Eden McCallum

Analyst Programme practice cases

Case example 1

Raincoats for adolescents in the Netherlands

Eden McCallum case example 1 (1/3)

BUSINESS OPPORTUNITY IN DUTCH RAINWEAR MARKET

Our client is an entrepreneur that is looking to start a new business in the Netherlands.

They have identified a particularly high demand for raincoats due to the Dutch weather conditions and believe entering this market would form an opportunity.

You and your team are tasked to help our client further explore this potential business opportunity.

Q1 ...what factors should our client consider in determining whether the Dutch raincoats market forms an opportunity?

Eden McCallum case example 1 (2/3)

From the factors you and your team presented, our client is looking to first further investigate the customer section.

They have read an article stating that, out of all age groups in the Netherlands, adolescents aged 10-21 travel most by bike and are therefore most exposed to the rain. This led our client to believe that his new business should focus on selling raincoats specifically for Dutch adolescents.

To get a better idea of this customer segment, you and your team are tasked to…

Q2 …size the Dutch adolescent raincoats market.

When presenting your findings about the size of the Dutch adolescent raincoats market to our client they are a little surprised. They had expected the market to be larger and are unsure if they should still pursue this potential opportunity.

Q3 ...based on the information you have so far, what could you ask/tell the client with regards to the market size?

Eden McCallum case example 1 (3/3)

The client agrees that it might be a better idea to sell raincoats for the general Dutch population instead of specifically for adolescents, and wants to open four stores, one in each of the large Dutch cities: Amsterdam, Rotterdam, The Hague, and Utrecht.

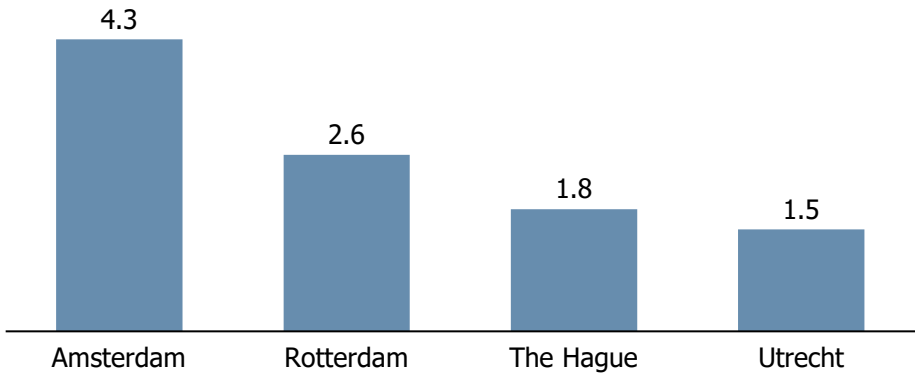
They are still contemplating what price to set for their products and decide to use a cost-based pricing approach. The client made an overview of all their expected costs for year one (refer to exhibit 1), as well as the projected sales for each of the four stores. The goal for the first year is to reach break-even.

Q4 ...based on the data in the exhibit, what price should your client set to reach break-even in the first year?

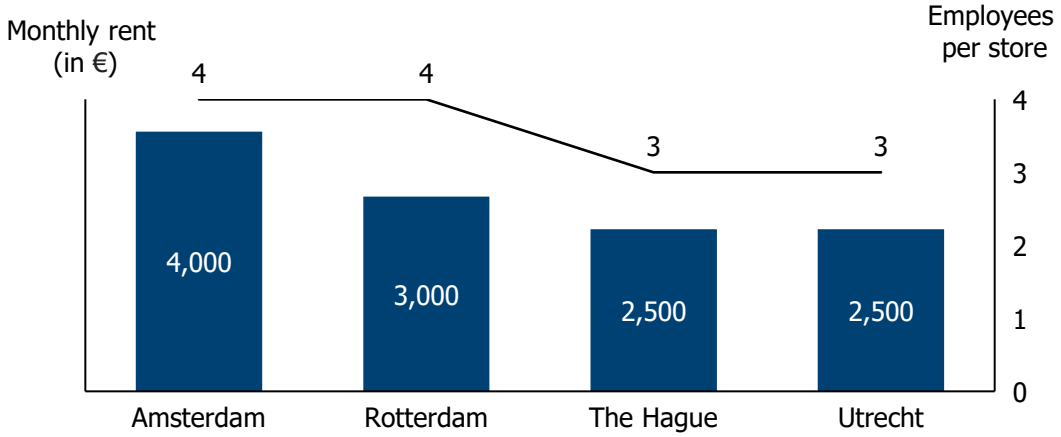
Q5 ...what other actions could your client consider to increase the profitability of their raincoat business?

