Appendix I: The Strategic Model:

Basic Framework for locating

Positioning Parameters

Positioning Statement of Naturelle Shampoo

A study of the layout of the Advertising Copy gives the following positioning statement for Naturelle Shampoo.

(Overleaf)
**Positioning Statement of Naturelle Shampoo (Ad Overleaf)**

Product Category: Shampoo  
Target Group: Predominantly women from upper & middle households with traditional orientation.  
Key Consumer Benefit: A herbal shampoo which retains natural oils and nutrients. Nourishes hair and promotes healthy growth.

<table>
<thead>
<tr>
<th>Types</th>
<th>Target</th>
<th>Secondary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild Cherry</td>
<td>People with normal hair</td>
<td>strengthens hair roots; keeps hair healthy and shining.</td>
</tr>
<tr>
<td>Orange Blossom</td>
<td>People with oily hair</td>
<td>removes grease and dirt; protects film of natural oils</td>
</tr>
<tr>
<td>Camomile</td>
<td>People with dry hair</td>
<td>acts as a stimulant to scalp to produce natural oils; brightening look</td>
</tr>
<tr>
<td>Rosemary</td>
<td>People with dandruff</td>
<td>removes dandruff; gives body to the hair; darkens hair, and prevents hair loss.</td>
</tr>
<tr>
<td>Aloe Vera</td>
<td>People with under nourished hair</td>
<td>protein rich lather stimulates hair growth; gives natural sheen to lifeless hair.</td>
</tr>
</tbody>
</table>

Time & Manner of Usage: At all such times a shampoo may be used.  
Degree of Identification with Umbrella Brand: Low.
When your hair is natural, should your shampoo be synthetic?

**Naturelle**

**HERBAL SHAMPOOS**

No other range of shampoos in India is so pure... gentle... nourishing... caring.

- **WILD CHERRY FOR NORMAL HAIR**
  - Strengthens hair roots and keeps hair healthy and unring.

- **ORANGE BLOSSOM FOR OILY HAIR**
  - Lifts off grease and dirt without disturbing the hair's delicate protective film of natural oils.

- **CAMOMILE FOR DRY HAIR**
  - Acts as a stimulant on the scalp to produce natural oils. Gives the hair beautiful highlights and shine.

- **ROSEMARY FOR DANDRUFF**
  - Effectively rids the scalp of dandruff, revives hair and gives it body. Also helps to darken hair, and prevent hair loss.

- **ALOE VERA FOR UNDERNOURISHED HAIR**
  - Its protein rich lather stimulates hair growth and restores a natural sheen to dull, lifeless hair.

Be a **Naturelle woman**

A quality product of Ranbaxy.
The Strategic Model: Framework for Analysis

Let us assume that firms maximize profits and are faced with a profit function as follows:

\[ \Pi = \mathcal{P} \cdot \mathcal{Q}(\mathcal{A}, \mathcal{P}) - \mathcal{C}(\mathcal{Q}(\mathcal{A}, \mathcal{P})) - \mathcal{A} \mathcal{T} \]

\( p = \) price of the product, \( q = \) quantity, \( c = \) cost of production, \( T = \) price of one ad. message, \( A = \) no. of ad. messages used

\[ \frac{\partial \Pi}{\partial \mathcal{A}} = 0 \Rightarrow p \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} - \frac{\partial \mathcal{C}}{\partial \mathcal{A}} \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} - T = 0 \]

\( \Rightarrow (p - \frac{\partial \mathcal{C}}{\partial \mathcal{A}}) \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} - T = 0 \)

