenues are realized after aging (no costs until year 6 for Merlot and no costs until year 12 for Bordeaux).
- The interviewee should identify that the cash flows for Merlot would be $\$ 48,000$ annually starting year 6 . Cash flows for Bordeaux would start in year 12 ( $\$ 72,000$ annually). Then, consider TVM, calculating annual cash flow discounted to the same year:
- Merlot: Perpetuity value of cash flow (value in year 6 ) $=\$ 48,000 / 0.12=\$ 400,000$
- Bordeaux: Perpetuity value of cash flow (value in year 12) $=\$ 72,000 / 0.12=\$ 600,000$

Value of perpetuity in year $6=\$ 600,000 /\left(1.12^{\wedge} 6\right)=\$ 300,000$ (Rule of 72).

- Provide help here if the candidate is struggling with the division. Look for the candidate's approach rather than the exact number. Since value of pursuing Merlot $(\$ 400,000)$ is higher than value of pursuing Bordeaux $(\$ 300,000)$, the company should manufacture Merlot.
- Strong interviewees interpret the results and suggest we consider factors like inventory costs, sensitivity to discount rate, etc.


## Part 3 (continued)

3. Determine preferred product for manufacturing

- Math working for Part 3

|  |  | Merlot | Bordeaux | Comments |
| :---: | :--- | :---: | :---: | :--- |
| A | Annual Profit | $\$ 48,000$ | $\$ 72,000$ | See Part 2 |
| B | Years to Maturity | 6 | 12 |  |
| C | Discount Rate | $12 \%$ | $12 \%$ |  |
| D | Merlot NPV once ripe (at year 6) | $\$ 400,000$ |  | A/C |
| E | Bordeaux NPV once ripe (at year 12) |  | $\$ 600,000$ | A/C |


|  | Method 1 |  |  |  |
| :--- | :--- | :---: | :---: | :--- |
| F | Bordeaux NPV at year 6 (using discount rate) |  | $\$ 300,000$ | $\mathrm{E} /(1.12)^{6}$ |
| G | Comparison at year 6 | $\$ 400,000$ | $\$ 300,000$ | D and F |


|  | Method 2 |  |  |  |
| :---: | :--- | :---: | :---: | :--- |
| H | Merlot NPV at year 12 (using discount rate) | $\$ 800,000$ | $\$ 600,000$ | $\mathrm{D} \times(1.12)^{6}$ |
| I | Comparable comparison at year 12 | $\$ 800,000$ | $\$ 600,000$ | I and E |


|  | Method 3 |  |  |  |
| :---: | :--- | :---: | :---: | :--- |
| J | Discount rate | $12 \%$ | $12 \%$ |  |
| K | Years to double value $=72 /$ Discount Rate | 6 | 6 | $72 / 12$ |
| L | Value after 6 years | $\$ 400,000$ | $\$ 300,000$ | Halve Bordeaux at 12 years |
| M | Value after 12 years | $\$ 800,000$ | $\$ 600,000$ | Double Merlot at 6 years |

## Wine \& Co

## Part 4

4. Recommend a marketing strategy

- Wine \& Co has decided to manufacture Merlot. How should they market this product in the San Francisco Bay area?
- Customer segment currently served by Wine \& Co is niche wine enthusiasts.
- Candidate should ask for the customer segments that the company might sell to and suggest appropriate marketing channels/strategies to consider. Look for a MECE structure here.
- Suggestions should include retail strategies, direct to consumer strategies (like wine clubs, wine tasting), traditional media and print advertising and online advertising.


## Wine \& Co

## Part 5

## 5. Provide client recommendation

- Excellent interviewees would recommend a solution (manufacturing Merlot) but would detail out the risks/next steps associated with the recommendation. Next steps may involve market research, land usability testing, evaluation of opportunity costs. Risks have been discussed previously.
- Outstanding interviewees provide an answer that includes:
- Identification of opportunity costs, particularly of not selling/leasing the land, which might be more profitable considering the current value of land in the Bay Area and/or Napa
- Considering industry specific issues like aging of wine
- Considering time value of money/perpetuity of cash flow
- Considering risks like customer demand, land usability
- Potential benefits of diversifying the acreage and producing multiple types of grapes (compensate for shifts in consumer demand, broader appeal to local market, etc.)


