

## Cape Town Stadium – case study answer guidance

(Topics: Cost-Profit-Volume analysis)

1. Using the match-day cost of R200,000 and assuming a 60% occupancy rate and an average ticket price of R60, what profit-volume ratio will achieve break-even for a football team hiring Cape Town Stadium? (Ignore a football team's other potential revenue/costs).

$$a + bx = Px - NP$$

Where: NP = net profit

$x$  = units sold

$P$  = selling price

$b$  = unit variable cost

$a$  = total fixed costs

Net profit (NP) = (55,000 x 60% x R60) – 200,000 = 1,980,000 – 200,000 = R1,780,000

Selling price ( $P$ ) = R60

Unit variable cost ( $b$ ) = 0

Total fixed costs = ( $a$ ) 200,000

$200,000 + 0 = 60x - 1,780,000$  where  $x$  is break-even in ticket volume

$$200,000 + 1,780,000 = 60x$$

33,000 tickets need to be sold to break even.

2. If the football team wanted to generate a match-day contribution towards other fixed costs such as salaries of R100,000 on ticket sales, how many tickets would need to be sold?

Calculation would then be:  $100,000 + 200,000 + 1,780,000 = 60x$

34,445 tickets would need to be sold.

3. Discuss the range of costs incurred by a typical football team and classify them according to their cost behaviour.

Fixed costs:

- Costs of stadium
- Insurance
- Wages and salaries
- Publicity costs
- Costs of football strip

Variable costs:

- Match-day staff – temporary/casual
- Tickets/programmes, etc.