

## Demographic Characteristics of Consumer's on Selected Brands of Toothpaste

### Dr. Saumendra Das

Asst. Professor, M.B.A Department,  
Aditya Institute of Technology  
& Management, Tekkali,  
Srikulam Dist. (A.P)

### Prof. P. K Padhy

Professor, Department of  
Business Administration,  
Berhampur University,  
Berhampur, Odisha

### Abstract

Consumer decision-making process varies with the type of buying decision. There are great differences between buying toothpaste, a tennis racket, a personal computer and a new car. Complex and expensive purchases are likely to involve more buyer deliberation and more participants. Usually evaluating consumer behavior goes far from advertising and marketing concepts to connect consumers and understanding their behaviors, motivations and sincere needs. Further consumer behavior is individually influenced by physical and social environment where one has to assume his or her perception on product, brand, service, or company. They may purchase as a result of their moods and their ambiance. Often consumers feel secure when they feel that products that are satisfying their needs surround to society and environment where one lives and communicates easily with its demographic factors. The purpose of this study is to understand the demographic behavior of consumers on selected brands of toothpaste. In this study the researchers selected 485 respondents from Berhampur, Odisha and adopted descriptive research design. The primary data collected through structured questionnaire and secondary data collected through website, journal, magazine etc. Analysis of variance test was applied to find the association between toothpaste buying behavior and demographic factors. The results will prove that age, gender, educational qualification, marital status, number of years married, age group of children, family type, and family size influencing the consumer for buying selected brands of toothpaste.

**Keywords:** Consumer behavior, consumer buying behavior, Toothpaste buying, Perceptions, Decision Making

### Introduction

Consumer decision-making process varies with the type of buying decision. There are great differences between buying toothpaste, a tennis racket, a personal computer and a new car. Complex and expensive purchases are likely to involve more buyer deliberation and more participants. Usually evaluating consumer behavior goes far from advertising and marketing concepts to connect consumers and understanding their behaviors, motivations and sincere needs. Further consumer behavior is individually influenced by physical and social environment where one has to assume his or her perception on product, brand, service, or company. They may purchase as a result of their moods and their ambiance. Often consumers feel secure when they feel that products that are satisfying their needs surround to society and

environment where one lives and communicates easily with its demographic factors. In this connection Kotler & Armstrong stated that consumer behavior is one of the significant tool that effect consumers' purchase decisions depends on lot of variables which define consumer behavior to persuade consumers to purchase product but sometimes they fails to do so because of the other variables analyze these factors carefully. So they categorized these variables into four main characteristics as cultural, social, personal and psychological factors (1996). Now a day's one major development that bears a major persuade on consumers is profile of the consumers and behavioral characteristics. Universally in the modern world, people are showered with advice, information and products regarding trends, healthy living and lifestyles (Urala & Lahteenmaki, 2004). Toothpaste manufacturers introduced many varieties of toothpaste with different ingredients to solve problems of consumers despite of selection of brands depends on the profile of the consumers. In India many leading players are in the toothpaste market like Colgate Palmolive, HLL, GlaxSmith Kline and regional players like Dabur India Ltd, Anchor, Henkel, Vicco, and Ajanta. Among all Colgate and HLL brands are leading player in the market where as Dabur and other regional players are under pressure of competition. So this study is caring for the firms to understand the profile of the consumers, and its impact on toothpaste buying behavior.

### Objectives

- To understand the consumer buying behavior on selected brands of toothpaste in India.
- To study the impact of demographic profile on consumers buying behavior on selected brands of toothpaste.

### Formulation of Hypothesis

The hypothesis have been formulated and presented to test the significance on demographic characteristic of respondents.

1. There is no significant association between the consumers' age and the buying behavior on selected brands of toothpaste.
2. There is no significant association between the consumers' educational qualification and the buying behavior on selected brands of toothpaste.
3. There is no significant association between the consumers' educational qualification and the buying behavior on selected brands of toothpaste.
4. There is no significant association between the age group of children and the buying behavior on selected brands of toothpaste.
5. There is no significant association between the age group

of children and the buying behavior on selected brands of toothpaste.

