

Case 9: Home Garden Chemicals (I of II)

Booz Allen - Operations, Round 1

Problem statement narrative	Guidance for interviewer and information provided upon request ⁽¹⁾
<ul style="list-style-type: none"> • Our Client is a home garden chemicals manufacturer. Its product lines include herbicides and manure. Annual revenue is \$1Bn. • The client primarily targets the consumer market. They sell their product through 'big-box' retailers such as Home Depot and Lowe's. • They have recently come across a new technology that enables them to manufacture a new type of genetically modified grass, and they are considering selling the grass directly to golf courses. <p>Is this a good strategy?</p>	<ul style="list-style-type: none"> •Herbicides used to kill weeds damage traditional grass. •The new modified grass will not be affected by herbicides = zero grass loss. •Water and herbicides can be delivered together through pipes/sprinkler systems. •Assume the total grass market is \$100M, and the golf course grass market is 10% of that with flat growth. •Replanting the grass on a golf course costs \$20,000. •Cost of developing the technology: \$3Mn per year for the first three years with no sales; 50% profit margin from the 4th year onwards. •Revenue projection: 30% of the golf course market for the first 3 years (i.e. starting from 4th year); 70% market share after that each year.

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Candidate should calculate the payback period	<table><tr><td></td><td>Year 1-3</td><td>Year 4-6</td><td>Year 7 + (assume no discount)</td></tr><tr><td>Cash flow each year</td><td>-\$3Mn</td><td>+\$1.5Mn</td><td>+\$3.5Mn</td></tr></table> <p>The payback period is 8 years. The client's policy requires 5 year payback and therefore it's not a good investment.</p>		Year 1-3	Year 4-6	Year 7 + (assume no discount)	Cash flow each year	-\$3Mn	+\$1.5Mn	+\$3.5Mn
	Year 1-3	Year 4-6	Year 7 + (assume no discount)						
Cash flow each year	-\$3Mn	+\$1.5Mn	+\$3.5Mn						
A solid interview will address ways to improve the payback period	<p>Possible options:</p> <ul style="list-style-type: none">•Speed up R&D and make the product market ready in less than 3 years.•Gain more market share (more advertising, help customers to further reduce their costs, etc.)•Improve profit margin.								
A great candidate will explore the strategic intent behind the investment	<p>Why does the client want to enter a market with such a small size (\$10Mn market compared to the client's \$1Bn annual revenue)?</p> <ul style="list-style-type: none">- The client wants to use the golf course market as a test market for the new product. If successful, the client plans to introduce the new grass to the consumer market. <p>Is the golf course market a good test market given the client's intention?</p> <ul style="list-style-type: none">- Candidate could compare the customer needs in these two different markets: consumers look for convenience; golf course customers look for big cost saving opportunities. <p><u>Conclusion:</u> The golf course market might not be a good test market given the small size and different customer needs. The client should explore other markets to test this product.</p>								