

CHAPTER V
DATA ANALYSIS AND INTERPRETATION

5.1 Introduction

5.2 Data Analysis and Interpretation

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5.1 Introduction:

This chapter deals with data analysis and interpretation about consumer buying behavior in Pune city for bathing soaps. The consumer sets different parameter while purchasing the soap such as quality, reputation of brand, availability, price, look design of pack, advertising, fragrance, chemicals, motivation, moistures, culture, social class, family, reference group, age, life cycle stage, occupation, economic situation etc.

Data has been collected with the help of schedule and classified using table and analyzed with the help of simple percentage and weighted average method.

5.2 Data analysis and Interpretation:

Table No. 5.2.1

Weighted Average of Source of Consumer Awareness for Different Brands of Soaps

Sr. No.	Source of Awareness	Weighted Average	Rank
1	Television Advertisement	4.77	1
2	News Paper	3.14	4
3	Hoardings	2.53	6
4	Friends Recommendation	2.80	5
5	Family Suggestion	3.26	3
6	Brand Pack in a Store	4.00	2
7	Poster of the Brand in a store	2.18	8
8	Display of the Brand in a store	2.41	7
9	Magazine	2.08	9
10	Shop keeper told me about the Brand	2.18	8
11	Doctor Recommendation	1.81	10

Above table shows that consumer gets more awareness about different brands of soaps from television advertisement, brand pack in a store and family suggestion. Table indicates that consumers have less awareness from magazine, poster of the brand in a store and doctor recommendation.

Table No. 5.2.2

Rank of Consumer Awareness for different bathing Soaps

Sr. No.	Name of Bathing Soap	Number of Respondent	Rank
1	Lux	421	5.5
2	Lifebuoy	421	5.5
3	Pears	421	5.5
4	Santoor	421	5.5
5	Dove	380	12
6	Rexona	421	5.5
7	Hamam	421	5.5
8	Breeze	421	5.5
9	Godrej No.1	421	11
10	Shikakai	395	13
11	Cinthol	372	17
12	Vivel	320	21
13	Superia	215	18
14	Nivea	285	5.5
15	Dettol	421	30
16	Bacter Shield	120	14
17	Savlon	355	16
18	Fair Glow	340	23
19	Dyna	130	22
20	Jo	165	24
21	International Camay	122	25
22	Chandrika	95	26
23	Yardley London	65	27
24	Sach	45	29
25	Doy care	32	19
26	Park Avenue	269	20
27	Himalaya	233	28
28	Essenza Di Wills	43	30
29	Fiama Di Wills	163	21
30	Moti	421	5.5

Above table depicts that, consumers are aware about Lux, Lifebuoy, Pears, Santoor, Hamam, Breeze, Godrej No.1, Dettol and Hamam, Dove, Shikaki and Cinthol. Most of the consumers are not aware about the brands such as Doy care, Sach, International Camay, Chandrika, Essenza Di Wills, Yardley London, Jo and Dyna.

Table No. 5.2.3

Percentage with rank of recent demand for different bathing Soaps

Sr. No.	Name of Bathing Soap	Recent Demand of bathing Soaps	Percentage (%)	Rank
1	Lux	320	76	3
2	Lifebuoy	282	67	4
3	Pears	230	55	7
4	Santoor	255	61	6
5	Dove	383	91	2
6	Rexona	165	39	10
7	Hamam	183	43	8
8	Breeze	123	29	14
9	Godrej No.1	109	26	16
10	Shikakai	113	27	15
11	Cinthol	127	30	13
12	Vivel	182	43	8
13	Superia	65	15	18
14	Nivea	55	13	19
15	Dettol	395	94	1
16	Bacter Shield	-	-	-
17	Savlon	165	39	11
18	Fair Glow	172	41	9
19	Dyna	-	-	-
20	Jo	-	-	-
21	International Camay	15	4	22
22	Chandrika	27	6	21
23	Yardley London	10	2	23
24	Sach	-	-	-
25	Doy care	-	-	-
26	Park Avenue	132	31	12
27	Himalaya	77	18	17
28	Essenza Di Wills	5	1	24
29	Fiama Di Wills	48	11	20
30	Moti	272	65	5

The above table shows that, there is more demand for dettol, Dove, Lux, Lifebuoy, Pears, Santoor, Hamam and Moti Soaps. There is less demand for Fiama Di wills, International Camay, Chandrika, Yardley London and Essenza Di wills. There is no demand for Doy Care, Sach, Jo, Dyna and Bacter shield.