6. There is no significant association between the occupation of the respondent and the buying behavior on selected brands of toothpaste.
7. There is no significant association between the income of the respondent and the buying behavior on selected brands of toothpaste.
8. There is no significant association between the social class of the respondent and the buying behavior on selected brands of toothpaste.
9. There is no significant association between the status of house in native of respondent and the buying behavior on selected brands of toothpaste.
10. There is no significant association between the status of house in current of the respondent and the buying behavior of selected brands of toothpaste.

### Literature Review

Kotler and Armstrong (2001) in their study cited that consumer buying behavior refers to the buying behavior of the individuals and households who buy the goods and services for personal consumption.

The study of consumer buying behavior is of greatest significance in a number of aspects. First of all, consumer behavior can influence the economic health of a nation (Blackwell et al., 2006). Consumers would have their preferences in purchasing products from specific retailers and hence the remaining retailers are selected using the rule of 'survival of the fittest'. Therefore, consumers' decisions can provide a clue for which industry to survive, which companies to succeed, and also which products to excel. Second, through understanding the reasons for consumers to buy the products and their buying habits, the firms can make use of such information to devise corresponding marketing strategies in response to the consumers' needs (ibid).

Various people do consume a wide range of products every day, from basic necessities to soaring valued collectables. Due to the proliferation of products in the market, such phenomenon is one of the most fascinating and hence heavily investigated topics in the marketing field. As mentioned by Schiffman & Kanuk (2007), consumer behavior is about how people make their decisions on personal or household products with the use of their available resources such as time, money and effort.

### Analysis and Interpretation

The study basically concentrated on the demographic behavior of consumers on selected brands of toothpaste. The results exhibited the age, gender, educational qualification,

marital status, number of years married, age group of children, family type, and family size influencing the consumer for buying selected brands of toothpaste. The present study collected around 485 samples from different group of people in Berhampur city of Odisha. The research emphasized more on the primary data and the secondary information gathered from books, journal and internet. The

primary information collected through a structured questionnaire and descriptive statistics have utilized to find the validity of data. One way ANOVA tested the significance (p value <0.05 and p value< 0.01) on the observed data to examine the validity of hypothesis. Here it can observe the demographics behavior of the respondents on selected brands of toothpaste.

**TABLE NO.1 Selected Toothpaste Brands**

Sl. No	Brand	Sl. No	Brand	Sl. No	Brand
1	Colgate	4	Dabour Red	7	Anchor White
2	Pepsodent	5	Meswak	8	Cibaca
3	Close-up	6	Sensodyne	9	Vicco

Source: From Market Survey

**TABLE NO. 2: Demographic Factors Influencing Consumers for Buying Toothpaste**

Profile of the respondents is a main criterion in developing marketing strategy. Respondents profile variables are

strongly influencing the buying behavior and consumption pattern of people. The significant difference between consumer profile and buying behavior towards toothpaste brands are analyzed by using one way ANOVA analysis. This is explained in the table given below.

Consumer profile	Responses	N	Mean	Standard Deviation	df	F value	Significance
1.Age	15-25	252	407.44	209.071	3	5.085**	0.002
	26-35	101	432.93	188.872			
	36-45	84	493.69	153.542			
	45&above	48	476.92	168.456	481		
	<b>Total</b>	<b>485</b>	<b>434.56</b>	<b>194.95</b>	<b>484</b>		
2.Educational Qualification	Primary education	70	386.39	62.991	2	6.041**	0.003
	Graduation	141	410.06	88.459			
	Post-graduation	274	433.76	127.109			
	<b>Total</b>	<b>485</b>	<b>420.03</b>	<b>110.642</b>	<b>484</b>		
3.Number of years married	Below 5 years	94	419.85	171.763	3	5.140**	0.002
	5-10 year	63	457.59	151.11			
	11-15 years	23	485.13	165.609			
	Above 15 years	69	513.3	120.595	245		
	<b>Total</b>	<b>249</b>	<b>461.33</b>	<b>157.011</b>	<b>248</b>		

