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AT THE TEXAS MEDICAL CENTER

Problem-Solving Basics: A Crash Course



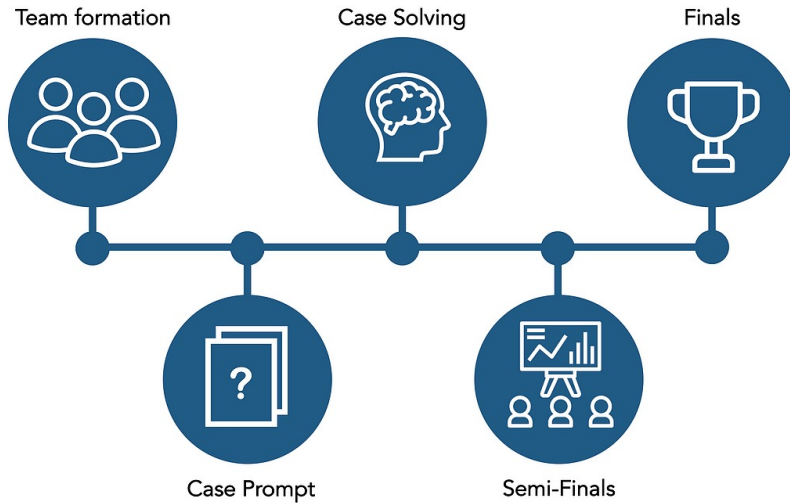
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2021 TMC Case Competition



To register, visit medcenterconsulting.com

**2021 TEXAS MEDICAL CENTER
CASE COMPETITION**

Join a fast-paced and exciting opportunity to collaborate with Graduate level students and Postdoctoral Fellows on a national scale to solve a real-world business case study! Accepted teams will have an opportunity to present solutions to consulting industry leaders and executive leadership.

Cash prizes for 1st - 3rd place teams. Open to MD/PhD/Masters students & Postdoctoral Fellows. Teams of 3-5, maximum 1 MBA per team.

Register by May 28th
Final Round June 19th

Apply today at MedCenterConsulting.com

CLIENT SPONSOR
HARRIS HEALTH SYSTEM

COMPETITION SPONSOR
HEALTH ADVANCES
Strategy Consultants for the Healthcare Industry

Registration Deadline: May 28, 2021

1st place - \$2000

2nd place - \$1000

3rd place - \$500

For those without teams or need more members, stick around afterwards!



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2021 TMC Case Competition



HARRISHEALTH SYSTEM



Harris Health System

- Hospital district established by the State of Texas in 1965 to provide healthcare to the indigent residents of Harris County (the third most populous county in the United States).
- Total operating expense of approximately \$1.8 billion annually and accounts for over 1.5 million patient visits per year.
- Owns and operates two acute care hospitals and an extensive network of 34 outpatient facilities.
- Harris Health provides care in partnership with its affiliated medical school partners, Baylor College of Medicine and McGovern Medical School at UTHealth.

Harris County Hospital District (HCHD) Foundation

The Harris County Hospital District Foundation, a charitable 501(c)3 organization, raises funds and awareness in support of Harris Health System. Established in 1992, the HCHD Foundation has raised in excess of \$51 million for Harris Health System Programs and Services.



2021 TMC Case Competition



HEALTH ADVANCES

Strategy Consultants for the Healthcare Industry



Boston Globe's Top Places to Work

- Top Places to Work in Massachusetts
- Top 6 Admired Workplaces in Massachusetts, (Medium category * 100-249 employees)



Vault Top Ranked

- Top 10 Boutique Firms (all industries)
- Top 20 Healthcare Firms
- Top 30 Consulting Firms (all industries)
- Top Ranked Firm in Formal Training (all industries)



Forbes America's Best Management Consulting Firms

- One of 17 healthcare consulting firms that received 4 or 5 star ratings
- Ratings provided by 1,100 client executives on 1,207 consulting-firm partners
- Recognized for various functional areas of expertise including "Mergers & Acquisition," "Finance & Risk Management," "Sales & CRM"
- Only boutique healthcare consulting firm that received 4 star rating in "Marketing, Brand & Pricing" strategy

Health Advances (healthadvances.com)

- Strategy consulting firm that focuses exclusively on the healthcare industry.
- Employs over 180 full-time professionals in full-service offices in Boston, SF, Hong Kong and Zug.
- Scientists, clinicians, researchers, and business professionals who share a passion for supporting healthcare product commercialization and driving adoption of innovations that improve healthcare.

Openings:

Senior Analyst and Consultant (Case Team Leader) positions.

- *Senior Analyst (September 2021)* - <https://healthadvances.hrmdirect.com/employment/job-opening.php?req=1366429&&&nohd#job>
- *Consultant (September 2021)* - <https://healthadvances.hrmdirect.com/employment/job-opening.php?req=1366441&&&nohd#job>



Problem-solving in consulting



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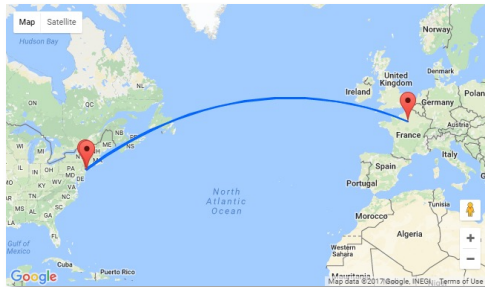
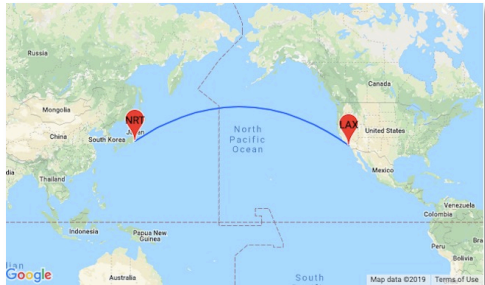


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Fast, unstructured thinking can be wildly incorrect

An airline is considering expanding its international routes and can only choose one:

1. Los Angeles to Tokyo
2. New York City to Paris



My analysis (20 minutes)

LA-Tokyo

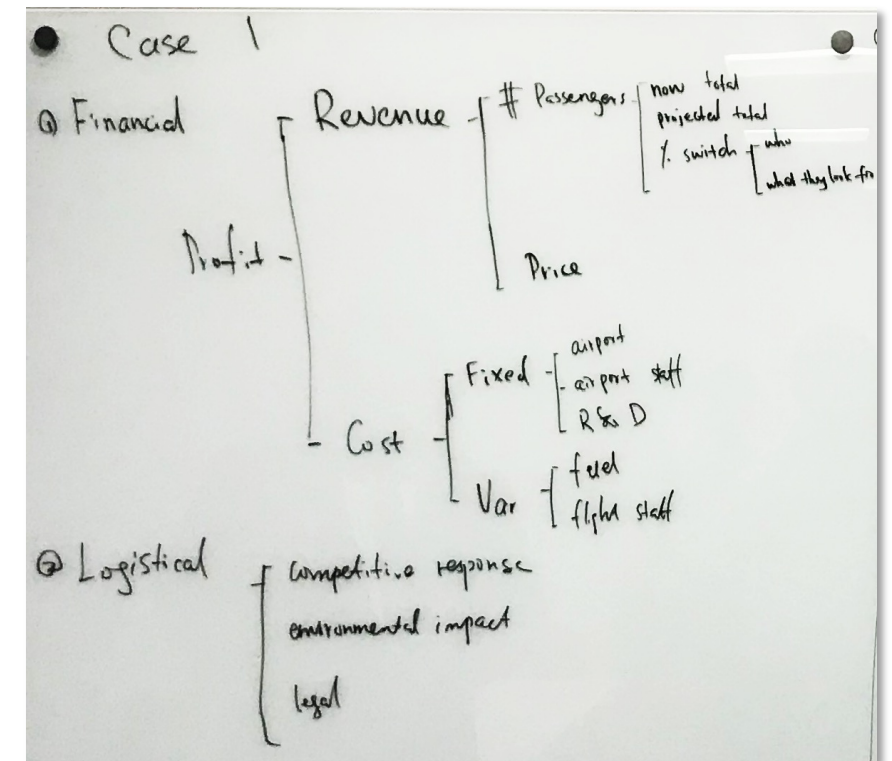
Asia = big
Tech + Hollywood = \$\$
Flight: longer

NY-Paris

Europe = tourists
Finance + fashion = \$\$
Flight: shorter



Consultant's analysis (20 seconds)



Consultants are hired to resolve “wicked” problems

1. Ambiguous, many potential solutions
2. No single root cause
3. “One-shot” operation: no trial and error
4. Involves many stakeholders
5. Have very large impact



Re-designed sourcing and distribution strategy for a large retail chain with multiple objectives: cost optimization, lead time reduction, etc.



Identifying potential partners and developing an outreach strategy for the loyalty program of a global finance and travel company



Worked w/ GAMMA to develop an optimization model to coordinate aircraft maintenance at sites across the globe



Partnered with BCG Gamma and Omnia teams to develop BCG's proprietary inventory optimization platform that enables rapid inventory assessment



Partnered with a local economic development organization to set targets and aspirations for post-COVID recovery and growth in Philadelphia



Partnered w/ federal gov. to develop a supply control tower that was (eventually) used for COVID-related supply chain

Cammilus J. *Strategy as a Wicked Problem*. Harvard Business Review, May 2008
Garrette, Phelps, and Sibony. *Cracked it!: How to solve big problems and sell solutions like top strategy consultants*. Springer Press, 2018
Boston Consulting Group, 2021

Wicked questions in case interviews

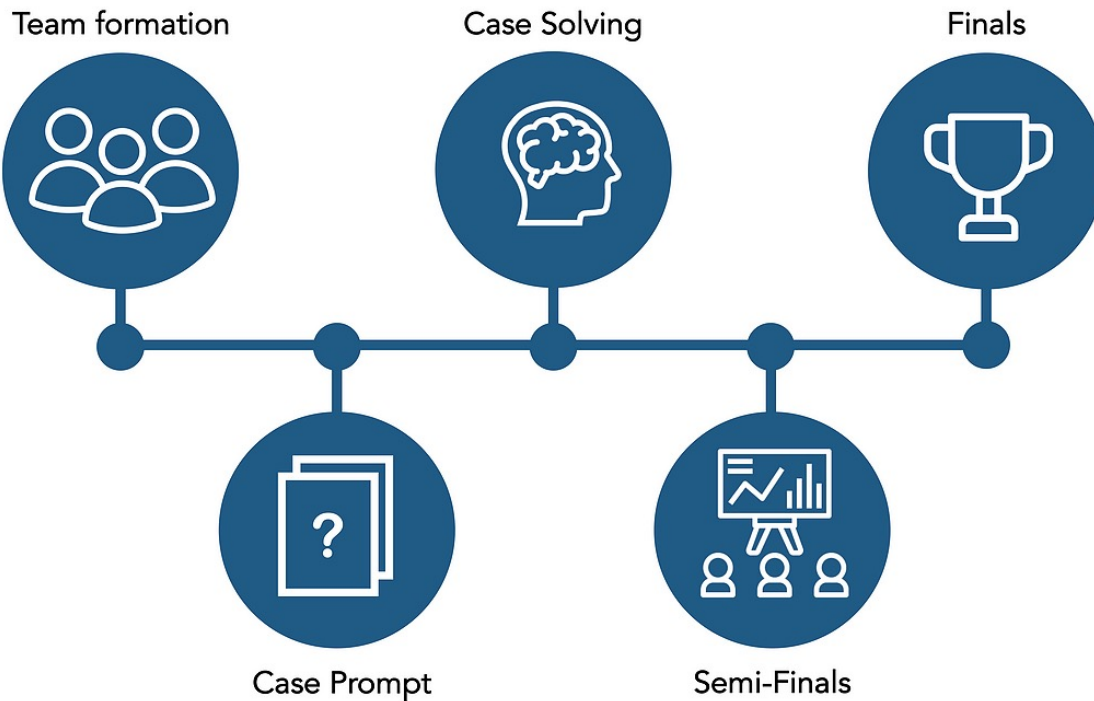
Experience	Case
~15 minutes	~25 minutes
Interviewer will ask you questions about your prior experiences	The case gives you an opportunity to explore a business problem with your interviewer
Looking to get to know you better - your background, accomplishments, areas of distinctiveness	Interviewer will set up the case
Looking for demonstration of characteristics that lead to success	You will drive the case, taking ownership of solving the business problem

"Our client is launching a new medical device in Europe. How should they think about pricing it?"

"Our client is a grocery store experiencing declining profitability in its frozen foods section. What could be the reason for this and how can they solve it?"

"Our client is a conservation organization in the southwest U.S. How can they address recent declines in the local coyote population?"

Wicked questions in Case Competitions



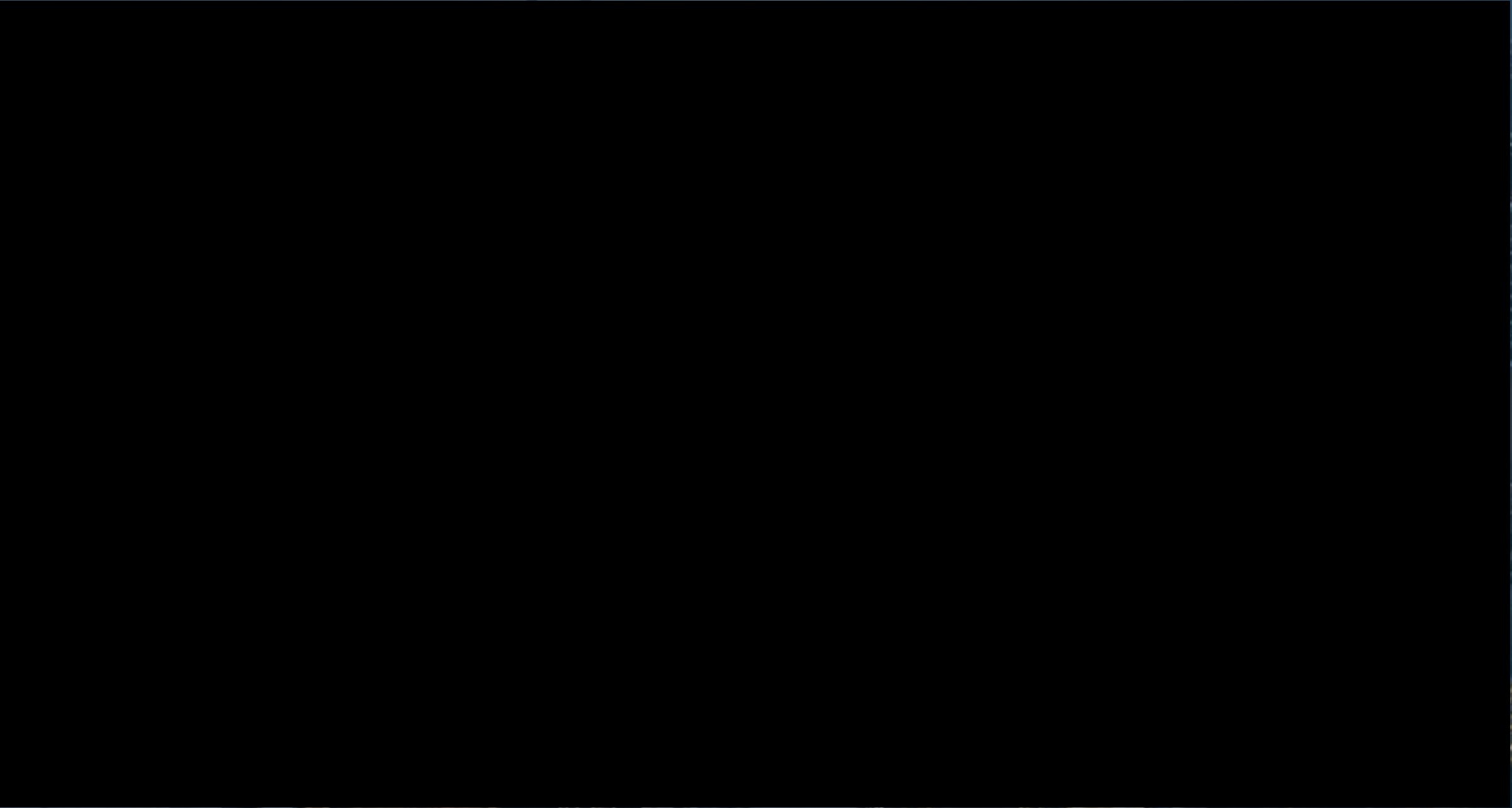
"Should our client, a CBD manufacturer, continue to operate only in Canada or enter the US market?"

"Should our client enter the smart greenhouse market or remain in the open air, large scale agricultural vertical?"

"What strategy should our client employ in designing its health system of the future?"

Case competition example

“Our client is a technology startup company that has recently expanded into the agricultural space. Should the company enter the smart greenhouse market or remain in the open air, large scale agricultural vertical?”



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Judges and clients' feedback on presentation

- Excellent data analysis supported by appendices
- Great presentation style and cohesiveness
- Focus on “so-what?” after each page
- State where assumptions came from, e.g. pricing
- Deeper dive on opportunity for partnerships and other go-to-market strategies
- More precision in framework (unsure what “competitive gap” means)
- References on every slide



Getting to the deck



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Team Dynamics

- Set communication channels, expectations, and timeline
- Set parameters for output quality
- Obligation to dissent
- Set up a master slide format early
- Have final slides at least 3 days before
- Iterate on slides and script at least 2x

Example timeline

Week 1						
Brainstorm		Initial Hypothesis	Data Research		Retest Hypothesis	
Week 2						
Begin finalizing solution		Complete draft of slides		Final Slides Script writing	Iterate on script, record	Submit

Solving wicked problems

1. State – do you know enough to state the real problem?
2. Structure – build hypothesis/ issue tree
3. Solve – perform analyses
4. Sell – design storyline, produce and deliver results

For Case Competitions:

1. Define the problem
2. Structure the problem
3. Brainstorm approach
4. Test possible hypotheses
5. Research and analyze
6. Create a deck

Garrette, Phelps, and Sibony. *Cracked it!: How to solve big problems and sell solutions like top strategy consultants*. Springer Press, 2018

Defining the problem

- Trouble – Gap between current and desired state
- Success Criteria – What will success look like, and when?
- Constraints – Any resource, capability, or criteria constraints?
- Actors – Who are the stakeholders?

“Should our client enter the smart greenhouse market or remain in the open air, large scale agricultural vertical?”

1. **What is the current 5-10 year goal as a company?** We treat our business as if we are on life support and we only have 3 months to live. At most, we think 3 years out which we think is appropriate for an early revenue startup that's bootstrapped. Our primary goals are to build out our lines of business by refining our product to specific use cases within our industries.
2. **Is Company X focused on continued growth or more toward profitability?** What growth or profitability targets is it aiming to reach? We are already profitable. We keep our spending extremely lean, so at this time we are seeking to grow rapidly. As we are assessing product market fit in agriculture, it's difficult for us to place a profitability target on this line of business.
3. **What types of subscription contracts do you hold today? Software only? Hardware + software? Hardware only? Do you sell single modules separately?** We offer software licenses for Product X which we charge monthly. We are able to sell our hardware independently, but have not done so to date. Any product can be sold independently or bundled.
4. **Are you specifically targeting cannabis farm customers, or also the general greenhouse industry?** We are open to pivoting to whichever market is the most promising in agriculture. Our hypothesis is that it may be the cannabis industry however we are extremely open to recommendations.
5. **What patents does Company X hold? What level of protection do they have with their software, hardware, or solution package?** We have numerous IP for both our hardware design and our software.
6. **What additional research and development work, if any, does Company X estimate it would need to fit its solution to the greenhouse customer?** We have allocated resources to conduct market analysis over the next four months for ag business. Whether it's a greenhouse or an open farm, we don't need to heavily customize our solution.
7. **Are there any limitations in your system, what are the current product feature/functionality gaps vs. the agriculture market's needs?** The product gaps would be in configuring our product UI to the needs of the consumer. This functionality gap would be a low effort endeavor to customize for the client.