## Case 25

## Winter Olympics Bidding

## Concepts tested

- Z02 Net Present Value (2)
- Z12 Creativity (3)


## Primary sector(s)

- X05 Entertainment \& Media

Case type

- Y06 Opportunity assessment


## Similar cases

- World View (Harvard 2015)
- Mobilizing Your World (Fuqua 2015)
- Footloose (LBS 2012)


## Winter Olympics Bidding

## Interviewer guide

## Case prompt

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the Winter Olympics Games in four years time
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.


## Interviewer guide

- This is a very quantitative case that requires the interviewee to run the numbers on an Olympics bid. The candidate will have to decide potential ad revenue/cost information, as well as the NPV, to determine bid size.
- The candidate will need to ask for additional information to solve the problem, rather than relying on the interviewer to dispense it. After getting the initial calculations right, there are a lot of implications that may change the level of the bid.
- Especially for less finance-minded interviewees, you may have to help nudge candidates through the math.

1. Develop a structure to address the problem
2. Calculate NPV
3. Brainstorm intangible benefits and risks
4. Provide client recommendation

## Winter Olympics Bidding

Fit: Why do you want to join our consultancy in particular?

## Case prompt

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the Winter Olympics Games in four years time
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.


## Clarifying information

## Revenues

- No subscription revenue, but can keep $100 \%$ of advertising revenue
- Ad rates are $\$ 400 \mathrm{k}$ per 30 second ad for prime time (weekends, weekdays 1900-2300) and $\$ 200 \mathrm{k}$ non-prime time
- Market research has shown that you can include no more than 10 minutes of advertising per hour.


## Costs

- $\$ 482 \mathrm{~m}$ of total production costs
- Opportunity cost: $\$ 1 \mathrm{~m} /$ hour
- Time value of money: 4 year lag for receipt of revenue


## Winter Olympics Bidding

## Exhibit A - Winter Olympics Schedule

|  | Day 1 <br> Opening Ceremony | Day 2 - 15 <br> Main events |  | Day 16 <br> Closing Ceremony |
| :---: | :---: | :---: | :---: | :---: |
|  | Friday | Weekday | Weekend | Saturday |
| 0800-0900 |  |  |  |  |
| 0900-1000 |  | Biathlon |  |  |
| 1000-1100 |  | Bobsleigh |  |  |
| 1100-1200 |  | Skating / Skiing | Biathlon |  |
| 1200-1300 |  |  | Skiing |  |
| 1300-1400 |  |  | Skating |  |
| 1400-1500 |  | Curling | Bobsleigh |  |
| 1500-1600 |  | Ice Hockey | Skating |  |
| 1600-1700 |  | Luge | Skiing |  |
| 1700-1800 |  |  | Ice Hockey |  |
| 1800-1900 |  |  | Skiing |  |
| 1900-2000 |  | Skating | Luge |  |
| 2000-2100 | Opening commentary | Luge | Skiing | Closing commentary |
| 2100-2200 | Opening ceremony | Skiing |  | Closing speeches |
| 2200-2300 | Opening speeches | Luge |  | Closing ceremony |

## Winter Olympics Bidding

## Part 1

## 1. Develop a structure to address the problem

## Provide Exhibit A if the interviewee asks for TV schedules or identifies ad revenues in their structure

- Candidate should determine that this is a cost-benefit / NPV analysis.
- Candidate should identify potential revenue streams from hosting the Olympics, i.e. ad revenue, product placements, etc.
- Then, the candidate will have to figure out if this is a good investment. They should identify 3 costs (production costs, opportunity costs, and time value of money). By factoring in these costs, the candidate will find out if the Olympics are worth the investment.
- Some of the numbers and assumptions here are difficult, so nudge the candidate along if necessary.