4.Age group of children	None	61	511.51	153.458	3	4.112**	0.008
	1-5 yrs	52	417.54	194.12			
	6-12 yrs	36	488.17	155.17			
	13-15 yrs	31	526.71	137.376			
	<b>Total</b>	<b>180</b>	<b>482.31</b>	<b>168.4</b>			
5.Status of respondent	Private employee	173	397.78	40.244	481	2.685*	0.046
	Own business	65	394.95	29.892			
	Student	150	384.77	76.209			
	Home maker	97	381.97	37.792			
	<b>Total</b>	<b>485</b>	<b>390.21</b>	<b>53.021</b>			
6.Occupation	Manager	35	434.94	119.73	169	3.246*	0.023
	Associate	35	373.37	116.063			
	Lecturer	64	443.41	118.798			
	Others	39	398.51	117.278			
	<b>Total</b>	<b>173</b>	<b>417.4</b>	<b>120.391</b>			
7.Family Income	Below 25000	102	399.72	31.536	2	4.056*	0.018
	25000-50000	218	395.38	30.058			
	Above 50000	116	388.53	26.524			
	<b>Total</b>	<b>436</b>	<b>394.57</b>	<b>29.73</b>			
8.Social class	Lower class	34	388.29	100.81	2	3.770*	0.024
	Midde class	400	434.42	94.152			
	Upper class	51	438.29	105.164			
	<b>Total</b>	<b>485</b>	<b>431.59</b>	<b>96.365</b>			
9.Status of house in native	Rental	58	415.31	187.868	2	0.326	0.722
	Own	388	437.48	191.56			
	Lease	39	434.1	238.242			
	<b>Total</b>	<b>485</b>	<b>434.56</b>	<b>194.95</b>			
10.Status of house in current	Rental	259	421.1	117.196	2	1.305	0.272
	Own	179	424.83	101.583			
	Lease	47	395.85	105.566			
	<b>Total</b>	<b>485</b>	<b>420.03</b>	<b>110.642</b>			

Note: \*Significant at 5 percent level (p value <0.05), \*\*significant at 1 percent level (p value < 0.01)

The results obtained in table No.2 indicates that there is statistically significant difference between buying behavior on selected brands of toothpaste and consumer demographics. There is significant difference exists between age, educational qualification, number of years married, age group of children, total family members, status of the respondent, occupation, family income per month, social class and current residence and buying behavior on selected brands of toothpaste.

**H<sub>0-1</sub> : There is no significant association between the consumers' age and the buying behavior on selected brands of toothpaste.**

**H<sub>a-1</sub> : There is significant association between the consumers' age and the buying behavior on selected brands of toothpaste.**

Table No. 2 represents the age of consumer is significant with buying behavior on selected brands of toothpaste. Based on the mean value (493.69) obtained in the table, the impact is found to be high for age group 36-45. These age group people generally analyze the benefit and collect more information about the product; just like that they will not buy any product, hence the null hypothesis is rejected. This is supported by the views of Kotler where people change the goods and services they buy over their lifetimes. Their preferences and likes change according to their age (Kotler and Armstrong, 1996).

**H<sub>0-2</sub> : There is no significant association between the consumers' educational qualification and the buying behavior on selected brands of toothpaste.**

**H<sub>a-2</sub> : There is significant association between the consumers' educational qualification and the buying behavior on selected brands of toothpaste.**

Table No. 2 represents educational qualification is significant with buying behavior on selected brands of toothpaste. The mean value (433.76), the impact is found to be high for post graduation people. Educational qualification of a person leads to collect more information about a brand. Simply, they are not attracted by, promotional technique used by toothpaste companies. It differs from primary educated, graduated and post graduated people. Highly educated people analyze the benefit, quality, price, etc for buying toothpaste; hence the null hypothesis is rejected.