Garrette, Phelps, and Sibony. *Cracked it!: How to solve big problems and sell solutions like top strategy consultants*. Springer Press, 2018

Structuring the problem

- Group and prioritize issues or key questions
- If possible, come up with an initial hypothesis (usually most useful for root cause analysis)
- Divide and conquer, but keep priorities in mind

Key questions to address:

- Market Potential
 - Total capturable dollar value of the addressable market
 - Total spend annually (total and per customer)
 - Projected growth over 10 years
- Potential share that can be captured
 - Number of companies in the market
 - Barriers to entry
 - Type of product needed
- Potential profit
 - Possible pricing strategies
 - Revenue projections
 - Cost projections
- Implementation and risks
 - Go-to-market strategy
 - Risks involved

Structuring the problem

- Group and prioritize issues or key questions
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Research Outline

Framework

Current state/Traditional state?	Factors and trends shaping the future?	How should hospitals change for the next 10-25 years?
• 3-5 bullets	• 3-5 bullets	• 3-5 bullets

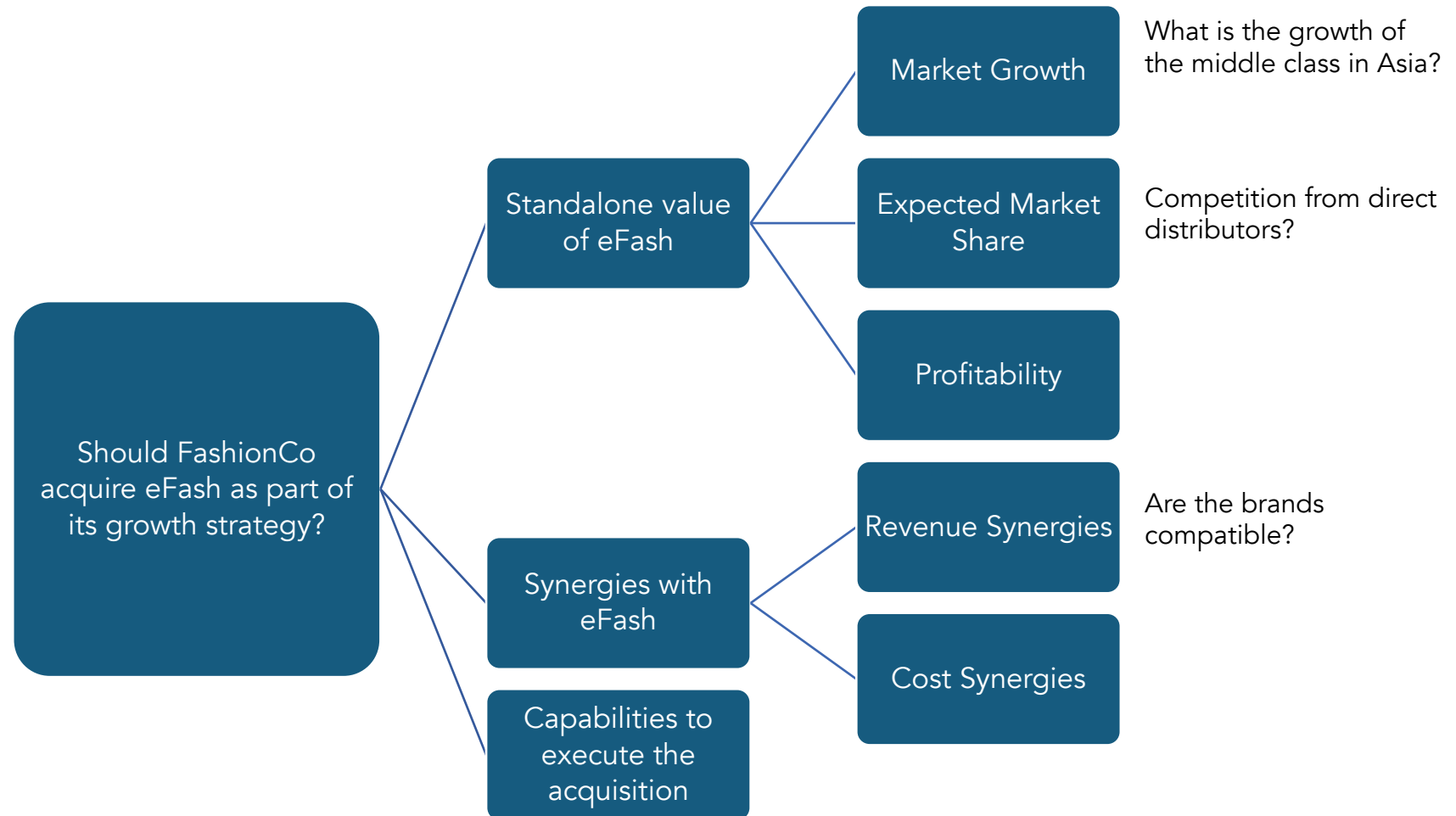
- **Regulation - Carlo**
 - What current and/or anticipated **future policies and regulations** should influence thinking about the hospital of the future?
- **Technology - Oscar**
 - Are there **technology trends** within the healthcare space or externally that can impact the hospital model of the future?
- **Hospital basics and economics - Matt**
 - And as these trends grow and evolve, what does the hospital model within the next ten years, and the next 25 years look like—what is new; what must change, and what should be abandoned?
- **Market (M&A trends, new competitors, disruption, new business models) - Ye**
 - How do health systems bring together and leverage community assets in both the **rural and urban settings**?
- **Consumer needs and Treatment methods - Safia**
 - How will broader **population demographic shifts** influence the **demands** placed on the hospital of the future? (e.g., shifts in age breakdown, chronic illness prevalence shifts, diversity & disparity, etc.)
 - How will the **healthcare workforce** need to change?

Building your structure

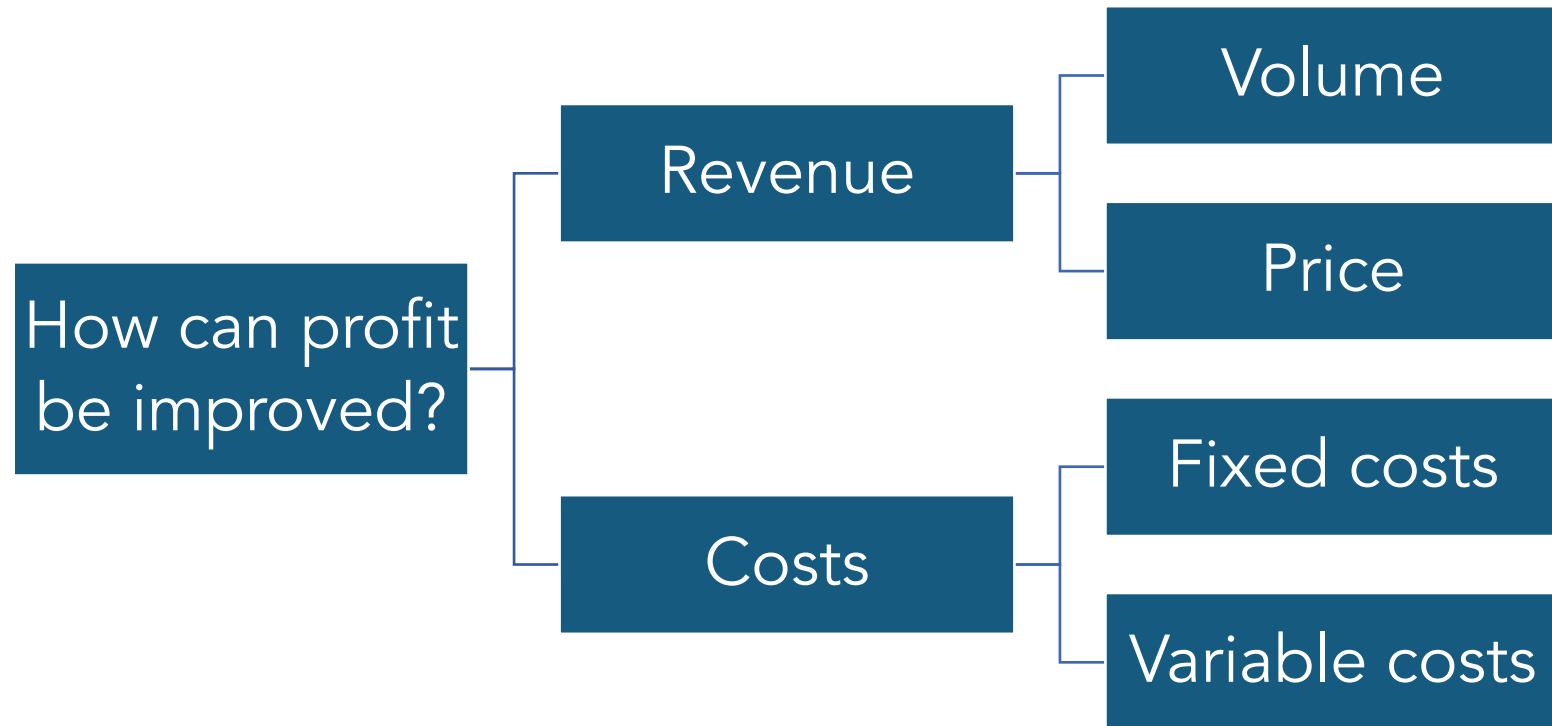
1. Break down the problem into first-level drivers

2. Prioritize the drivers

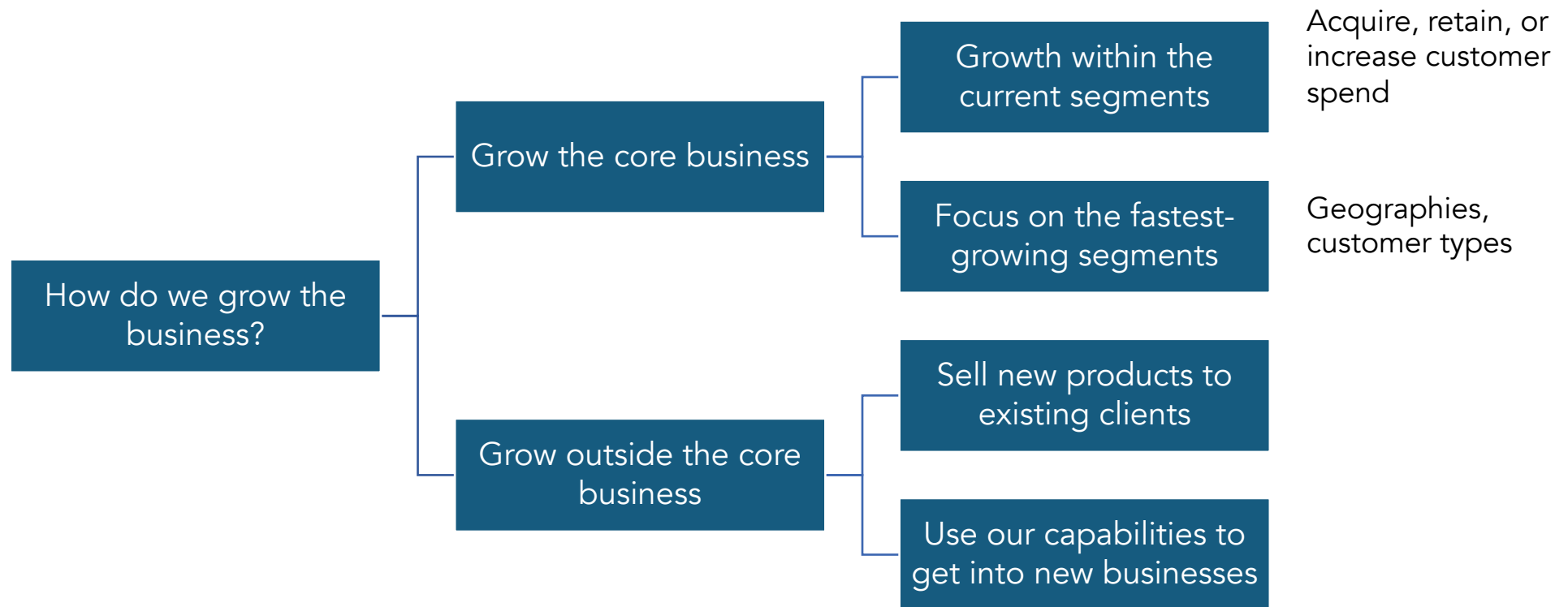
3. Add depth and insight



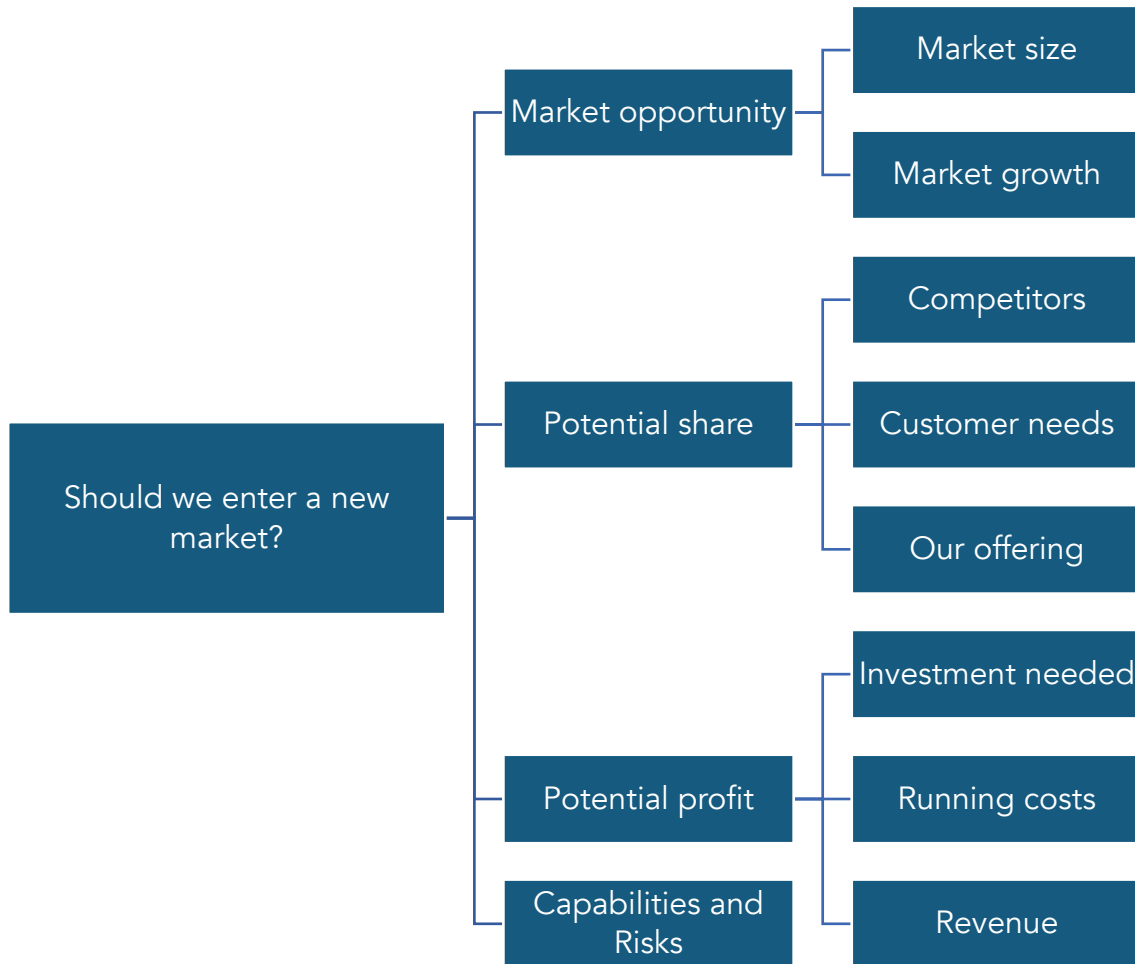
Possible structure: Improving profits



Possible Structure: Growing the business



Possible Structure: Entering a new market

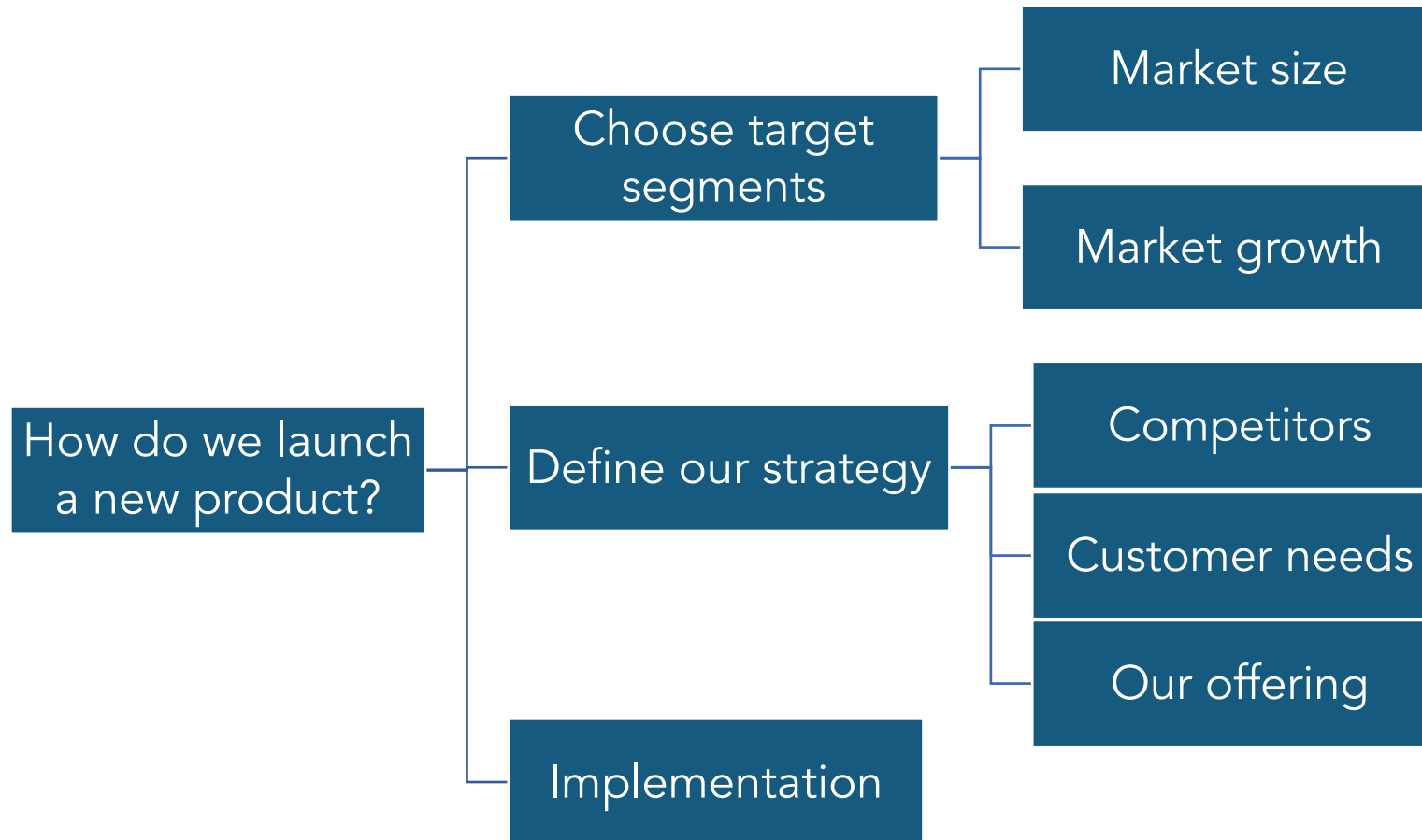


“Should our client enter the smart greenhouse market or remain in the open air, large scale agricultural vertical?”

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 - Type of product needed
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 - Possible pricing strategies
 - Revenue projections
 - Cost projections
- Implementation and risks
 - Go-to-market strategy
 - Risks involved

Possible Structure: Launching a new product



There are a lot more! See appendix 🧐

Other second order drivers to think about

Market

Size and growth
Geographies
Customer segments
Distribution channels

Industry

Competitors
Profitability
Key success factors
Barriers to entry

Macro factors

Regulations
Unions
Technology
Economy
Political issues

Customers

Segments
Preferences
Purchasing decision
(cost/benefit)

Execution/Implementation

Skills
Capital
Brand
Partnerships

Competition

Market shares
New entrants
Substitutes

Brainstorming

- Do your homework beforehand, focus on main question to answer
- Come up with a hypothesis/set of hypotheses and attack them
- Make sure everyone gets involved:
 - No bad ideas or dumb questions
 - Be prepared to kill your babies
 - Know when to say when
 - Document the results

Brainstorming Axes:

- Market size + Growth
- Product adoption
- Profits (Customers x spend)

Some hypotheses:

1. The outdoor market might be larger but is declining, so it will have a smaller addressable market in the future
2. The outdoor market opportunity is so large that capturing even a small fraction would be highly profitable vs greenhouses
3. Smart greenhouse customer base is way more amenable to technology than outdoor. Outdoor farms don't really use this type of tech.
4. Smart greenhouses spend way more on tech vs outdoor farms.

