"Most Preferred Fragrances And Ingredients By Consumers While Buying Bathing Soap."

(An Empirical Research Conducted in Vidarbha Region during March-May 2019)

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Abstract :

When we were conducting an empirical study on factors affecting the buying decision of consumers while buying the bathing soaps during March-My 2019 in Vidarbha territory(Irrespective of brand or company), it triggered my mind that which are the most acceptable fragrances and ingredients for a consumer while buying a bathing soap? hence I decided to probe further. while doing this probe, I had at the back of my mind that consumers buy a bathing soap due to certain specific fragrance or a specific ingredient. But which are these was not clear to me. To answer my question, I went ahead with a set of 400 consumer samples across eleven districts of Vidarbha. The answers which I received after analysis of the data were amazing. It can give an insight to all the FMCG manufacturers and advertisers what to manufacturer and what to advertise, when it's a question of bathing soap? Instead of just presuming that consumers would be buying by virtue of these attributes.

(Key words : Loglinear Analysis, Factors affecting buying of bathing soap)

Before conducting this study I was of the opinion that the manufacturers offers whatever they can offer to the consumers and consumers choose what they like out of these offers. To certain extent it was true, when it comes to packaged consumer goods. Practically FMCG market is a sales driven market. The irony is that although sales are happening, but no one knows why the sales have happened? The retailer can push whatever he wants to sale to the consumers. And consumers also willfully accept whatever has been given to them by the retailer. But the days are changing fast. Consumers are becoming well aware about their choice, their aspirations and the reason behind their choice. Thanks to the internet for educating the consumers. I am sure in the few years to come, FMCG sector will no longer be the sales driven sector but it will be a consumer driven sector. So now it has become extremely essential for every marketer/manufacturer/advertiser and retailer of FMCG products to understand the consumer psychology thoroughly well. This will not only improve their sales but also reduce the inventory levels thereby saving costs involved in

maintaining the inventory by the supply chain partners. To understand this psychology, I have extended my existing research further to understand the exact fragrance and most preferred ingredients by a consumer while buying bathing soap. To further refine our research, I have collected a list of fragrances and ingredients available at the market place. This list included six most available fragrances - Mix Fruits, Jasmine, Lemon, Neem, Rose & Sandal Wood. We found that these are the fragrances which are readily available at the market place in various brands of bathing soaps. While the popular ingredients are concerned I found that there are eight most readily available ingredients. These are Alovera, Eu-de-Cologne, Glycerine, Turmeric, Menthol, Milk Cream, Multani Clay and Saffron. After eight iterations, I left out with three popular fragrances- Jasmine, Lemon and Sandal Wood while three popular ingredients - Alovera, Glycerine and Menthol.

Objective of this study : To understand clearly the most preferred fragrances and ingredients, which the buyer look for while making the buying decision of bathing soap. And to estimate the percentage of population preferring these attributes for making buying decisions of bathing soaps.

Rationale of this study *:*

This study will help the marketers and manufacturers of bathing soaps to understand the most preferred fragrances and ingredients, which the buyer look for while making the buying decision of bathing soap. And would help them in the increasing order of their preference from the buyer's perspective.

Research Setting:

The total size of the samples was 400. The types of samples were all convenient samples. The samples composed of 106 Males and 234 Females. Which belonged to 294 respondents from Urban background while 106 were from rural background. The urban background constitute the district places where as Rural background constitute the taluka places. IBM SPSS- version-20 was used for analyzing the data so collected. The analysis tool which was used was Loglinear Analysis. As the data has more than two nominal variables and the most strongest association among these was sought. This strongest association would form the basis of attributes to be used for making the product the most favored one. This research was conducted between March - May 2019 in Vidarbha Region of Maharashtra State.

Analysis & Interpretation :.

Part A: Preferred Fragrances For Bathing Soap

Table 1: Sample Statistic

Cases	Valid	400
	Out of Range	0
	Missing	0
	Weighted Valid	400
Categories	Gender	2
	Jasmine	2
	Lemon	2
	Sandal Wood	2

Table 1 represents the data and full sample statistic. It shows total number of samples as 400, without any missing number. And variable categories as nominal with two categories in each variable. Gender - 0=Female while 1=Male while Jasmine, Lemon & Sandal Wood as No=0 and 1=Yes.

Table 2 : Backward Elimination Statistics _ Step Summery

Step	Model	Effect	Chi Square	Degrees of Freedom	Iterations	No. of Iterations
8	Jasmine*Lemon *Sandal Wood, Gender	0.013	7	1		

Table 2 indicates that the procedure of backward elimination was used and in the eighth step we could design the most acceptable model, which is an interaction variable Jasmine*Lemon*Sandal Wood and Gender. The model shows that the fragrances are gender specific.

Table 3: Goodness of Fit Test

	Chi-Square	Degrees of Freedom	Sig.
Likelihood Ratio	.013	7	1.000
Pearson Ratio	.013	7	1.000

Wide table 3, it is evident that the Likelihood Chi Square and Pearson Chi Square values are 0.013 and the significance value of 1.00 which are >0.005, indicating that the null hypothesis is accepted which states that there is no difference between the observed frequencies and the estimated frequencies.

