

Group work

Managerial economics

1.A BUSINESS PROBLEM AND APPLICATION OF THE SIX DECISION MAKING PROCESS TO THE PROBLEM.

Business problem chosen.

GYE NYAME BREAD is a medium size bakery shop which offers varieties of bread such sugar bread ,butter bread,banana bread,wheat bread, coconut bread and many more but is facing low sales due to increase in raw materials which has skyrocketed prices of the bread in the past two months

1.Define the problem,

Low sales due to increase in prices,increase as a result of increase in raw materials like banana ,wheat,coconut ,margarine,flavors among others , high importation cost and bread spoilage

2.Gather information;

I.competitor offerings (price, delivery options, promotions and many more)

II.spoilage rates

III.customer feedback(in-store, reviews, social media)

Customers say the bread is top notch but the sudden change in prices from 50 cedis to 100 cedis per bread is the reason they are looking elsewhere

IV.Quality of the bread

3.Identify alternatives;

I.Cutting down importation of raw materials from overseas to local purchase

II.Run an aggressive local marketing and promotion campaign
(sampling, ads)

III.Adding online ordering plus delivery(partnering with a delivery platforms example;Yango ,Uber)

IV.monitor

4.Evaluate alternatives(pros,cons,risk);

A.promotions increases visibility but adds cost

B.cutting down importation of raw materials to local will cut down cost of end product but quality or taste may change

C.Delivery/online services may reach more customers but require set up investment

D.price cuts may boost sales volume but lower profit margin

5.Select the best alternative;

Recommendation:combine B+C+A

I.launch online ordering with delivery partner C to reach to reach customers staying home and match competitors.

II.price cuts may boost sales with the help of B(cutting down importation cost by purchasing from local suppliers)

III.introduce 1-2 low-risk 'healthy' product variants as a trial C to test demand

Rationale : this mix addresses both access;delivery,visibility,appeal without heavy margin sacrifices

6.Implement the decisions and evaluate results;

I.Purchase more raw materials locally

II.launch an online ordering system with delivery partners

III.introduce two new healthier product lines and promote them on social media

IV.monitor sales weekly for three months

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Work

② Airline charges 3000 cedi for 2000 km
7000 cedi for 24000 km

Cost of a flight 3200 km

$$\text{Slope} \Rightarrow y = mx + c$$

$m = \text{gradient}$ $C = \text{constant}$

$$\text{Gradient} \Rightarrow m = y_2 - y_1$$

$$x_2 - x_1$$

$$= 7000 - 3000$$

$$2000 - 2000$$

$$= 4000$$

$$2000$$

$$= 2$$

Finding $C = \text{with } (y, x)$

$$\Rightarrow y = mx + C$$

$$3000 = 2(2000) + C$$

$$\Rightarrow 3000 = 4000 + C$$

$$\Rightarrow 3000 - 4000 = C$$

$$C = -1000$$

⑤ The cost of a flight of 3200 km is

In the equation $y = mx + c$

$$y = 2(3200) - 1000$$

$$y = 6400 - 1000$$

$$\therefore y = \text{GH} 5400$$

⑥ Distance travelled costing 4000 is

$$y = mx + c$$

$$4000 = 2(x) - 1000$$

$$4000 = 2x - 1000$$

$$4000 + 1000 = 2x$$

$$\frac{5000}{2} = \frac{2x}{2}$$

$$x = 2500 \text{ km}$$

⑦ No of people in

let N be y

let n be 50

$$N = 10n + 120$$

① $N = 10(14) + 120$
 $N = 140 + 120$
 $N = 260 \text{ employees}$

② $N = 10n + 120$

$190 = 10n + 120$

$190 - 120 = 10n$

$\frac{10}{10} = \frac{10n}{10}$

$1 = n$

$n = 7 \text{ cafes}$

③ $S = \text{Sales revenue}$

$A = \text{Advertising expenditure}$

Find S when $A = 0$ - $S = 90000 + 12A$

$S = 90000 + 12A$

$S = 90000 + 12(0)$

$S = 90000 \text{ cedas}$

④ $A = 8000 \text{ cedas}$

$S = ?$

$$\begin{aligned} \textcircled{a} \quad S &= 90,000 + 12A \\ S &= 90,000 + 12(8,000) \\ S &= 90,000 + 96,000 \\ S &= 186,000 \end{aligned}$$

