A study on consumer perception about soft drink products

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Abstract: Most of the people use soft drink in their life frequently. In this paper it is tried to know choice of the people for flavour of soft drink, their favourite brand, their consideration about brand, and their opinion regarding packaging size of soft drink products. It is observed that many people drinks soft drink more than five times a week, more than 39% of people are interested in orange flavour. 46% of people give importance to particular brand. It is also observed that people’s opinion is not much different about packaging of soft drink. In this paper SPSS is used for testing the different hypotheses.

Keywords: Brand choice, Chi-square, Consumer perception, Soft drink, SPSS.

INTRODUCTION

The first marketed soft drinks appeared in the 17th century as a mixture of water and lemon juice sweetened with honey. In 1676 the Compagnie de Limonadiers was formed in Paris and granted a monopoly for the sale of its products. In 1850 A manual hand & foot operated filling & corksing device, first used for bottling soda water. 1876 Root beer mass produced for public sale. 1885 Charles Aderton invented "Dr Pepper" in Waco, Texas. 1886 Dr. John S. Pemberton invented "Coca-Cola" in Atlanta, Georgia. Soft drinks aren't just flavored carbonated beverages. “Soft Drink” refers to nearly all beverages that do not contain significant amounts of alcohol (hard drinks). The term “soft drink” though is now typically used exclusively for flavoured carbonated beverages. This is actually due to advertising. The oligopoly market structure is very apparent in the soft drink industry. Two large producers, Coke and Pepsi, maintain a dominant role in the industry. High barriers to entry prevent smaller firms from making a large impact. Pepsi’s William C. Munro once confessed, “The soft drink is not a serious thing. No one need it”. Today, soft drinks have become a significant part of people. They have a frequent presence at our dinner tables, in snacks and in restaurants all over the world. Many researchers are working on soft drink products now a days. They have also studied about effect of soft drinks in the different market. Hansen, L. P. (1982) has studies large sample properties of generalized method of moments estimators with reference to soft drink products. McFadden, D. (1989) simulated moments for estimation of discrete response models without numerical integration. Pakes, A. and D. Pollard (1989) made study on simulation and the asymptotic of optimization estimators. In the carbonated soft drink industry Muris, et.al. (1992) have studied strategy and transaction costs. Hausman, J. A., G. K. Leonard and J. D. Zona (1994) have made competitive analysis with differentiated products. Walsh, J.W. (1995) observed about flexibility in consumer purchasing for uncertain future tastes. Keane, M.P. (1997)

**OBJECTIVES OF THE STUDY**
The following are the objectives of the study

1. To study the frequency of drinking soft drink during a week
2. To survey choice of people for flavour of cold drink
3. To study their favourite brand
4. To study the consideration of respondents for selecting brand
5. To study their opinion regarding packaging size of soft drink products.

**HYPOTHESES**

1. There is no association between consumption of soft drink and Gender.
2. There is no association between flavour of soft drink and Gender.
3. There is no association between importance of a particular brand of soft drink and Gender.
4. There is no association between favourite brand of soft drink and Gender.
5. There is no association between consideration of soft drink and Gender.
6. There is no association between size of soft drink and Gender.
7. There is no association between price of soft drink and Gender.
8. There is no association between package of soft drink and Gender.

**SCOPE OF THE STUDY**
The present study has been carried out at Nadiad town, Gujarat, for studying the perception of people about choice of flavour, favourite brand and their opinion regarding packaging size of soft drink products. Data is collected from different areas of Nadiad town.

**RESEARCH METHODOLOGY**

<table>
<thead>
<tr>
<th>Research Design</th>
<th>Descriptive in Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling Frame</td>
<td>People who drink soft drink at Nadiad Town</td>
</tr>
<tr>
<td>Sampling Unit</td>
<td>People from different age groups, gender and locations</td>
</tr>
<tr>
<td>Sampling Size</td>
<td>500</td>
</tr>
<tr>
<td>Sampling Method</td>
<td>Convenience sampling</td>
</tr>
<tr>
<td>Nature of Data</td>
<td>Primary as well as secondary data were collected from respondents and journals and from previous research related to soft drink product.</td>
</tr>
<tr>
<td>Method of Data Collection</td>
<td>Personal interview with respondents</td>
</tr>
<tr>
<td>Type of Questionnaire</td>
<td>Structured questionnaire with suitable scaling.</td>
</tr>
<tr>
<td>Type of Questions</td>
<td>Open ended, closed ended, Likert scale and multiple choice questions.</td>
</tr>
<tr>
<td>Pre-testing of questionnaire</td>
<td>Pre-testing questionnaire was done among selected respondents on judgement basis and corrections were made in the questionnaire, wherever required.</td>
</tr>
<tr>
<td>Statistical tools used</td>
<td>Chi-square test</td>
</tr>
</tbody>
</table>
DATA ANALYSIS AND INTERPRETATION

