

## Get Started

Ethereal Fragrance Co. is a leading perfume company that offers deodorants under the brand name Celestial Bloom. For the upcoming IPL season, which begins in March, the company plans to boost its sales by co-branding with the IPL. The marketing head is enthusiastic about this strategic partnership, while the finance manager has requested a detailed cost-benefit report to evaluate the potential impact. As a data analyst in the marketing department, you are tasked with preparing a comprehensive cost-benefit analysis and presenting it through a dashboard to the marketing head.

The marketing team at Ethereal Fragrance Co. has decided to launch a new version of their Celestial Bloom deodorant, featuring IPL-themed packaging. This initiative will involve additional costs for designing and producing new packaging, as well as higher production expenses. The new packaging will replace the regular Celestial Bloom bottles for a five-month period.

## Details

Ethereal Fragrance Co. produces Celestial Bloom deodorants in 200 ml bottles. Below are the key details for this product:

### Pricing

The selling price per regular bottle is ₹250, and for the new bottle, it is ₹550.

### Sales Quantity and Growth

As per the old plan, 3,500 units were expected to be sold in February, with a projected 6% increase in sales for each subsequent month.

As per the new plan, 5,000 units are expected to be sold in February, with a projected 12% increase in sales for each subsequent month.

### Raw Material Details

To produce this deodorant, the following raw materials are required:

Water- 67%  
Parfum(Fragrance)- 5%  
Alcohol- 10%  
Antimicrobials- 0.5%  
Antiperspirants- 10%  
Propylene Glycol- 5%  
Glycols- 1%  
Emollients- 1%  
Others- 0.5%

The price of raw material per litre in Rs. is provided as below:

Water- 20  
Parfum(Fragrance)- 4500  
Alcohol- 250  
Antimicrobials- 2250  
Antiperspirants- 2000  
Propylene Glycol- 200  
Glycols- 300  
Emollients- 2000  
Others- 2500

### **Bottling and Processing Costs**

As per the old plan, bottling cost per unit is ₹5.

As per the new plan, bottling cost per unit is ₹6.

As per the old plan and new plan, processing cost per unit will be ₹8.

### **Fixed Costs Old**

The factory expenses include a monthly rent of ₹100,000.

The marketing budget starts at ₹70,000 for the first month, with a planned 10% increase each following month.

### **New Ad Plan**

The company will launch the advertising campaign in February and continue it until June.

As per the new plan, Ads preparation cost will be 950,000, IPL team branding fees will be 5,000,000

Incremental Advertising cost will be 4,000,000, which will be divided equally in the campaign period.

### **Objective**

To conduct a cost-benefit analysis of the new marketing campaign and come out with insights and recommendations for the same.

<b>Quantity</b>			
<b>Item</b>	<b>Bottle (in ml)</b>	<b>Existing Price (in Rs. per Bottle)</b>	<b>New Price (in Rs. per Bottle)</b>
Celestial Bloom	200	250	550
<b>Material Details of each Bottle</b>			
<b>Item</b>	<b>Price/litre in Rs.</b>	<b>Material %</b>	
Water	20	67%	
Parfum(Fragrance)	4500	5%	
Alcohol	250	10%	
Antimicrobials	2250	0.50%	
Antiperspirants	2000	10%	
Propylene Glycol	200	5%	
Glycols	300	1%	
Emollients	2000	1%	
Others	2500	0.50%	
	<b>Existing Bottle</b>	<b>New Bottle</b>	
<b>Bottling Cost (in Rs.)</b>	5	6	Rs. per bottle
<b>Process Cost (in Rs.)</b>	8	8	Rs. per bottle
<b>Sales Quantity and Growth</b>	<b>March Sales (in units)</b>	<b>Month on Month Growth%</b>	
Old Plan	3500	6%	from March
New Plan	5000	12%	from March
<b>Factory Expenses (in Rs.)</b>			
Factory Rent	100000	Rs. per month	

Marketing Expenses (in Rs.)	March Budget	Month on Month Growth%	
Old Marketing Budget	70000	10%	from March
<b>Incremental Marketing Cost (in Rs.)</b>	<b>1st Month</b>		
Ads Preparation	950,000		
IPL team branding fees	5,000,000		
Incremental Advertising	800,000		

	February	March	April	May	June
<b>Sales Units ('000)</b>					
Old Plan	3500	3710	3933	4169	4420
New Plan	5000	5600	6272	7025	7868
<b>Price Per Units (in Rs.)</b>					
Old Plan	250	250	250	250	250
New Plan	550	550	550	550	550