$$\begin{aligned} \textcircled{b} \quad S &= 90,000 + 12A \\ 150,000 &= 90,000 + 12A \\ 150,000 - 90,000 &= 12A \\ 60,000 &= 12A \\ 12 & \cancel{|} \\ A &= 5,000 \text{ cedw} \end{aligned}$$

$$\begin{aligned} \textcircled{c} \quad S &= 90,000 + 12A \\ S &= 90,000 + 12(I) \\ S &= 90,000 + 12 \\ S &= 90,012 \text{ cedis} \end{aligned}$$

$$\begin{aligned} \textcircled{d} \quad x &= N^{\frac{1}{2}} \text{ of copies in paper} \\ y &= N^{\frac{1}{2}} \text{ of copies in electronic} \end{aligned}$$

Date. $x+4y = 35000$ ---①

$$300x + 250y = 9750000 \quad \text{---②}$$

eliminate y. multiply eq - ① by 250

$$250x + 250y + 250y = 35000 \times 250$$

$$250x + 500y = 8750000 \quad \text{---③}$$

subtract eq ③ - eq ②

$$300x + 250y = 9750000$$

$$250x + 250y = 8750000$$

$$50x + 0 = 1000000$$

$$\frac{50x}{50} = \frac{1000000}{50}$$

$$x = 20000$$

Putting x in eq ①

$$x+4y = 35000$$

$$20000 + 4y = 35000$$

$$4y = 35000 - 20000$$

$$4y = 15000 \rightarrow y = 3750$$

$$\therefore x = 20,000$$

$$y = 3750$$

⑥

$$\textcircled{b} \quad TR = 50Q - 3Q^2$$

$$d(TR) = 50 - 2 \cdot 3Q^{(2-1)}$$

$d Q$

$$d(TR) = 50 - 6Q$$

$d Q$

$$\textcircled{c} \quad x = -2Q^3 + 15Q^2 - 24Q - 3$$

$$\frac{dx}{dQ} = 3 - 2Q^{(3-1)} + 2 \cdot 15Q^{(2-1)} - 24Q - 3$$

$$dx = -6Q^2 + 30Q - 24$$

$d Q$

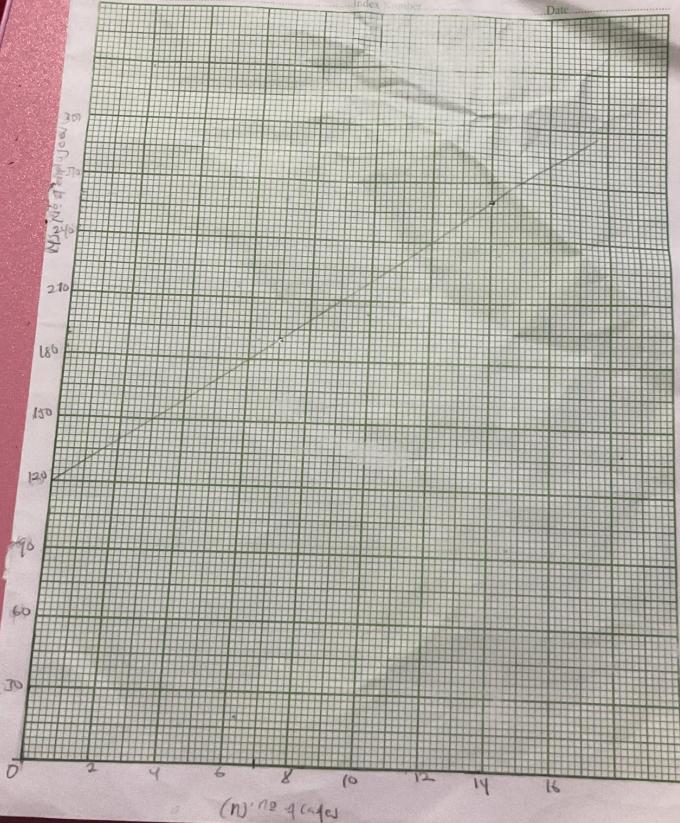
DO NOT WRITE ON THIS PAGE
2cm = 30 mm (to be fastened together with other answer sheets to paper)

(3)

Name.....

