What is a Make or Buy Decision?

Worksheet

A make or buy decision compares the relevant (avoidable) cost of making a part internally to the cost of buying it externally, including the opportunity cost of any freed capacity; the cheaper relevant cost wins.

Questions

1. A part costs $10/unit variable plus $15,000 avoidable fixed cost to make 5,000 units. A supplier offers $12/unit. No opportunity cost. What is the relevant cost to make?

A) $50,000
B) $65,000
C) $60,000
D) $75,000

2. Using the same numbers, what is the cost to buy?

A) $50,000
B) $60,000
C) $65,000
D) $70,000

3. Should the company make or buy?

A) Make, it's cheaper
B) Buy, it's cheaper
C) Indifferent
D) Cannot determine

4. Which of these is IRRELEVANT to a make or buy decision?

A) Avoidable fixed costs
B) Opportunity cost of capacity
C) Sunk cost of old equipment already purchased
D) Purchase price from the supplier

5. A company can make a part for $8 variable cost/unit plus $20,000 avoidable fixed costs, needing 10,000 units. A supplier offers the part at $9/unit. There is no alternative use for the freed capacity. Should it buy?

6. Same numbers as above, but the freed factory space could be rented out for $15,000. Recompute the decision.

7. A firm makes 5,000 units at $12 variable cost + $30,000 avoidable fixed cost. A supplier quotes $16/unit with no opportunity cost. Make or buy?

8. Define: What costs matter in a make or buy decision?

9. Define: What is opportunity cost in this context?

10. Define: Should sunk costs affect the decision?

Answer Key

1. B) $65,000 - Cost to make = (105,000) + 15,000 = 65,000.

2. B) $60,000 - Cost to buy = 125,000 = 60,000.

3. B) Buy, it's cheaper - Buying costs 60,000 vs making at 65,000, so buy is cheaper by 5,000.

4. C) Sunk cost of old equipment already purchased - Sunk costs don't change between alternatives, so they're excluded from the analysis.

5. Cost to make = (810,000) + 20,000 = 80,000 + 20,000 = 100,000 Cost to buy = 910,000 = 90,000 Since buying (90,000) is cheaper than making (100,000), buy the part - save $10,000.

6. Relevant cost to buy = (910,000) 15,000 = 90,000 15,000 = 75,000 Cost to make = 100,000 Buying is now even more favorable - save $25,000 instead of $10,000.

7. Cost to make = (125,000) + 30,000 = 60,000 + 30,000 = 90,000 Cost to buy = 165,000 = 80,000 Buying saves 90,000 80,000 = $10,000, so buy.

8. Only relevant (avoidable) costs that differ between making and buying - sunk costs and unavoidable fixed costs are ignored.

9. The value of the best alternative use for the capacity freed up if the company buys instead of makes.

10. No - sunk costs are the same regardless of the choice, so they are irrelevant.