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Pre-purchase Evaluation of Alternatives by Rural Consumers towards FMCGs- An Empirical Analysis

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Abstract
Villages are the heart of India. According to census of India, 2011, the rural India comprised approximately 70 percent of India's population which was 121 crore. With 6, 38,365 villages spread over 32 lakh sq. kilometers, rural India has become a massive consumer goods market. FMCG has emerged as a major product category in rural consumption. Companies marketing FMCGs to rural consumers cannot merely extend their urban marketing strategies. Instead, they need to formulate and execute rural specific strategies. In this process, they need to understand crucial issues relating to rural consumer behavior vis-à-vis variations in different geographic regions of the country. This paper focuses on understanding factors that affect the rural Pre-purchase behavior in general and Pre-purchase Evaluation of Alternatives of FMCG specifically in Keonjhar District of Odisha State, India in particular. The commodities chosen for the research are bathing soap, shampoo, skin cream, hair oil and packaged wheat flour. Factor analysis was used to form nine key variables into two groups (influencing factors). 'Price is important criterion' has emerged as the most significant variable in the 'Consumer purchase decision' factor and 'Medicinal Values of FMCGs' in the 'Product properties' factor.

Keywords: Need Recognition, Information Search, Evaluation of Alternatives, Pre-purchase.

1. Introduction

The liberalization of the Indian economy had far reaching consequences, which led to entry of global brands to the Indian markets. Earlier companies focused their marketing efforts towards the urban markets targeting the educated consumers. However, with the saturation of markets in the urban sector, many companies focused their attention towards the fast growing rural sector. Thrust on rural development in post-independence eventually made India into an attractive rural market. Increased awareness along with rise in income levels influenced the rural marketing environment in the country (Velayudhan, 2002)[1]. Other factors that contributed to the growth of rural markets are penetration of media, rising aspiration of rural people and packaging revolution (Bijapurkar, 2000; Kotler *et al*., 2007)[2, 3]. Fast Moving Consumer Goods (FMCGs) market has emerged as one of the most attractive for rural markets in India (Kashyap & Raut, 2006)[4]. An effective FMCG marketing strategy in a rural setup essentially includes product variants, product categories, price points, sizes and widespread distribution network (Kumar & Madhavi, 2006)[5]. The general impression that the rural markets are potential only for agri-inputs is partly correct as there are opportunities to market modern goods and services in rural areas in India.

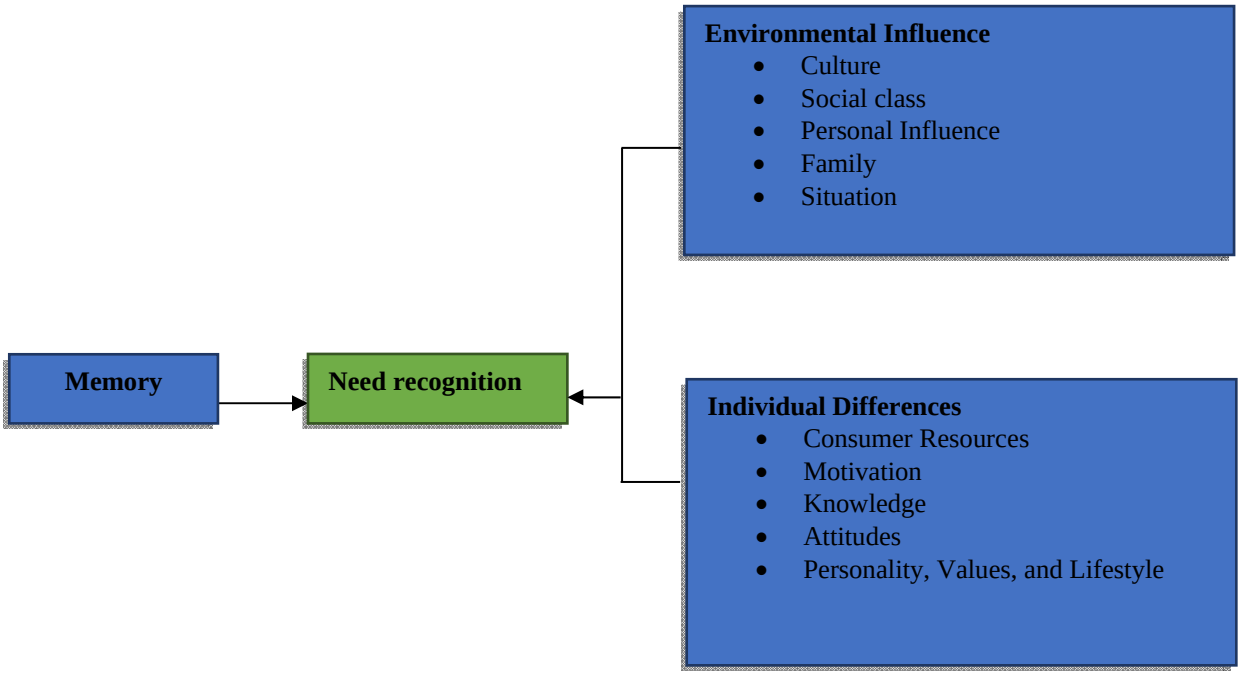
FMCGs are also called as consumables comprise all non-durable goods like toiletries, cosmetics, foods and beverages, footwear, cigarettes, electric bulbs etc. These products are consumed quickly and purchased frequently. The major players in FMCG category in rural markets are Hindustan Unilever Limited (HUL), Dabur, Marico, Colgate-Palmolive, Nirma, CavinKare, Godrej, Indian Tobacco Company (ITC), Procter & Gamble (P&G), Bata, etc.