Research Strategies

- Set guidelines for sources and data
- Don't reinvent the wheel
- Look for outliers
- Look for industry best practice

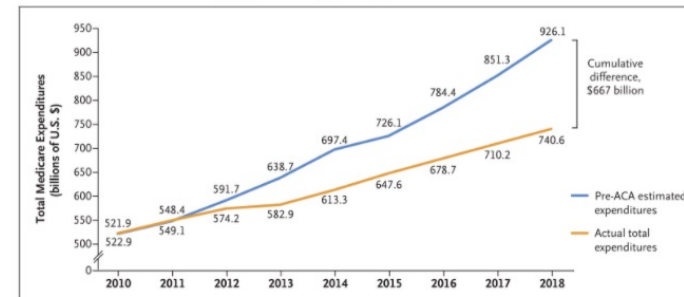
Finding sources:

- Sources should preferably be from investment firms, industry specialist firms, consulting firms, or market reports. More recent is better.
- Government databases are good resources for numbers. See: USDA
- Key terms: digital agriculture, precision agriculture, Farming 4.0
- Useful tips: it usually helps to include the phrase filetype:pdf in your Google searches. A lot of the time, legit investor presentations and market reports are in PDFs.
- Company 10-Ks can be very useful. Search for public companies in the space because they are required to file annual reports with their financial information and performance reviews.
 - For example: Search public agtech companies, or go to a specific company's Investor relations or investors section. They usually have similar info there.
 - If you want to see the annual report, search: [company name] 10-K or [company name] Annual Report
 - Within the file, search key words like "digital" or "precision"
 - Most important parts of a 10-K:
 - You can also go to "financial data" or "selected financial data" where you can see a breakdown of revenues and cost by business division
 - Management discussion & analysis (MD&A)

Getting to conclusions

- Insights, not just information
- Synthesize and regroup
- Find key drivers (80/20 rule)
- Don't accept "I have no idea"
- Know when to stop

- **Takeaways:** Continued reduction in the payments to hospitals under traditional Medicare program
 - <https://www.nejm.org/doi/full/10.1056/NEJMHpr1916092>
 - The ACA also reduces payments to Medicare Advantage plans, the private insurers that cover all or most services for enrolled Medicare patients, in return for an annual, fixed federal payment or premium
 - Reduces payments to Medicare Advantage plans in return for annual, fixed federal payment/premium
 - 20% decrease in Medicare expenditure compared to projected spend
 - Hospital Readmission Reduction Program (HRRP), the Hospital-Acquired Condition Reduction Program (HACRP), and the Hospital Value-Based Purchasing (HVBP) program.

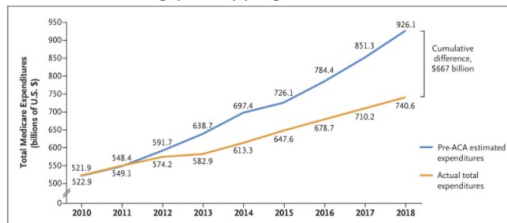


-
- Center for Medicare and Medicaid Innovation:

Rasiel E. *The McKinsey Way: Using the Techniques of the World's Top Strategic Consultants to Help You and Your Business.* McGraw-Hill, 1999

Getting to conclusions

- **Takeaways:** Continued reduction in the payments to hospitals under traditional Medicare program
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◦ Center for Medicare and Medicaid Innovation:

- How will broader **population demographic shifts** influence the **demands** placed on the hospital of the future? (e.g., shifts in age breakdown, chronic illness prevalence shifts, diversity & disparity, etc.)
- How will the **healthcare workforce** need to change?

Current state/Traditional state?	Factors and trends shaping the future?	How should hospitals change for the next 10-25 years?
<ul style="list-style-type: none"> • Less utilization of hospital beds • Patients deferring healthcare • Consumers favor convenience • Decline in in-center treatments to at home treatments driven by COVID-19 <ul style="list-style-type: none"> ◦ Example: Dialysis • Increased bargaining power from employers (demanding a certain standard of care, outcome driven, etc) • Shortage of physicians 	<ul style="list-style-type: none"> • Healthcare deferment driven by the increase in out of pocket costs and high deductible health care plans. • Increase in the amount of patients with chronic conditions (nearly half of Americans suffer from at least one chronic disease) Raghupathi et al., 2018 • 1.Decrease in the amount of people who have primary care physicians - patient loyalty to a PCP not existent • 2.Selecting physicians based on online reviews • 3.Increase in convenience type clinics like urgent care centers, minute clinics, etc. • While adoption is slow due to costs, there is a trend toward at-home dialysis rather than going to a dialysis center • Demand for physicians outpacing supply. <ul style="list-style-type: none"> ◦ the United States could see a shortage of between 54,100 	<ul style="list-style-type: none"> • Focus on preventative care, embrace decreased hospital admissions • Adopt a more consumer centric healthcare model <ul style="list-style-type: none"> ◦ Mimic urgent care centers, prioritize convenience and transparency ◦ Potentially modify the idea of a primary care physician (still need a way to look at a patient more holistically -- Big data can seize on this) ◦ Establish ways consumers can develop brand loyalty • Embrace at home healthcare <ul style="list-style-type: none"> ◦ More patient comfort/satisfaction ◦ Decrease costs of maintaining specialized centers • Telehealth likely to become an institution to allow for physicians to have more reach

For each subtopic, 10-20 pages of these synthesized into 1 table per subtopic

Analysis

Possible analyses to do:

- Competitive landscape
- Key target segments
- Market size – top-down or bottom-up
- Market share (e.g. 10% of market yields \$X million)
- Revenue/profit forecasting
- Investment amount and payback period
- Net present value (future value of an investment)

Key Tools in MS Excel

- Data filters – to filter data using specific criteria
- Pivot Tables – to gain insights from large amounts of data. Data must be formatted in multiple columns
- Index Match / VLookups – to match 2 sets of data together

Example: Forecasting revenue for pricing model #1

For calculations, assume average acreages of:

- 300 acres (100-500 acres)
- 1250 acres (500-2000 acres)

Assume greater adoption in larger farms due to higher upfront costs

Business Model 1: Acreage model							
Hardware Price	\$	1,500					
Annual rev/acre (basic)	\$	18.00					
Annual rev/acre (premium)	\$	36.00					
Case 1: Likely case							
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)	Hardware % of revenue
100-500 acres	5	Year 1	\$ 315,000	\$ 22,500	\$ 337,500	\$ 135,000	7%
500-2000 acres	10	Year 2	\$ 406,125	\$ 6,000	\$ 412,125	\$ 164,850	1%
		Year 3	\$ 504,000	\$ 7,500	\$ 511,500	\$ 204,600	1%
Average annual customer # growth	25%	Year 4	\$ 630,000	\$ 9,000	\$ 639,000	\$ 255,600	1%
		Year 5	\$ 790,875	\$ 12,000	\$ 802,875	\$ 321,150	2%
Basic Tier %	75%						
Premium Tier %	25%						
Case 2: Best case							
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)	Hardware % of revenue
100-500 acres	10	Year 1	\$ 508,950	\$ 37,500	\$ 546,450	\$ 218,580	7%
500-2000 acres	15	Year 2	\$ 676,260	\$ 12,000	\$ 688,260	\$ 275,304	2%
		Year 3	\$ 879,840	\$ 15,000	\$ 894,840	\$ 357,936	2%
Average annual customer # growth	30%	Year 4	\$ 1,148,940	\$ 19,500	\$ 1,168,440	\$ 467,376	2%
		Year 5	\$ 1,490,580	\$ 25,500	\$ 1,516,080	\$ 606,432	2%
Basic Tier %	70%						
Premium Tier %	30%						
Case 3: suboptimal case							
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)	Hardware % of revenue
100-500 acres	3	Year 1	\$ 154,440	\$ 12,000	\$ 166,440	\$ 66,576	8%
500-2000 acres	5	Year 2	\$ 187,920	\$ 3,000	\$ 190,920	\$ 76,368	2%
		Year 3	\$ 221,400	\$ 3,000	\$ 224,400	\$ 89,760	1%
Average annual customer # growth	20%	Year 4	\$ 254,880	\$ 3,000	\$ 257,880	\$ 103,152	1%
		Year 5	\$ 315,360	\$ 4,500	\$ 319,860	\$ 127,944	1%
Basic Tier %	80%						
Premium Tier %	20%						

Example: Market sizing

Outdoor Farms

- Precision farming market size in \$: Allied Market Research
- % Adoption of IoT: *Agronomy* **2020**, 10(2), 207
- Internet availability, # farms by type: USDA 2017 Census

Calculation

- Total # of farms using precision agtech:
- # of crop farms by type:
- Crops: 1.28M farms, Animals: 853k farms

Greenhouse

- 2020 smart greenhouse market size in \$: Allied Market Research 2020
- Smart greenhouse CAGR: Allied Market Research 2020
- Cannabis/Hemp cultivation CAGR: Markets and markets 2019
- % Adoption of IoT -
- 60% non-cannabis - Greenhouse Grower 2018 report
- 80% cannabis/hemp - Cannabis business times 2020 report
- Internet availability: USDA 2017 census
- # of non-cannabis greenhouses: USDA NASS 2020
- # of cannabis/hemp growers: Hemp industry daily 2020

Outdoor farm calculations

	IoT Adoption	% without internet
Crop	40%	27%
Animal	18%	26%

	Total addressable farms	Farms with IoT	Farms with IoT and without internet
Crop	1,327,623	531,049	143,383
Animal	1,075,130	193,523	50,316


Greenhouse calculations

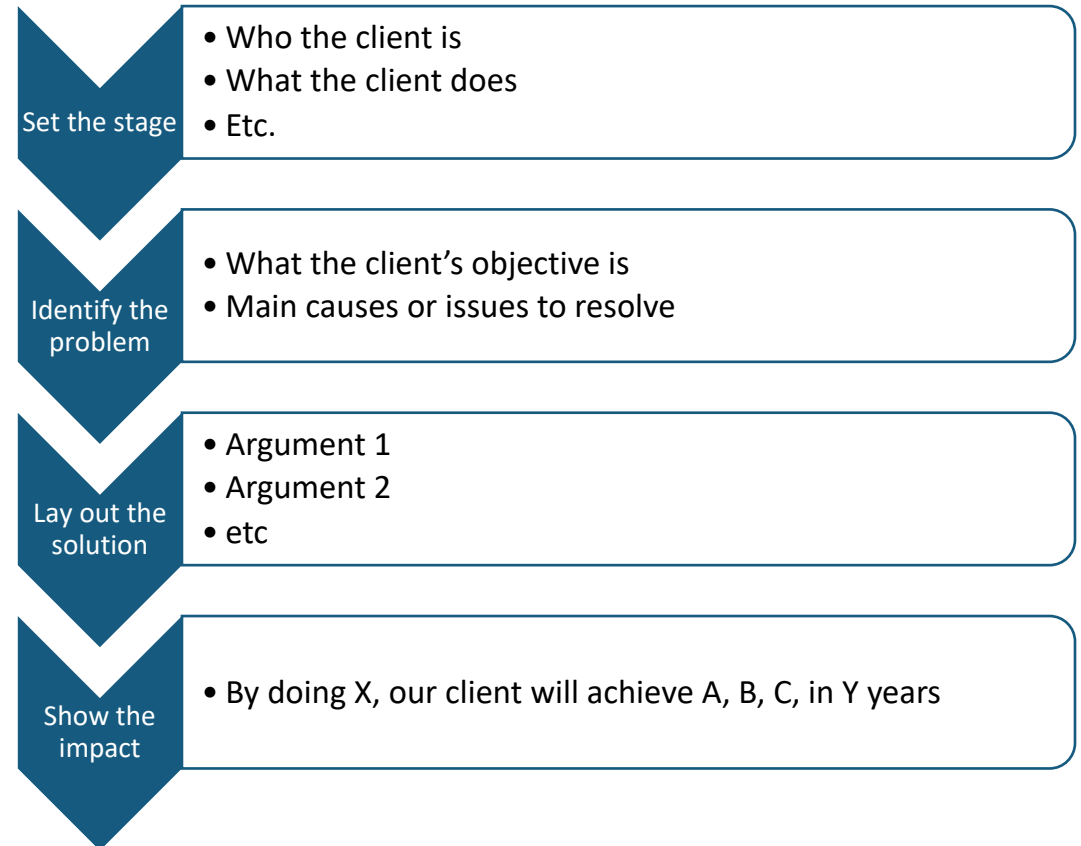
	IoT Adoption	% without internet
Non-cannabis	60%	16%
Cannabis	80%	16%

	Total greenhouses	Greenhouses with IoT
Non-cannabis Greenhouses	20,633	12,380
Cannabis Greenhouses	21,496	17,197
		29,577

Note: only 16% of greenhouses do not have internet. Assume marketing to all greenhouses.

Creating a presentation

- Find good presentation examples
- Top-Down communication
- Use appropriate frameworks
 - SWOT
 - PEST
 - Porter's Five Forces
 - 3 C's
 - BCG Matrix
- Write scripts and rehearse
- Use appendices to your advantage 



McKinsey Example Presentation: <http://www.consultantsmind.com/2016/02/28/mckinsey-presentation/>

Additional presentation frameworks: <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-classic-mckinsey-frameworks-that-continue-to-inform-management-thinking>

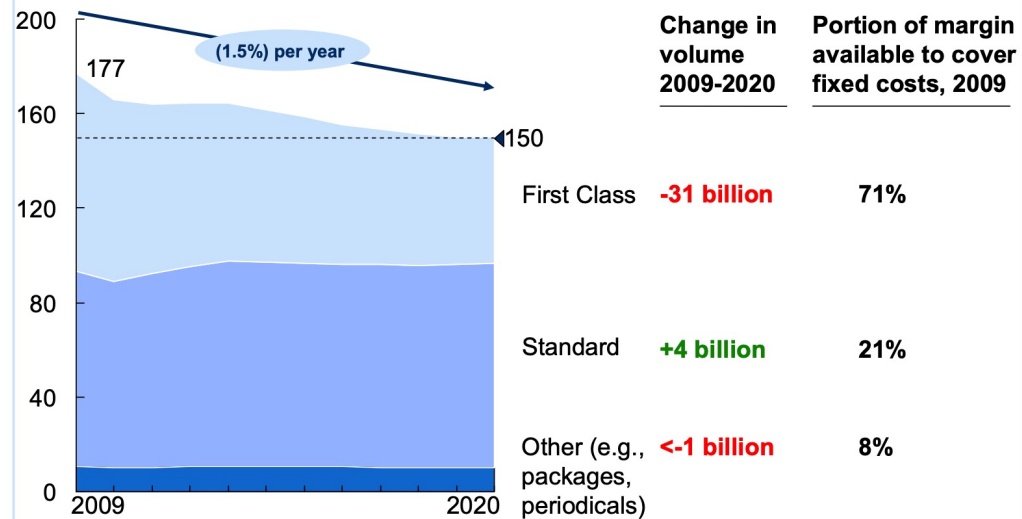
Examples of consulting slide decks

Base Case: Volume Declines

Volume will decline significantly over the next decade driven by a steady decline in First-Class Mail, the most profitable segment

BCG volume forecast

Billions of pieces



SOURCE: BCG; USPS Financial Forecasting Model

McKinsey & Company | 11

<https://about.usps.com/future-postal-service/mckinsey-usps-future-bus-model2.pdf>

Subsector-specific trends hold varying implications on NYC

Traditional media models being challenged as digital media booms

Subsectors	NYC trends	Sector trends	Overall outlook
Filmed entertainment	<ul style="list-style-type: none"> ✓ Boom in NYC film and TV production ✓ Great support from the city ? Studio space reaching capacity 	<ul style="list-style-type: none"> ? Increase in post production activity ✗ Cost pressure with lower audience ✗ Other states undercutting tax incentives 	↗
Broadcasting and cable networks	<ul style="list-style-type: none"> ✓ Increased content production in NYC ✗ Increasing need for digital talent ✗ Companies considering moving support functions outside of NY 	<ul style="list-style-type: none"> ✓ Content continues to be "king" ? Proliferation of distribution platforms ? Media production fragmentation – original cable and lower cost content ✗ New media revenue model undefined 	→
Publishing	<ul style="list-style-type: none"> ✓ Content continues to be "king" ✓ Digital publishing start-ups growth and strong presence in NYC ✗ Traditional talent transition to digital 	<ul style="list-style-type: none"> ✓ Digital publishing driving sales ✗ Traditional publishing model influx ✗ Importance of partnership with technology providers 	?
Advertising	<ul style="list-style-type: none"> ✓ NYC turn-around with transmedia trend ✓ Sector consolidation in NYC ✗ Increasing need for digital talent 	<ul style="list-style-type: none"> ✓ New model is about convergence of media ✗ Technology and shifting consumer behavior changing ad effectiveness 	↗
Digital media/tech VC and incubators	<ul style="list-style-type: none"> ✓ Media start-ups boom in NYC ✓ NYC big tech growth ✗ Increasing need for engineering talent ✗ Need for better infrastructure 	<ul style="list-style-type: none"> ✓ Decreased capital requirements ✓ Easier technology access ✓ Strong VC exit activity (IPOs, M&As) 	↑

✓ Positive trend ✗ Negative trend ? Emerging opportunities

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http://www.nyc.gov/html/film/downloads/pdf/Media_in_NYC_2012.pdf

More Resources

McKinsey Slide Decks

<https://about.usps.com/future-postal-service/mckinsey-usps-future-bus-model2.pdf>

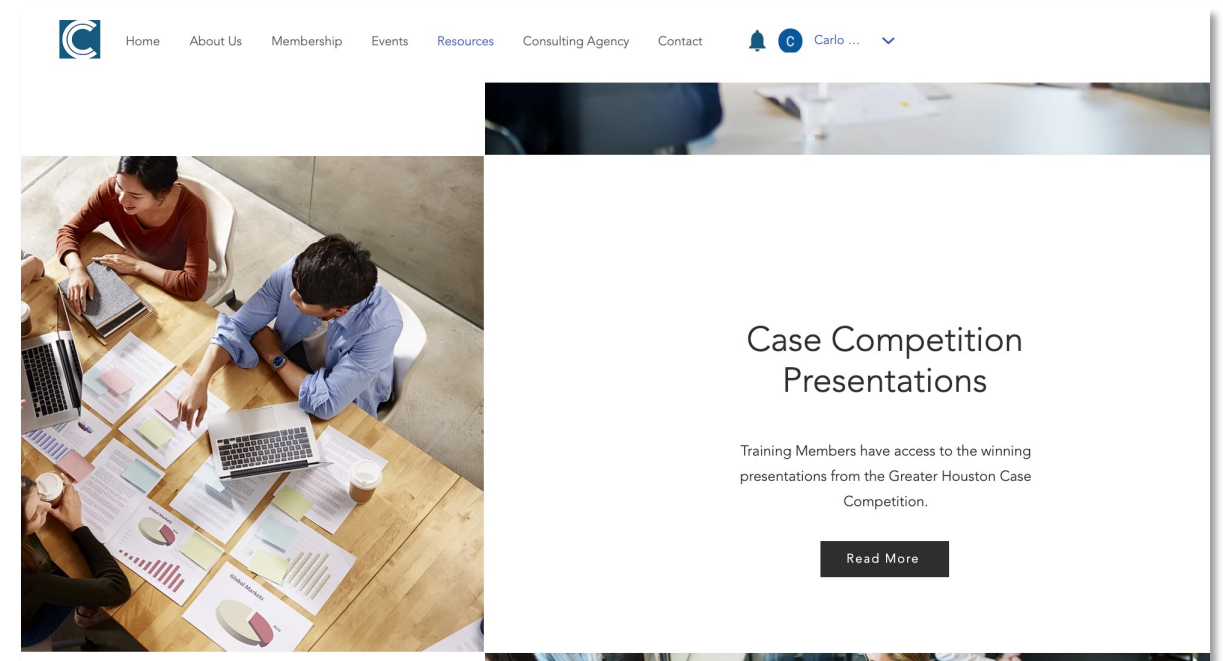
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/48456/5776-capturing-the-full-electricity-efficiency-potentia.pdf

BCG Slide Deck

http://www.nyc.gov/html/film/downloads/pdf/Media_in_NYC_2012.pdf

Winning Case Competition Presentations

[medcenterconsulting.com](https://medcenterconsulting.com/medcenterconsulting.com) > [Resources](#)

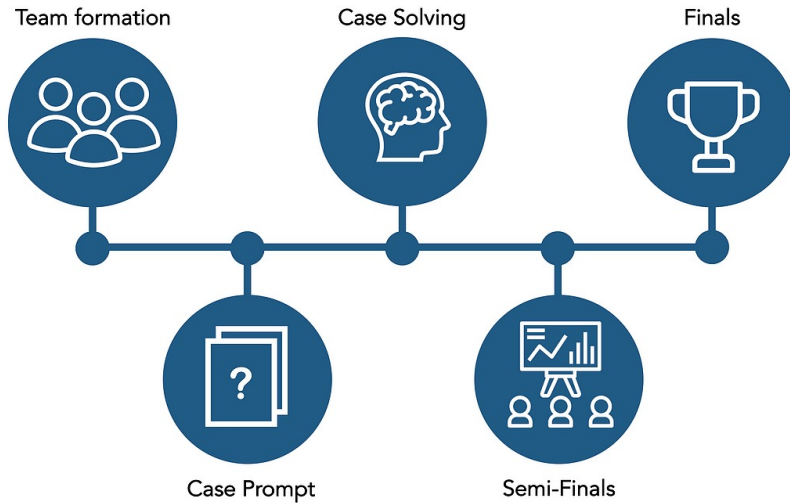


Final tips

- Don't be a jerk. Consultants work in teams. Jerks are a net negative.
- Communicate frequently. Make sure you are always on the same page with your team.
- Be helpful. Go the extra mile for your team.
- Be open to feedback and criticism. Judges will be 10x more critical.
- Get to the deck structure early.
- Give very specific recommendations. Give projections and targets given certain assumptions.
- If client data is provided, use it to the fullest.



