Eden McCallum

Analyst Programme practice cases

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Case example 1

Plant-based meat alternatives in the U.S.

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Eden McCallum case example 1 (1/3)

PRODUCT EXPANSION IN U.S. FMCG INDUSTRY

A large American conglomerate in the FMCG industry is contemplating adding a new product to its portfolio. They have identified a trend towards the consumption of plant-based alternatives for meat and want to know if it is viable to enter the sector.

Currently, our client's buyers network includes all the large American supermarket chains (i.e., Walmart, Amazon, Costco, Wholefoods, etc.), but they are yet to explore other potential buyers in their value chain besides retail.

The first step towards identifying whether plant-based alternatives for meat are a viable opportunity for our client is to generate a better understanding of the market itself.

Therefore, you and your team are tasked to…

Q1 …size the U.S. plant-based meat alternatives market, focusing specifically on retail sales.

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Eden McCallum case example 1 (2/3)

Now that we have identified the size of the potential new market for our client, we want to deepen our understanding to make an informed decision about the market's overall attractiveness.

Q2 …what are other factors that we would want to investigate to determine the market's attractiveness for our client? Can you name 3?

Q3 …the following historic data is available on one of the factors determining market attractiveness (refer to exhibit 1). What stands out? What conclusions can you draw and what are the implications for our client?

Eden McCallum case example 1 (3/3)

Despite the concentrated state of the market, our client has determined that it is attractive enough to enter as they believe that once they get a foot in the door, they will be able to leverage their size and R&D capabilities to capture a strong position and capitalise on the forecasted positive outlook.

As the market is developing quickly and our client does not currently possess the capabilities required to participate organically, they are looking to enter the market through the acquisition of one of the current players.

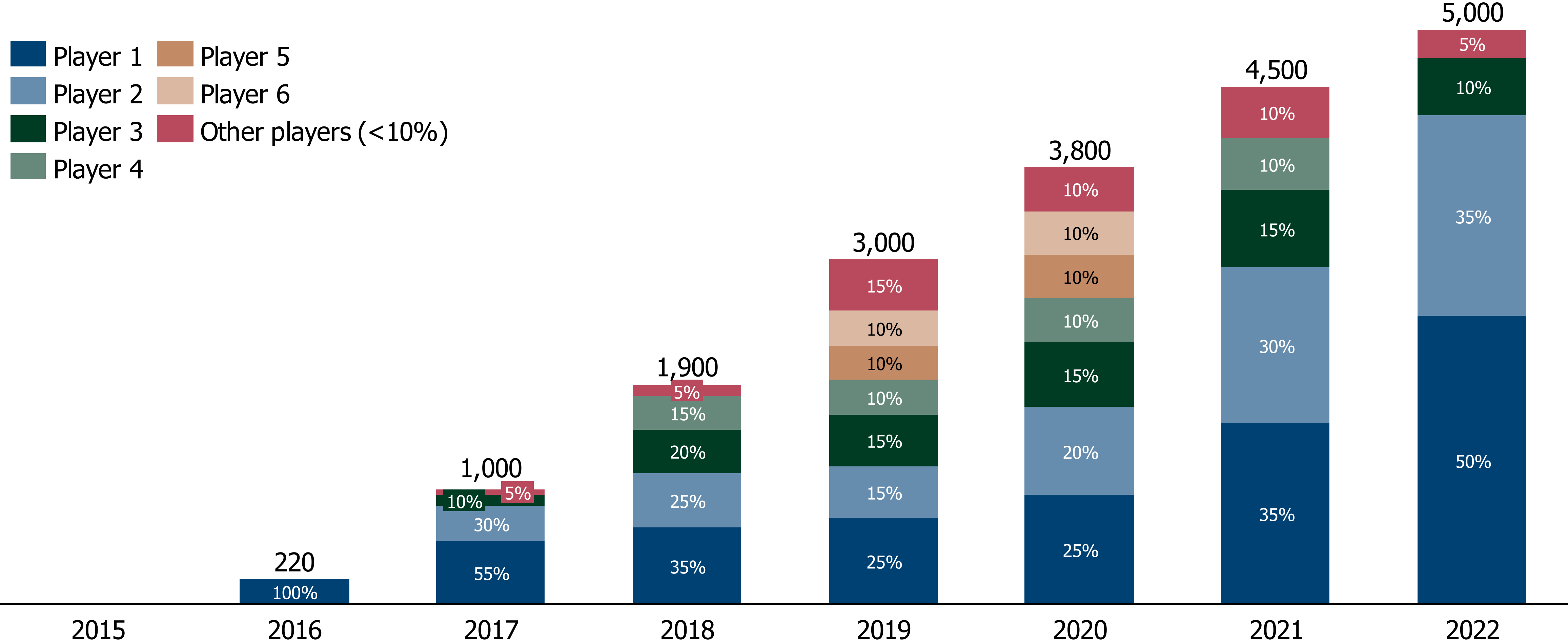
After a short period of due diligence, there are two acquisition options for our client: company A and company B (refer to exhibit 2).