\( \Rightarrow \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} \cdot \frac{\mathcal{A}}{\partial \mathcal{Q}} = \frac{\mathcal{A} \mathcal{T}}{\mathcal{Q}(p - \frac{\partial \mathcal{C}}{\partial \mathcal{A}})} \)

\[ \mathcal{A} \mathcal{Q}_\mathcal{A} = \frac{\mathcal{A}}{\partial \mathcal{Q}} \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} , \frac{\mathcal{A} \mathcal{T}}{\partial \mathcal{Q}} = \frac{\mathcal{P} - \frac{\partial \mathcal{C}}{\partial \mathcal{Q}}}{\mathcal{P}} \cdot \mathcal{A} \mathcal{Q}_\mathcal{A} \ldots \ldots . \]

Since price is also a variable, \( \frac{\partial \Pi}{\partial \mathcal{P}} = 0 \)

\( \Rightarrow p \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{P}} + \mathcal{Q} - \frac{\partial \mathcal{C}}{\partial \mathcal{P}} \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{P}} = 0 \)

\( \Rightarrow (p - \frac{\partial \mathcal{C}}{\partial \mathcal{P}}) \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{P}} = - \mathcal{Q} \)

\( \Rightarrow (p - \frac{\partial \mathcal{C}}{\partial \mathcal{P}}) = - \mathcal{Q} \cdot \frac{\partial \mathcal{P}}{\partial \mathcal{P}} = \frac{1}{\mathcal{P}} \ldots \ldots . \)

\( p \mathcal{P} \cdot \frac{\partial \mathcal{Q}}{\partial \mathcal{A}} \mathcal{A} = \mathcal{Q} \mathcal{P} \ldots \ldots . \ldots \)

\( \Rightarrow \frac{p}{\mathcal{T}} = \frac{\mathcal{Q}}{\partial \mathcal{A}} \mathcal{A} = \mathcal{Q} \mathcal{P} \ldots \ldots . \ldots \)

\( \Rightarrow \frac{p \cdot \partial \mathcal{Q}}{\mathcal{T} \cdot \partial \mathcal{A}} = \mathcal{Q} \mathcal{P} \ldots \ldots . \ldots \)

i.e. \( \frac{p \partial \mathcal{Q}}{\mathcal{T} \partial \mathcal{A}} = \mathcal{Q} \mathcal{P} \ldots \ldots . \ldots \)

i.e. Marginal Value Product = Price elasticity of demand
From this result it can be shown that where product differentiation is high because of factors other than advertising the price elasticity of demand will be low and a higher level of advertising will be required to equate marginal revenue with the price elasticity of demand. This is also illustrated by the graph overleaf.

The mere existence of a low price elasticity of demand need not necessarily imply that:

advertising \rightarrow \text{Product Differentiation} \rightarrow \text{Low Elasticity} \rightarrow \text{Barriers to Entry}.

The entire chain of logic is snapped if low elasticity is due to factors other than advertising, a possibility which cannot be ruled out, again because of the complexity of the problem.
Appendix III: The Strategic Model:
Mathematical Analysis

Optimality Conditions:

Stage 1: Advertising for a unique position in the market place:
(Au) is the number of messages delivered in the media for this purpose.

\[ \Pi = p \cdot q(Au, p) - c(Au, p) - AuT \]

\[ p = \text{price, } q = \text{quantity, } c = \text{cost of production,} \]

\[ T = \text{price of one ad message, } Au = \text{no. of ad messages} \]

\[ \frac{\partial \Pi}{\partial q} = 0 \Rightarrow \frac{AuT}{p} = \frac{Nh}{np}, \text{ following the derivations...}(1) \]

in Appendix II, where \( Nh \) is the advertising elasticity of demand in stage 1.

Similarly, the derivations for stages II, III, IV and V will work out to:

\[ \frac{AtT}{pQ} = \frac{Nat}{np} \]
\[ \frac{AsT}{pQ} = \frac{Nas}{np} \]
\[ \frac{AmT}{pQ} = \frac{Nam}{np} \]
\[ \frac{AsT}{pQ} = \frac{Nbs}{np} \]

where \( Nat, Nas, Nam, Nbs \) are the respective advertising elasticities of demand over stages 2 through stage 5.

\( np \) is the price elasticity of demand.