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For those without teams or need more members, stick around afterwards!



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Appendix: Market Sizing

Outdoor Farms

- Precision farming market size in \$: Allied Market Research
- % Adoption of IoT: *Agronomy 2020, 10(2), 207*
- Internet availability, # farms by type: USDA 2017 Census

Calculation

- Total # of farms using precision agtech:
- # of crop farms by type:
 - Crops: 1.28M farms, Animals: 853k farms

Greenhouse

- 2020 smart greenhouse market size in \$: Allied Market Research 2020
- Smart greenhouse CAGR: Allied Market Research 2020
- Cannabis/Hemp cultivation CAGR: Markets and markets 2019
- % Adoption of IoT -
 - 60% non-cannabis - Greenhouse Grower 2018 report
 - 80% cannabis/hemp - Cannabis business times 2020 report
- Internet availability: USDA 2017 census
- # of non-cannabis greenhouses: USDA NASS 2020
- # of cannabis/hemp growers: Hemp industry daily 2020

Outdoor farm calculations

	IoT Adoption		% without internet
Crop		40%	27%
Animal		18%	26%

	Total addressable farms	Farms with IoT	Farms with IoT and without internet
Crop	1,327,623	531,049	143,383
Animal	1,075,130	193,523	50,316

Greenhouse calculations

	IoT Adoption		% without internet
Non-cannabis		60%	16%
Cannabis		80%	16%

	Total greenhouses	Greenhouses with IoT
Non-cannabis Greenhouses	20,633	12,380
Cannabis Greenhouses	21,496	17,197
		29,577

Note: only 16% of greenhouses do not have internet. Assume marketing to all greenhouses.

Appendix: Market Segmentation by farm size

	<50 acres	50-100 acres	100-500 acres	500-2000 acres	2000 or more acres
Oilseed & Grain	40,763	33,955	121,422	92,240	36,653
Vegetable & Melon	31,178	5,069	5,546	2,336	1,036
Other Crop Farming	169,793	94,326	149,224	33,040	9,591
Other: Tobacco	963	476	1,329	855	134
Other: Cotton	337	370	1,697	3,642	2,769
Other: Sugar, Hay, Peanut	168,493	93,480	146,198	28,543	6,688
	32%	18%	33%	13%	4%

*excludes greenhouse, nursery, and tree farms

	<50 acres	50-100 acres	100-500 acres	500-2000 acres	2000 or more acres
Beef Cattle Ranching and Far	239,172	102,971	205,192	63,721	30,440
Cattle Feedlots	1,842	1,387	5,481	3,317	1,352
Dairy Cattle and Milk Product	3,624	3,922	20,436	8,628	1,140
Hog and Pig Farming	13,365	2,017	4,290	2,895	481
Poultry and Egg Production	25,619	6,205	9,794	2,400	242
Sheep and Goat Farming	73,630	8,744	7,593	1,950	1,057
	42%	10%	20%	6%	3%

*excludes aquaculture farms

Data source: USDA NASS

Appendix: Market Segmentation by total annual revenue

Revenue by type of operation	<1M	\$1M-<2.5M	\$2.5M - <5M	\$5M or more	# of operations with \$1M+ in annual revenue
Oilseed & Grain	298,328	22,894	3,210	601	26,705.00
Vegetable & Melon	42,392	1,309	668	796	2,773.00
Other Crop Farming Total	450,714	3,987	955	318	5,260.00
Other: Tobacco	3,412	274	56	15	345.00
Other: Cotton	6,901	1,544	319	51	1,914.00
Other: Sugar, Hay, Peanut	440,401	2,169	580	252	3,001.00
Beef Cattle Ranching and Farming	636,786	3,478	817	415	4,710.00
Cattle Feedlots	10,298	1,684	562	835	3,081.00
Dairy Cattle and Milk Production	30,910	3,568	1,480	1,792	6,840.00
Hog and Pig Farming	16,327	3,991	1,686	1,044	6,721.00
Poultry and Egg Production	29,787	9,497	3,555	1,421	14,473.00
Sheep and Goat Farming	92,888	64	15	7	86.00

*Greenhouses/nurseries, forest farms, and aquaculture farms excluded

Data source: USDA NASS

Appendix: Market Segmentation by revenue/acre

Type	# of Operations	Acres Operated	Total Revenue	Revenue/operation	Revenue/Acre
Oilseed & Grain	325,033	275,696,715	\$ 102,018,657,000	\$ 313,872	\$ 370
Vegetable & Melon	45,165	9,310,059	\$ 19,731,533,000	\$ 436,877	\$ 2,119
Other Crop Farming	455,974	119,245,899	\$ 22,681,315,000	\$ 49,743	\$ 190
Other: Tobacco	3,757	1,586,381	\$ 1,413,240,000	\$ 376,162	\$ 891
Other: Cotton	8,815	15,874,682	\$ 6,011,120,000	\$ 681,919	\$ 379
Other: Sugar, Hay, Peanut	443,402	101,784,836	\$ 15,256,955,000	\$ 34,409	\$ 150
	1,282,146	523,498,572	\$ 167,112,820,000	\$ 130,338	\$ 319
Type	# of Operations	Acres Operated	Total Revenue	Revenue/operation	Revenue/Acre
Beef Cattle Ranching and Farming	1,069,192	362,543,006	33,370,653,000	\$ 31,211	\$ 92
Cattle Feedlots	23,928	14,156,012	39,055,744,000	\$ 1,632,219	\$ 2,759
Dairy Cattle and Milk Production	76,852	17,398,455	42,382,822,000	\$ 551,486	\$ 2,436
Hog and Pig Farming	41,918	5,793,498	27,143,555,000	\$ 647,539	\$ 4,685
Poultry and Egg Production	78,920	5,916,544	50,155,733,000	\$ 635,526	\$ 8,477
Sheep and Goat Farming	159,191	13,975,994	877,791,000	\$ 5,514	\$ 63
	1,450,001	419,783,509	\$ 192,986,298,000	\$ 133,094	\$ 460

*Greenhouses/nurseries, forest farms, and aquaculture farms excluded

Data source: USDA NASS

Appendix: Per-acre pricing revenue projections

For calculations, assume average acreages of:

- 300 acres (100-500 acres)
- 1250 acres (500-2000 acres)

Assume greater adoption in larger farms due to higher upfront costs

Business Model 1: Acreage model						
Hardware Price	\$	1,500				
Annual rev/acre (basic)	\$	18.00				
Annual rev/acre (premium)	\$	36.00				
Case 1: Likely case						
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)
100-500 acres	5	Year 1	\$ 315,000	\$ 22,500	\$ 337,500	\$ 135,000
500-2000 acres	10	Year 2	\$ 406,125	\$ 6,000	\$ 412,125	\$ 164,850
		Year 3	\$ 504,000	\$ 7,500	\$ 511,500	\$ 204,600
Average annual customer # growth	25%	Year 4	\$ 630,000	\$ 9,000	\$ 639,000	\$ 255,600
		Year 5	\$ 790,875	\$ 12,000	\$ 802,875	\$ 321,150
Basic Tier %	75%					
Premium Tier %	25%					
Case 2: Best case						
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)
100-500 acres	10	Year 1	\$ 508,950	\$ 37,500	\$ 546,450	\$ 218,580
500-2000 acres	15	Year 2	\$ 676,260	\$ 12,000	\$ 688,260	\$ 275,304
		Year 3	\$ 879,840	\$ 15,000	\$ 894,840	\$ 357,936
Average annual customer # growth	30%	Year 4	\$ 1,148,940	\$ 19,500	\$ 1,168,440	\$ 467,376
		Year 5	\$ 1,490,580	\$ 25,500	\$ 1,516,080	\$ 606,432
Basic Tier %	70%					
Premium Tier %	30%					
Case 3: suboptimal case						
	Year 1 customers		Software revenue	Hardware revenue	Total projected revenue	Est. profit (40% margin)
100-500 acres	3	Year 1	\$ 154,440	\$ 12,000	\$ 166,440	\$ 66,576
500-2000 acres	5	Year 2	\$ 187,920	\$ 3,000	\$ 190,920	\$ 76,368
		Year 3	\$ 221,400	\$ 3,000	\$ 224,400	\$ 89,760
Average annual customer # growth	20%	Year 4	\$ 254,880	\$ 3,000	\$ 257,880	\$ 103,152
		Year 5	\$ 315,360	\$ 4,500	\$ 319,860	\$ 127,944
Basic Tier %	80%					
Premium Tier %	20%					

Appendix: Per-seat pricing revenue projections

Business Model 2: Per-seat model								
Hardware Price	\$ 1,500							
Annual rev/seat(basic)	\$ 15.00							
Annual rev/seat (premium)	\$ 45.00							
Case 1: Likely Case								
	Year 1 customers			Software revenue	Hardware revenue	Total projected revenue	40% margin	Hardware % share
Total customers	40	Year 1	\$ 12,960	\$ 60,000	\$ 72,960	\$ 29,184	82%	
		Year 2	\$ 16,848	\$ 18,000	\$ 34,848	\$ 13,939	52%	
		Year 3	\$ 22,032	\$ 24,000	\$ 46,032	\$ 18,413	52%	
Average annual customer # growth	30%	Year 4	\$ 28,512	\$ 30,000	\$ 58,512	\$ 23,405	51%	
		Year 5	\$ 37,260	\$ 40,500	\$ 77,760	\$ 31,104	52%	
Basic Tier %	60%							
Premium Tier %	40%							
Case 2: Best Case								
	Year 1 customers			Software revenue	Hardware revenue	Total projected revenue	40% margin	Hardware % share
Total customers	60	Year 1	\$ 21,600	\$ 90,000	\$ 111,600	\$ 44,640	81%	
		Year 2	\$ 32,400	\$ 45,000	\$ 77,400	\$ 30,960	58%	
		Year 3	\$ 48,600	\$ 67,500	\$ 116,100	\$ 46,440	58%	
Average annual customer # growth	50%	Year 4	\$ 73,080	\$ 102,000	\$ 175,080	\$ 70,032	58%	
		Year 5	\$ 109,800	\$ 153,000	\$ 262,800	\$ 105,120	58%	
Basic Tier %	50%							
Premium Tier %	50%							
Case 3: Suboptimal Case								
	Year 1 customers			Software revenue	Hardware revenue	Total projected revenue	40% margin	Hardware % share
Total customers	15	Year 1	\$ 3,780	\$ 22,500	\$ 26,280	\$ 10,512	86%	
		Year 2	\$ 4,536	\$ 4,500	\$ 9,036	\$ 3,614	50%	
		Year 3	\$ 5,292	\$ 4,500	\$ 9,792	\$ 3,917	46%	
Average annual customer # growth	20%	Year 4	\$ 6,300	\$ 6,000	\$ 12,300	\$ 4,920	49%	
		Year 5	\$ 7,560	\$ 7,500	\$ 15,060	\$ 6,024	50%	
Basic Tier %	80%							
Premium Tier %	20%							

Appendix: Per-seat pricing payback period and NPV

	Likely case	Best case	Suboptimal case
Year 1 # customers	40	60	15
Annual customer growth rate	30%	50%	20%
Basic/Premium split	60/40	50/50	80/20
Payback period*	>5 yrs	5 yrs	>5 yrs
5-year NPV**	(\$ 213k)	(\$ 86k)	(\$ 277k)

Comparison vs acreage model

- Likely faster growth rate
- Faster adoption when proven
- Likely to incur higher variable cost (maintenance requests, server fees, etc.)
- Capital-intensive: only works at 100's to 1000's of customers

Assume 2 BizDev personnel, \$300k Year 1 initial investment

*Assume 40% overall margin (including COGS, operating expenses & overhead)

**Assume 10% discount rate

Appendix: Market Demographics

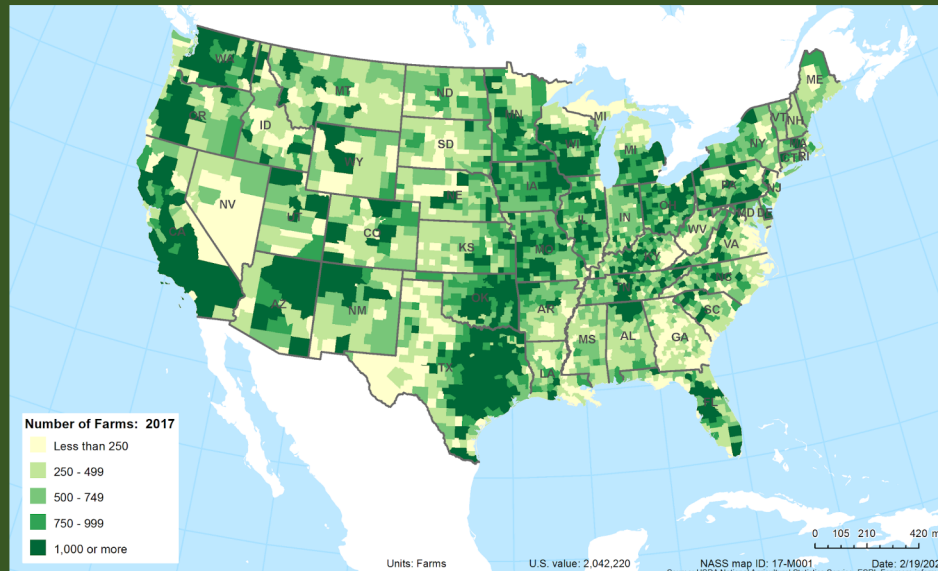
Crop farm type	Producer age <25	Producer age 25-34	Producer age 35-44	Producer age 45-54	Producer age 55-64	Producer age 65-74	Producer age >75
Oilseed & Grain	6,363	42,551	61,183	86,892	153,990	109,942	60,970
Vegetable & Melon	1,612	8,546	12,776	15,391	21,767	14,606	5,905
Fruit & Tree Nut	1,501	8,212	16,109	29,686	50,340	42,286	20,893
Other Crop Farming	6,749	33,791	63,376	117,605	205,877	190,476	115,736
Other: Tobacco	153	779	855	1,162	1,658	852	358
Other: Cotton	141	1,211	1,782	2,529	4,044	2,676	1,448
Other: Sugar, Hay, Peanut	6,455	31,801	60,739	113,914	200,175	186,948	113,930
	1%	6%	10%	16%	28%	24%	14%

Animal farm type	Producer age <25	Producer age 25-34	Producer age 35-44	Producer age 45-54	Producer age 55-64	Producer age 65-74	Producer age >75
Beef Cattle Ranching and Farming	18,118	76,117	123,280	191,263	285,967	234,873	130,194
Cattle Feedlots	497	2,585	3,245	4,310	6,492	4,274	2,061
Dairy Cattle and Milk Production	3,003	10,262	13,091	16,557	20,082	8,540	3,453
Hog and Pig Farming	1,237	5,433	9,149	9,764	9,858	4,291	1,360
Poultry and Egg Production	1,674	7,521	13,785	19,126	20,744	11,522	3,696
Sheep and Goat Farming	3,701	11,886	23,711	34,125	42,139	30,297	12,310
	2%	8%	13%	19%	27%	20%	11%

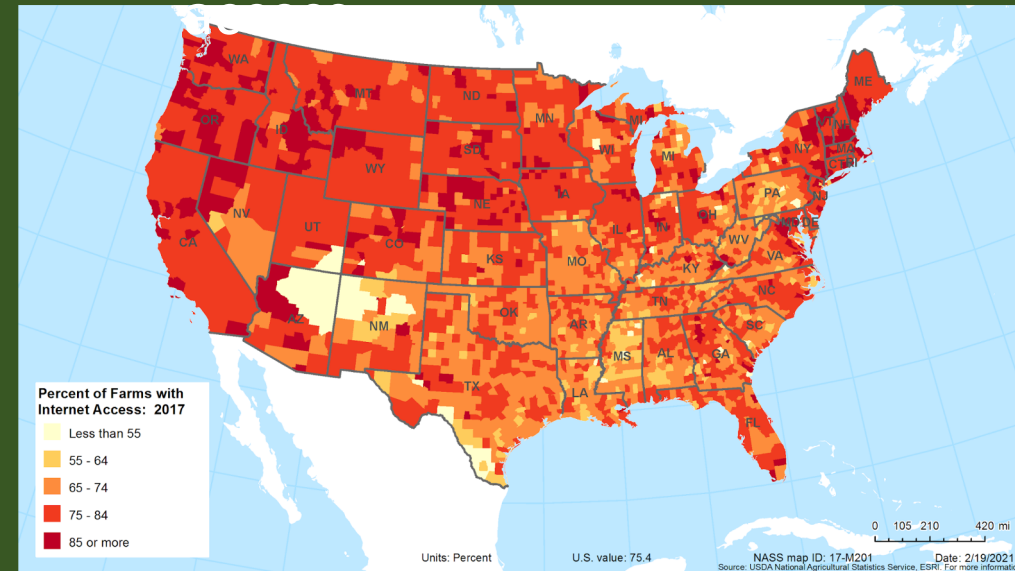
*Greenhouses/nurseries, forest farms, and aquaculture farms excluded

Appendix: Outdoor farm atlas

Number of farms



% farms with internet

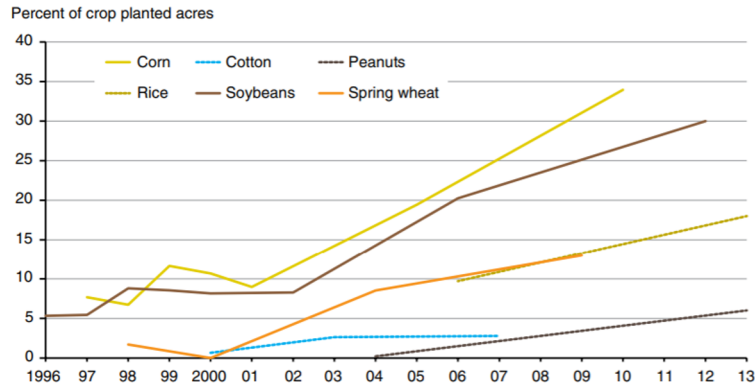


High farm density, low internet access in CA, AZ, NM, TX

Source: USDA NASS

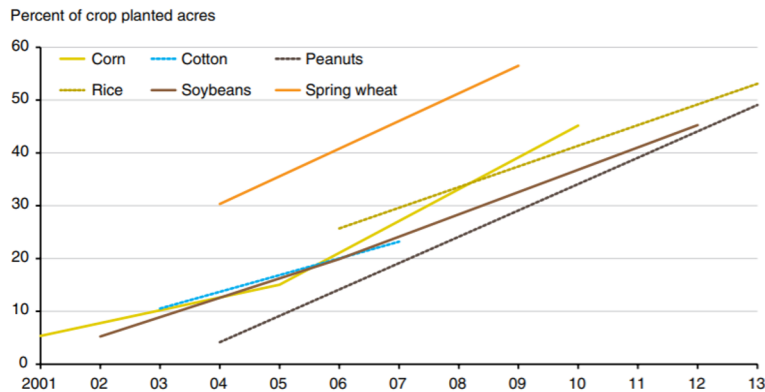
Appendix: Sensor use by crop farms

Figure 3
Adoption of yield mapping (by crop)



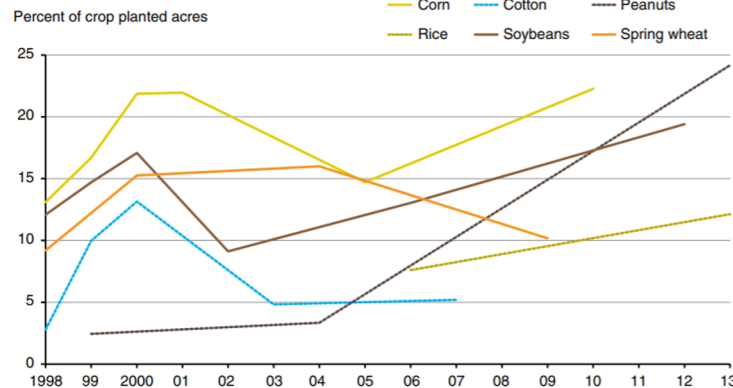
Source: USDA, Economic Research Service estimates using data from the Agricultural Resource Management Survey (ARMS) Phase II.