Q4 …if our client is looking to invest in the most profitable company between companies A and B, in which company should they invest?

Q5 …besides profitability, what other datapoints from the exhibit stand out that can affect the investment decision?

Q6 …what are the potential risks associated to such an acquisition?

Eden McCallum case example 1 exhibit 1



Note: Graph does not show actual historic data and is for the purpose of this exercise only

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Eden McCallum case example 1 exhibit 2

Company A

Revenues:

- 5 large customers, 15 small customers
- Large customers pay $3, small customers pay $4

Large customers:

- Sales during peak seasons (18 weeks/year): 10,000 per week
- Sales during low seasons (34 weeks/year): 6,000 per week

Small customers:

- Sales during peak seasons (18 weeks/year): 2,000 per week
- Sales during low seasons (34 weeks/year): 1,000 per week

Costs:

- COGS margin: 60%
- R&D costs: $1,500,000 per year
- SG&A costs: $500,000 per year

Company B

Revenues:

- 50 customers each with 30,000 sales per year
- Price $5

Costs:

- Variable costs: 24% of revenues
- Fixed costs: $1,500,000
- R&D costs: $2,000,000
- SG&A costs: $700,000

Note: Figures are not based on actual companies and are for the purpose of this exercise only

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Eden McCallum case example 1 answer sheet (1/4)

Answer to **Q1**

To get to the size of the U.S. market for plant-based meat alternatives we want to be able to calculate the following:

*# of plant-based meat alternatives sold per year * $ paid per plant-based meat alternative*

# of plant-based meat alternatives sold per year
Total U.S. population: 330 million people
Share of U.S. population that is vegetarian: 5%
Total vegetarian U.S. population: 16.5 million people
Consumption frequency of 3x per week: 49.5 million consumptions
Average portions per package: 2
Total portions consumed per week: 24.75 million (may round up to 25 million)
Total weeks per year: 52 weeks (may round down to 50 weeks)
Total portions consumed per year: 1,250 million

$ paid per plant-based meat alternative
Average price of plant-based alternatives in U.S. supermarket: $4,-

Total market size of U.S. plant-based meat alternatives in retail is: $5 billion

Additional: average retail gross margin for meat/deli products: 30%

Actual market size for our client: $3.5 billion

Good answer includes:

- An understanding that the actual total number is likely to be higher because the effect of rounding down the weeks is much larger than the effect of rounding up the portions consumed per week
- An understanding that this exercise focused solely on retail sales and therefore excludes other parts of the U.S. market for plant-based meat alternatives

Excellent answer includes:

- An understanding that the actual market size for our client is lower than the total market size due to the supermarkets' gross margin

Note: this is one example to size the market. Different steps can be taken as long as they are logical and show a structured breakdown from the U.S. population (or another relevant proxy) to the market size in $.

Note: Figures might differ from the current actual statistics and are for the purpose of this exercise only

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Eden McCallum case example 1 answer sheet (2/4)

Answers to **Q2** (list is not fully exhaustive)

- Competition: who is currently active in the market and how is the market divided among these players?
- (Historic) trends: what were the market's historic growth developments and what is the forecasted outlook of the market?
- Entry barriers/substitutes: how difficult is it to enter the market and can the product easily be substituted?
- Buyer/supplier power: how powerful are the players we interact with in our value chain, especially large supermarket chains?
- Profitability: what are expected profit margins that can be generated in this market?
- Regulation: What regulations do we have to comply to?

Answers to **Q3** (list is not fully exhaustive)

- Since the introduction of plant-based meat alternatives in 2016, the market has encountered strong and steady growth
- Especially between 2018 and 2020 many players have entered the market, trying to compete for a strong competitive position
- Despite growth of the overall market, players left again or merged in 2021 and 2022 leaving a highly concentrated market or an oligopoly

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Eden McCallum case example 1 answer sheet (3/4)

Answer to **Q4**

Company A:

Revenue: ((18 * 10,000 + 34 * 6,000) * 5 * 3) + ((18 * 2,000 + 34 * 1,000) * 15 * 4) = 5,760,000 + 4,200,000 = 9,960,000