## Winter Olympics Bidding

## Part 2

## 2. Calculate NPV

## Revenues

- \$400k/ad for prime time (M-F 7-11 PM, all weekend) and $\$ 200 \mathrm{k} /$ ad for non-prime time
- 10 minutes/hour of advertisements


## Costs

- \$482M of production costs
- Opportunity: \$1m/hr
- WACC: $10 \%$
- Total revenues should be equal to $\$ 928 \mathrm{M}$ for the project.
- Primetime: Weekdays (M-F): 10 weekdays $\times 4 \mathrm{hrs} /$ day $\times 10 \mathrm{~min} / \mathrm{hr} \times 2$ slots $/ \mathrm{min} \times \$ 400,000 / \mathrm{ad}=\$ 320 \mathrm{M}$
- Non-prime: Weekdays (M-F): 10 weekdays $\times 6 \mathrm{hrs} /$ day $\times 10 \mathrm{~min} / \mathrm{hr} \times 2$ slots $/ \mathrm{min} \times \$ 200 \mathrm{~K} / \mathrm{ad}=\$ 240 \mathrm{M}$
- Weekend: 4 days $\times 10 \mathrm{hrs} /$ day $\times 10 \mathrm{~min} / \mathrm{hr} \times 2$ slots $/ \mathrm{min} \times 400 \mathrm{~K} / \mathrm{ad}=\$ 320 \mathrm{M}$
- Opening/Closing: 2 days $\times 3 \mathrm{hrs} /$ day $\times 10 \mathrm{~min} / \mathrm{hr} \times 2$ slots $/ \mathrm{min} \times 400 \mathrm{~K} / \mathrm{ad}=\$ 48 \mathrm{M}$
- Total profit should be equal to $\$ 300 \mathrm{M}$.
- Profit: Revenues $\$ 928 \mathrm{~m}-\$ 482 \mathrm{~m}$ of total costs $-\$ 146 \mathrm{~m}$ of opportunity cost ( 2 days $\times 3$ hours $\times \$ 1 \mathrm{~m} / \mathrm{hr}+14$ days $\times 10$ hours $x \$ 1 \mathrm{~m} / \mathrm{hr})=\$ 300 \mathrm{~m}$
- NPV should be equal to $\$ 200 \mathrm{~m}$.
- Discount rate: $1.104=1.4641$ (ask candidate to round to 1.50)
- \$300m/1.5 = \$200m


## Winter Olympics Bidding

Part 3
3. Brainstorm intangible benefits and risks

- Might give network access to new viewers
- There is prestige associated with hosting this event
- We can use the air time to promote other programming
- Opportunities for product tie-ins, supplemental revenue
- After finishing the discussion, ask the candidate for a recommendation


## Winter Olympics Bidding

## Part 4

## 4. Provide client recommendation

- While the NPV of the project is $\$ 200 \mathrm{~m}$, the fact that there are other intangibles (new viewers, plugging our programs, and prestige) the bid should just be $\$ 200 \mathrm{~m}$.
- While there is no one correct answer, most answers should be in the range of $\$ 200 \mathrm{~m}$. If there is significant fluctuation from $\$ 200 \mathrm{~m}$, the candidate will have to provide in-depth justifications and make a concrete argument.
- This case tests the interviewee's comfort with numbers and understanding of how intangible factors may influence financial value. The bid process requires another level of understanding around game theory and what dynamics will ultimately determine the value of the bid beyond NPV.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support their bid and explain why they moved their bid from the NPV figure.
- There is also a lot of room for creativity for the interviewee to discuss other factors, including supplemental streams of revenue, intangible factors, and things to consider during the bid process.


## Case 26

## Zephyr Beverages

## Concepts tested

- Z10 Customer marketing strategy
- Z11 Competitive analysis


## Primary sector(s)

- X12 Retail \& CPG


## Similar cases

- ABC Conglomerate (Wharton 2005)
- InsureCo (Fuqua 2015)

Case type

- Y03 Mergers \& Acquisitions


## Zephyr Beverages

## Interviewer guide

## Case prompt

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $\$ 600$ million last year, about $3 \%$ of the company's overall sales of $\$ 20$ billion.
- The chilled segment represents $\$ 120$ million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.


## Interviewer guide

- Problem: What does Zephyr do with an underperforming business?
- Problem solving steps:

1. Develop a structure to address the problem
2. Conduct competitive analysis
3. Determine product analysis
4. Provide client recommendation

## Zephyr Beverages

Fit: What do you think makes a good management consultant?

## Case prompt

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $\$ 600$ million last year, about $3 \%$ of the company's overall sales of $\$ 20$ billion.
- The chilled segment represents $\$ 120$ million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.


