What is Product Line Elimination Analysis?

Worksheet

A product line should generally be eliminated only if its contribution margin is smaller than the avoidable fixed costs it carries - meaning the company would be better off financially without it.

Questions

1. Sales $300,000, variable costs $180,000, avoidable fixed costs $70,000. What is the segment margin?

A) $50,000
B) $120,000
C) $70,000
D) $180,000

2. Sales $100,000, variable costs $80,000, avoidable fixed costs $30,000. What is the segment margin?

A) $10,000
B) $10,000
C) $20,000
D) $30,000

3. Based on Q2's negative segment margin, what should management consider?

A) Increasing avoidable fixed costs
B) Eliminating the product line
C) Ignoring the result
D) Doubling variable costs

4. What happens to unavoidable common fixed costs after a product line is eliminated?

A) They disappear completely
B) They get reallocated to remaining lines
C) They become variable costs
D) They double

5. Product line A has sales of $200,000, variable costs of $120,000, and avoidable fixed costs of $50,000. Should it be kept?

6. Product line B has sales of $150,000, variable costs of $110,000, and avoidable fixed costs of $60,000. Should it be kept?

7. Product line C has sales of $90,000, variable costs of $50,000, and avoidable fixed costs of $30,000. Should it be kept?

8. Define: What is segment margin?

9. Define: When should a product line be eliminated?

10. Define: What happens to common (unavoidable) fixed costs when a line is dropped?

Answer Key

1. A) $50,000 - (300,000180,000) 70,000 = 50,000.

2. B) $10,000 - (100,00080,000) 30,000 = 10,000.

3. B) Eliminating the product line - A negative segment margin signals the line may be a candidate for elimination.

4. B) They get reallocated to remaining lines - Unavoidable common costs persist and are reassigned to the remaining segments.

5. Contribution margin = 200,000 120,000 = 80,000 Segment margin = 80,000 50,000 = 30,000 Segment margin is positive ($30,000), so keep the line.

6. Contribution margin = 150,000 110,000 = 40,000 Segment margin = 40,000 60,000 = 20,000 Segment margin is negative, so the line is a candidate for elimination - it loses $20,000.

7. Contribution margin = 90,000 50,000 = 40,000 Segment margin = 40,000 30,000 = 10,000 Positive segment margin ($10,000) - keep the line.

8. Contribution margin (sales minus variable costs) minus the avoidable fixed costs traceable to that segment.

9. Only when its segment margin is negative - meaning avoidable fixed costs exceed the contribution margin it generates.

10. They don't disappear - they get reallocated to the remaining product lines.