**H<sub>0-3</sub> : There is no significant association between the years of marriage of respondents and the buying behavior on selected brands of toothpaste.**

**H<sub>a-3</sub> : There is significant association between the years of marriage of respondents and the buying behavior on selected brands of toothpaste.**

Table No. 2 represents number of year marriage of respondents is significant with buying behavior towards selected toothpaste brands. The mean value (513.30) obtained in table shows that the impact is high for above 15 years of marriage, hence the null hypothesis is rejected. This is supported by the views of Schiff man & Kanuk (2007) have noted that the relative influence of the husband and the wife on a particular consumer decision depends, in part, on the family's orientation regarding sex roles; and on the stage in the decision-making process. In later stage of marriage husband and wife understand each other when compare to the earlier stage, so the impact is high for above 15 years.

**H<sub>0-4</sub> : There is no significant association between the age group of children and the buying behavior on selected brands of toothpaste.**

**H<sub>a-4</sub> : There is significant association between the age group of children and the buying behavior on selected brands of toothpaste.**

Table No. 2 represents the age group of children is significant difference with buying behavior towards selected toothpaste brands. Based on mean value (526.71) obtained in table, the age group between 13-15 years influence the parents more for selecting toothpaste brands, hence the null hypothesis is rejected. This is similar to the study conducted by Cartoon network and NFO. A study conducted by Cartoon Network and NFO across 14 A and B class cities in India with 6436 consumers, which included kids in the age group of 7-14 years, and mothers reveals that children are now not mute spectators in major purchase decisions. Now-a-days kids are independent and influencing their parents to buy what they want, so the age group between 13-15 years influencing their parents for buying toothpaste brands.

**H<sub>0-5</sub> : There is no significant association between the status of the respondent and the buying behavior on selected brands of toothpaste.**

**H<sub>a-5</sub> : There is significant association between the status of the respondent and the buying behavior on selected brands of toothpaste.**

Table No. 2 represents the status of the respondent is significant with buying behavior towards selected toothpaste brands. Based on the mean value (526.71), the impact is high for employee. When compare other groups, employee collect more information for buying a product, because of maintains a status in society, hence the null hypothesis is rejected.

**H<sub>0-6</sub> : There is no significant association between the occupation of the respondent and the buying behavior on selected brands of toothpaste.**

**H<sub>a-6</sub> : There is significant association between the**

### **occupation of the respondent and the buying behavior on selected brands of toothpaste.**

Table No. 2 indicated that occupation is significant difference with buying behavior towards toothpaste brands. Based on mean value (443.41), the impact is high for lecturer when compare to other groups. Lecturer collect information and analyse the benefit for buying toothpaste brands, other group also analyzing the information and benefit, price etc but lecturer involvement s high for buying toothpaste brands, hence the null hypothesis is rejected. This is supported by the views of Kotler. Marketers should research their different interests, and specialize in providing products to satisfy different needs according to their occupation (Kotler, 2003).

**H<sub>0.7</sub> : There is no significant association between the income of the respondent and the buying behavior on selected brands of toothpaste.**

**H<sub>a.7</sub> : There is significant association between the income of the respondent and the buying behavior on selected brands of toothpaste.**

Table No. 2 indicated that income of the consumer is significant difference with buying behaviour towards selected toothpaste brands. Based on the mean value (399.72), the impact is high for below 25000, hence the null hypothesis is rejected. This is supported by Lowenberg. The type of products and services people choose to buy is greatly affected by their economic situation such as spendable income, savings and assets, debts, borrowing power and attitudes toward spending and saving. Lower income individuals were found to have higher levels of prejudice when trying newer foods (Lowenberg et al., 1979). In this study also the impact is high for the income level of below 25000. For low involvement goods like toothpaste generally low income group analyse the price, benefit etc, so the impact level is high for below 25000.

