

## VARIABLES DISCRIMINATING CONSUMPTION PATTERN OF BABY CARE PRODUCTS IN ADULTS OF JAMMU REGION

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**Abstract**—In accordance with the new research report "Indian Baby Care Market to 2013", baby care market in India has experienced surprising growth over the past few years due to changing consumer mindset and increasing penetration of baby care products. Rising income level, better product availability and increasing awareness have significantly transformed the baby care products industry landscape. India has emerged as the most preferred market for the companies involved in baby care product manufacturing and marketing, says RNCOS (Market Research and Information Analysis Company) report. The growing segment of population in the age group of 0-4 years has been providing tremendous opportunities as compared to any other baby product market worldwide. The present study will highlight the quantitative features to support the hypothesis and to explore the new segment as an opportunity of future market for manufacturers for niche penetration of product to other than baby segment or it may lead us to think on the pattern of new product development too. The ranges of products studied are baby soap, baby shampoo, baby oil and baby talc by using convenience sampling technique. Therefore the ultimate model of variables is based on three most discriminating variables according to stepwise method and they are Advertisement, Child Usage and Soft on eyes.

### I. INTRODUCTION

INDIA, April 12, 2009 /24-7PressRelease/ -- India has experienced surprising growth over the past few years due to changing consumer mindset and increasing penetration of baby care products. Rising income level, better product availability and increasing awareness have significantly transformed the baby care products industry landscape. India has emerged as the most preferred market for the companies involved in baby care product manufacturing and marketing, says RNCOS report. While India represents huge growth opportunities, there are certain challenges for the industry. The Indian baby care market is restricted to just urban areas, despite accounting for majority sales, the urban areas are still under penetrated as compared to other developed and developing markets in the western countries. Products like soap and massage oil have high penetration with year round usage. "Indian Baby Care Market to 2013" is an exhaustive research and objective analysis on the growing baby care products market in India. The report also evaluates the factors critical to the success of baby care products market in India and deeply analyzed the market trends. Detailed data

and qualitative analysis help investors to understand the latest trends in the baby care industry. The report also provides the segment-wise analysis, forecast and information of emerging areas. The extent of the information covered in the report helps in understanding the market dynamics and the corresponding factors responsible for transformation of the industry. According to our new research report "Indian Baby Care Market Analysis", the Indian baby care market has substantially grown over the past few years and caught the attention of international players. It showed impressive performance last year (2009), which indicates to the nonexistence of economic slowdown effects. Aggressive marketing strategies and consumer acceptance of branded premium baby care products (especially in baby food and skin care segments) will enable the industry to register a CAGR of more than 11% during 2010-2013. **Phusit Wonglorsaichon and Paitoon Sathainrapabayut** (2008) related to Brand Perception & Brand Equity of Baby Accessory Products in Working Moms' Perspective is relatively giving some kind of insights about how working mothers are taking this baby care products brand. A study by **Voss and Parasuraman** (2003) the purchase preference is primarily determined by price than quality during pre-purchase evaluation. Given explicit quality information, price had no effect on pre-purchase or post-consumption quality perceptions. Instead, post consumption quality evaluations had a favorable impact on price evaluations. Another study by **Chernev** (1997) analyzed the effect of attribute importance. It is argued that when brand attributes differ in importance, with the best value on the most important attribute, thus further polarizing brands' choice shares.

### II. OBJECTIVE

- 1) To find out the impact of various factors influencing adults towards the consumption of baby care products.
- 2) To analyze the consumer perception regarding the use of baby care products.
- 3) Finding the preference and attitude towards the baby care products in comparison to the normal products by adults.
- 4) To analyze the promotional activity influence upon the adult segment in the usage of baby care products.

### III. HYPOTHESIS

H1: Disposable income positively associated with the usage of baby care products.

H2: Level of education is correlated with the consumption of baby care products.

H3: Easy availability of product increases the consumption of baby products.

H4: Females uses Baby care products most frequently than males.

H5: Doctors recommendations have positive influence on the consumption of baby care products.

H6: Fragrance of the products has positive association with consumption of baby products in adults.

H7: Advertisement on softness of products have positive association on consumption of baby care products in adults.

### IV. RESEARCH METHODOLOGY

**Sample Size:** The sample size is 118. The data is taken by introducing customers that data is taken purely for academic purpose.

**Sampling Technique:** Convenience Sampling, Nature of research is descriptive with the exploration of phenomenon of finding various variables influencing the consumption (high, medium and low) pattern of baby care products by adults.