Figure 5
Adoption of guidance systems (by crop)



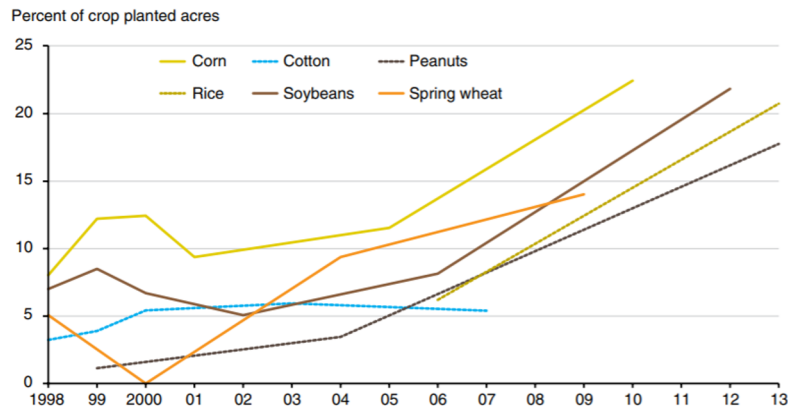
Source: USDA, Economic Research Service estimates using data from the Agricultural Resource Management Survey (ARMS) Phase II.

Figure 4
Adoption of GPS soil mapping (by crop)



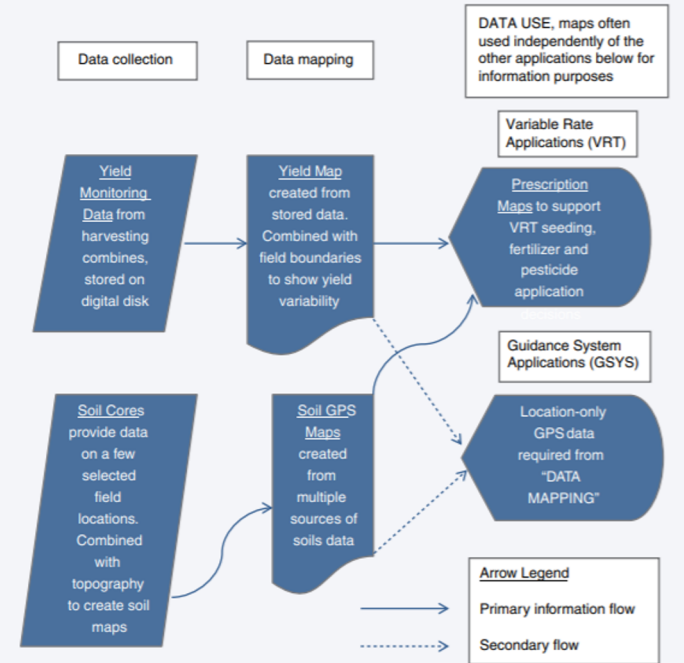
Note: Global Positioning System (GPS).
Source: USDA, Economic Research Service estimates using data from the Agricultural Resource Management Survey (ARMS) Phase II.

Figure 6
Adoption of variable-rate application technology (VRT) by crop



Source: USDA, Economic Research Service estimates using data from the Agricultural Resource Management Survey (ARMS) Phase II.

Key Precision Agriculture Technologies and Information Flows



Source: Adapted from "Precision in the Fields" graphic developed for National Geographic magazine (July 2014)
<http://www.nationalgeographic.com/foodbynumbers/#.VPYSZW00tik>

USDA ERS

Indoor climate controlled farms: Market Sizing and Growth

Type	Total revenue (CAGR)	Outdoor area (CAGR)	Total indoor/ greenhouse area (CAGR)
Ornamental and food	13.8B (0%)	551k acres (10% CAGR)	38.5 M sq ft
Cannabis	Est. 20.9B	230k planted acres (34% CAGR)	780M sq ft est

Grow Size

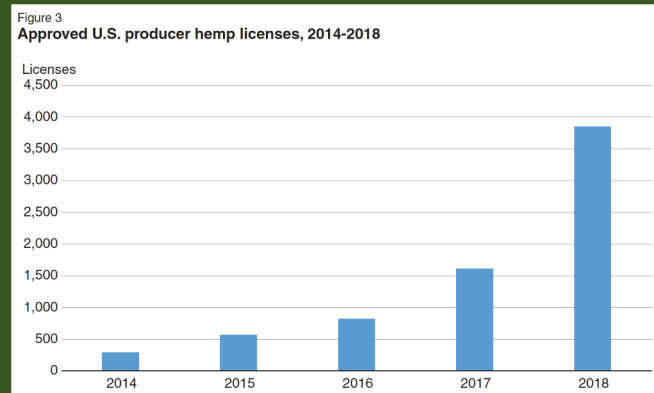
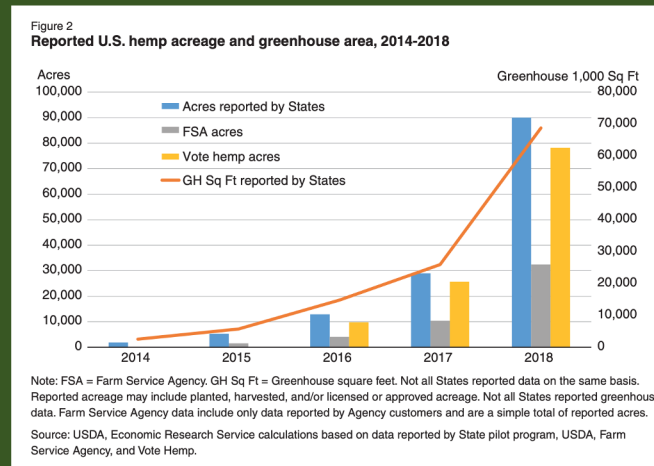
What is the square footage of your operation's cannabis production area?

SIZE	2016	2020	OVERALL CHANGE
80,000 sq. ft. or more	7%	19%	⬆️ 12%
50,000-79,999 sq. ft.	3%	7%	⬆️ 4%
25,000-49,999 sq. ft.	12%	11%	⬇️ 1%
10,000-24,999 sq. ft.	15%	15%	—
5,000-9,999 sq. ft.	24%	12%	⬇️ 12%
Less than 5,000 sq. ft.	34%	35%	⬆️ 1%

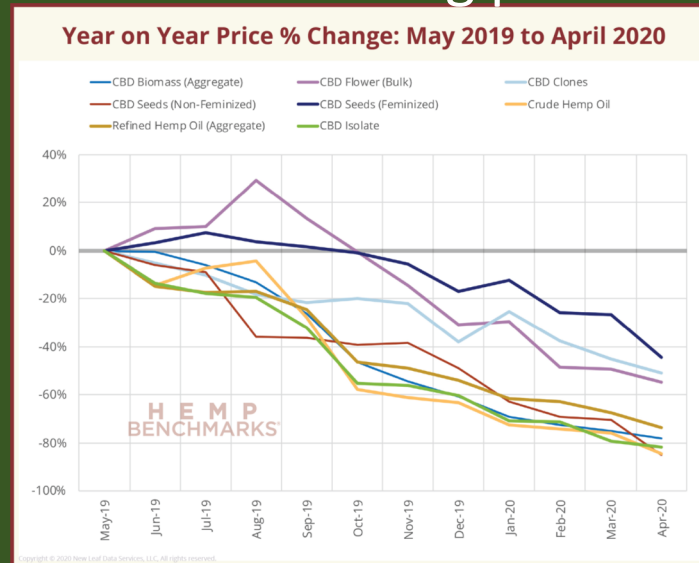
USDA NASS 2019
Cannabis business times
Brightfield group

Appendix: Cannabis Market Opportunities and Risks

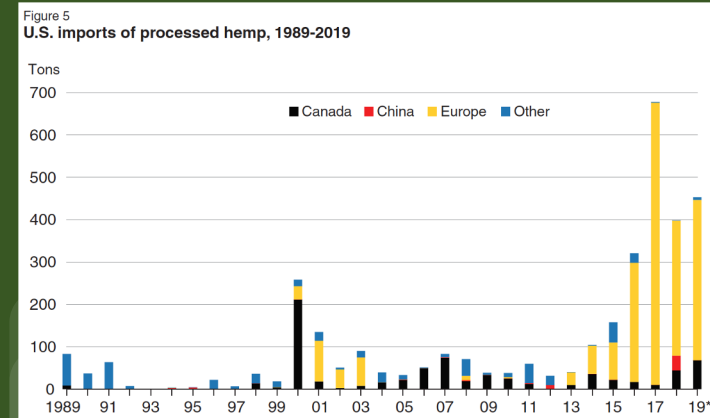
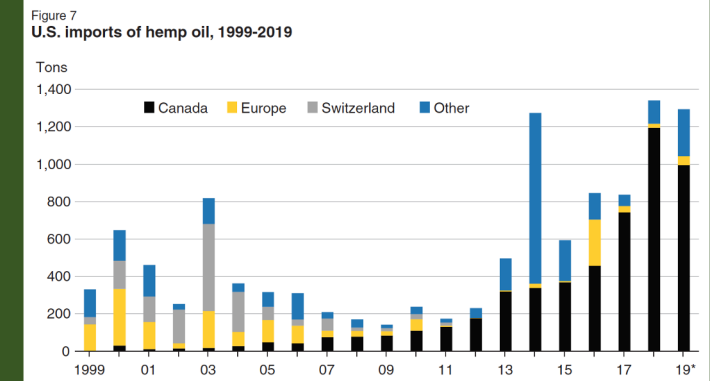
Rapid growth



Fast declining prices



Increasing competition from imports

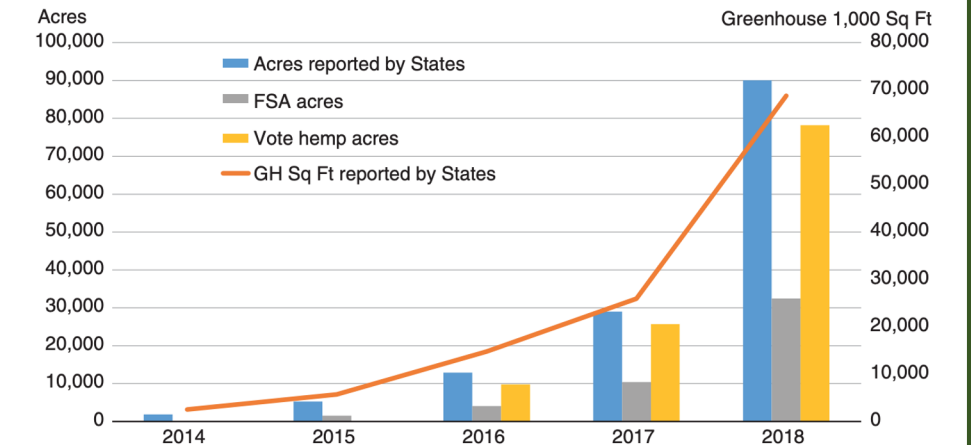


Sources: USDA ERS 2020
Hemp Benchmarks 2020

Indoor climate controlled farms: Market Segmentation by revenue and Growth

Type	Total # operations (CAGR)	<1M	1M-2.5M	2.5M++
Ornamental and food	20,655	89% of total operations	6% of total operations	5% of total operations
Cannabis	21,496	66% of total operations	10% of total operations	24% of total operations

Figure 2
Reported U.S. hemp acreage and greenhouse area, 2014-2018



Note: FSA = Farm Service Agency. GH Sq Ft = Greenhouse square feet. Not all States reported data on the same basis. Reported acreage may include planted, harvested, and/or licensed or approved acreage. Not all States reported greenhouse data. Farm Service Agency data include only data reported by Agency customers and are a simple total of reported acres.

Source: USDA, Economic Research Service calculations based on data reported by State pilot program, USDA, Farm Service Agency, and Vote Hemp.

Appendix: Cannabis cultivation market

- 20% of horticulture farms are interested in expanding to cannabis
- 29% of cannabis growers noted revenue growth in 2020
- 21% planned to add more than 80,000 sq ft or more in the next 2 years

Which of the following does your operation plan to add for cannabis cultivation in the next two years?

	2016	2017	2018	2019	2020
Warehouse/indoors cultivation space	43%	47%	53%	39%	36%
Greenhouse	44%	46%	43%	43%	45%
Outdoor cultivation space	22%	20%	25%	23%	22%
None of these	21%	16%	18%	21%	21%
All three	-	-	-	-	5%

Hemp industry daily
Cannabis business times

Appendix: Cannabis cultivation market

- Shift to mixed greenhouse-outdoor models
- **42% have outdoor growing farms**
- 80% use automation technology
- Very high energy use (200 W/sq. ft) accounts for 20-50% of total costs

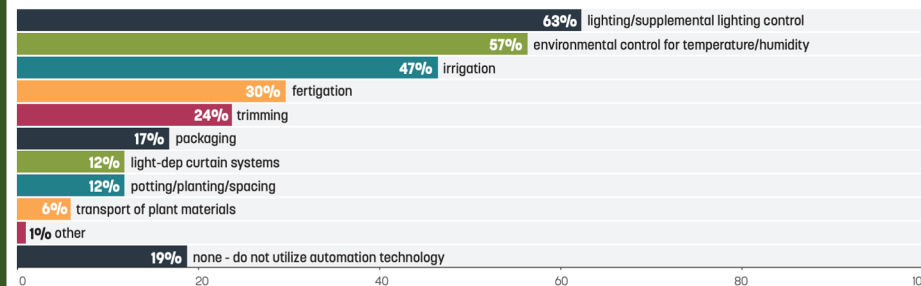
Warehouse/Indoors, Greenhouse or Outdoors: A Closer Look

Where does your operation grow cannabis?

	2016	2020	Overall Change
Warehouse/Indoors Only	44%	42%	⬇️ 2%
Greenhouse Only	4%	12%	⬆️ 8%
Outdoors Only	10%	12%	⬆️ 2%
Greenhouse + Outdoors (No Warehouse)	3%	16%	⬆️ 13%
Greenhouse + Warehouse (No Outdoors)	13%	4%	⬇️ 9%
Warehouse + Outdoors (No Greenhouse)	10%	5%	⬇️ 5%
All Three	14%	9%	⬇️ 5%

What Are You Automating?

For which systems does your operation utilize automation technology in its cannabis cultivation?



What is the average cost to grow a pound of dried flower produced?*

2020



\$100

Outdoors



\$233

Greenhouse



\$396

Warehouse/
Indoors

Cost per pound change, 2018 vs. 2020:

⬇️ \$75

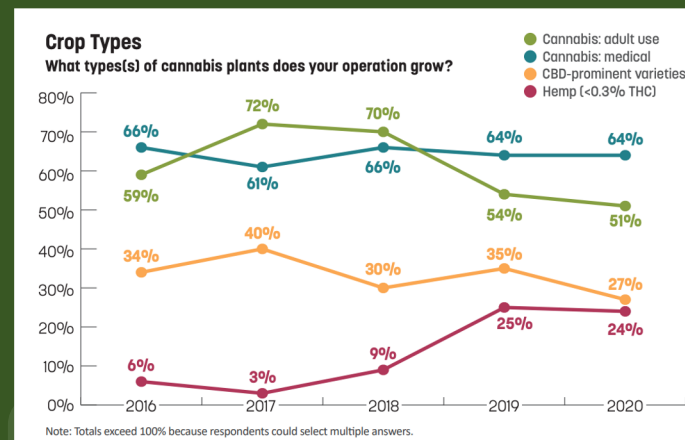
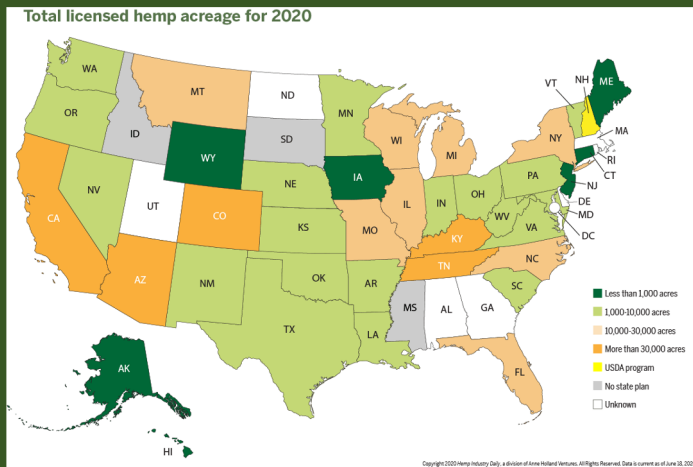
⬇️ \$67

⬇️ \$29

*Note: This chart shows the median average cost, or the number that fell in the middle of all responses

Hemp industry daily
Cannabis business times

Appendix: Cannabis cultivation market



State	Outdoor (acres)		Indoor (square feet)		Growers	
	2019	2020	2019	2020	2019	2020
Colorado	80,000	61,854	9 million	15.4 million	2,300	2,017
Kentucky	58,000	32,000	6 million	4.6 million	1,047	960
Montana	40,000	11,685	–	150,000	250	95
Nevada	9,145	3,678	1.3 million	734,903	154	96
New York	5,000	29,777	–	9,042,279	278	667
North Carolina	11,572	16,434	4.5 million	7,276,394	933	1,503
North Dakota	2,175	Currently unknown	–	–	38	
Oregon	51,313	29,604	7.7 million	7,309,873	1,449	1,129
Tennessee	37,416	51,000 (thru 7/1/20)	2,643	–	2,900	3,830

Appendix: Indoor farming and analytics market

Farms

Company	Current US Locations	Farm Type	Machine Learning/AI?
AeroFarms	NJ	Vertical	Provided by Dell Technologies
Backyard Farms	ME	Greenhouse	Unclear. According to zoominfo, Backyard Farm's tech stack includes Google Analytics
Bowery Farming	NJ	Vertical	Bowery Operating System - "collects millions of data points through an extensive network of sensors and cameras that feed into machine learning algorithms"
BrightFarms	IL, OH, PA, VA	Greenhouse	IBM Food Trust
Gotham Greens	NY, IL	Greenhouse	Yes - unclear whether developed by company or sourced
Little Leaf Farms	MA	Greenhouse	N/A
Oasis Biotech	NV	Vertical	Controlled indoor environment - likely it has some type of data integration system; unclear if machine learning
Plenty	CA, WA	Vertical	Yes - unclear whether developed by company or sourced

Small to medium-scale analytics providers

Company	Machine Learning/AI?	Provide sensors?	Price	Revenue?
Growlink	Growlink Pro is an <i>optional subscription service</i> that provides advanced data analytics, artificial intelligence, user management, and long-term data storage	Yes - climate, humidity, temperature. Additionally provide dosing, light, and irrigation control	\$899 for basic package, subscription service unclear	Small companies, not publicly traded.
Motorleaf	Yes - Motorleaf integrates with existing IoT systems	No	N/A	
Autogrow	No - stores data that can be viewed in charts/graphs by the user, but does not provide advanced analytics	Yes - offers a variety of sensors sold individually, or as a consolidated unit called <i>Folium</i>	1 Folium + 6 month software subscription: \$997; other packages that increase in price	
Link4 Corporation	No - Cloud 1.5 software that allows user to organize controllers. Cloud-based control panel rather than machine learning/AI	Yes - variety of sensors and controllers for light, temperature, CO2, irrigation	N/A	
SmartBee Controllers	No - "Hive Gateway" manages incoming sensor data, serving as main logic controller that integrates all of the greenhouse sensors/systems. No machine learning/AI capabilities	Yes, offers a variety of sensors and power controls	Ultimate Starter System: \$2958.30; software pricing unclear	

How structuring works

- Focus on the right question
- Break down the question in to an exhaustive set of independent drivers
- Provide an approach to solving the problem
- Share insights