Participant recognises to round up the revenues to 10,000,000 to calculate COGS

Costs: (10,000,000 * 0.6) + 1,500,000 + 500,000 = 8,000,000

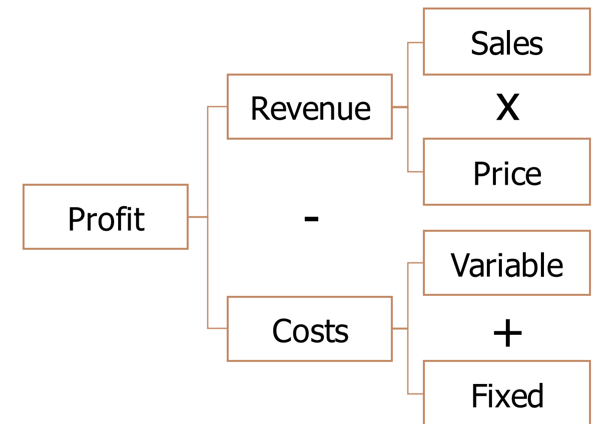
Profit: 9,960,000 – 8,000,000 = 1,960,000 (in reality slightly higher as real COGS are slightly lower) = approximately $2 million

Company B:

Revenue: (50 * 30,000 * 5) = 7,500,000

Costs: ((7,500,000 * 0.24) + 1,500,000 + 2,000,000 + 700,000) = 6,000,000

Profit: 7,500,000 – 6,000,000 = $1,500,000



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Eden McCallum case example 1 answer sheet (4/4)

Answers to **Q5** (list is not fully exhaustive)

- Clients & pricing: it looks like company B has a stronger supplier position against its buyers. They ask a higher price per product and have more customers. For company A, it looks like there are a few strong buyers that have the power to offer a lower price per product. Then again, what stops company A from approaching company B's clients and offering them a lower price (we would want to figure out how strong company B's relationships are with its buyers).
- Despite company B's high fixed costs, their low variable costs might put them in a better position to benefit from economies of scale.
- Company B's higher R&D costs could explain the higher prices from their buyers (e.g., they might produce a superior product).
- Company B has a much lower total number of sales per year

Answers to **Q6** (list is not fully exhaustive)

- Lack of cultural compatibility, leading to integration issues
- Misinterpreting potential synergies (i.e., do plant-based meat alternatives really make a good fit into our client's current portfolio?)
- Insufficient due diligence

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Case example 2

Snow grooming machine manufacturer

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Eden McCallum case example 2 (1/3)

PISTENBULLY MANUFACTURING

SnowCo is a manufacturer of Pistenbullies (snow grooming machines) with production sites in Austria and Poland. The company has seen a decline in profitability over the last years. Currently, they have the opportunity to bid for and win a big contract to produce Pistenbullies for a company that owns multiple ski areas in Austria. They have asked you to advise them on whether they should try to win the contract.

Q1 ...what factors would you consider when deciding on placing a bid?

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Eden McCallum case example 2 (2/3)

The contract would entail the production of 30 new types of pistenbullies that are planned to gradually replace the pistenbullies that are currently in operation over a 6-year time period. From these 30, 6 pistenbullies have a large passenger cabin that can also transport guests to parts of the ski area that are inaccessible with a lift.

The regular pistenbullies would be sold for a price of 175K€, while the pistenbullies with passenger capacity are sold for 200K€.

SnowCo already has a production site in Austria which could be used for the production of the pistenbullies. However, the equipment in the factory needs to be updated and the factory is currently not being operated. Originally, the lease contract was about to expire, but after negotiation the contract can be extended for another 6 years.

SnowCo's management prefer to allocate the project to the Austrian factory, and have stated that the project should have a profitability margin of at least 15% in order to place the bid

Q2... Calculate the profitability of the project in Austria using the additional information from exhibit 1

Q3... How can the profitability of the project be improved?

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Eden McCallum case example 2 (3/3)

The management fully agrees with you on your plans to increase revenue for the project but has doubts about the cost savings that you have proposed

Q4… What could be the downside of switching production to Poland?

Q5… What would be your final recommendation to the management of SnowCo?

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Eden McCallum case example 2 exhibit 1

Table 1: Material cost and manufacturing time per pistenbully

	Regular pistenbully	Pistenbully with transportation capacity
Material cost (€K)	35	45
Manufacturing time (hours)	500	500

Table 2: Factory capacity, labour- and delivery costs per country

	Year	Austria	Poland
Capacity (pistenbullies / year)		15	45
Current production plan (pistenbullies / year)	1	-	42
	2	-	42
	3	-	42
	4	-	42
	5	-	42
	6	-	42
Labour costs per hour (€)		80	45
Delivery costs all pistenbully (€K)		130	175

Other information:

- Investment needed for upgrading factory is 1.1 €M
- Lease and other recurring costs are 20% of the initial investment per year