The FMCG sector is the fourth largest in the Indian economy, with a total market size of USD 44.9 billion in 2013.The sector grew at a Compound Annual Growth Rate (CAGR) of 16.2 percent during 2006-13. Though the FMCG sector continues to grow in double digits, there has been some moderation (9.4 percent) in growth rates during 2013 due to deceleration in Gross Domestic Product (GDP) growth and high inflation (A C Nielsen & Economic Times)[6]. FMCGs are invariably used by rural consumers and looking at the growth statistics of the sector it is interesting to note that rural market has great potential for FMCGs and it warrants further exploration.

According to Blackwell (2005)[7], consumers typically go through seven major stages while making purchase decisions: need recognition, search for information, pre-purchase evaluation, purchase, consumption, post-consumption evaluation, and divestment. In these seven stages various factors influence each stage of consumer's decisions. By understanding the stages in the consumer decision-making roadmap, marketers can discover why people are or are not buying product and what to do to get them to buy more or from a specific supplier/retailer. Usually the first three stages, namely, need recognition, information search and evaluation of alternatives are referred to as 'Pre-purchase behaviour'. Pre-purchase stage forms a strong base for the purchase decision of the consumers. Hence, it is very important for the marketers to understand the influencing factors for 'Pre-purchase behaviour'. Marketers must find out the criteria employed by a rural consumer while evaluating the available brands in a product category. This will help the marketer formulating strategies to ease consumer's evaluation process and woo them to buy their products. The stages in the Pre-purchase are briefly discussed below.

1.1 Need Recognition

According to Blackwell (2005), the buying process starts when the buyer recognizes a gap between his desired state and the actual state. Such recognition may be caused by stimuli either internal (within oneself) or external (by environment or marketer). At this stage, the marketer should help consumers identify their current and future problems and needs or latent needs. To do this, marketers have to research on consumer problems and needs. The consumer's need recognition process is depicted in Figure 1.



Source: Figure from *Consumer Behaviour*, Ninth Edition, p. 72, by R.D. Blackwell, 2005, New Delhi: Vikas Publishing House Pvt. Ltd.

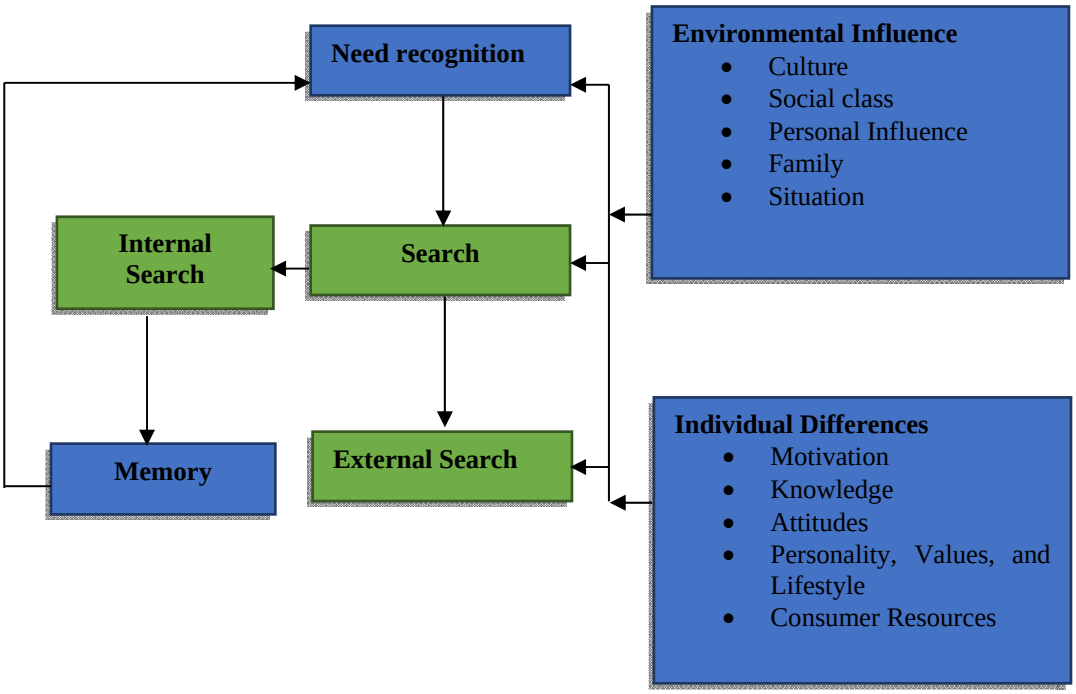
Fig 1: Need Recognition Model

1.2 Information Search

Generally, consumers try to find information pertaining to products that satisfies their wants in order to make the right choices. A consumer may obtain information from one or more of the following sources:

1. Personal-family, friends, neighbors
2. Commercial-advertisements, publicity, sales people, displays
3. Public-TV, radio, Internet and print media
4. Experiential-handling, examining, using the product

The amount of information required depends upon (a) the type of product, and (b) nature of product. Products can be classified into two categories such as convenience, and shopping or speciality goods. Convenience products are routinely purchased and require less information relative to shopping goods. The information needs pertain to quality, variety, unique features, longevity, reusability package, etc. In case of shopping goods, fashion, design, style, durability, performance features like ease, economy, and trouble-free system are inquired. Another way of classifying products is based on complexity. High-complex goods like computers, tractors, cameras and refrigerators are high-tech and consumers will look at various sources for information before making a purchase (Krishnamacharyulu & Ramakrishna, 2011, p. 113) [8]. This is depicted in the Figure 2.



