A COMPARATIVE STUDY OF CONSUMER BEHAVIOR WITH SPECIAL REFERENCE TO BISCUIT INDUSTRY IN RURAL AND URBAN AREAS OF JAIPUR CITY

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ABSTRACT

One in 10 people on earth live in rural India. There are 6, 00,000 towns and 700 million people with per capita income of less than US$ 1 (Rs.50) a day. Most of them are isolated in terms of reach and access to information, materials and markets. According to the Ministry of Home Affairs, 2011 census survey data; it is no surprise that the overall sex ratio has shown improvement, from 932.91 in 2001 to 940.27 in 2011. According to the Ministry of Food Processing Industries of India, bread and biscuits constitute the largest segment of consumer foods with an annual production of around 4 million tones. This research is an earnest endeavor made to understand the present market scenario in biscuits captured by the Parle Britannia, Priyagold, and ITC. During the course of study, the researchers visited various rural and urban areas in Jaipur. The researchers were required to bring out the potential by conducting a survey among the consumers. The study encompasses the penetration of the various biscuits of selected brands and the market potential for the new products. Through the study, the researchers try to understand that the Parle has deep penetrated roots in the rural and there is huge potential for new products launched by the company over there. The researchers have mentioned the problems and the loop holes in the distribution system and the promotional tools, which they have found during the course of the study and recommended various corrective measures for it. The study also includes the position held by selected brands viz. Parle, ITC, Britannia, Priyagold, etc. in the biscuits section in the region.

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Keywords: *Multidisciplinary Education, Reconstructive Education System, Education Reform.*

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Introduction

According to a research analyst at RNCOS[1], the demand for lifestyle products is boosted by the rising aspiration and modern facilities. As the spending power of consumers is goes up, the sales of FMCG products in India rises. Therefore, companies need to improve the quality of products and employ right marketing mix by implementing new technologies such as customer relationship management.

India is the second largest producer of biscuits in the world after the U.S.A. but still the per capita consumption is only 2.3 kg per year of developed countries. As per the survey done by N.C.A.E.R.[2], 49 biscuits are consumed in rural areas. The penetration of biscuits into households stands at an average of 83.2% with the rural penetration at 77% and urban penetration at 88%. Biscuits are reserved for the small scale sector but there are strong possibilities of the industry being deserved in line with the government policy of liberalization. The country production of the biscuits during 2004-05 was

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18.6 lakh tons of which half were manufactured by the organized sector. The industry turnover was 5322.7 crores of which organized sector contributed 2519.3 crores. As per the Federation of Biscuit Manufacturer's of India the low priced brand claims to have a 15 percent market share in the North and is aggressively eyeing a bigger bite of the Rs. 2,500 crore biscuit industries.

According to the Ministry of Food Processing Industries of India[3] (MOFPI), the biscuit industry in India witnessed annual growth in 91-97 was 5.5% but in 2002-2007, it rose up to 7.4% and the estimated growth rate for 2014-15 is around 6.2%. The growth rate has been stagnating during last 4 years; it has picked up momentum during the 2007-08.

The organized and unorganized sectors of the biscuit industry are in the proportion of 60:40 ratios. Exports of Biscuit was around 15% of the annual production during the year 2007-08 where as imports of biscuits into India have not shown any significant growth during the last two years and have not affected production or sales by the Indian Biscuit industry. Rural-urban penetration of biscuit in urban market is 75% to 85% and in rural market, it is 50% to 65%. Per capita consumption of biscuits in the country is only 1.8 kg, as compared to 2.5 kg to 5.5 kg in South East Asian countries and European countries, and 7.5 kg in USA.

The Federation of Biscuit Manufacturers of India[4] (FBMI) has confirmed a bright future of India Biscuits Industry. According to FBMI, a steady growth of 15 percent per annum in the next 10 years will be achieved by the biscuit industry of India. Besides, the export of biscuits will also surpass the target and hit the global market successfully.

Research Objective

The study has been done with the following objectives:

- To find out the consumer point of view in terms of availability, taste and packaging of selected brands in rural and urban areas of Jaipur.
- To analyze consumption pattern of biscuits in rural and urban areas.
- To check and compare awareness level of people towards selected brands in rural and urban areas.