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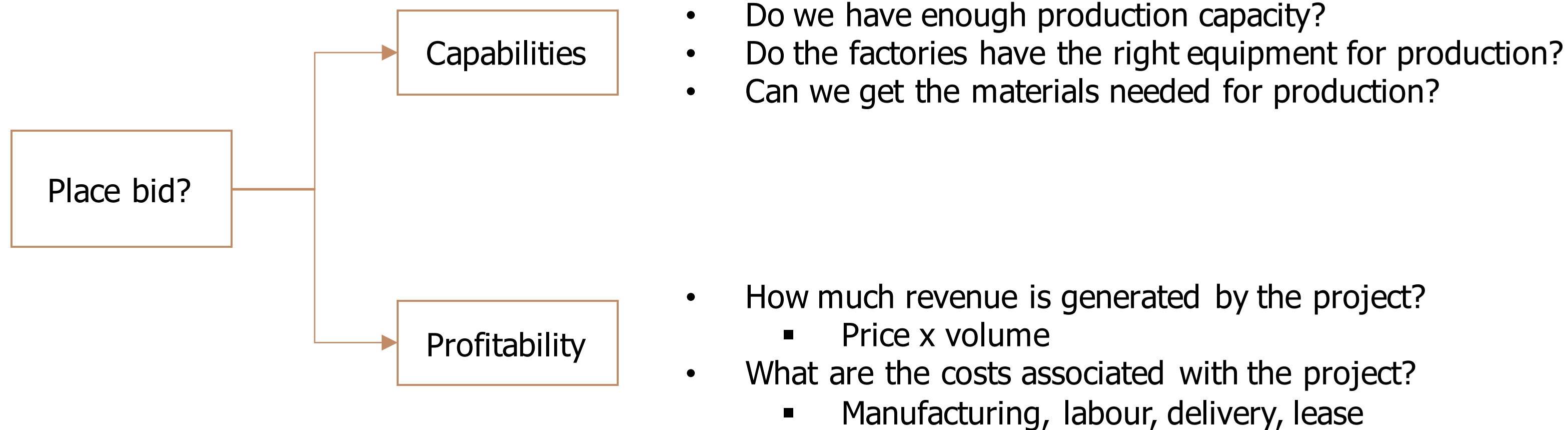
Eden McCallum case example 2 answer sheet (1/4)

Answer to **Q1**



- Do we have enough production capacity?
- Do the factories have the right equipment for production?
- Can we get the materials needed for production?

- How much revenue is generated by the project?
  - Price x volume
- What are the costs associated with the project?
  - Manufacturing, labour, delivery, lease

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Eden McCallum case example 2 answer sheet (2/4)

Answer to **Q2**

Revenue: 24 * 175k€ + 6 * 200k€ = 5.4M€

Variable cost:

- Material: 24 * 35k€ + 6 * 45K€ = 1.11M€
- Labor: 30 * 500 * 80€ = 1.2M€
- Delivery: 130k€

Total variable costs: 2.44M€

Fixed costs:

Lease and other recurring cost per year: 20% * 1.1M€ = 0.22M€

Total fixed cost is 1.1M€ + 6 * 0.22M€ = 2.42M€

Profit:

5.4M€ - 2.44M€ - 2.42M€ = 0.54M€

Profit margin: 0.54M€ / 5.4M€ = 10%

The current business plan yields a profit margin that is too low for the management to place the bid.

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Eden McCallum case example 2 answer sheet (3/4)

Answer to **Q3**

Profitability of the project can be enhanced by increasing revenue or decreasing costs. This can be done in the following ways:

Revenue:

- Include maintenance and service of the pistenbullies after they have been delivered

Costs:

- Shift production to the factory in Poland where labour costs are lower. This allows SnowCo to produce 3 pistenbullies per year in Poland instead of Austria.
- Decrease in labour costs: 6 * 3 * (80-45) * 500 = 315k€
- Increase in delivery costs: 175k€ - 130k€ = 45k€
- Total cost reduction: 315k€ - 45k€ = 270k€

New profit margin: 0.54M€ + 270k€ = 0.81M€ => 0.81M€ / 5.4M€ = 15%

Although the capacity in Poland is not sufficient to manufacture all pistenbullies from the order, costs will decrease when moving part of the production to Poland

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Eden McCallum case example 2 answer sheet (4/4)

Answer to **Q4...**

The factory in Poland does not have the capacity to produce pistenbullies in the first two years of the contract. This means that the production will be delayed. An alternative is that the first two years of production take place in Austria, while in the remaining years production is done in Poland. The downside of this is that switching between factories might impact product quality. Furthermore, the delivery costs go up when the pistenbullies are manufactured in Poland as they have to be transported over a longer distance.

Answer to **Q5...**

SnowCo's management should bid for the project. Instead of producing all Pistenbullies in the factory in Austria, they should produce 3 pistenbullies per year in Poland which will yield a total profit of 0.81M€, which is a 15% profit margin. Potential risks of the project are that labour and material costs go up over the years, which will lower the profit margin. A possible next step to mitigate this risk would be to negotiate with the customer to index the price of the pistenbullies each year, or to deliver additional maintenance services to increase revenue.