Source: Figure from *Consumer Behaviour*, Ninth Edition, p. 74, by R.D. Blackwell, 2005, New Delhi: Vikas Publishing House Pvt. Ltd.

Fig 2: Information search Model

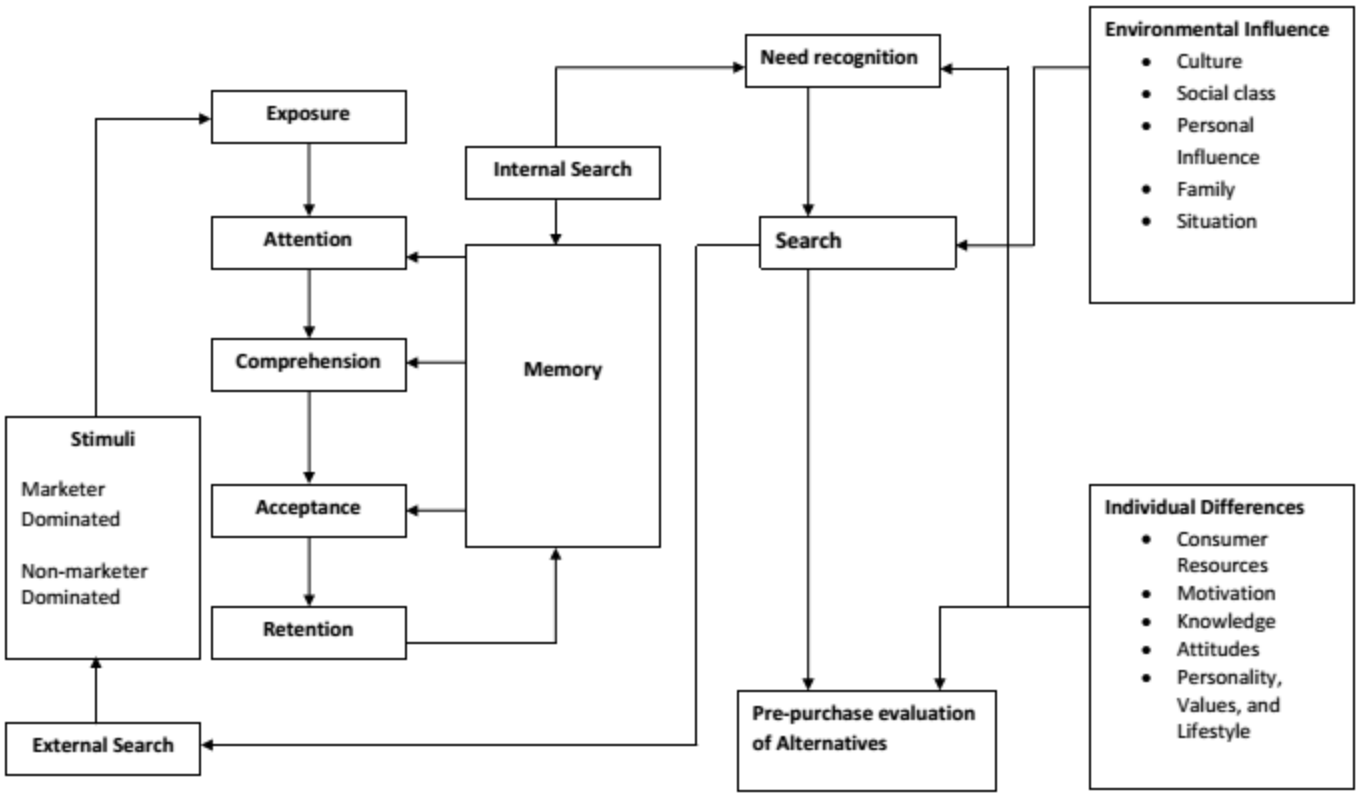
1.3 Evaluation of Alternatives

The evaluation process varies from product to product depending upon the perceived risk in buying and a brief discussion on it is presented below.

1.3.1 Convenience goods: In case of convenience goods (ice creams, soft drinks, toilet soaps, shampoos, edible oils, etc.) that are purchased for one-shot or short-period consumption, the evaluation process will be short and criteria applied are essentially quality and price. Occasionally, the consumer may indulge in impulse buying tempted by the attractiveness of the product or offer. Evaluation will be done carefully, mixing emotional and logical thought processes.

1.3.2 Shopping goods: Shopping goods are products that consumers do not buy as frequently as convenience goods. They usually cost more than convenience goods and consumers expect to have them for longer duration, so they will do some research before purchase. Most of the shopping goods are durables. The evaluation process is longer, the criteria considered are functional benefits, operational advantages, maintenance costs and facilities, brand image and social endorsement. In case of clothing and jewelry, views of family members and other social groups, current fashion, price, and quality will figure in the list of criteria.

1.3.3 Specialty goods: The specialty goods incur special purchasing efforts and the items possess some special features. The buyers usually take lots of time and money to buy them is also more in contrast with the shopping goods. The examples are, rare arts collection, antiques, prestige brands, style goods, automobile etc. It is interesting to note that comparison factor is absent in specialty goods (Krishnamacharyulu & Ramakrishna, 2011, p.114). The evaluation of alternative model is given in the Figure 3.