Table No. 5.2.4

Rank of Promotional Schemes for Bathing Soaps

Sr. No.	Promotional Schemes	Weighted Average	Rank
1	Buy 3 get one free	4.29	1
2	Super Value Pack	4.02	2
3	Gold Scheme	2.90	4
4	Gifts	3.13	3
5	Chance to meet Celebrity	2.38	5
6	Chance of Abroad Trip	2.38	5

Above table depicts that consumer most like buy 3 get one free scheme and Super Value pack scheme. The promotional schemes like chance to meet celebrity and chance of abroad trip do not attract consumer.

Table No. 5.2.5

Product Rank according to attributes

Sr.No.	Product Attributes	Weighted Average	Rank
1	Quality	4.30	2
2	Availability	3.97	4
3	Price	4.31	1
4	Fragrance	4.02	3
5	Look Design of The Pack	3.66	5
6	Look Design of The Soap	3.63	7
7	Prestige	3.13	9
8	International Brand	3.53	8
9	Nice Advertising	3.64	6
10	Attractive Promotions	2.41	12
11	Production Date	2.69	10
12	Production Country	2.54	11

Above table depicts that while purchasing soap from market consumer give more attention to quality of the brand in market, price of soap and fragrance. Consumer pays less attention to soap attribute such as prestige, production date, attractive promotions and production country.

Table No. 5.2.6

Weighted Average of Fragrance for Bathing Soaps

Sr. No.	Fragrance	Weighted Average	Rank
1	Rose	4.08	4
2	Jasmine	3.28	2
3	Hibiscus	3.74	5
4	Lavender	4.33	1
5	Sandal	4.25	3

The above table shows consumer like lavender, jasmine and Sandal fragrance. There are few consumers who like hibiscus fragrance. Lavender, Jasmine and Sandal are favorable fragrances but hibiscus fragrance is less favorable in the market.

The fragrance attribute is mostly affected buying behavior of consumer. For detail study of this, nineteen parameter taken into consideration and its ranking table is given below.

Table No. 5.2.7

Rank of Bathing Soaps according to fragrance attributes

Sr. No.	Fragrance Attributes	Weighted Average	Rank
1	Overall liking of the fragrance	3.90	10
2	Pleasantness of the fragrance	4.32	1
3	Fragrance lasting for a long time	4.19	3
4	Fragrance being noticed by others after you take	2.84	18
5	Fragrance being fresh/refreshing	4.20	2
6	Fragrance making you feel that the bathing is	3.96	8
7	Fragrance is new and different	3.93	9
8	Removes dirt effectively/cleans well	3.53	13
9	Is harsh or contains chemicals	2.92	17
10	Is meant for everyday use	3.57	12
11	Color and appearance of the soap	3.44	15
12	Making skin look young	3.99	7
13	Having the right quantity of lather	3.47	14
14	Making skin glow	3.81	11
15	Lingering of fragrance while having bath	4.09	5
16	Lingering of fragrance on the skin	4.04	6
17	Lingering of fragrance in bathroom	2.56	19
18	Modernity of fragrance	3.38	16
19	Moisturizes skin	4.14	4

(Source: International Marketing Research Bureau)

Above table depicts that, consumer consider fragrance attributes of bating soaps such as Pleasantness of the fragrance, Fragrance being fresh/refreshing, Fragrance lasting for a long time, Moisturizes skin during buying of soaps , Lingering of fragrance while having bath and Lingering of fragrance on the skin. Table indicates that consumer less consider fragrance attribute of bathing soaps such as Modernity of fragrance, Is harsh or contains chemicals, Fragrance being noticed by others after you take a bath and Lingering of fragrance in bathroom.

