A STUDY OF BRAND RECALL IN ORAL HEALTH CARE CATEGORY

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ABSTRACT
A study was conducted to understand consumers’ brand recall for buying oral health care products. The study includes various aspects that enhance brand loyalty and influence the buying behavior of consumers. It analyzes the influence of demographics such as income, education, family size, occupation and preferences in purchase of oral health care products. An effort was made to get an idea of whether a brand which the consumer uses is the brand which he/she recalls in the first instance. The study was conducted in the city of Mumbai through E questionnaires only. Data collected was analyzed using Excel-based statistical tools.

INTRODUCTION
The toothpaste history in India can be tracked back from 1975 with 1200 tonnes of toothpaste produced by the toothpaste industry. Prior to the toothpastes, Oral Hygiene was the domain of local homemade powders and ayurvedic practitioners. With the entry of Colgate in the Indian marketplace, the awareness about the importance of oral healthcare has increased. In recent years the industry has shown impressive growth rate of 18.6% (this growth is calculated in terms of value growth in rupees).

The growth in the urban market has been largely in the Gel segment. At present, a large chunk of the market is still held by Colgate. The major players in the toothpaste industry are Colgate Palmolive and Hindustan Lever Limited. Several minor players include Balsara Hygiene and Dabur, etc.

To take on Procter & Gamble (P&G)’s Oral-B on every front, rival Colgate has launched Slim Soft, a new product in the Rs 1,000-crore toothbrush market. This follows Colgate’s recent attempt to block the retail space for Oral-B toothpaste in modern trade. The Slim Soft is priced at Rs 50/- apiece. Colgate is also pushing a value pack comprising two brushes for Rs 80. Billed a game changer, Colgate claims Slim Soft has slimmer and softer bristles than regular toothbrushes. Traditionally, Indians prefer brushes with tough bristles. In recent years, however, dentists have been advocating the need for using a brush with softer bristles. Though Oral-B also has products with softer bristles, Slim Soft is the first toothbrush with ultra-fine bristles (17 times slimmer tip bristles, according to Colgate).

Colgate is the leader in the toothpaste and toothbrush segments in India, with market shares of 55.9 per cent and 41.4 per cent, respectively. In the past few quarters, Colgate has grown faster in the toothbrush category, partly due to a lower reach in this segment. Analysts say volume growth for Colgate toothbrushes has been 14-15 per cent in the past few quarters, against 9-10 per cent for toothpastes. Between January and June in 2012 and the corresponding period this year, 2013, the company added 270 basis points to its market share in the toothbrush category, against a 120-basis-point rise in its share in the toothpaste segment. The company is fighting competition from Hindustan Unilever, Procter & Gamble and GlaxoSmithKline Consumer in the toothpaste market, at the mass and niche ends. In the toothbrush segment, it is a two-way battle between Colgate and Oral-B; the latter is ranked second, with an estimated market share of 27-28 per cent. Globally, Oral-B is the leader in the toothbrush segment. After Procter & Gamble acquired the Gillette portfolio in 2005, it secured the Oral-B brand as well. Since then, it has
been aggressive in pushing its products in the toothbrush segment in Asia, Africa and Latin America.

Increasing demand for advanced oral health care products such as mouthwashes, sensitivity care products, whitening products and germ protection products will boost sales over the forecast period. Increasing awareness of oral health care in rural India will also be a major factor driving growth.

RESEARCH OBJECTIVES
The main objective of the study was to identify the brand with top-of-the-mind recall in oral health care products.

The other objectives included

- To study factors influencing the buying behavior
- To study Oral products buying behavior of Indian consumers
- To understand the influence of family size on buying preference
- To understand the competition in the market against Colgate, Pepsodent & Oral-B

RESEARCH METHODOLOGY

An initial exploratory study comprising secondary data search was conducted in order to identify the market environment and consumer related parameters. Secondary sources of data like internet were used to conduct the exploratory study. Relevant variables were generated and questionnaire was developed to obtain primary data from the sample. 50 respondents were selected based on the convenience of the researcher. Data collected was analyzed using statistical tools like frequency charts, pie diagrams etc. Requisite conclusions were arrived at and recommendations put forth.

Primary data was collected through online survey. The questionnaire was designed to question respondents about their recall of brands when questioned for Oral health care products. The questionnaire was mailed to 50 people selected randomly. The questionnaire was a mixed bag of open ended and closed ended questions. The questionnaires were filled by the respondents themselves. Responses of 24 women and 28 men were recorded to carry out our analysis.

SAMPLE PROFILE

<table>
<thead>
<tr>
<th>GENDER</th>
<th>NO.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>28</td>
<td>54%</td>
</tr>
<tr>
<td>FEMALE</td>
<td>24</td>
<td>46%</td>
</tr>
</tbody>
</table>
DATA ANALYSIS

PROPOSED HYPOTHESIS

To study the brand recall when buying Oral health care products and its effects on the Indian consumers the following hypothesis were tested.