Source: Figure from *Consumer Behaviour*, Ninth Edition, p. 77, by R.D. Blackwell, 2005, New Delhi: Vikas Publishing House Pvt. Ltd.

Fig 3: Alternative Evaluation Model

2. Literature Review

Marketing scenario in India is changed with market liberalization policies after 1990's (Gopalaswamy, 1997)[9]. Most of the Indian rural markets are 'Virgin' in nature and they are now opening for most of the packaged goods (Habeeb-Ur-Rahman, 2007) and for a number of product categories (Bijapurkar, 2000). Rural marketers have to differentiate themselves on quality and value for money (Anand & Krishna, 2008)[10]. For this purpose, they need to understand the factors that influence the rural purchase of FMCG (Krishnamoorthy, 2008)[11]. Available literature mentions that packaging (Pandey, 2005; Venkatesh, 2004), brand name (Narang, 2001; Bishnoi & Bharti, 2007; Sahoo & Panda, 1995)[12-16], quality (Kumar & Madhavi, 2006)[17], price (Sarangapani & Mamatha, 2008)[18] and promotions (Bhatt &Jaiswal, 1986)[19] influence the rural purchase. Opinion leaders also influence the rural consumption behaviour (Sayulu& Reddy, 1996)[20]. In the case of husband-wife influence on problem recognition, information search and final decision of customer choices, there is a clear pattern of wife dominance in decision making regarding kitchenware, household cleaning products, food, wife and children's clothing (Davis and Rigaux, 1974)[21].When a consumer purchases an unfamiliar expensive product, he uses a large number of criteria to evaluate alternative brands and spends a great deal of time seeking information and deciding on the purchase. The type of decision making used varies from person to person and from product to product (Skinner, 1990)[22]. A purchase decision requires a subset of decisions associated with information search. At some point of time, consumers acquire information from external sources that gets stored in long-term memory. For most consumers, usually this stored information, referred to as internal information, serves as the primary source of information, most of the time as is evident in nominal or limited decision making (Jarvis, 1998)[23]. The rural consumer used multiple sources of information with television as an important source. The actual purchase in rural markets was by the male member of the household, though the decision making depends on the type of product. The brand choice among rural buyer was influenced by social groups (Kumar, 1998)[24]. The quality of the products is the major driver to prefer a particular brand in washing soaps in the rural market. If the preferred brands are not available, customers buy the available brands. It is found that there is a significant relationship between the age of the respondents and the factors influencing the customer's brand preferences (Anandan, 2007)[25]. In the consumer's decision making process, retailers have emerged as key influencers of rural purchase of FMCG (Zhao, 1994)[26].

The literature review conducted for the current research makes it clear that very less research is done on rural consumer behavior with respect to Pre-purchase behavior, either in general or with reference to Odisha. Hence, it is decided to conduct a survey with reference to FMCG Pre-purchase behavior of rural consumers in Keonjhar District of Odisha.

3. Objectives of the Study

1. To study the stages in the Pre-purchase behavior of rural consumers.
2. To identify the Factors of Evaluation of Alternatives in rural consumers.

3. To examine the influence of demographic variables on the Factors of Evaluation of Alternatives.

4. Hypotheses

This Study tests the following hypotheses:

H1: There is no Association between Age and clusters of Evaluation of Alternatives.

H2: There is no Association between Education and clusters of Evaluation of Alternatives.

H3: There is no Association between Occupation and clusters of Evaluation of Alternatives.

H4: There is no Association between Income and clusters of Evaluation of Alternatives.

5. Research Methodology

5.1 Data Collection

This is a descriptive research. The data was collected from primary as well as secondary sources. Primary data was collected through administering a structured questionnaire consisting of five-point Likert Scale (1-Strongly Agree and 5-Strongly Disagree). Since the questionnaire used five-point scale (1 to 5), an average score of 3 indicated a moderate tendency on that dimension. Scores around 2 indicated a fairly good degree and scores around 1 indicated a very good degree on that dimension. The secondary data was collected from journals, magazines, publications, reports, books, dailies, periodicals, articles, research papers, websites, company publications, manuals and booklets.

5.2 Sampling size and Design

5.2.1 Universe of the study: Rural consumers in the Keonjhar District of Odisha.

5.2.2 Population: All the households of rural Keonjhar District consuming FMCGs.

5.2.3 Sampling unit: Heads of household including both the genders i.e. males and females irrespective of their education level.

5.2.4 Sample size: 360 Consumers

5.2.5 Sampling procedure: A Multistage convenience sampling method was used to collect various perceptions of consumers of FMCGs in rural areas in Keonjhar District. Sampling area consists of Keonjhar District which has three sub-divisions. From each sub-division two villages were selected conveniently. From each village 60 households were selected randomly. The sample size of 360 respondents, representing 60 from 6 villages.

6. Scope and Limitations of the Study

The study was conducted in one of the rural districts of Odisha state. It is believed that the findings in this district are fair representative of the other parts of the States. Though FMCGs include many product categories, like foods, confectionaries, hair care, household care, beverages etc. only five FMCG product categories namely, bathing soaps, shampoos, hair oil, skin cream and packaged wheat flour were chosen for the study of Pre-purchase behaviour. Other limitations have been identified in this study are, the sample size do not ensure representative and conclusive finding , the behaviour of the consumers is changing fast and hence cannot be truly predicted and finally, a more robust analysis is needed to reach a strong conclusion.