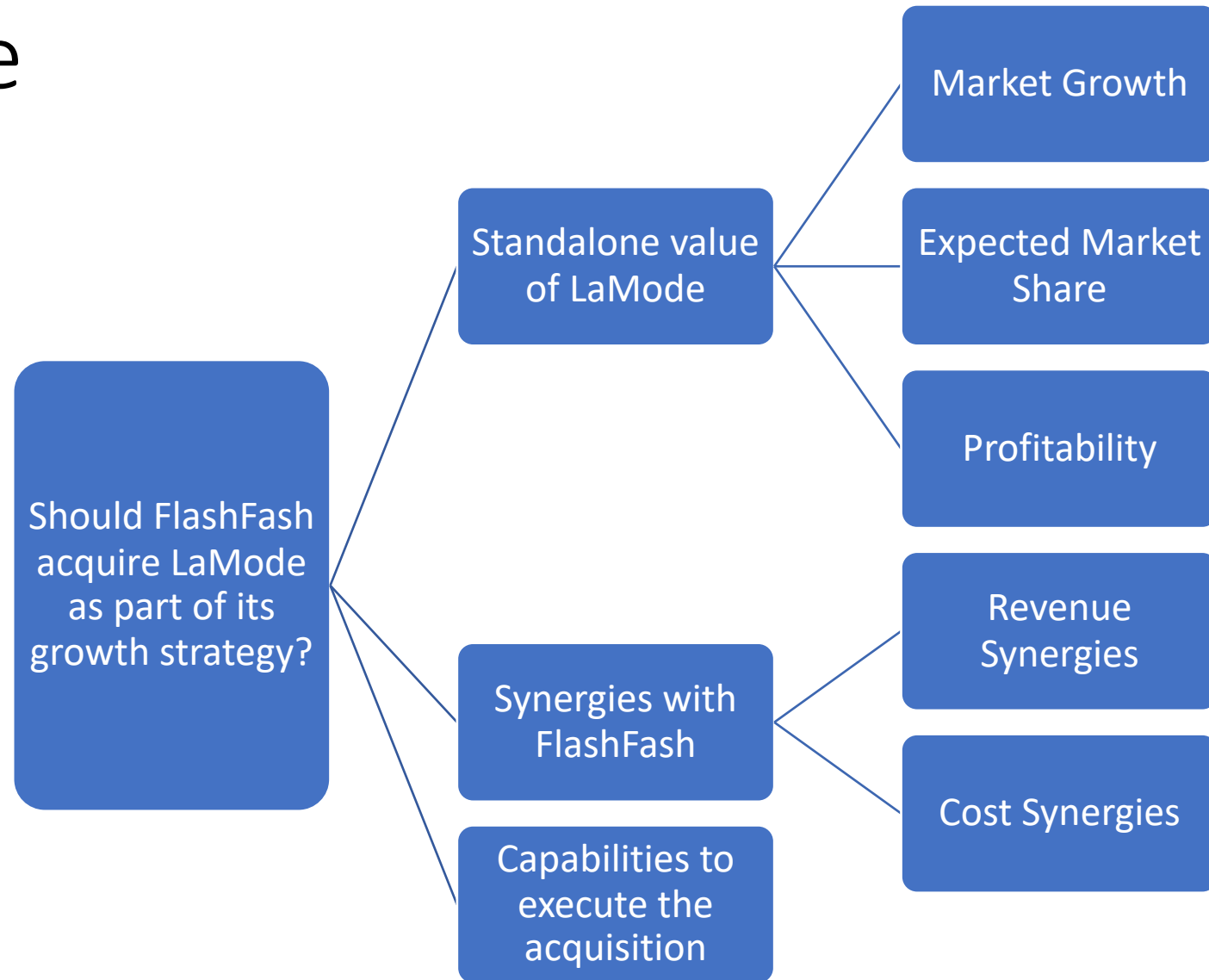
AIM Test:

Answer-focused

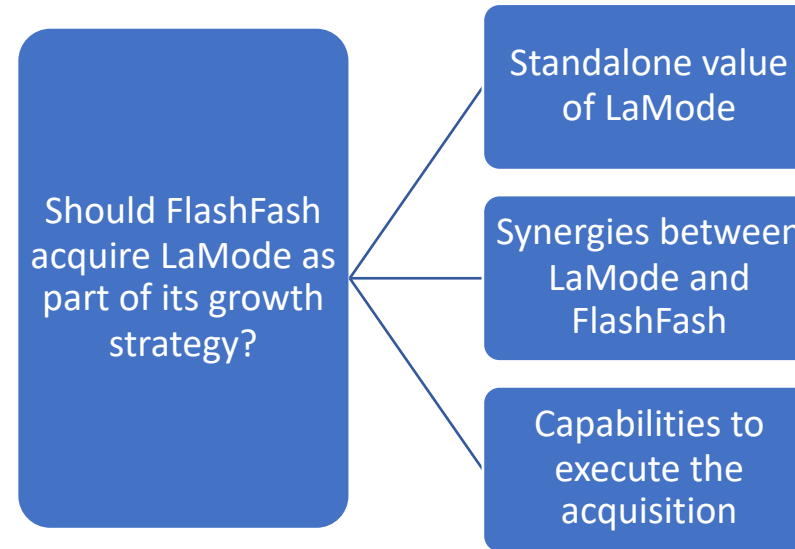
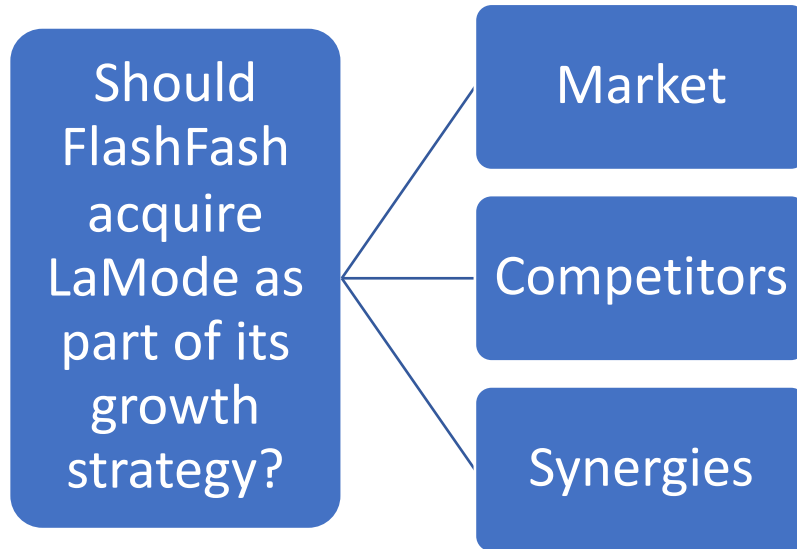
Insightful

MECE

Example

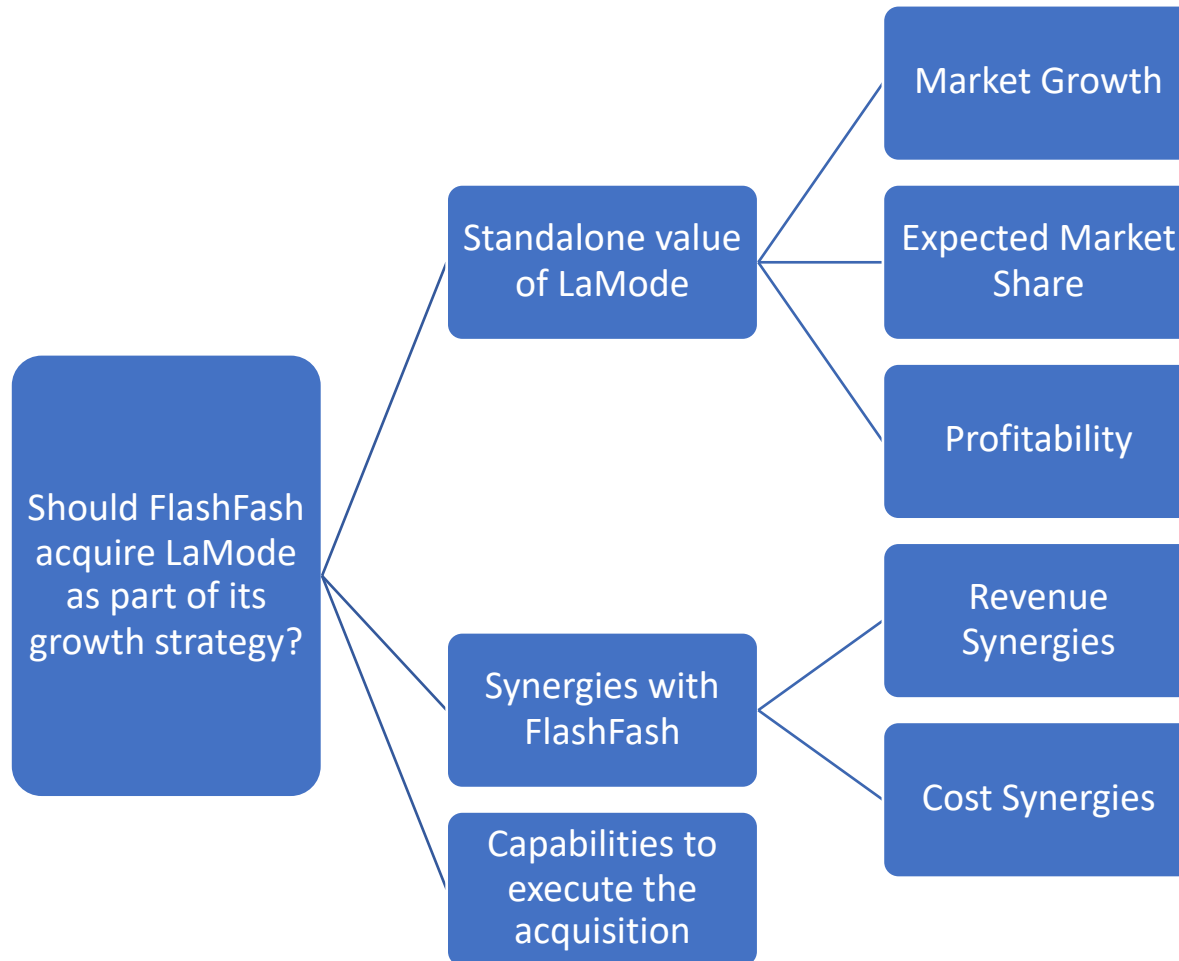


Being answer-focused



Check that each key driver answers a specific question, necessary to solve the case

Being Insightful



What is the growth of the middle class in Asia?

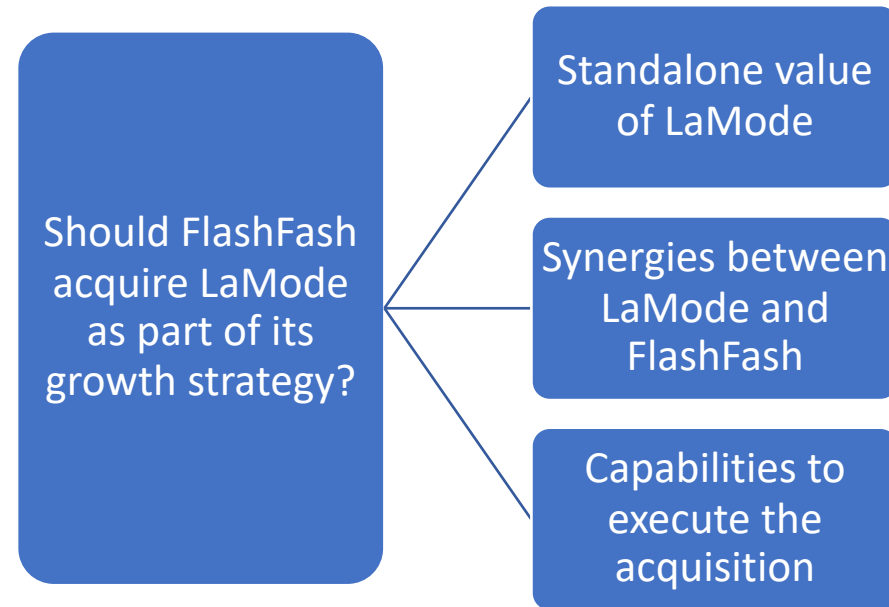
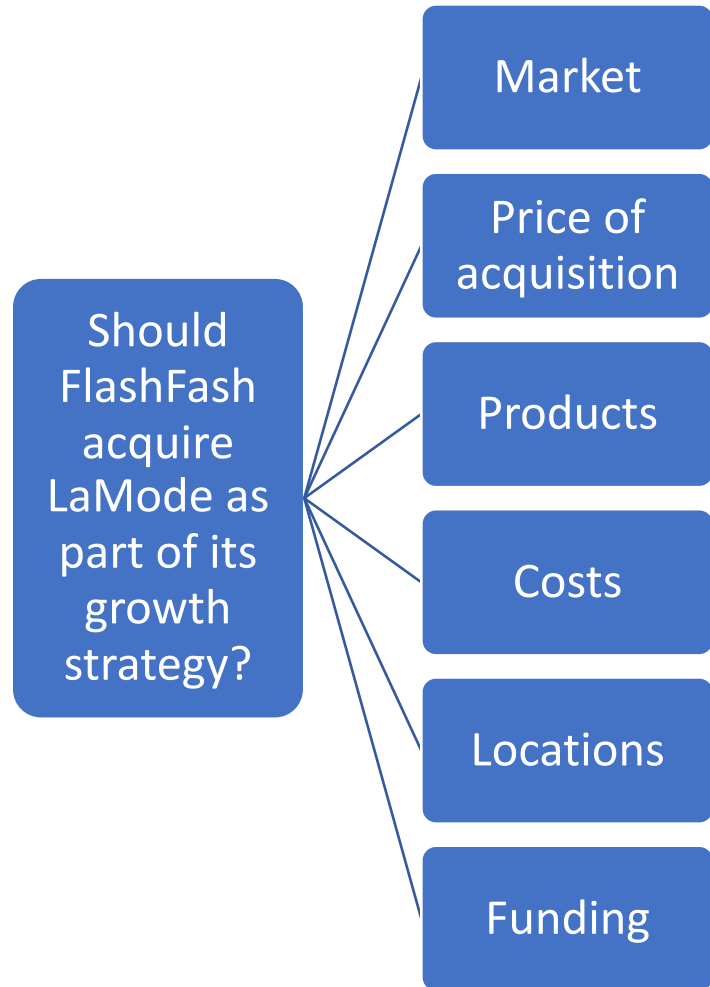
Competition from direct distributors?

Are the brands compatible?

Would your structure work for any other situations of this type? If so, it's not insightful enough

Being MECE (mutually exclusive, collectively exhaustive)

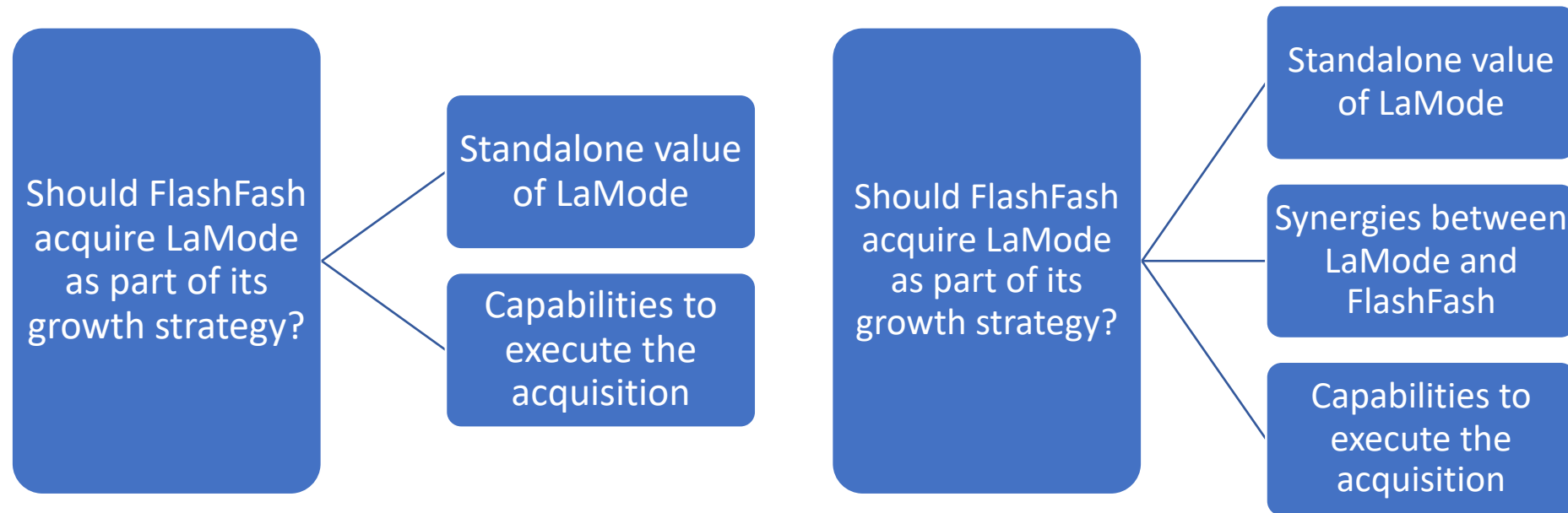
Mutually exclusive



Don't have more than 4-5 drivers of similar levels
Make sure they have limited overlap

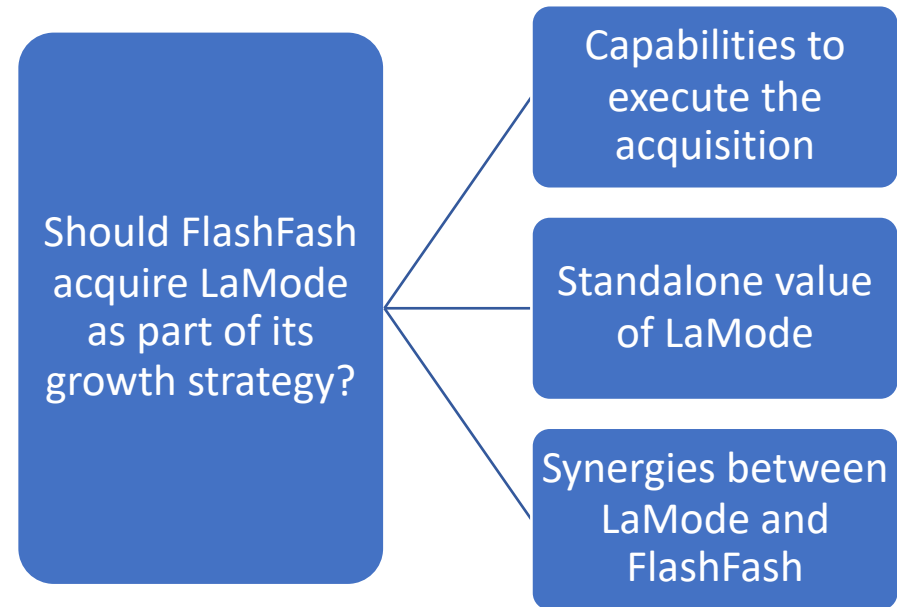
Being MECE (mutually exclusive, collectively exhaustive)

Collectively Exhaustive



Building your structure

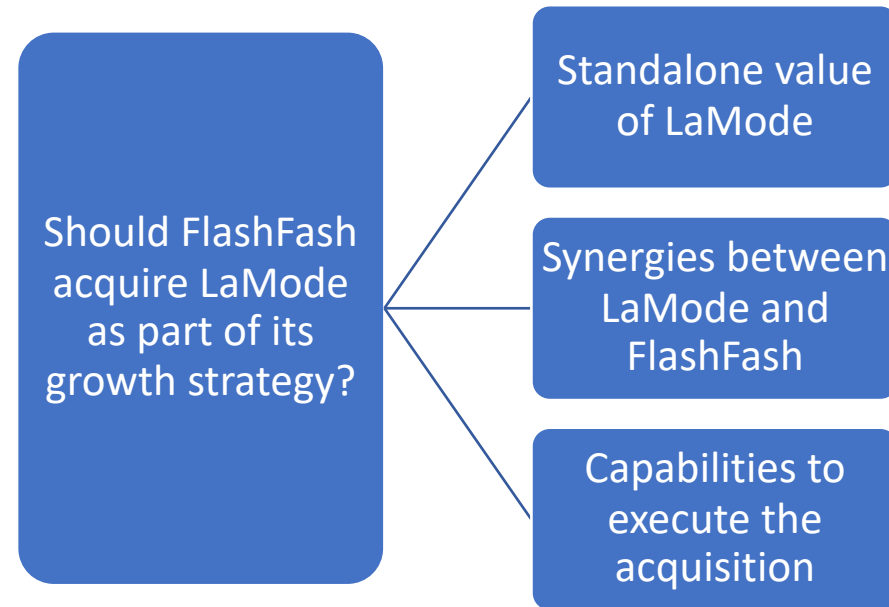
1. Break down the problem into first-level drivers



Building your structure

1. Break down the problem into first-level drivers

2. Prioritize the drivers

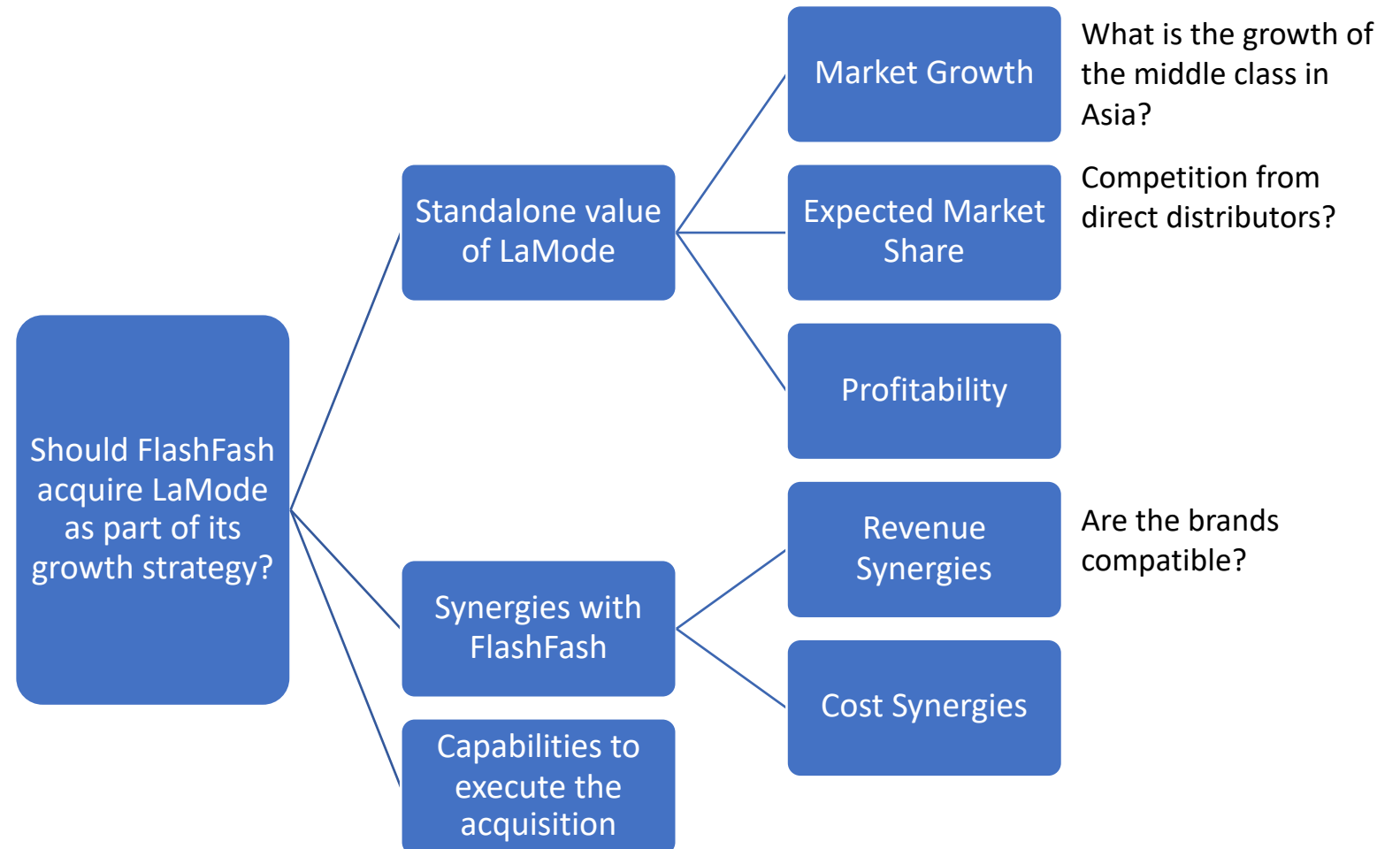


Building your structure

1. Break down the problem into first-level drivers

2. Prioritize the drivers

3. Add depth and insight



Getting to the structure

1. Make sure you understand the question
2. Ask 2-3 key questions that will help you solve the problem
3. Create a structure

Example: ShoeCo

Your client is ShoeCo, the #5 global player in sports shoes. They make a variety of lifestyle shoes along with sneakers for running, general fitness, tennis, basketball, and football.