**Variable description**

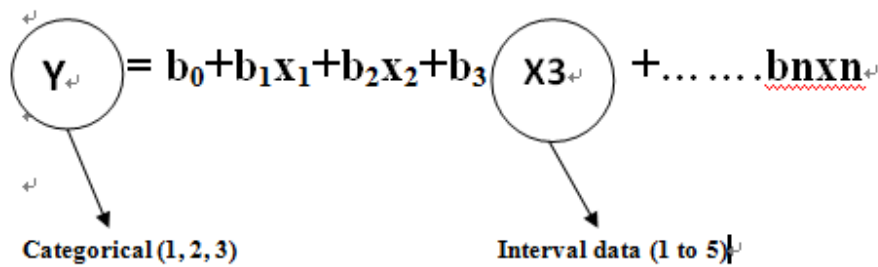
No of total Variables- 18 variables,

**Dependent variable (Categorical variable1, 2, 3)**

**C1- Consumption,**

**Independent variables** Fr- Fragrance, SS- Softness of skin, Ad-Advertisement, Dr- Doctor recommendation, Cu- Child usage, Pr1- Price, Fg- Fragrance, Pk1- Packaging, Soe- softness on eyes, C&S- color and shape, Dry- Less dry to skin, moist- Moisturizing effect, Mkc- Make up remover, Age- Age, Inc- Income, Edu- Education & Gender.

Figure 1. General Equation for discriminant analysis



### Findings and conclusion

TABLE I. ANALYSIS CASE PROCESSING SUMMARY

Unweighted Cases		N	Percent
Valid		117	99.2
Excluded	Missing or out-of-range group codes	0	.0
	At least one missing discriminating variable	1	.8
	Both missing or out-of-range group codes and at least one missing discriminating variable	0	.0
	Total	1	.8
Total		118	100.0

TABLE II. CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

	Function	
	1	2
Fr	.310	-.082
SS	-.452	-.022
Ad	-.376	-.549
Dr	-.034	.017
Cu	.577	.266
Pr1	.039	.166
Fg	.053	.490
Pk1	.028	-.131
Soe	.423	-.585
CS	.040	.225
Dry	.071	-.202
moist	-.044	-.240
Mkc	.222	-.072
Age	.519	.402
Inc	.202	.107
Edu	-.414	.155
Gender	.341	.249
(Constant)	-3.635	-.713

The model now formed will be  
 $Z = -3.635 + 0.341 (\text{Gender}) - 0.414 (\text{Edu}) + 0.202 (\text{inc}) + 0.519 (\text{age}) + 0.222 (\text{Mkc}) - 0.044 (\text{moist}) + 0.071 (\text{Dry}) + 0.040 (\text{CS}) + 0.423 (\text{Soe}) + 0.028 (\text{pk1}) + 0.053 (\text{fg}) + 0.039 (\text{Pr1}) + 0.577 (\text{Cu}) - 0.034 (\text{Dr}) - 0.376 (\text{Ad}) - 0.452 (\text{SS}) + 0.310 (\text{Fr})$

1) It has been observed that there are 4 variables which are discriminating in terms of three different type of customers (high, medium and low) which has been taken in account. These variables are significant with wilkys  $\lambda$  at 95 % confidence level. a) Edu- Education, b) Cu –Child usage, c) Soe –soft on eyes & d) Ad – Advertisement

2) *Interpretation with respect to Structure matrix*  
 Now the variables which shows the best impact on structure matrix are a) Edu, b) Cu, c) SS, d) Age, e) Mkc, f) Inc & g) Dr . Since we can see that from all above four significant variables Cu and Edu shows most impact on function1 and other two variables Soe and Ad on function 2.

3) *Interpretation with respect to Unstandardized coefficient value*

Among all, 4 variables have been analyzed with standard coefficient value then got almost same result but filtered with more strong value

Variables	Unstandardized coefficient value
Edu	-.414
Cu	.577

Since correlation coefficient is also highest in both the variables. Hence it can be concluded that Education and Child Usage are the variables that are most discriminating for function 1 while Soe and Edu are the discriminating variables for function 2 which has been strengthened with the help of Coefficient value of Edu and Cu. (Where child usage means mothers are also using the same product because their child is using.)

However the study was primarily conducted to check the discriminating variables on the basis of simple multiple discriminant analysis and results are interpreted as above. But to check more reliability we applied for stepwise discriminant and we found that all four variables which were been able to find most discriminating was also significant in stepwise method too. They are Advertisement, Child usage, Softness on eyes & Education & Gender. However stepwise method recommends not to include Education in the final model as it reduces value of wilkys  $\lambda$  later on when stepwise variable movement starts. So ultimate model of variables is based on three most discriminating variables according to stepwise method and they are Advertisement , Child Usage and Soft on eyes which also strengthen our above result calculated.

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