7. Analysis and Interpretation of Data

The primary data collected from the respondents were analyzed using SPSS Version 20 (Statistical Package for Social Sciences) to obtain the results concerning the objectives of the study. Factor analysis, Cluster analysis, Association Analysis, and One Way Analysis of Variance were applied for analyzing the responses of FMCG consumers of Keonjhar District.

7.1 Factor Analysis for Evaluation of Alternatives

The evaluation of alternatives consists of nine variables. The reduction of these variables is achieved through the application of factor analysis by Principal Component Method. The following results are the upshots of factor analysis application.

Table 1: KMO and Bartlett's Test for evaluation of alternatives

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**0.727**
Bartlett's Test of Sphericity	Approx. Chi-Square	450.845
	df	36
	Sig.	.000

From the Table 1, it is found that KMO measure of sampling adequacy (0.727) and Bartlett's test of sphericity (450.845) are statistically significant at 5 percent level. Therefore, it is concluded that the nine variables of evaluation of alternatives perfectly involve themselves in representing the factors. The sample size is also adequate and expresses its suitability for the application of factor analysis. The communality values for all the nine variables are represented in the Table 2.

Table 2: Communalities for evaluation of alternatives

Sl. No.	**Variables**	**Initial**	**Extraction**
1.	Product quality is important before purchase decision	1.000	0.167
2.	Price is important criterion	1.000	0.808
3.	Quality must be reasonably good	1.000	0.262
4.	Availability is very important	1.000	0.746
5.	Attractive packaging is necessary	1.000	0.525
6.	Ingredients are important in the selection of brands	1.000	0.638
7.	For their medicinal value	1.000	0.728
8.	Herbal nature of the product is an important criterion	1.000	0.607
9.	Size and weight of products are important	1.000	0.173

Extraction Method: Principal Component Analysis.

From the above Table 2, it is found that the second variable, 'price is important criterion (0. 808)' possesses high communality value, whereas, the first variable 'the product quality is important before purchase decision (0.167)' acquires least value. This implies that the individual variances of nine variables range from 80.8 percent to 16.7 percent respectively. Around 64.1 percent oscillation (80.8 – 16.7) is well established among the nine variables. This implies, individually all the variables adequately represent their contribution in the formation of factors. The number of factors emerged is presented in the Table 3.

Table 3: Number of factors of evaluation of alternatives

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1.	4.093	45.48	45.48	3.224	35.82	35.82
2.	2.012	22.36	67.83	2.881	32.01	67.83
3.	0.862	9.58	77.41			
4.	0.682	7.58	84.99			
5.	0.551	6.12	91.11			
6.	0.403	4.48	95.59			
7.	0.217	2.41	98.00			
8.	0.153	1.70	99.70			
9.	0.027	0.30	100.00			

Extraction Method: Principal Component Analysis.

From the Table 3, it is found that the nine variables on the whole explained 67.83 percent of total variance and two factors emerged out of the total variables. The individual Eigen values of two factors are 3.244 and 2.881 and their percentage of individual variances are 35.82 and 32.01 respectively. The two factors evolved are represented by the component variables as presented in the Table 4.

Table 4: Variables and variables loadings for factors of evaluation of alternatives

Item No.	Variables/Factors	Variable loading
Factor I : Consumer Purchase Decision		
2.	Price is important criterion	0.808
4.	Availability is very important	0.746
6.	The ingredients are important in the selection of brands	0.638
5.	Attractive packaging is necessary	0.525
Factor II: Product Properties		
7.	For their medicinal value	0.728
8.	Herbal nature of the product is an important criterion	0.607

ExtractionMethod: PrincipalComponentAnalysis.RotationMethod: VarimaxwithKaiserNormalization.A Rotation converged in 6 iterations.

From the Table 4, it is evident that the first factor consists of four variables and named as 'Consumer purchase decision'. The second factor consists of two variables and is named as 'Product properties'. Price of FMCGs is considered to be the main and important criterion while evaluating the various brands of FMCGs by the rural consumers of Keonjhar District to take the final decision. Availability and medicinal value of FMCGs are also taken into account while evaluating the various brands by the rural consumers. The predominant factors identified through factor analysis forms the basis and also create a research question on: what are the different blocks of consumers exists among rural consumers in Keonjhar District? This classification actually enumerates the factors involved in perception differences among the consumers.

7.2 Classification of Rural Consumers based on their Perception on Factors of Evaluation of Alternatives

The factor analysis revealed that evaluation of alternatives is aimed at consumer purchase decision and product properties. Now, an attempt is made to classify the consumer's perception about the above mentioned factors of evaluation of alternatives. The K-means cluster analysis is applied on these factors by identifying the co-efficient of hierarchical clusters and it is concluded that two cluster exists. The results are displayed in the following Tables.

Table 5: Final Cluster Centers for the factors of evaluation of alternatives

Factors	Cluster	
	Knowledgeable consumers	**Need based consumers**
Consumer Purchase Decision	1.65	2.18
Product Properties	1.81	1.98

Table 6: Number of cases in each cluster of Evaluation of Alternatives

Cluster	Knowledgeable consumers	Need based consumers	Valid
	257.000	102.000	359.000

From the Tables 5 and 6, it is indicated that 71.59 percent of rural consumers in Keonjhar District are found in first cluster with strong qualities and more knowledge about the factors related to consumer purchase decisions and product properties and therefore, the first cluster of respondents is known as Knowledgeable Consumers. The second cluster consists of 28.41 percent of rural consumers with weak qualities and knowledge about the factors with regard to consumer purchase decisions and product properties and therefore, it is called as Need based consumers.