Hypothesis 1

Ho: Top of mind recall is independent of income
Ha: Top of mind recall is NOT independent of income

Ho: Top of mind recall is independent of brand
Ha: Top of mind recall is NOT independent of brand

Hypothesis 2

Ho: Top of mind recall is independent of brand
Ha: Top of mind recall is NOT independent of brand

Ho: Top of mind recall is independent of education
Ha: Top of mind recall is NOT independent of education

Hypothesis 3

Ho: The proportion of the respondents who recall Colgate as the 1st brand is 80%
Ha: The proportion of the respondents who recall Colgate as the 1st brand is not equal to 80%

Ho: p = 0.80
Ha: p ≠ 0.80
TESTING OF HYPOTHESIS

Hypothesis 1

Two Factor ANOVA test was conducted to identify the brands that were recalled and their relation to income groups.

H0: Top of mind recall is independent of income
Ha: Top of mind recall is NOT independent of income

H0: Top of mind recall is independent of brand
Ha: Top of mind recall is NOT independent of brand

<table>
<thead>
<tr>
<th>Income Brains</th>
<th>10000-20000</th>
<th>20000-30000</th>
<th>30000-40000</th>
<th>40000-50000</th>
<th>Above 50000</th>
<th>Others</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amway</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Colgate</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td>14</td>
<td>10</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Meswak</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Oral-B</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>pepsodent</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2</td>
<td>14</td>
<td>8</td>
<td>14</td>
<td>10</td>
<td>2</td>
<td>50</td>
</tr>
</tbody>
</table>

ANOVA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rows</td>
<td>200.56</td>
<td>5.00</td>
<td>40.11</td>
<td>5.53</td>
<td>0.00</td>
<td>2.60</td>
<td>Reject NULL</td>
</tr>
<tr>
<td>Columns</td>
<td>24.56</td>
<td>5.00</td>
<td>4.91</td>
<td>0.68</td>
<td>0.65</td>
<td>2.60</td>
<td>Accept NULL</td>
</tr>
<tr>
<td>Error</td>
<td>181.44</td>
<td>25.00</td>
<td>7.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>406.56</td>
<td>35.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Since Rows: F observed > F critical,  
P value< alpha. i.e.0.00<0.05  
Therefore, we reject the NULL

Columns: F observed < F critical,  
P value> alpha. i.e, 0.65>0.05  
Therefore, we accept the NULL

Thus,  
Rows-Recall is NOT independent of brand.  
Columns-Recall is independent of income.

Hypothesis 2 

Two Factor ANOVA test was conducted to identify the brands that were recalled and the education qualifications of the respondents

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>graduate</th>
<th>postgraduate</th>
<th>undergraduate</th>
<th>others</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amway</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Colgate</td>
<td>12</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Meswak</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Oral-B</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>pepsodent</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>others</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grand Total</td>
<td>18</td>
<td>28</td>
<td>2</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Source of Variation</td>
<td>SS</td>
<td>df</td>
<td>MS</td>
<td>F-Observed</td>
<td>P value</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>----</td>
<td>-------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>Rows</td>
<td>288.8</td>
<td>4</td>
<td>72.2</td>
<td>1.94434</td>
<td>0.16763</td>
</tr>
<tr>
<td>Columns</td>
<td>94.4</td>
<td>3</td>
<td>31.4667</td>
<td>0.8474</td>
<td>0.49417</td>
</tr>
<tr>
<td>Error</td>
<td>445.6</td>
<td>12</td>
<td>37.1333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>828.8</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since,

**Rows:**

\[ F \text{ observed } < F \text{ critical}, \; P \text{ value } > \alpha \text{i.e.0.1676}>0.05 \]

Therefore, we accept the NULL

**Columns:**

\[ F \text{ observed } < F \text{ critical}, \; P \text{ value } > \alpha \text{i.e.0.4941}>0.05 \]

Therefore, we accept the NULL

**Thus,**

- **Rows:** Recall is independent of brand.
- **Columns:** Recall is independent of education.
**Hypothesis 3**

Proportion test was conducted to check the percentage of respondents who recall Colgate as Top Brand

\[ H_0: \text{The proportion of the respondents who recall Colgate as the 1st brand is } 80\% \]
\[ H_a: \text{The proportion of the respondents who recall Colgate as the 1st brand is not equal to } 80\% \]

\[ H_0: p = 0.80 \]
\[ H_a: p \neq 0.80 \]

<table>
<thead>
<tr>
<th>N</th>
<th>x</th>
<th>p</th>
<th>p'</th>
<th>q</th>
<th>q'</th>
<th>alpha</th>
<th>confidence</th>
<th>probability</th>
<th>z critical</th>
<th>z observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>41</td>
<td>0.80</td>
<td>0.82</td>
<td>0.20</td>
<td>0.18</td>
<td>5.00%</td>
<td>95%</td>
<td>97.50%</td>
<td>1.96</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Two-tailed test

Since \( z_{observed} < z_{critical} \), we accept the null

**Thus, More than 80\% of the population recalls Colgate as top brand.**
CONCLUSION

Above 80 % of the sample population recalled Colgate as top Brand being Colgate as Older brand and has highest market share. Colgate has close competition from Pepsodent as they have huge product range.

Brand recall is independent of demographic variables like education and Income of the respondents

LIMITATIONS

The findings of the study may not be applicable to the general population due to the non-probabilistic type of sample. The sample selected in this manner may not be the representative of the behavior of the population.

Time constraints, sample size, respondent biasness and geographical limitations were other concerns

Most of the study was conducted through online forms so offline user responses were not part of the research

REFERENCES