Table 1: Frequency of drinking soft drink during a week

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than two times</td>
<td>122</td>
<td>113</td>
<td>235</td>
<td>47.0</td>
<td>47.0</td>
</tr>
<tr>
<td>Between 2 to 5 times</td>
<td>96</td>
<td>97</td>
<td>193</td>
<td>38.6</td>
<td>85.6</td>
</tr>
<tr>
<td>Above 5 times</td>
<td>39</td>
<td>33</td>
<td>72</td>
<td>14.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 1, it can be inferred that there are only 14.4 percentage people who are drinking soft drink more than five times a week. More people are interested in drinking soft drinks less than two times in a week.

Table 2: Regarding flavour of soft drink

<table>
<thead>
<tr>
<th>flavour</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cola</td>
<td>87</td>
<td>91</td>
<td>178</td>
<td>35.6</td>
<td>35.6</td>
</tr>
<tr>
<td>Orange</td>
<td>97</td>
<td>102</td>
<td>199</td>
<td>39.8</td>
<td>75.4</td>
</tr>
<tr>
<td>Mango</td>
<td>34</td>
<td>23</td>
<td>57</td>
<td>11.4</td>
<td>86.8</td>
</tr>
<tr>
<td>Lemon</td>
<td>32</td>
<td>21</td>
<td>53</td>
<td>10.6</td>
<td>97.4</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>6</td>
<td>13</td>
<td>2.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 2, we can say that most favourite flavour of people is orange. More than 39% of people are interested in orange flavour.

Table 3: Importance of brand

<table>
<thead>
<tr>
<th>Importance</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Much</td>
<td>129</td>
<td>104</td>
<td>233</td>
<td>46.6</td>
<td>46.6</td>
</tr>
<tr>
<td>Moderate</td>
<td>89</td>
<td>98</td>
<td>187</td>
<td>37.4</td>
<td>84.0</td>
</tr>
<tr>
<td>Low</td>
<td>39</td>
<td>41</td>
<td>80</td>
<td>16.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above table 3, it is observed that more than 46% of people prefer a particular brand and 16% people are not interested in brand name.

Table 4: consideration while selecting a soft drink

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Name</td>
<td>56</td>
<td>49</td>
<td>105</td>
<td>21.0</td>
<td>21.0</td>
</tr>
<tr>
<td>Availability</td>
<td>52</td>
<td>45</td>
<td>97</td>
<td>19.4</td>
<td>40.4</td>
</tr>
<tr>
<td>Taste</td>
<td>53</td>
<td>55</td>
<td>108</td>
<td>21.6</td>
<td>62.0</td>
</tr>
<tr>
<td>Advertisement</td>
<td>43</td>
<td>47</td>
<td>90</td>
<td>18.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Price</td>
<td>53</td>
<td>47</td>
<td>100</td>
<td>20.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 4, it can be observed that most of the people consider taste and name of the soft drink. 18% people consider soft drink due to advertisement and 20% people consider price while purchasing soft drink.
Table 5: Regarding size of soft drink

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>200ml</td>
<td>87</td>
<td>88</td>
<td>175</td>
<td>35.0</td>
<td>35.0</td>
</tr>
<tr>
<td>300ml</td>
<td>93</td>
<td>80</td>
<td>173</td>
<td>34.6</td>
<td>69.6</td>
</tr>
<tr>
<td>500ml</td>
<td>77</td>
<td>75</td>
<td>152</td>
<td>30.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 5, we can say that most of the people prefer 200ml or 300ml size of the soft drink.

Table 6: Regarding price of soft drink

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs. 10</td>
<td>51</td>
<td>61</td>
<td>112</td>
<td>22.4</td>
<td>22.4</td>
</tr>
<tr>
<td>Rs. 15</td>
<td>42</td>
<td>45</td>
<td>87</td>
<td>17.4</td>
<td>39.8</td>
</tr>
<tr>
<td>Rs. 20</td>
<td>71</td>
<td>44</td>
<td>115</td>
<td>23.0</td>
<td>62.8</td>
</tr>
<tr>
<td>Rs. 25</td>
<td>44</td>
<td>38</td>
<td>82</td>
<td>16.4</td>
<td>79.2</td>
</tr>
<tr>
<td>More than Rs. 25</td>
<td>49</td>
<td>55</td>
<td>104</td>
<td>20.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 6, we can observed that most people are in favour of normal price of cold drink that is Rs. 10 or Rs. 20.