The above Tables show that most of the rural consumers widely use the various evaluative criteria before purchasing the FMCGs. Only 28.41 percent respondents are less aware about the evaluative criteria. It is finally concluded that the knowledgeable consumers possess a clear wisdom about the consumer purchase decisions and product properties.

7.3 Association Analysis of Evaluation of Alternatives

7.3.1 Association between Age and clusters of Evaluation of Alternatives

The chi-square test is applied to find out the association between age and clusters of evaluation of alternatives. The cross tabulation between age and the clusters of evaluation of alternatives is presented in the Table 7 (a) & (b) and the relevant hypothesis is tested.

Table 7 (a): Age and clusters of evaluation of alternatives Cross Tabulation

		Cluster Number of Cases		Total
		Knowledgeable customers	Need based customers	
Age	Up to 25	7	0	7
	25-30	37	21	58
	31-50	136	66	202
	Above 50	77	15	92
Total		257	102	359

Table 7 (b): Chi-square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.945[a]	3	.005
Likelihood Ratio	15.487	3	.001
Linear-by-Linear Association	3.783	1	.052
N of Valid Cases	359		
a. 1 cells (12.5 %) have expected count less than 5. The minimum expected count is 1.99.			

Hypothesis: There is no association between age and clusters of evaluation of alternatives.

From the above Tables, it is evident that maximum frequency 37.88 percent is concentrated at the cell (3, 1) and the minimum frequency 0.0 percent is established at the cell (1, 2). From the chi-square analysis, it is found that Pearson's chi-square value12.945, likelihood ratio 15.487, and linear by linear association 3.783 arethere is significant at 5 percent level. So, it is concluded that there is an association between the age and the classification based on evaluation of alternatives. Hence, the given hypothesis is rejected.

7.3.2 Association between Education and clusters of Evaluation of Alternatives

The chi-square test is applied to find out the association between education and clusters of evaluation of alternatives. The cross tabulation between education and the clusters of evaluation of alternatives is presented in the Table below and the relevant hypothesis is tested.

Table 8 (a): Education and clusters of evaluation of alternatives Cross Tabulation

		Cluster Number of Cases		Total
		Knowledgeable customers	Need based customers	
Education	Illiterate	8	0	8
	Up to 5th	16	0	16
	Up to 7th	37	0	37
	10th	96	29	125
	12th	39	7	46
	Degree	46	52	98
	PG	15	14	29
Total		257	102	359

Table 8 (b): Chi-square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.717[a]	6	.000
Likelihood Ratio	78.194	6	.000
Linear-by-Linear Association	50.521	1	.000
N of Valid Cases	359		
a. 2 cells (14.3%) have expected count less than 5. The minimum expected count is 2.27.			

Hypothesis: There is no association between education and clusters of evaluation of alternatives.

The Table 8 (a) clearly indicates that maximum frequency 26.74 percent is concentrated at the cell (4, 1) and the minimum frequency 0.0 percent is established at the cells (1, 2), (2, 2), and (3, 2). This indicates that the knowledgeable consumers are thickly found in the 10th Standard level educated consumers. From the chi-square analysis, it is found that Pearson's chi-square value 64.717, likelihood ratio 78.194, and linear by linear association 50.521 are significant at 5 percent level. So, it is concluded that the education and the classification based on evaluation of alternatives are associated. Therefore, the given hypothesis is rejected.

7.3.3 Association between Occupation and Clusters of Evaluation of Alternatives

The chi-square test is applied to find out the association between occupation and clusters of evaluation of alternatives. The cross tabulation between occupation and the clusters of evaluation of alternatives is presented in the Table 9 (a) and the relevant hypothesis is tested.

Table 9 (a): Occupation and clusters of evaluation of alternatives Cross Tabulation

		Cluster Number of Cases		Total
		Knowledgeable customers	Need based customers	
Occupation	Agriculture	96	22	118
	Govt. Service	24	44	68
	Pvt. Service	36	0	36
	Business	71	36	107
	Others	30	0	30
Total		257	102	359

Table 9 (b): Chi-square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	77.208[a]	4	.000
Likelihood Ratio	90.016	4	.000
Linear-by-Linear Association	1.173	1	.279
N of Valid Cases	359		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.52.			

Hypothesis: There is no association between occupation and clusters of evaluation of alternatives

From the Table 9 (a), it is clear that the maximum frequency 26.74 percent is concentrated at the cell (1, 1) and the minimum frequency 0.0 percent is established at the cells (3, 2) and (5, 2). This indicates that the knowledgeable consumers are thickly found in agriculture occupation. From the chi-square analysis Table 9 (b), it is found that Pearson's chi-square value 77.208, likelihood ratio 90.016, and linear by linear association 1.173 are significant at 5 percent level. So, it is concluded that the occupations and the classification based on evaluation of alternatives are associated. Hence, the given hypothesis is rejected.

7.3.4 Association between Income and Clusters of Evaluation of Alternatives

The chi-square test is applied to find out the association between annual income and clusters of evaluation of alternatives. The cross tabulation between annual income and the clusters of evaluation of alternatives is presented in the Table 10 (a) and the relevant hypothesis is tested.

Table 10 (a): Income and clusters of evaluation of alternatives Cross Tabulation

		Cluster Number of Cases		Total
		Knowledgeable customers	Need based customers	
Annual Income (Rs.)	20000-50000	0	7	7
	50000-100000	22	0	22
	100000-200000	143	31	174
	Above 200000	92	64	156
Total		257	102	359

Table 10 (b): Chi-square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	48.176[a]	3	.000
Likelihood Ratio	54.226	3	.000
Linear-by-Linear Association	7.477	1	.006
N of Valid Cases	359		
a. 1 cells (12.5 %) have expected count less than 5. The minimum expected count is 1.99.			

