

CASE 18:

MACHINE COMPANY



Firm Style	Interview Round
McKinsey	2

Case Question:

Our client is Machine Co. – a European specialty machine manufacturer. The company researches, designs, and manufactures a variety of machines from underwater drills to semi-conductor chip fabricating machines. The machines are developed based on specific requirement of a customer, as well as brand products which are then marketed and sold to niche customers. One of Machine Co.'s brand products is an injection molding machine (XG 43). This machine injects and molds plastic at high temperatures to create specific plastic products. XG43 is renowned for fabricating high quality products with a nine-sigma defect rate. The quality of products is unmatched by any other existing machine. Although XG43 has strong and profitable market share in Europe, it is unable to sell any machines in the US. Over the past few years, Machine Co. has made two unsuccessful attempts to penetrate the US market. McKinsey and Co. has been retained by Machine Co. to evaluate whether a third attempt is warranted, and if so, how can the attempt be made successful.

Clarifying Questions & Answers

Provide the following answers only if the interviewee asks the corresponding questions.

Question	Answer
For this discussion, we are only going to focus on XG43's potential in the US?	Yes
Do we have any information as to why Machine Co.'s previous two attempts at US market were unsuccessful? (low hanging fruit)	No, but let's find out
Success for entering a new market entry can be measured by market share and breakeven. Is Machine Co. using the same metrics?	Sure

MACHINE COMPANY

Framework / Structure

This is a market entry case. The analysis may include, but is not limited to, the following areas:

- Understand XG43's value proposition
 - High quality was mentioned, but what else?
 - Investigate other value propositions
 - High efficiency/speed (No)
 - Low power consumption (No)
 - Low material waste ** (yes, asking or arriving at this is 20% of the case), reduces waste by 10%
- Understand the US market
 - Size of injection molding market (segment by low quality, high quality, etc.)
 - US competitors, and how XG43 compares with them
 - Is the value proposition enough for them to switch

MACHINE COMPANY

Framework / Structure (cont'd)

- Executing the entry
 - Brand awareness (none required. XG43 has received rave reviews in industry journals and has been endorsed by independent agencies.)
 - Infrastructure
 - Manufacturing location (in Europe, so none)
 - Service (none exists in US, but 10 will be needed to deliver the service that will convince users to switch)
 - **** Getting this is 40% of the case. This is the reason why two previous attempts were unsuccessful.**
 - When an injection molding machine breaks down, it needs to be fixed right away, so a technician will have to be flown in the same day to avoid costly losses

MACHINE COMPANY

- Economics/Breakeven
 - Each Service center will cost \$1 MM/year
 - Current fuel injection molding machine in the US costs \$150K
 - Machine Co. would like price its machines at \$450 K (which is equivalent to European prices)
 - Every year about 100 machines are ordered, only 10% are put to high quality manufacturing
 - Machines reduces waste by 10%, each machine wastes 1 tons of product daily, Each lbs of molten plastic costs \$2.50 cents.
 - Breakeven for consumers in 2 years (** 40% of the case)
- Life of each XG43 is 10 years.

MACHINE COMPANY

Recommendation

My recommendation is a definite GO for US market entry

- Previous attempts have failed because of a lack of service infrastructure in the US, which is key to service machines on same day (needed to convince customers)
- Value Proposition
 - For 10% of machine buyers, value prop is strong (high quality)
 - For remaining 90%, reduction of waste will be enough to break even on the XG43's \$300K price premium in two years.
- High probability of success
 - Should capture almost all the high quality segment (10 machines per year)
 - Should capture significant portion of the remaining segment due to waste reduction cost savings and high quality products
- Next Steps
 - Hiring, training and retaining technical staff will be key
 - Will need to develop a US based sales staff to convince customers