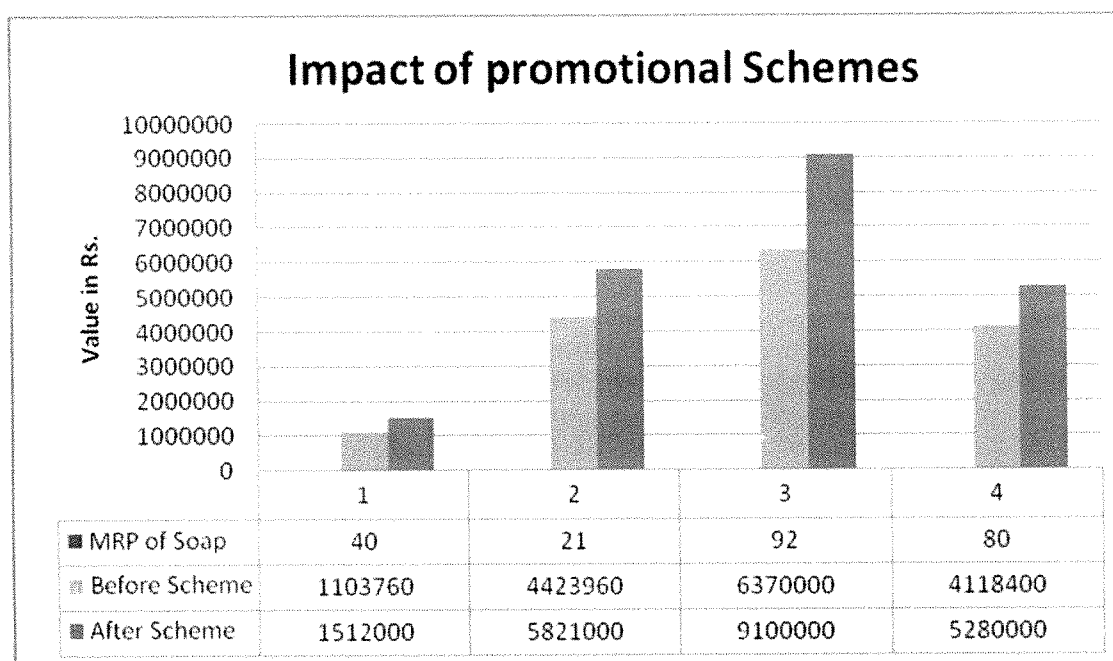
Table No. 5.2.8

Impact of Promotional Schemes on Sale of Santoor Soap

Sr. No.	MRP (Rs.)	Quantity (gms)	Promotional Schemes	Sale before Scheme (Rs.)	Sale After scheme (Rs.)	Increase of Sale (%)
1	40	55	Buy 3 get one free	1103760	1512000	27%
2	21	90	Buy 2 soap get pen free	44,23960	5821000	24%
3	92	110	Buy one soap get pen free	63,70,000	9100000	70%
4	80	90	Super saver pack (Pack of 4 soaps)	41,18,400	5280000	28%

(Source: Secondary data; Wipro Ltd)

Graph No. 5.2.8.1



Above graph shows that, there is significant impact of Promotional schemes on buying behavior of consumers. Due to offering various promotional schemes such as buy 3 get one free scheme, Buy 3 soap get pen free, buy one soap get pen free and Super saver pack, sale is increased by 27%, 24%, 70% and 28% respectively.

5.3 Testing of Hypothesis:

Here researcher tests the first hypothesis with the help of collected information by using chi-square test.

H0: Availability and choice of the brand of soap are independent.

H1: According to availability of brand consumer changes their preferences.

Table No.5.3.1

Choice \ Availability	Yes	No	
	Yes	148 (142)	136 (142)
No	273 (279)	285 (279)	588
Total	421	421	842

(Source: Primary data)

Table No. 5.3.2

Sr. No.	Observed frequency (O _i)	Expected frequency (E _i)	(O _i -E _i)	(O _i -E _i) ² /E _i
1	148	142	36	0.25
2	136	142	36	0.25
3	273	279	36	0.13
4	285	279	36	0.13
			$\chi^2 = 0.76$	

(0.76 < 3.841 = Accept H0)

Calculated χ^2 < tabulated χ^2 at 5% level of significance, hence accept H0.

There is no any influence on the choice due to availability or non availability of the brand.

These two are independent.

5.4 Testing of Hypothesis:

The second hypothesis also tested by chi-square test as below.

H0: There will be equal influence of external and internal factors on the purchase decision of the consumers.

H1: There will be unequal influence of external and internal factors on purchase decision.

Table No.5.4.1

Advertisement \ Quality	Yes	No
	Yes	114 (121)
No	230 (223)	43 (50)

(Source: Primary data)

Table No. 5.4.2

Sr. No.	Observed frequency (O _i)	Expected frequency (E _i)	(O _i -E _i)	(O _i -E _i) ² /E _i
1	114	121	7	0.40
2	34	27	7	1.81
3	230	223	7	0.22
4	43	50	7	0.98
			$\chi^2 = 3.41$	

(3.41 < 3.841 = Accept H0)

Hence calculated $\chi^2 <$ tabulated χ^2 at 5% level of significance.

There is equal influence of quality and advertisement on purchase decision of the consumers.

The next chapter deals with findings, suggestions and conclusion of the study.