Hypothesis: There is no association between annual income and clusters of evaluation of alternatives.

The Tables 10 (a) and 10 (b) clearly indicate that, maximum frequency 39.83 percent is concentrated at the cell (3, 1) and the minimum frequency 0.0 percent is established at the cells (1, 1) and (2, 2). This shows that the knowledgeable consumers are thickly found in the income level of Rs. 1, 00,000- Rs.2, 00,000. From the chi-square analysis it is found that Pearson's chi-square value 48.176, likelihood ratio 54.226 and linear by linear association 7.477 are significant at 5 percent level. So, it is concluded that the annual income of the family and the classification based on evaluation of alternatives are associated. Hence, the given hypothesis is rejected.

7.4 Analysis of Variance of Evaluation of Alternatives

The factors of evaluation of alternatives are identified through confirmatory factor analysis. The average mean scores of these factors became continuous variable and suitable for treatments through multivariate analysis of variance. The factors of evaluation of alternatives, namely, 'Consumer Purchase Decision' and 'Product Properties' and their average mean scores are taken up as dependent variables. The categorical variables like gender, age, education, occupation, income, and family type are considered as independent variables. The categories of the independent variables have different mean values which are compared through one way analysis of variance. The results are presented in the following pages.

7.4.1 Influence of Age on the Factors of Evaluation of Alternatives

One way analysis of variance is applied on the factors of evaluation of alternatives with respect to age and the result is given in the following Table 11.

Table 11: ANOVA for the factors of evaluation of alternatives with respect to Age

Factors		Sum of Squares	df	Mean Square	F	Sig.
Consumer Purchase Decision	Between Groups	3.610	3	1.203	8.959	.000
	Within Groups	47.678	355	.134		
	Total	51.288	358			
Product Properties	Between Groups	9.997	3	3.332	21.621	.000
	Within Groups	54.714	355	.154		
	Total	64.712	358			

From the above ANOVA Table 11, it is ascertained that there is a significant difference among the different age group of the respondents with respect to the factors 'Consumer Purchase Decision' and 'Product properties'. A microscopic arithmetic mean analysis paved the way to distinguish the different perceptions of consumers based on their age.

Consumer Purchase Decision: From the above ANOVA Table, it is found that consumer purchase decision (F= 8.959, p=0.000) is statistically significant at 5 percent level. It is also clear that the respondents in the age group of above 50 (Mean=2.04) give more importance to factor consumer purchase decision in evaluation of alternatives of FMCGs, followed by the respondents in the age group of 31-50 (Mean = 2.21), up to 25 (Mean=2.28), and finally the age group of 25-30 (Mean = 2.38). So, it is concluded that while evaluating the alternatives, respondents in the age group of above 50 give more importance to factor consumer purchase decision than the respondents of other age groups.

Product Properties: From the above ANOVA Table, it is found that product properties (F= 21.621, p=0.00) is statistically significant at 5 percent level. It is also found that the respondents of age above 50 (Mean=1.95) give more importance to product properties in evaluation of alternatives than other age groups, such as, up to 25 (Mean=2.32), 25-30 (Mean=2.26) and 31-50 (Mean=2.10).

7.4.2 Influence of Education on the Factors of Evaluation of Alternatives

One way analysis of variance is applied on the factors of evaluation of alternatives with respect to education and the result is given in the following Table 12.

Table 12: ANOVA for the factors of evaluation of alternatives with respect to education

Factors		Sum of Squares	df	Mean Square	F	Sig.
Consumer Purchase Decision	Between Groups	22.629	6	3.771	46.323	.000
	Within Groups	28.659	352	.081		
	Total	51.288	358			
Product Properties	Between Groups	11.736	6	1.956	12.997	.000
	Within Groups	52.975	352	.150		
	Total	64.712	358			

From the above ANOVA Table 12, it is found that there is significant difference among educational groups with respect to the factors 'Consumer Purchase Decision' and 'Product properties'. A closer arithmetic mean analysis facilitated to distinguish the different perceptions of consumers based on educational qualifications.

Consumer Purchase Decision: From the above ANOVA Table, it is found that consumer purchase decision (F= 46.323, p=0.000) is statistically significant at 5 percent level. It is found that the respondents with PG as their education (Mean=1.75) give more importance to factor consumer purchase decision in evaluation of alternatives of FMCGs than other groups. So, it is concluded that while evaluating the alternatives, PG respondents give more importance to factor consumer purchase decision than the respondents of other educational groups.

Product Properties: From the above ANOVA Table, it is found that product properties (F= 12.997, p=0.000) is statistically significant at 5 percent level. It is investigated further that the respondents with PG as their education (Mean=1.60) give more importance to factor product properties in evaluation of alternatives of FMCGs, followed by degree (Mean=1.96), 12^{th} (Mean=2.09), 7^{th} (Mean=2.18), 10^{th} (2.26), and illiterate (Mean=2. 60). So, it is concluded that while evaluating the alternatives, PG respondents give more importance to factor product properties than the respondents of other educational groups.

7.4.3 Influence of Occupation on the Factors of Evaluation of Alternatives

One way analysis of variance is applied on the factors of evaluation of alternatives with respect to occupation and the result is given in the following Table 13.