They have been left behind as the market leaders have diversified into other product types.

The VP of strategy has been tasked with increasing growth through diversification and has asked you to look into the possibility of releasing a line of tennis rackets. You have an hour before the first meeting, where they would like to hear your initial thoughts on this new idea.

ShoeCo

Clarifying questions:

What is the specific target for growth?

ShoeCo would like to grow revenue by 10% per year for the next 3 years

Does ShoeCo manufacture and distribute the product themselves?

Manufacturing is outsourced. They design and distribute their products themselves, through their website and a network of stores

Should we just look at tennis rackets or should we consider other options?

The focus of the meeting is just on tennis rackets but other goods can also be considered if they prove to be a better opportunity

ShoeCo

Possible Answer

1. Is the tennis racket market attractive?
 1. What is the size, growth, and profitability of the market?
 2. Are there areas in the market that are growing faster?
 3. What are the competitors doing in this market?
2. Can we succeed in this market?
 1. Is our brand relevant to the target client segments?
 2. Can we leverage our existing distribution channels?
 3. Can we produce at a lower cost?
 4. Do we have other strengths to leverage?
3. Are there other, better options to consider instead?
 1. Options closer to the core (e.g. clothing)
 2. Other fast-growing sports to consider (e.g. yoga)

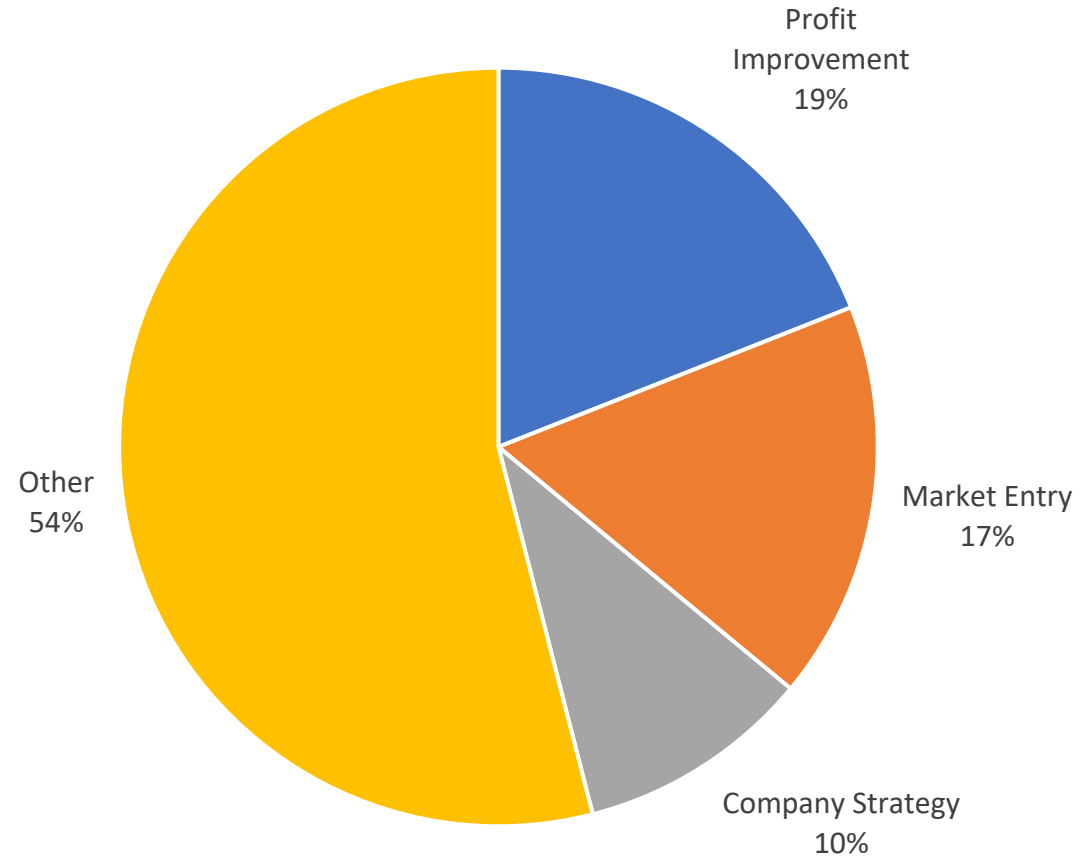
Why this structure?

This is based on a very simple market entry framework, but tailored to the specific situation

If we have clarified that the client is interested in alternative options, this should be included in our answer.

Common case types

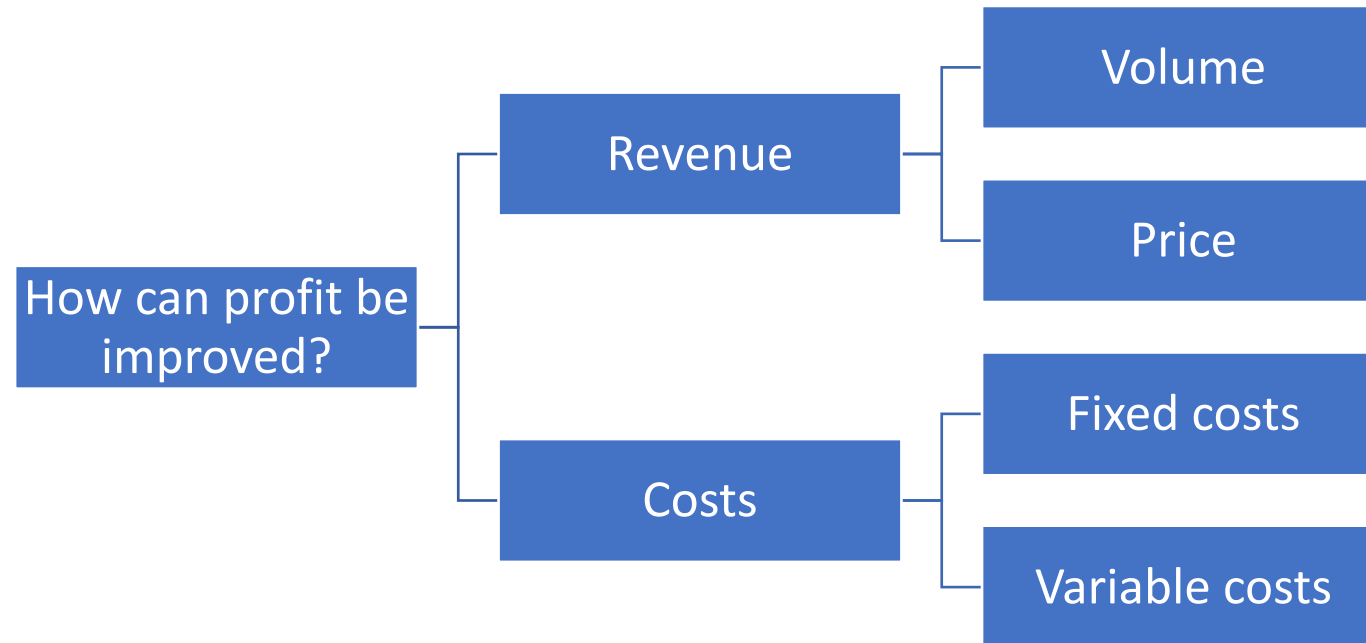
Case types that
MBA students
faced in
consulting
interviews



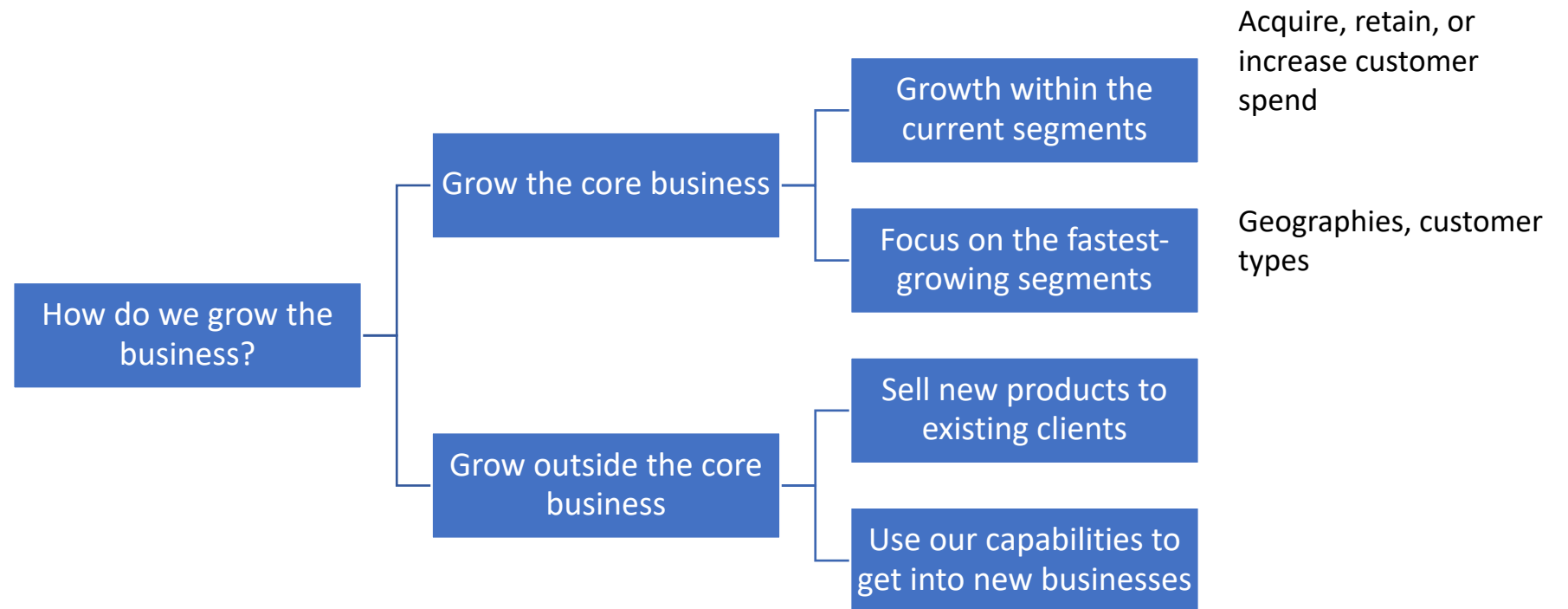
10 common business questions and frameworks

1. Improving profits
2. Growing the business
3. Reducing costs
4. Whether to enter a new market
5. How to launch a new product
6. Pricing a new product
7. Whether to acquire a business
8. Whether to make an investment
9. How to respond to a competitive threat
10. How to optimize a process