**H<sub>0.8</sub> : There is no significant association between the social class of the respondent and the buying behavior on selected brands of toothpaste.**

**H<sub>a.8</sub> : There is significant association between the social class of the respondent and the buying behavior on selected brands of toothpaste.**

Table No.2 indicated that social class is significant difference with buying behavior towards selected toothpaste brands. The mean value (438.29) obtained in table shows that, the impact is high for upper class. But it differs based on the nature of the products; hence the null hypothesis is rejected. Difference in social class is explained by Halson and Baron, (1994). They identified distinctive cognitive styles in problem solving and decision making, in that higher class individuals tend to use a more elaborated,

rational-analytic style. For upper class people price is not a consideration, but they give importance to status, they buy only branded and prestigious goods.

**H<sub>0.9</sub> : There is no significant association between the status of house in native of respondent and the buying behavior on selected brands of toothpaste.**

**H<sub>a.9</sub> : There is significant association between the status of house in native of respondent and the buying behavior on selected brands of toothpaste.**

Table No.2 exhibited that the respondents' status of house in native class is significant difference with buying behavior towards selected toothpaste brands. The mean value of (437.48) is highest for own house and mean value of (415.31) is lowest for rental house, so it can be conclude that permanent residents people are having more impact rather than tenants towards selected toothpaste brands, hence the null hypothesis is rejected at five percent level of significance. So the companies have to plan for suitable marketing strategy.

**H<sub>0.10</sub> : There is no significant association between the status of house in current of the respondent and the buying behavior of selected brands of toothpaste.**

**H<sub>a.10</sub> : There is significant association between the status of house in current of the respondent and the buying behavior of selected brands of toothpaste.**

Table No.2 indicated that the status of house in current is significant difference with buying behavior towards selected toothpaste brands. The mean value of ( 424 . 83 ) is highest for own house and lowest (395.85) for lease house. So it significant at five percent, hence the hull hypothesis is rejected.

### **Conclusion**

The study of consumer buying behavior is of greatest connotation in different aspects. Sometimes consumer behavior can persuade the economy of a nation and their preferences in purchasing products from specific retailers as to select for survival. So consumers' decisions are providing clue for survival and growth. As well understanding the needs of consumers to buy the products and their buying habits, the firms can make use of such information to devise corresponding marketing strategies in response. In India most of the toothpaste manufacturing companies introduced varieties of toothpaste with special ingredients to solve problems of consumers despite of selection of brands depends on the profile of the consumers. Leading players like Colgate Palmolive, HLL, GlaxoSmithKline, Dabur, Anchor, Henkel, Vicco, and Ajanta are under pressure of competition thereby this study is caring significance on consumer behavior on selected brands of toothpaste. The study basically concentrated on the demographic behavior

of consumers on selected brands of toothpaste. The results exhibited the age, gender, educational qualification, marital status, number of years married, age group of children, family type, family size, current resident and status of residents are influencing the consumer for buying selected brands of toothpaste. It observed from the results that there are significant association exist with the demographics behavior of the respondents on selected brands of toothpaste. So it can be recommended that in future the manufactures should give more priority on the demographic characteristics rather than brands.

### References

Blackwell, R., Miniard, P and Engel, J (2006), "Consumer behavior", Mason: Thompson.

Halson and Baron, (1994), "An Examination of the Pathways through Which Social Class Impacts", Health Outcomes, Academy of Marketing Science Review.

Kotler P (2003), Marketing Management, Prentice

Hall of India, 11th edition.

Kotler, P and Armstrong, G (1996), Principles of Marketing, Prentice Hall, N.J, 7th edition.

Kotler, P and Armstrong, G. (2001), Principles of Marketing, Upper Saddle River, NJ: Pearson Prentice Hall, 9th edition.

Lowenberg, M.E., Todhunter, E.N., Wilson, E.D., Savage, J.R and Lubawski, J.L (1979), Food and People, John Wiley & Sons, New York, NY.

Schiffman, L., Hansen H and Kanuk L (2007) " Consumer Behavior: A European Outlook", London: Pearson Education.

Urala, N and Lahteenmaki (2004), "Attitudes Behind Consumers' willingness to use functional foods", Food Quality and Preference, Volume.5, Issue.7, pp.793-803.