	February	March	April	May	June
<b>Per Unit Material Consumption (in ml)</b>					
Water	134	134	134	134	134
Parfum(Fragrance)	10	10	10	10	10
Alcohol	20	20	20	20	20
Antimicrobials	1	1	1	1	1
Antiperspirants	20	20	20	20	20
Propylene Glycol	10	10	10	10	10
Glycols	2	2	2	2	2
Emollients	2	2	2	2	2
Others	1	1	1	1	1
<b>Sales Units ('000)</b>					
Old Plan	3,500	3,710	3,933	4,169	4,420
New Plan	5,000	5,600	6,272	7,025	7,868
<b>Raw Material Consumed (in thousand litres)</b>					
<b>Old Plan</b>					
Water	469	497	527	559	592
Parfum(Fragrance)	35	37	39	42	44
Alcohol	70	74	79	83	88
Antimicrobials	4	4	4	4	4
Antiperspirants	70	74	79	83	88
Propylene Glycol	35	37	39	42	44
Glycols	7	7	8	8	9
Emollients	7	7	8	8	9
Others	4	4	4	4	4

<b>Raw Material Consumed (in thousand litres)</b>					
<b>New Plan</b>					
Water	670	750	840	941	1,054
Parfum(Fragrance)	50	56	63	70	79
Alcohol	100	112	125	141	157
Antimicrobials	5	6	6	7	8
Antiperspirants	100	112	125	141	157
Propylene Glycol	50	56	63	70	79
Glycols	10	11	13	14	16
Emollients	10	11	13	14	16
Others	5	6	6	7	8



Cost (in Rs)	February	March	April	May	June
<b>Old Plan</b>					
Water	9,380	9,943	10,540	11,173	11,846
Parfum(Fragrance)	157,500	166,950	176,985	187,605	198,900
Alcohol	17,500	18,550	19,665	20,845	22,100
Antimicrobials	7,875	8,348	8,849	9,380	9,945
Antiperspirants	140,000	148,400	157,320	166,760	176,800
Propylene Glycol	7,000	7,420	7,866	8,338	8,840
Glycols	2,100	2,226	2,360	2,501	2,652
Emollients	14,000	14,840	15,732	16,676	17,680
Others	8,750	9,275	9,833	10,423	11,050
Total	364,105	385,951	409,150	433,701	459,813
<b>Cost Per Unit (Rs.)</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>
<b>New Plan</b>					
Water	13,400	15,008	16,809	18,827	21,086
Parfum(Fragrance)	225,000	252,000	282,240	316,125	354,060
Alcohol	25,000	28,000	31,360	35,125	39,340
Antimicrobials	11,250	12,600	14,112	15,806	17,703
Antiperspirants	200,000	224,000	250,880	281,000	314,720
Propylene Glycol	10,000	11,200	12,544	14,050	15,736
Glycols	3,000	3,360	3,763	4,215	4,721
Emollients	20,000	22,400	25,088	28,100	31,472
Others	12,500	14,000	15,680	17,563	19,670
Total	520,150	582,568	652,476	730,811	818,508
<b>Cost Per Unit (Rs.)</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>

Amount (in Rs.)	February	March	April	May	June
<b>Sales</b>					
Old Plan	875,000	927,500	983,250	1,042,250	1,105,000
<b>Total Sales</b>	<b>875,000</b>	<b>927,500</b>	<b>983,250</b>	<b>1,042,250</b>	<b>1,105,000</b>
<b>Variable Cost</b>					
Material Cost	364,105	385,951	409,150	433,701	459,813
Bottling Cost	17,500	18,550	19,665	20,845	22,100
Processing Cost	28,000	29,680	31,464	33,352	35,360
<b>Total Variable-Cost</b>	<b>409,605</b>	<b>434,181</b>	<b>460,279</b>	<b>487,898</b>	<b>517,273</b>
<b>Contribution (Sales-Variable-Cost)</b>	<b>465,395</b>	<b>493,319</b>	<b>522,971</b>	<b>554,352</b>	<b>587,727</b>
<b>Contribution per Unit (in Rs.)</b>	<b>132.97</b>	<b>132.97</b>	<b>132.97</b>	<b>132.97</b>	<b>132.97</b>

Amount (in Rs.)	February	March	April	May	June
<b>Sales</b>					
New Plan	2,750,000	3,080,000	3,449,600	3,863,750	4,327,400
<b>Total Sales</b>	<b>2,750,000</b>	<b>3,080,000</b>	<b>3,449,600</b>	<b>3,863,750</b>	<b>4,327,400</b>
<b>Variable Cost</b>					
Material Cost	520,150	582,568	652,476	730,811	818,508
Bottling Cost	30,000	33,600	37,632	42,150	47,208
Processing Cost	40,000	44,800	50,176	56,200	62,944
<b>Total Variable-Cost</b>	<b>590,150</b>	<b>660,968</b>	<b>740,284</b>	<b>829,161</b>	<b>928,660</b>
<b>Contribution (Sales-Variable-Cost)</b>	<b>2,159,850</b>	<b>2,419,032</b>	<b>2,709,316</b>	<b>3,034,589</b>	<b>3,398,740</b>
<b>Contribution per Unit (in Rs.)</b>	<b>431.97</b>	<b>431.97</b>	<b>431.97</b>	<b>431.97</b>	<b>431.97</b>