## Clarifying information

## Industry:

- It has been growing at GDP ( $\sim 3 \%)$ the last few years and is projected to continue that growth rate.
- The market for chilled juices is dominated by mothers with young kids.
- Brand name is important in this market, as mothers tend to prefer reliable products. However, the brand premium must be in line with other branded products and all branded juices sell in the same price range.
- This is a highly price sensitive market that loves coupons, promotions, etc.

Competition: Highly concentrated market. There has not been a lot of change, technological progress or threat of new entrants

## Zephyr Beverages

## Part 1

1. Develop a structure to address the problem

- A sample case structure would include the following:

1. Identifying the options: sell chilled juice, sell all juice businesses, continue on with all businesses
2. Qualitative discussion of competitive dynamics
3. Discussion of product selection/components, as well as ways to cut costs

When asked, the interviewer can reveal the following additional information:

- Chilled beverages are a $\$ 1$ billion worldwide industry


## Zephyr Beverages

## Part 2

## 2. Conduct competitive analysis

- Using basic information provided, interviewee should deep dive the competitive dynamics in further detail.
- Relevant info:
- Bad market position: $12 \%$ vs. $40 \%$ and $25 \%$
- Assumed profitability differences
- Disadvantage on trade promotions
- The two largest players have market shares of $40 \%$ and $25 \%$, respectively. Zephyr's market share, $12 \%$ makes it third in the industry.
- The two market leaders are able to do more advertising, couponing, promotion, and trade than Zephyr is able to do. We do not know about their profitability, but assume it is positive
- Interviewee should be able to see that Zephyr is at a serious disadvantage on all fronts as a smaller company that is both less profitable and less engaged in the kinds of trade promotions that key customers covet. The overall conclusion should be that this is a weak competitive position.


## Zephyr Beverages

## Part 3

## 3. Determine product selection

- Using information about our products vs. our competitors, the interviewee should focus on discussion about how to cut costs.
- Relevant info (when asked):
- The market leaders produce pure orange juice/blends based on citrus juices. Zephyr uses more elaborate blends, usually with a base of pear or peach juice (60\% of inputs) and flavor with cranberries, bananas, mangoes, etc. (the other 40\%). Pear and peach juice are a similarly price to orange juice, but the other flavorings cost about twice as much.
- A plant in California produces all products; chilled, juice boxes and frozen. Each of the three products uses different machinery. It would be difficult to find another use for the plant without a major conversion.
- Additionally, there are currently synergies between chilled, frozen and juice boxes - mothers are slightly more likely to buy products from the same brand
- This indicates that, despite a disadvantage, divesting is not realistic and there may be room for cost reduction based on reformulation to make Zephyr profitable.


## Zephyr Beverages

## Part 4

## 4. Provide client recommendation

There are three possible solutions, with no right answer. The recommendation should be well-reasoned, comprehensive, and include as much relevant information as possible.

- Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.
- Sell all of the juice business. This may be more feasible, as the buyer could capture the synergies, but would not be too likely to turn the business around. The selling price is likely to be low.
- Keep the chilled juice business and rework the ingredients and costs. This is the most feasible option, as evidenced by the success of the competitors. We are probably developing extra features in our ingredient mix that the market does not want and is not willing to pay for. Eliminating or scaling back those features will probably allow us to cut costs without affecting revenue.
- Interviewees who do well on this case will have to be comfortable with ambiguity and with a lack of perfect information. They will quickly grasp the issues and delve into the underlying qualitative discussions, coming up with a lot of additional risks/potential benefits for each option.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.


## Case 27 <br> Zoo Co

## Concepts tested

- Z12 Creativity (1)
- Z02 Net Present Value (2)
- Z02 Breakeven analysis (3)


## Primary sector(s)

- X06 Financial Services



## Similar cases

- Car Wash Chain (Columbia 2017)
- National Zoo (Wharton 2011)
$\left\{\begin{array}{c}\text { Case authors: Aneri Jambusaria (Kellogg 2011) } \\ \text { Edited By: Ron Mantel (Kellogg 2015), Matthew Heintz (Kellogg 2016), Michael Eidem (Kellogg 2020) }\end{array}\right.$


## Zoo Co

## Interviewer Guide

## Case prompt

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?