Table 13:ANOVA for the factors of evaluation of alternatives with respect to occupation

Factors		Sum of Squares	df	Mean Square	F	Sig.
Consumer Purchase Decision	Between Groups	19.088	4	4.772	52.461	.000
	Within Groups	32.200	354	.091		
	Total	51.288	358			
Product Properties	Between Groups	7.180	4	1.795	11.045	.000
	Within Groups	57.532	354	.163		
	Total	64.712	358			

From the above ANOVA Table 13, it is found that there is significant difference among the occupational groups with respect to the factors 'Consumer Purchase Decision' and 'Product properties'. A closer arithmetic mean analysis facilitated to distinguish the different perceptions of consumers based on their occupation.

Consumer Purchase Decision: From the above ANOVA Table, it is found that Consumer purchase decision (F= 52.461, p=0.000) is statistically significant at 5 percent level. It is also found that the Government servants (Mean=2.01) give more importance to factor consumer purchase decision in evaluation of alternatives of FMCGs than other groups. So, it is concluded that while evaluating the alternatives, Government servants give more importance to factor consumer purchase decision than the respondents of other occupation.

Product Properties: From the above ANOVA Table, it is found that product properties (F= 11.045, p=0.000) is statistically significant at 5 percent level. It is clear that the respondents with Government service as occupation (Mean=1.60), followed by Private Servants (Mean=1.99) give more importance to factor product properties in evaluation of

alternatives of FMCGs. So, it is concluded that while evaluating the alternatives, Government servants, followed by Private Servants give more importance to factor product properties than the respondents of other occupation.

7.4.4 Influence of Income on the Factors of Evaluation of Alternatives

One way analysis of variance is applied on the factors of evaluation of alternatives with respect to income and the result is given in the following Table 14.

Table 14: ANOVA for the factors of evaluation of alternatives with respect to Income

Factors		Sum of Squares	df	Mean Square	F	Sig.
Consumer Purchase Decision	Between Groups	6.142	3	2.047	16.098	.000
	Within Groups	45.146	355	.127		
	Total	51.288	358			
Product Properties	Between Groups	4.806	3	1.602	15.023	.000
	Within Groups	37.856	355	.107		
	Total	42.662	358			

From the above ANOVA Table 14, it is found that there is significant difference among the income groups with respect to the factors 'Consumer Purchase Decision' and 'Product properties'. A closer arithmetic mean analysis helped to distinguish the different perceptions of consumers based on their income.

Consumer Purchase Decision: From the above ANOVA Table, it is found that consumer purchase decision (F= 16.098, p=0.000) is statistically significant at 5 percent level. It is revealed that the respondents with annual income above Rs. 2, 00, 000 (Mean=2.14) give more importance to factor consumer purchase decision in evaluation of alternatives of FMCGs than other groups. So, it is concluded that while evaluating the alternatives, respondents with annual income above Rs. 2,00, 000 give more importance to factor consumer purchase decision than the respondents of other income groups.

Product Properties: From the above ANOVA Table 14, it is found that product properties (F= 15.023, p=0.000) is statistically significant at 5 percent level. It is evident that the respondents with annual income above Rs. 2, 00, 000 (Mean=1.92) give more importance to factor product properties in evaluation of alternatives of FMCGs than other income groups. So, it is concluded that while evaluating the alternatives, respondents with annual income above Rs. 2, 00, 000 give more importance to factor product properties than the respondents of other income groups.

8. Findings

- Factor analysis was used to form nine key variables into two factors. 'Price is important criterion' has emerged as the most significant variable in the factor 'Consumer purchase decision' and 'Medicinal Values of FMCGs' in the factor 'Product properties'.
- The age of the consumer and the classifications based on evaluation of alternatives are associated. This also proves that the age of the rural consumers are categorized under different groups based on evaluation of alternatives.
- The education and the classification based on evaluation of alternatives are associated.
- The occupations and the classification based on evaluation of alternatives are associated.
- The annual income of the family and the classification based on evaluation of alternatives are associated.
- Analysis of variance revealed that while evaluating alternatives for FMCGs, consumers in the age group of above 50 give more importance to factors 'consumer purchase decision' and 'product properties' than the respondents of other age groups.
- PG educated consumers give more importance to the factors 'consumer purchase decision' and 'product properties' than the respondents of other educational groups.
- Government servants give more importance to the factors 'consumer purchase decision' and 'product properties' than the respondents of other occupation.
- In evaluation of alternatives, consumers with annual income above Rs. 2, 00, 000 give more importance to the factors 'consumer purchase decision' and 'product properties' than the respondents of other income groups.

9. Suggestions

- Marketers should consider 'price' and 'medicinal values' of FMCGs while formulating marketing strategies for rural markets, because they are found to be most important criteria employed by rural consumers in evaluation of alternatives of FMCGs.
- Demographic variables such as age, education, occupation and income are associated with the clusters of evaluation of alternatives. Hence, marketers should to offer the required products suiting the different segments of demographic variables.

10. Conclusion

The FMCGs sector is a very dynamic sector in India. There are many FMCG players operating in rural markets. The major goal is to satisfy the needs of consumers of target markets more effectively and efficiently. For this purpose, marketers have to consistently and simultaneously study rural consumers of different geographical regions. In addition, they should distinguish the different segments of consumers based on different stages of consumer's decision making process to create an edge over the competitors. Hence, the researchers hope that the information provided in this study will assist companies in understanding pre-purchase behavior of rural consumers better and in turn will help shaping their marketing strategies and better serving their customers.

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