Amount (in Rs.)	February	March	April	May	June
<b>Contribution</b>					
Old Plan	465,395	493,319	522,971	554,352	587,727
New Plan	2,159,850	2,419,032	2,709,316	3,034,589	3,398,740
<b>Incremental Contribution</b>	<b>1,694,455</b>	<b>1,925,713</b>	<b>2,186,345</b>	<b>2,480,237</b>	<b>2,811,013</b>
<b>Incremental Expenses</b>					
Ads Preparation	950,000	0	0	0	0
New Bottling Mould	5,000,000	0	0	0	0
Incremental Advertising	800,000	800,000	800,000	800,000	800,000
<b>Total</b>	<b>6,750,000</b>	<b>800,000</b>	<b>800,000</b>	<b>800,000</b>	<b>800,000</b>
<b>Incremental Profits</b>	<b>-5,055,545</b>	<b>1,125,713</b>	<b>1,386,345</b>	<b>1,680,237</b>	<b>2,011,013</b>

## Cost-Benefit Analysis

Total Incremental Contribution

**11,097,763**

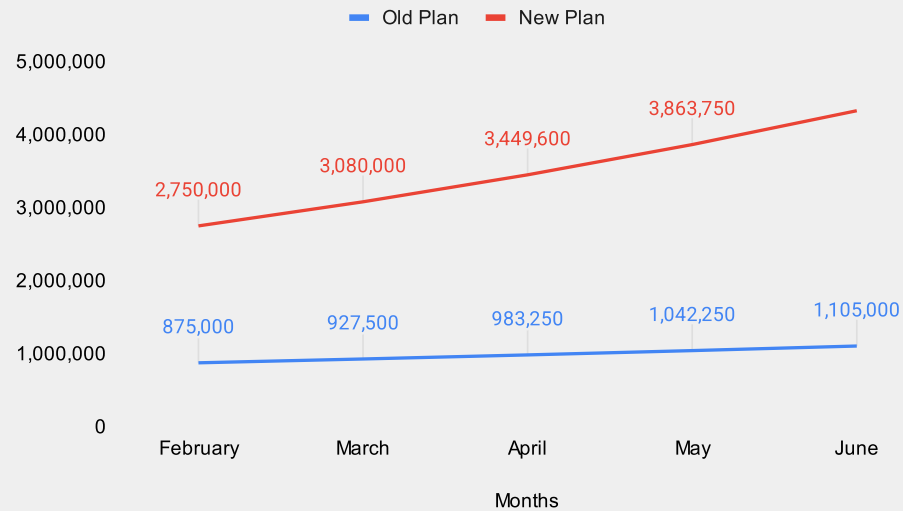
Total Incremental Profits

**1,147,763**

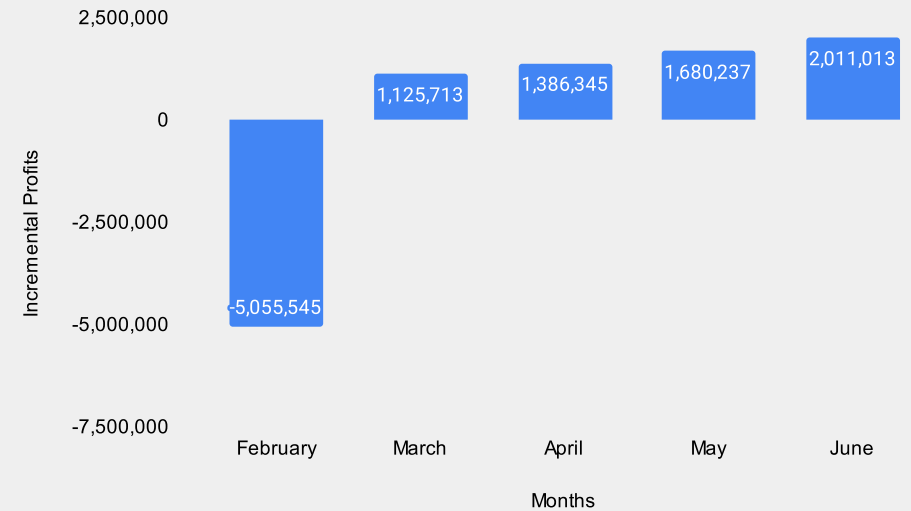
Incremental Units Sold (%)

**60.98%**

### Sales



### Month-wise Incremental Profits



Total Incremental Contribution (in Rs.)	11,097,763
Total Incremental Profits (in Rs.)	1,147,763
<b>Incremental units Calculation (in Rs. '000)</b>	
Units Sold as per Old Plan	19,732
Units Sold as per New Plan	31,765
Increment Units	12,033
%increase in Units Sold	60.98%

<b>Sales (in Rs.)</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>
Old Plan	875,000	927,500	983,250	1,042,250	1,105,000
New Plan	2,750,000	3,080,000	3,449,600	3,863,750	4,327,400

<b>Amount (in Rs. )</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>
<b>Incremental Profits</b>	<b>-5,055,545</b>	<b>1,125,713</b>	<b>1,386,345</b>	<b>1,680,237</b>	<b>2,011,013</b>

## Report for Management

1	In new plan the forecast is that the sales quantity will be 60.98% higher than the old plan forecast.
2	Cost-Benefit analysis of new plan shows that it will generate an incremental profits of Rs. 1,147,763.