## Interviewer guide

- Even though the client is a zoo, we're undertaking a similar process to what is done when underwriting an insurance policy. The case evaluates basic concepts but involves many calculations and the use of financial assessment techniques.

1. Develop a structure to address the problem
2. Investment valuation - Walk through the valuation process of an asset.
3. Breakeven analysis - Determine the revenue increase needed for a positive NPV
4. Risk assessment - Should the zoo use an insurance contract to hedge downside risk?
5. Provide CEO recommendation

- Note: Rounding numbers is generally okay but should not be done to the extreme as it will alter the results.


## Zoo Co

Fit: Talk about a time when you had to influence someone who initially disagreed with you.

## Case prompt

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?


## Clarifying information

- Goal: Zoo's primary concern is whether the zebra acquisition would be profitable. No specific timeline, but zebras do have a finite lifespan.
- Client Characteristics: Major zoo within the US. Majority of revenue generated through admission sales to daily zoo visitors.
- Competitive Dynamics: No other zoo within the local market.


## Exhibit A - Market Research Findings

| Possible Attendance <br> Increases | Annual Revenue | Probability |
| :--- | :---: | :---: |
| $3 \%$ Increase | $\$ 135,000$ | $20 \%$ |
| $5 \%$ Increase | $\$ 225,000$ | $40 \%$ |
| $7 \%$ Increase | $\$ 315,000$ | $30 \%$ |
| $9 \%$ Increase | $\$ 405,000$ | $10 \%$ |


| Expected Additional <br> Annual Revenue | $\$ 252,000$ |
| :--- | :--- |
| Plus: Current Annual <br> Revenue | $\$ 4,500,000$ |

Expected Total Annual Revenue
\$4,752,000

## Zoo Co

## Part 1

## 1. Develop a structure to address the problem

An ideal structure should resemble the typical M\&A framework. Focus should be on determining whether the acquisition of this zebra is a smart financial decision. Key elements expected to be included in this framework are:

- Market: What does local competitive landscape look like? (Not necessarily other zoos, but substitutes for how families/individuals spend their leisure time) How has the zoo attendance market been trending? Who are the target customers and what do they care about? (i.e. more concerned with animal selection, activities hosted by the zoo, general cleanliness and layout, etc.)


## - Target (the zebra):

- Financial evaluation - What are the expected costs (purchase price, transportation, ongoing maintenance, update in habitat space) vs the expected revenue increase (increased attendance, change in ticket price, merchandise sales)
- Non-financial evaluation - How old is the zebra? What is its expected lifespan? Why is the zebra famous, does that matter?


## - Transition:

- What synergies does the zebra provide? Are there ways to reduce cost by sharing food production/habitat/maintenance investment with a similar animal? Are there revenue synergies (example: being able to promote a complete African exhibit)
- How will the zoo market the acquisition of this new zebra?
- Does adding a zebra benefit/fit the zoo's brand?
- Deal execution: What will the payment structure look like? Are there opportunities to lease a zebra from another zoo instead of purchase?


## Zoo Co

## Part 2

## 2. Walk through the valuation process of an asset.

## Data to provide when asked more about expected revenues and costs:

Revenue:

- 300K people visit the zoo annually; admission is $\$ 15$ per person
- Benefits from zebra acquisition could lead to increased attendance. Another zoo that acquired a similar zebra had an $8 \%$ increase.

Costs from zebra acquisition:

- Immediate costs: Acquisition cost (\$235K), new facilities (\$850K), transportation (\$110K)
- Annual maintenances: Food, health costs, and additional trainers (\$90K)
- Discount rate $=20 \%$, Assume that the immediate costs are paid today, and annual costs and benefits are realized beginning next year and sustained into perpetuity, even though the Zebra will not live on to perpetuity.


## The interviewee should use the above data to calculate the NPV of the acquisition:

- Assume that the attendance benefits are realized immediately and maintained thereafter
- Annual benefits $=(300 K)^{*}(\$ 15)^{*}(0.08)=\$ 360 \mathrm{~K}$
- Upfront costs $=\$ 235 \mathrm{~K}+\$ 850 \mathrm{~K}+\$ 110 \mathrm{~K}=\$ 1.195 \mathrm{M}$
- Annual costs = \$90K
- $\mathrm{NPV}=-\$ 1,195 \mathrm{~K}+((\$ 360 \mathrm{~K}-\$ 90 \mathrm{~K}) / 0.20)=\$ 155 \mathrm{~K}$
- Takeaway: Acquisition is NPV positive. Financially (assuming assumptions are accurate), this is a smart decision.