Table 7: Regarding package of soft drink

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Bottle</td>
<td>66</td>
<td>51</td>
<td>117</td>
<td>23.4</td>
<td>23.4</td>
</tr>
<tr>
<td>Can</td>
<td>58</td>
<td>66</td>
<td>124</td>
<td>24.8</td>
<td>48.2</td>
</tr>
<tr>
<td>Tetra pack</td>
<td>72</td>
<td>66</td>
<td>138</td>
<td>27.6</td>
<td>75.8</td>
</tr>
<tr>
<td>Take Home Pack</td>
<td>61</td>
<td>60</td>
<td>121</td>
<td>24.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>257</td>
<td>243</td>
<td>500</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the above Table 7, it can be inferred that people’s opinion is not much different about Packaging of soft drink.

**TESTING OF HYPOTHESIS**

**Hypothesis 1**

- **H0**: There is no association between consumption of soft drink and Gender.
- **H1**: There is association between consumption of soft drink and Gender.

**Table 8: Chi-Square Value**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.458(a)</td>
<td>2</td>
<td>.795</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.458</td>
<td>2</td>
<td>.795</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.010</td>
<td>1</td>
<td>.922</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for H0 is accepted that is consumption of soft drink and gender are not associated.

**Hypothesis 2**

- **H0**: There is no association between flavour of soft drink and Gender.
- **H1**: There is association between flavour of soft drink and Gender.
Table 9: Chi-Square Value

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.310(a)</td>
<td>4</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.336</td>
<td>4</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>2.745</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is flavour of soft drink and gender are not associated.

**Hypothesis 3**

$H_0$: There is no association between importance of a particular brand of soft drink and Gender.

$H_1$: There is association between importance of a particular brand of soft drink and Gender.

Table 10: Chi-Square Value

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.776(a)</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.779</td>
<td>2</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>1.936</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is importance of a particular brand of soft drink and gender are not associated.

**Hypothesis 4**

$H_0$: There is no association between favourite brand of soft drink and Gender.

$H_1$: There is association between favourite brand of soft drink and Gender.

Table 11: Chi-Square Value

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.674(a)</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.677</td>
<td>2</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>.383</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is favourite brand of soft drink and gender are not associated.

**Hypothesis 5**

$H_0$: There is no association between consideration of soft drink and Gender.

$H_1$: There is association between consideration of soft drink and Gender.

Table 12: Chi-Square Value

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.156(a)</td>
<td>4</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.156</td>
<td>4</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>1.156</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is consideration of soft drink and gender are not associated.
Hypothesis 6

$H_0$: There is no association between size of soft drink and Gender.

$H_1$: There is association between size of soft drink and Gender.

<table>
<thead>
<tr>
<th>Table 13: Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is size of soft drink and gender are not associated.

Hypothesis 7

$H_0$: There is no association between reasonable price of soft drink and Gender.

$H_1$: There is association between reasonable price of soft drink and Gender.

<table>
<thead>
<tr>
<th>Table 14: Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is reasonable price of soft drink and gender are not associated.

Hypothesis 8

$H_0$: There is no association between packaging of soft drink and Gender.

$H_1$: There is association between packaging of soft drink and Gender.

<table>
<thead>
<tr>
<th>Table 15: Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

Here P value is greater than 0.05 there for $H_0$ is accepted that is packaging of soft drink and gender are not associated.

FINDINGS OF THE RESEARCH STUDY:

The present study was conducted with the purpose of understanding the choice of the people of Nadiad town about flavour, consideration about brand, and their opinion regarding packaging size of soft drink products. It is observed that many people drinks soft drink more than five times a week, more than 39% of people are interested in orange flavour. 46% of people give importance to particular brand while purchasing soft drink. Only 16% people are not interested in brand name. Most of the people consider brand name and taste of soft drink, while 20% people consider price while purchasing soft drink. It is also observed that most of the people prefer 200ml...
or 300ml size of the soft drink. Rs. 10 or Rs. 20 are affordable for soft drink. Regarding packaging people’s opinion is not much different.

References