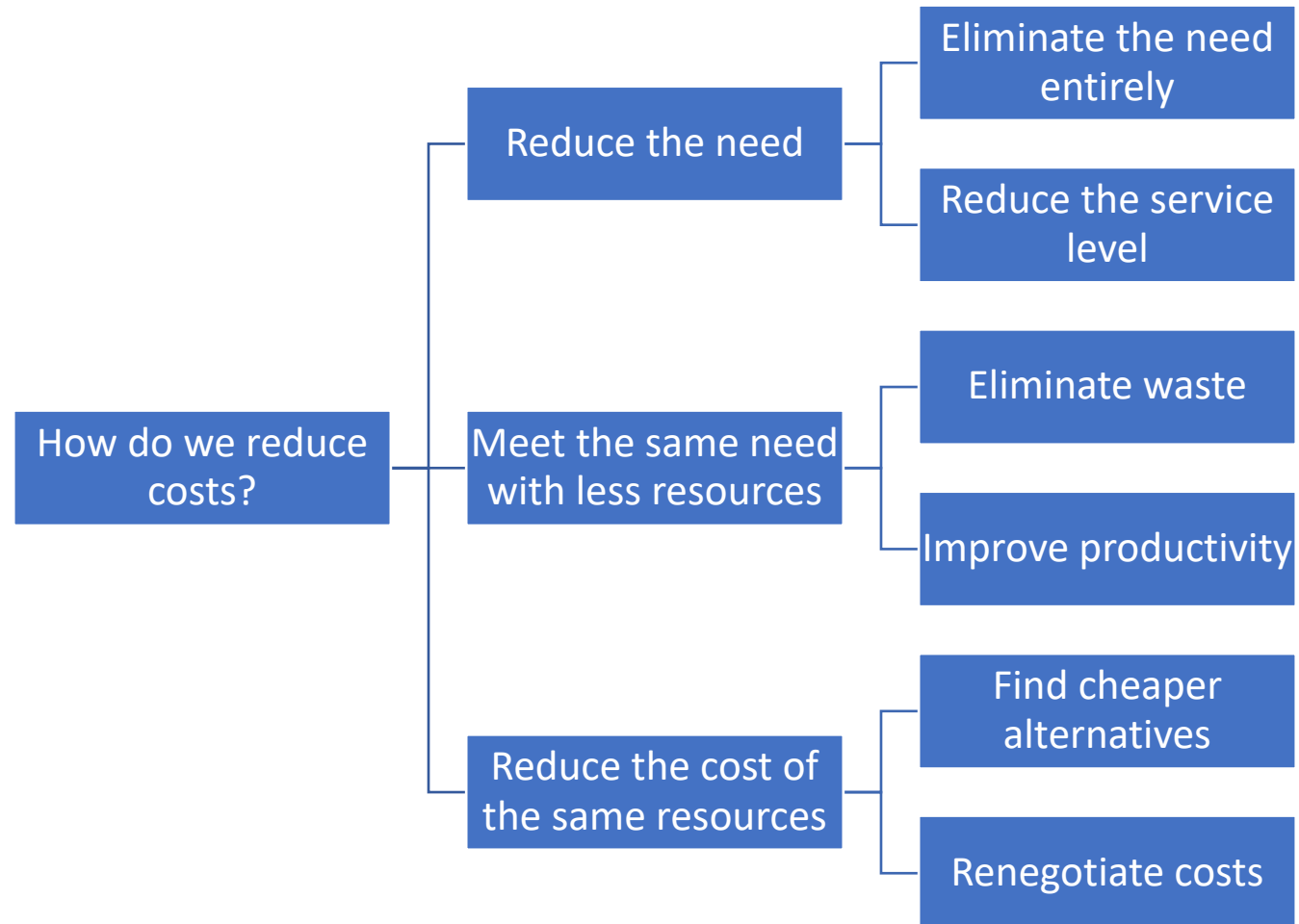
1. Improving Profits



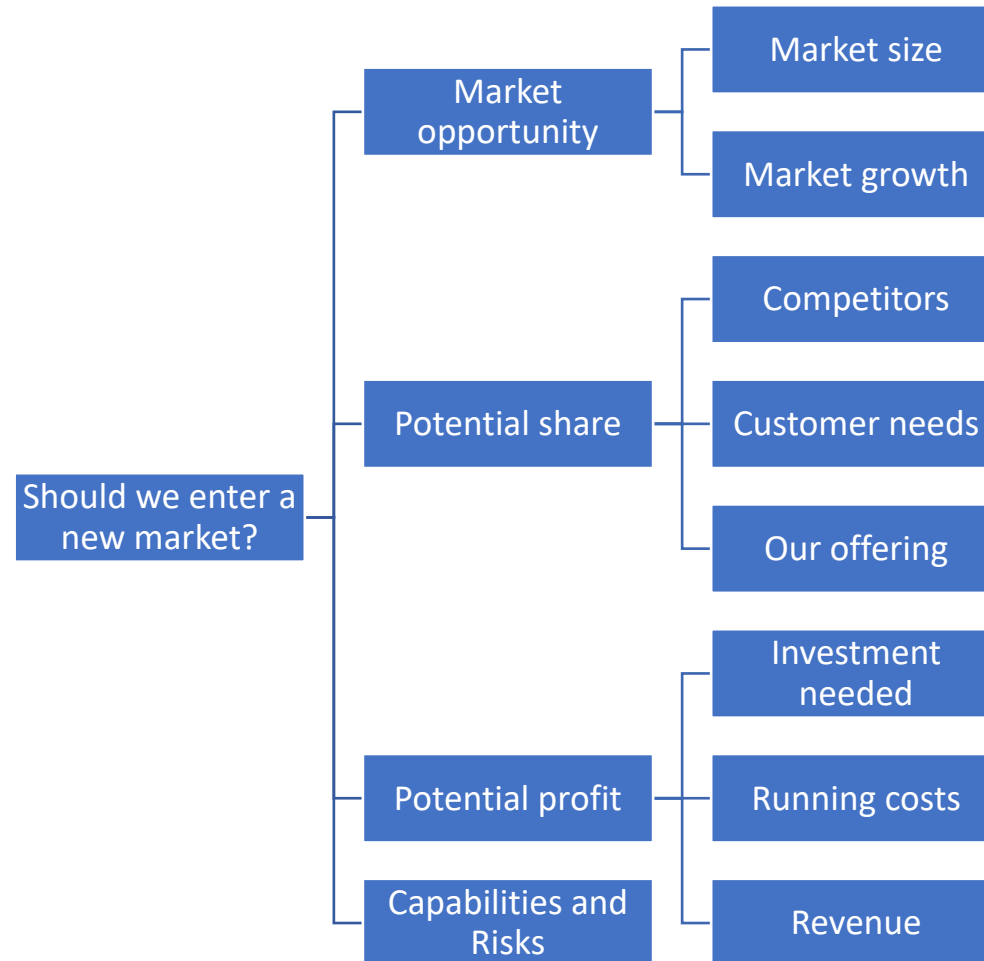
2. Growing the business



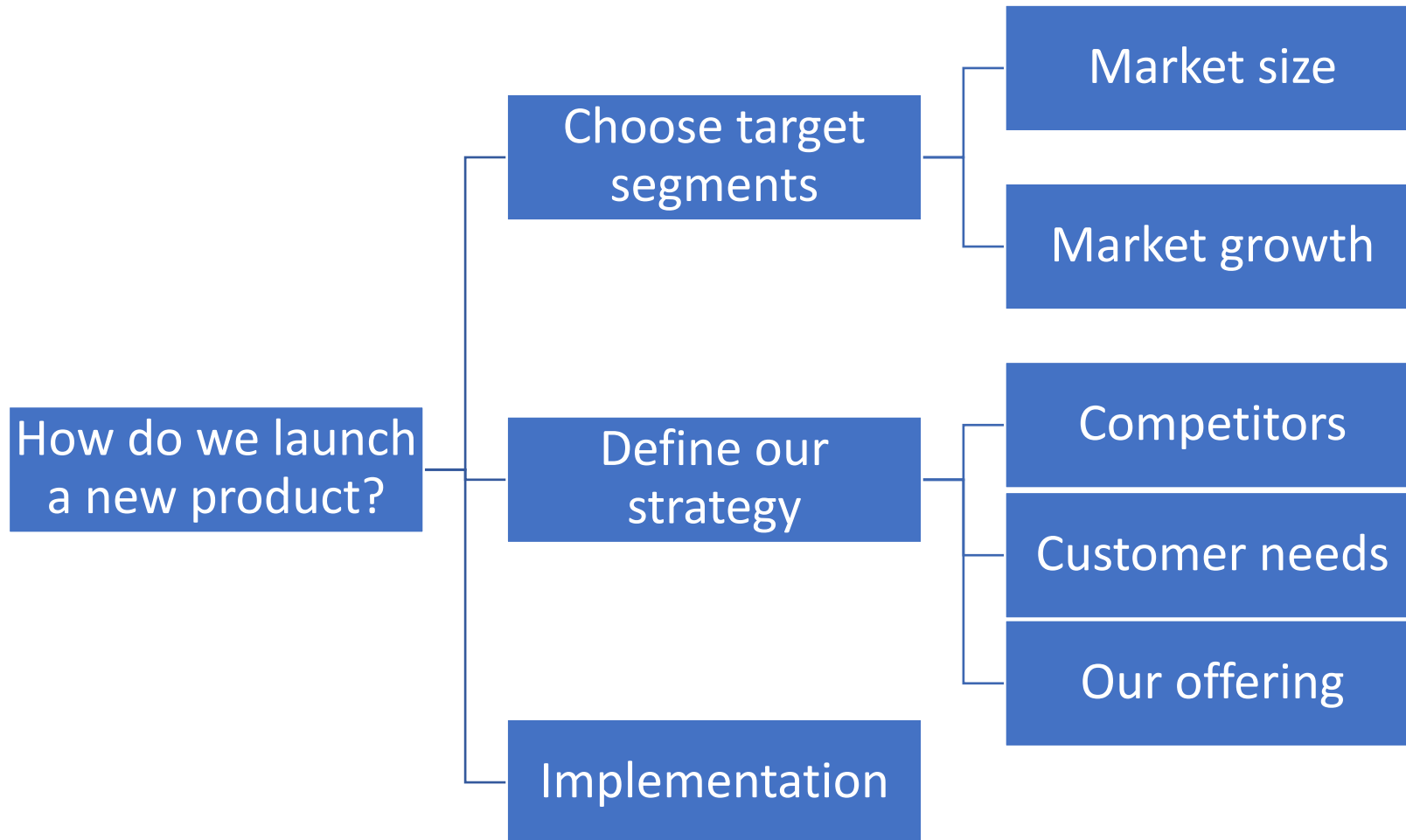
3. Reducing Costs



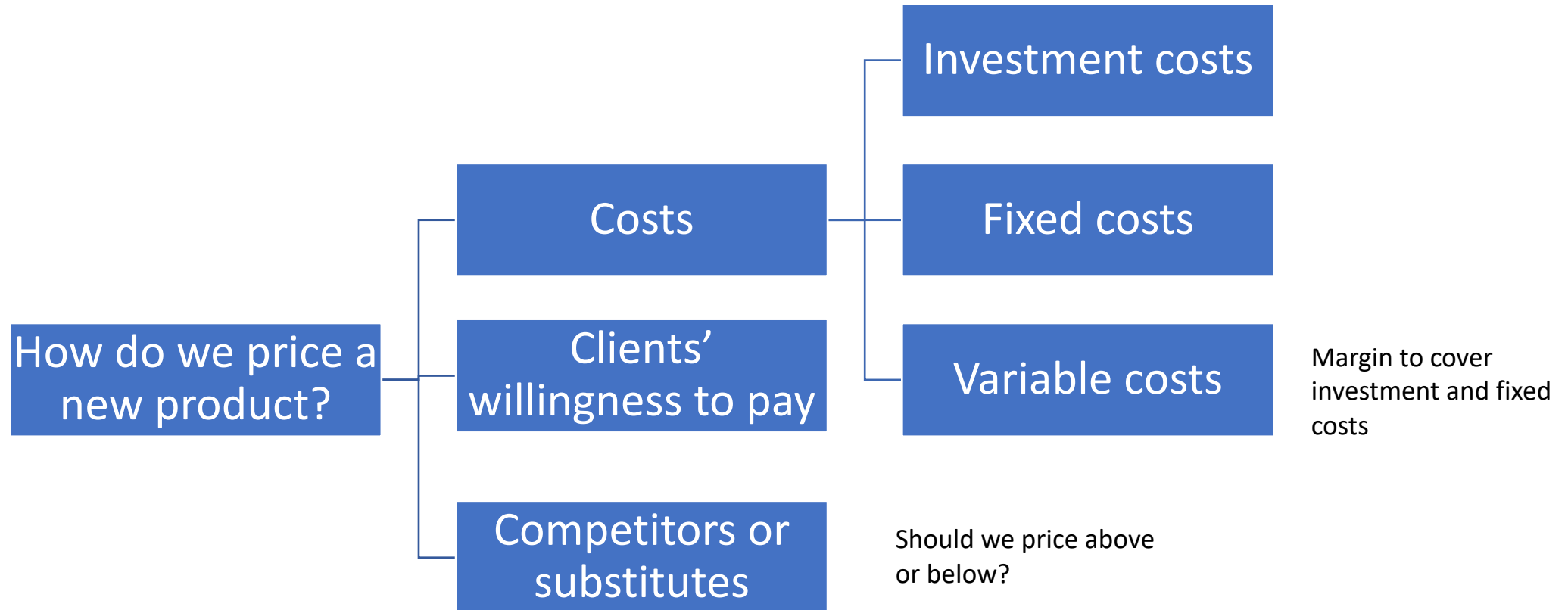
4. Entering a new market



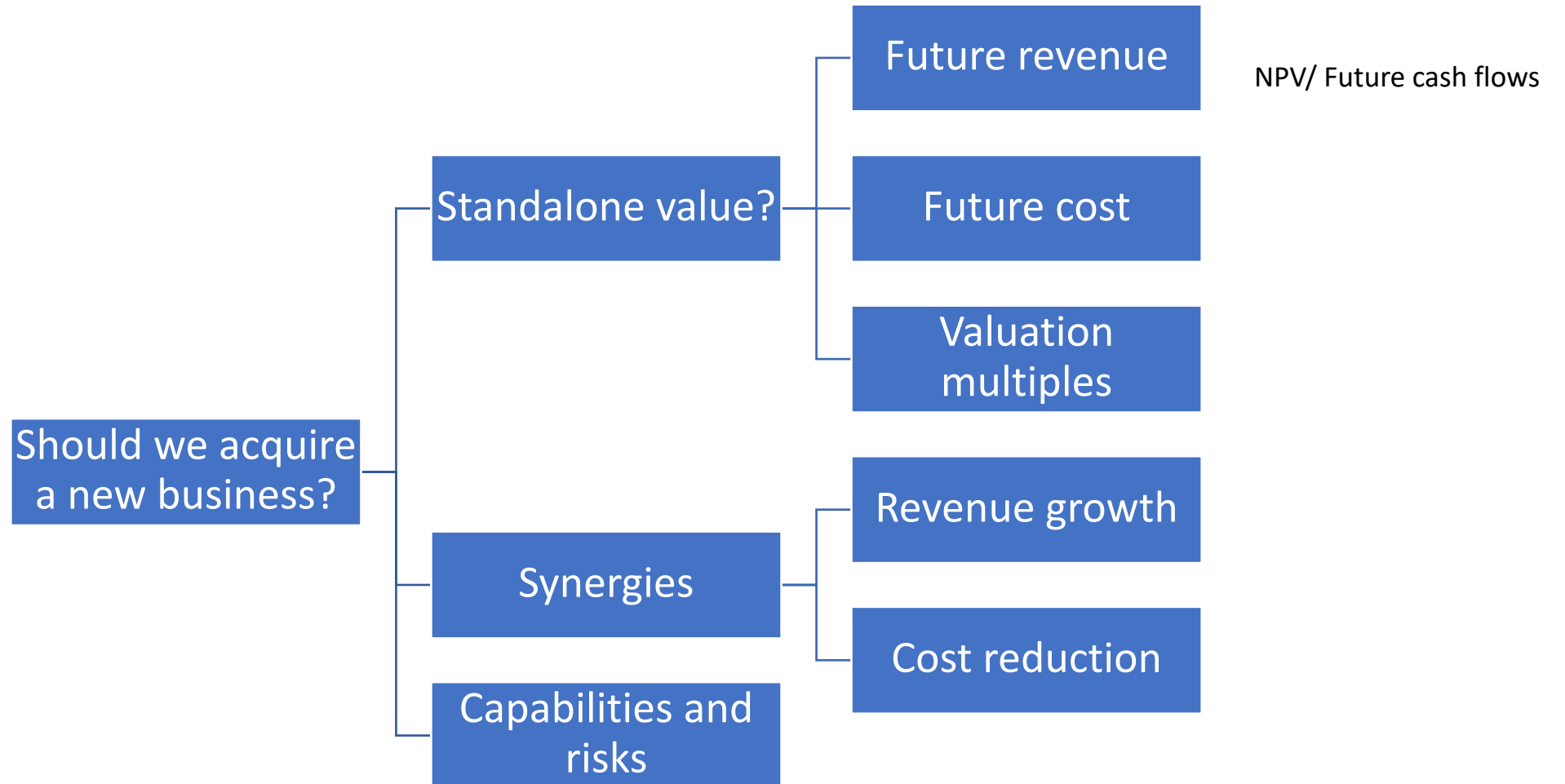
5. Launching a new product



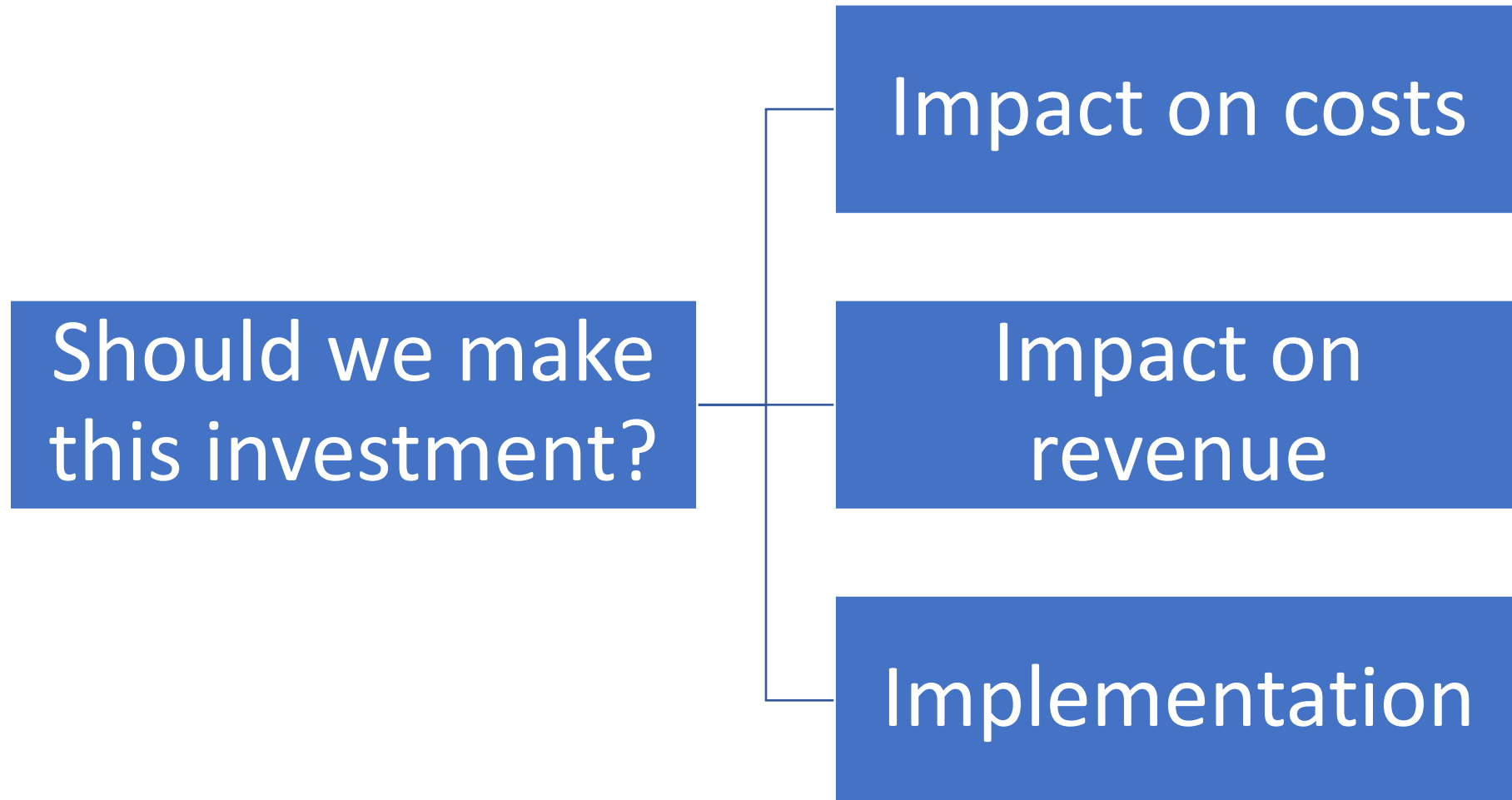
6. Pricing a new product



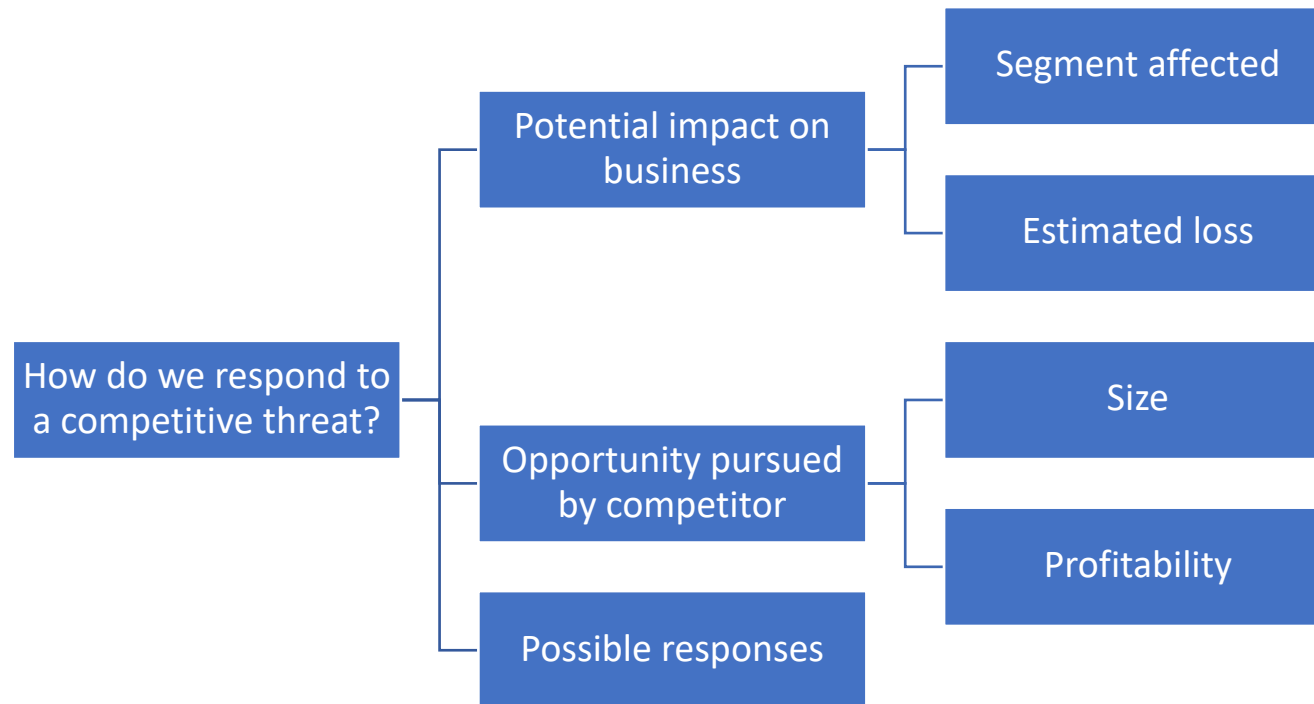
7. Whether to acquire a new business



8. Making an investment



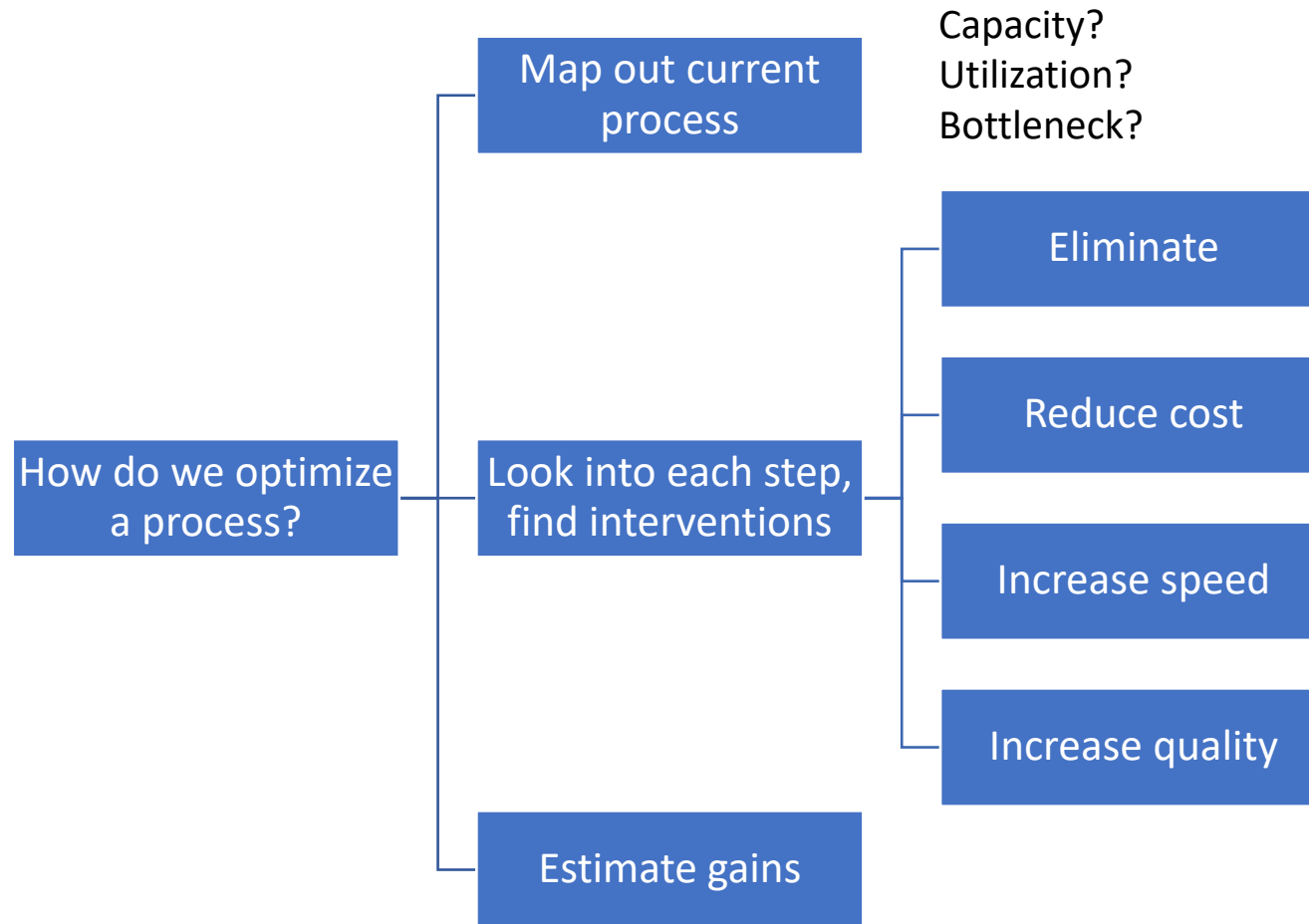
9. How do we respond to a competitive threat?



Some possible responses, depending on context:

- Do nothing
- Mitigate (e.g. retain clients)
- Align (e.g. lower prices)
- Replicate (e.g. launch competing offer)
- Collaborate

10. How do we optimize a process?



10. How do we optimize a process?