Index Number.....

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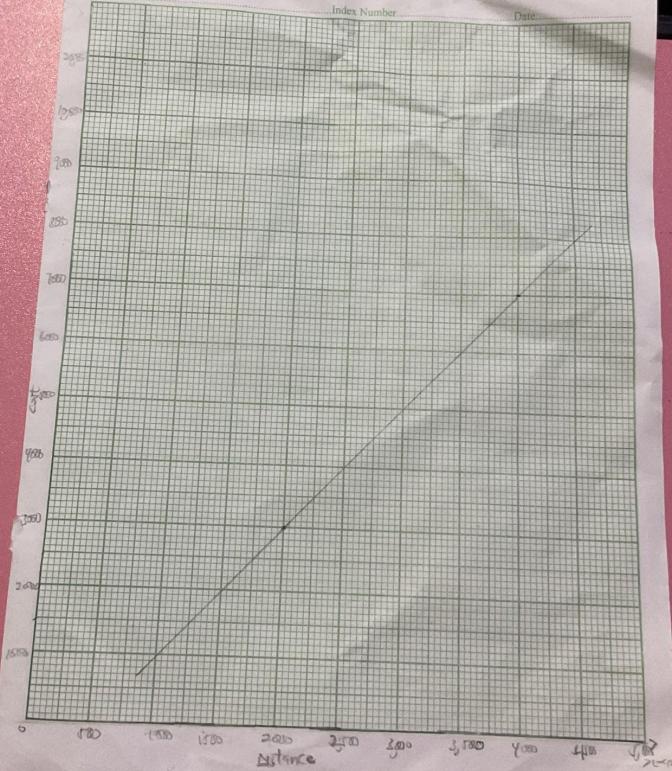
(n) 172 q (cages)

(2) 2 cm \rightarrow 150 units on y-axis
2 cm \rightarrow 150 units on the x-axis
(To be fastened together with other answer sheets to paper)

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Index Number: _____

Date: _____



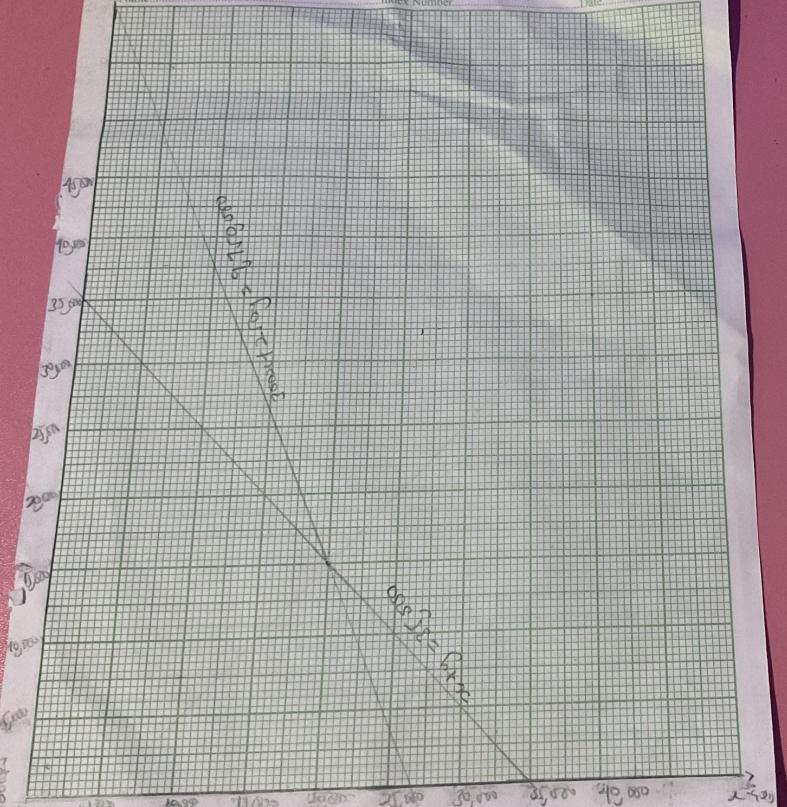
(5)

2 cm to 500 units on y-axis
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Paper copies (6)