Eden McCallum case example 1 exhibit 1

Projected raincoat sales per store in year 1 (in '000)



Monthly rent and number of employees per store



Other information

COGS: €40 per raincoat

Salary costs: €2,200 per employee per month

Other costs: €20,000 per year

Stores are open on weekdays from 10:00 to 18:00

Eden McCallum case example 1 answer sheet (1/5)

Answer to **Q1**

Eden McCallum case example 1 answer sheet (2/5)

Answer to **Q2**

Total population in the Netherlands: 17.6 million

Average life expectancy Dutch population: 80

Assume the Dutch population is equally spread over each age group

Population per age group: 220,000 (e.g., there are 220,000 one-year olds, 220,000 two-year olds, etc.)

Dutch adolescent population (ages 10-21 so 12 years): 220,000 * 12 = 2,640,000

- *Approach 1:*

Raincoats last 3-4 years on average. However, as adolescents are still growing, let's assume they need a new raincoat every 2 years.

2,640,000 / 2 = 1,320,000 raincoats per year

- *Approach 2:*

Fast growers, age 10-13 (new raincoat every year): 880,000

Medium growers, age 14-17 (new raincoat every 2 years): 880,000 / 2 = 440,000

Non growers, age 18-21 (new raincoat every 4 years): 880,000 / 4 = 220,000

880,000 + 440,000 + 220,000 = 1,540,000 raincoats per year

Price: on average, a raincoat costs approximately €80

Market size: 1,320,000 * 80 = €105.6 million (approach 1) OR 1,540,000 * 80 = €123.2 million (approach 2)

Eden McCallum case example 1 answer sheet (3/5)

Answers to **Q3**

- Try to find out why the client wants to focus specifically on the adolescents customer segment. Even though adolescents might have more exposure to rain (according to one article), the rest of the population also still needs raincoats. Targeting the entire Dutch population would increase the market size significantly, while working with the same materials/production facilities. It might require different marketing strategies to reach the customers, and different customer segments might prefer different distribution channels, but an age group of 10-21 is already likely to have too divergent needs to target with one specific strategy.
- Currently, the scope of the market is only in the Netherlands. As raincoats can of course be sold in other countries as well it might be worth considering selling the product in more countries than just the Netherlands

Eden McCallum case example 1 answer sheet (4/5)

Answer to **Q4**

Sales:

4,300 + 2,600 + 1,800 + 1,500 = 10,200 raincoats per year

Costs:

COGS: 10,200 * 40 = €408,000

Rent: (4,000 + 3,000 + 2,500 + 2,500) * 12 = €144,000

Salary: (4 + 4 + 3 + 3) * 2,200 * 12 = €369,600

Other: €20,000

Total costs: 408,000 + 144,000 + 369,600 + 20,000 = €941,600

Price:

941,600 / 10,000 = €94.16 per raincoat

Eden McCallum case example 1 answer sheet (5/5)

Answers to **Q5**

Distribution channels:

- E-commerce: client could explore opportunity of selling raincoats through e-commerce. Especially, as over half of the costs are associated with the physical stores (rent + salary)
- Repurposing: it can be expected that the demand for raincoats is seasonal (before or during the rain season). Client could explore finding a different purpose for the stores in other seasons
- Opening hours: stores are currently only open on weekdays. Opening the stores on Saturday will increase the salary costs but rent costs remain the same, while it might lead to much additional sales
- Warehouse stores: try to offer the products at different locations where they sell multiple brands
- Increase number of cities and/or number of stores per city

Products:

- Diversification: e.g., also offer rain hats/pants/bags to customers
- Cross-selling/bundling

Other:

- Marketing campaigns
- Discount offers

Case example 2

Snow grooming machine manufacturer

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?

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?

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?

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

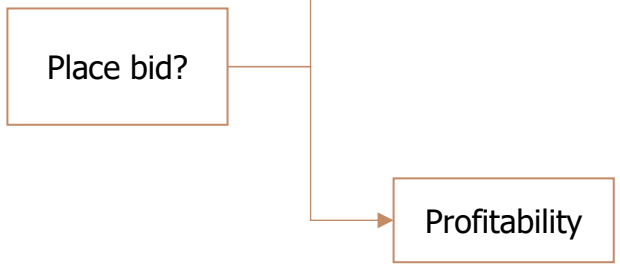
	Year	Austria	Poland
Capacity (pistenbullies / year)		15	45
Current production plan (pistenbullies / year)	1	-	42
	2	-	42
	3	-	42
	4	-	42
	5	-	42
	6	-	42
Labour costs per hour (€)		80	45
Delivery costs all pistenbully (€K)		130	175

Other information:

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

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

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.

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

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.