

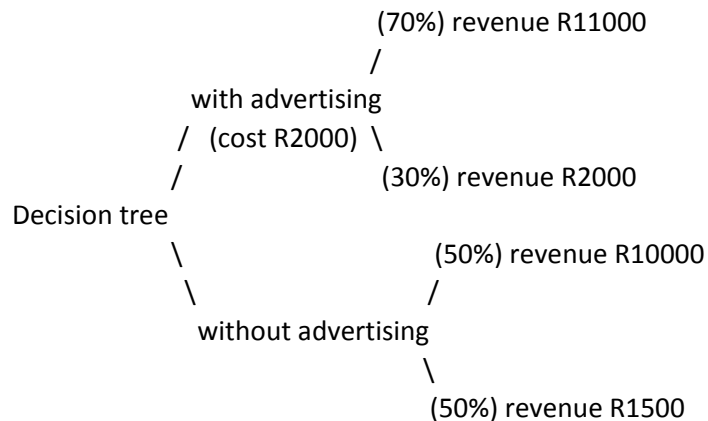
Answer on Question #42698, Economics, Finance

TCa = R2000, 70% chance of success.

TR = R11000 if successful, TR = R2000 if it not successful.

Without advertising - 50% chance of success, TR = R10000 if successful, TR = R1500 if not successful.

A decision tree is a decision support tool that uses a tree-like graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility. It is one way to display an algorithm.



Using provided probabilities and forecasted returns, we can calculate weighted returns:

$$TR (\text{with advertising}) = -2000 + 0.7 \cdot 11000 + 0.3 \cdot 2000 = R6300$$

$$TR (\text{without advertising}) = 0.5 \cdot 10000 + 0.5 \cdot 1500 = R5750$$

So, we advise the company to use advertising program in order to have higher returns.

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