## Zoo Co

## Part 3

## 3. Breakeven analysis - Determine the revenue increase needed for a positive NPV

- Additional prompt: Zoo Co is concerned about using the other zoo's attendance benefits as a proxy. They think that attendance could increase by less than $8 \%$. What analysis could you perform to address their concerns? What is the breakeven attendance increase required?
- The interviewee should think about performing a break-even and a sensitivity analysis. Afterwards, they need to think about performing a risk assessment.


## Break-even Analysis:

- Break-even $=0=-\$ 1,195,000+(($ revenue $-\$ 90,000) / 0.20)$

$$
\begin{aligned}
& (\$ 1,195,000) * 0.20=\text { revenue }-\$ 90,000 \\
& \text { Revenue }=\$ 239,000+\$ 90,000=\$ 329,000 \quad \text { (this is the required additional revenue to break even) } \\
& \$ 329,000=(300,000) *(15)^{*}(\% \text { increase in attendance) } \\
& \% \text { increase in attendance }=(\$ 329,000 / \$ 4.5 \mathrm{M})=7.3 \%
\end{aligned}
$$

- Takeaway: We already knew from the previous calculation that the acquisition of the zebra was profitable if attendance increased by $8 \%$. This new calculation shows us that our $8 \%$ assumption is barely above the break-even calculation. If our attendance assumption is wrong be even $1 \%$, the investment may end up NPV negative.


## Zoo Co

## Part 4

4. Risk assessment - Should the zoo use an insurance contract to hedge downside risk?

- Since the zoo is very risk-averse, they're interested in hedging some of their downside risk. An insurance company has offered to provide the zoo with a constant revenue to increase revenue to $\$ 250 \mathrm{~K}$ per year if attendance increases are less than or equal to $5 \%$ (example: If post-zebra acquisition is only $3 \%$ and thus revenue increases by only $\$ 135 \mathrm{~K}$, the insurance will give the zoo $\$ 115 \mathrm{~K}$ to reach a total increase of $\$ 250 \mathrm{~K}$ ). In exchange, the insurance company wants the zoo to pay $1 \%$ of the zoo's total annual revenues as a premium. What might you do to determine if this was a good deal?
- The interviewee should recognize that additional information is needed and that a market research study could aid in this process. Hand out exhibit after interviewee identifies this notion.


## Provide Exhibit A

The interviewee should use the market research to determine the probable attendance increase:

- Annual cost to zoo: $1 \%$ of total zoo revenues $=(0.01)^{*}(\$ 4,752,000)=\$ 47,520$
- Annual expected benefit to zoo: (\$250,000-\$225,000) * $(0.40)+(\$ 250,000-\$ 135,000) *(0.20)=\$ 33,000$
- Takeaway: Costs > Benefits, so this is not a good deal.


## Zoo Co

## Part 5

## 5. Provide CEO recommendation

- It is unlikely that the zebra acquisition is a good idea for the zoo to undertake given the information provided. At other zoos, attendance has gone up substantially due to a new zebra; however, based upon our market research, it seems less likely that we can breakeven on the investment through increased attendance. We have received an insurance contract to help mitigate some of the downside risk; however, it is too expensive to create value.


## Other items to consider:

- In order to make the investment more palatable, we may consider negotiating with the insurance company to either increase the revenue benefits provided or decrease the premium cost.
- There are other creative options to drive zebra related revenue (merchandise) or decrease cost (look for a less expensive zebra)
- Excellent interviewees:
- Identify that we can use another zoo's attendance increase as a proxy for estimating our own attendance increases.
- Notice in Exhibit A that it is unlikely that attendance will increase sufficiently enough for the zoo to break even.
- Outstanding interviewees:
- Notice that the insurance company's premiums and benefits are both impacted by attendance increases; so if attendance increases are always greater than 5\%, the zoo will be paying even more but getting no benefit.
- Notice that the insurance company's contract is essentially an option; so a different structure to the contract may be more suitable for the zoo.


## Kellogg Case Book

## 2020 Edition

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