Table 4 : Cell Counts

Gender	Jasmine	Lemon	Sandal Wood	Observed		Expected	
				Count	%	Count	%
Female	No	No	No	0	0	0	0
			Yes	74	18.6%	74	18.6%
		Yes	No	49	12.4%	49	12.4%
			Yes	0	0	0	0
	Yes	No	No	111	27.9%	111	27.9%
			Yes	0	0	0	0
		Yes	No	0	0	0	0
			Yes	0	0	0	0
Male	No	No	No	0	0	0	0
			Yes	53	13.4%	53	13.4%
		Yes	No	34	8.6%	34	8.6%
			Yes	0	0	0	0
	Yes	No	No	79	19.9%	79	19.9%
			Yes	0	0	0	0
		Yes	No	0	0	0	0
			Yes	0	0	0	0

The table 4 has the following observations -

A. For female buyers -

1. There are no females who, do not prefer either of the three fragrances - Jasmine, Lemon & Sandal Wood.

2.Percentage of females preferring Sandal Wood fragrance is 18.6%.

3.Percentage of females preferring Lemon fragrance is 12.4%.

4. Percentage of females preferring Jasmine fragrance is 27.9%.

5.Hence the preferred fragrances can be ranked for **female buyers** as Jasmine (27.9%), followed by Sandal Wood with (18.6%) followed by Lemon (12.4%) at the bottom. Thus Jasmine is the most preferred fragrance by the females.

A. For male buyers -

1. There are no males who, do not prefer either of the three fragrances - Jasmine, Lemon & Sandal Wood.

2.Percentage of males preferring Sandal Wood fragrance is 13.4%.

3.Percentage of males preferring Lemon fragrance is 8.6%.

4. Percentage of males preferring Jasmine fragrance is 19.9%.

5.Hence the preferred fragrances can be ranked for **male buyers** as Jasmine (19.9%), followed by Sandal Wood with (13.4%) followed by Lemon (6.4%) at the bottom. Thus Jasmine is the most preferred fragrance by the **males** also.

Thus we can conclude that **Jasmine** is the most preferred fragrance by both females as well as males.

B. Preferred Ingredients For Bathing Soap

Table 5 : Sample Statistic

Cases	Valid	400
	Missing	0
	Weighted Valid	400
Cells	Defined Cells	16
Categories	Gender	2
	Alovera	2
	Menthol	2
	Glycerine	2

Table 5 represents the data and full sample statistic. It shows total number of samples as 400, without any missing number. And variable categories as nominal with two categories in each variable. Gender - 0=Female while 1=Male while Alovera, Menthol & Glycerine as No=0 and 1=Yes.

Table 6 : Backward Elimination Statistics _ Step Summery

Step	Model	Effect	Chi Square	Degrees of Freedom	Iterations	No. of Iterations
8	Gender*Menthol, Alovera*Menthol, Alovera*Glycerine, Menthol*Glycerine	3.850	7	0.797		

Table 6 indicates that the procedure of model building used was backward elimination and in the eighth step we could design the most acceptable model, which is an interaction variables (Gender*Menthol), (Alovera*Menthol), (Alovera*Glycerine), (Menthol*Glycerine). The model shows that the ingredients are gender specific.

Table 7 : Goodness of Fit Test

	Chi-Square	df	Sig.
Likelihood Ratio	4.913	7	0.671
Pearson	4.772	7	0.688

Wide table 7, it is evident that the Likelihood Chi Square and Pearson Chi Square values are 4.913 & 4.772 respectively and the significance value of 0.671 & 0.688 respectively which are >0.005, indicating that the null hypothesis is accepted which states that there is no difference between the observed frequencies and the estimated frequencies.

Table 8: Cell Counts

Gender	Alovera	Menthol	Glycerine	Observed		Expected		Adjusted Residual
				Count	%	Count	%	
Female	No	No	Yes	76	19.0%	80.145	20.0%	-.886
		Yes	No	51	12.8%	42.705	10.7%	2.179
	Yes	No	No	107	26.8%	111.150	27.8%	-.843
Male	No	No	Yes	61	15.2%	56.855	14.2%	.886
		Yes	No	22	5.5%	30.295	7.6%	-2.179
	Yes	No	No	83	20.8%	78.850	19.7%	.843

The table 8 has the following observations -

A. For female buyers -

1. There are no females who, do not prefer either of the three ingredients - Alovera, Menthol & Glycerine.

2. Percentage of females preferring Glycerine is 19%.

3. Percentage of females preferring Menthol is 12.8%.

4. Percentage of females preferring Alovera is 26.8%.

5.Hence the preferred ingredient can be ranked for **female buyers** as Alovera (26.8%), followed by Glycerine with (12.8%) followed by Menthol (12.8%) at the bottom. Thus **Alovera** is the most preferred ingredient by the **females** for bathing soap.

A. For male buyers -

1. There are no males who, do not prefer either of the three ingredients - Alovera, Menthol & Glycerine.

2.Percentage of males preferring Glycerine is 15.2%.

3.Percentage of males preferring Menthol is 5.5%.

4. Percentage of males preferring Alovera is 20.8%.

5.Hence the preferred ingredient can be ranked for **male buyers** as Alovera(20.8%), followed by Glycerine with (15.2%) followed by Menthol (5.5%) at the bottom. Thus **Alovera** is the most preferred ingredient by the **males** also.

Thus we can conclude that **Alovera** is the most preferred fragrance to be considered by both females as well as males while buying bathing soap.