Methodology

The scope of the study is also limited to the consumer perception regarding the selected brands of biscuits in the selected areas of Jaipur. The study has limited exposure to the market due to time, mobility and budget constraints. The researchers collected primary data during the course of research period with the help of questionnaire that were designed to infer upon the present status of coverage and awareness among consumers of selected brands in the region and to gauge the pulse of the market and consumer.

Secondary data were drawn from the brochures, ad campaigns, books, articles, relevant literature, internet and the annual reports of the company. Exploratory research design has been considered as a suitable methodology for present study and for data analysis[5].

The design that has been adopted for the study of the given topic is convenience sampling, which is a non-probability sampling method. The convenience factors were the availability and approachability of the respondents. The population under the research is people those are consumer of biscuits of selected brands in rural and urban areas. A total of 200 consumers were interviewed in the Jaipur city, 100 each from urban and rural area.

Quantitative analysis is performed using the data collected by each consumer. The data analysis is done using statistical tools and technique. The comparative analytical findings are to be reported for most aspects of the objective. Statistical tools and techniques to check hypotheses used are chi square test and Anova.

Limitations

Every study has some limitations associated with it. The limitations of the research were as follows:

- As the nature of research was exploratory, so it was difficult to cover each and every customer. Thus, the researchers took a sample of 200 customers.
- Many consumers don't express their original perception and views.
- Some of the customers were not comfortable in giving fair feedback for selected brands.

Consumer Survey

Table 1: Awareness for Respondents with the Leading Brand Parle

Category	Rural	Urban
Glucose	100	100
Sweet and Salty	85	92
Cream	60	89
Marie	54	78
Salty	68	88

Sample size: urban=100 consumers and Rural=100 consumers

In present market Parle is a leading brand in biscuits industry. Here, researchers have made an effort to compare the awareness of Parle in rural and urban area. Table 1.1 shows the 100 percent respondents are aware with the glucose category of Parle. In both the areas the lowest awareness is for Marie category that is 54 percent in rural and 78 percent in urban. The table 1 clearly explains that the people are more aware in urban areas about the various categories of biscuits.

H₀: There is no significant difference between the awareness level of consumers for Parle in rural and urban area.

H₁: There is a significant difference between the awareness level of consumers for Parle in rural and urban area.

Anova method is used for the testing of this hypothesis. Fcalcualted = 3.05 and Ftabulated = 5.32; Fcalculated < Ftabulated 1.05   < 5.32 **Annexure#1**

The result shows that there is no significant difference in the awareness level of consumers for Parle in rural and urban area and the null hypothesis is accepted. The acceptance of null hypothesis shows that there is no significant difference in the awareness level so Parle has to think for the flavor of their biscuits in rural market.

In the next table, researchers want to know the comparative awareness of various selected brands. The table 2 shows about the upcoming brands in rural and urban Jaipur.

Table 2: Awareness of Various Selected Brands in Urban and Rural Consumer

Category	Parle		Priyagold		ITC		Britannia	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Glucose	100	100	46	62	75	92	72	88
Sweet and Salty	85	92	33	81	58	73	93	95
Cream	60	89	51	74	46	57	50	78
Marie	54	78	79	91	44	69	41	58
Salty	68	88	36	52	19	64	23	57

The awareness of Parle's Glucose product Parle-G is highest i.e. 100 percent among all other brands in rural and urban consumers whereas least known product is Don of Priyagold 46% and 62% in rural and urban areas subsequently. The awareness of Britannia's Sweet and Salty 50-50 product is highest with 93% in rural and 95% in urban areas whereas least known product is CNC of Priyagold with 33% in rural area and Sunfeast of ITC in urban is 73%. The awareness of Parle's cream product is highest in rural with 60% and in urban 89% consumers whereas Priyagold's Marie gold product is highest in rural with79% and in urban areas it is 91%. The awareness of parle's Monaco product is highest in both types of consumers.

Table 3: Impact of Price Factor among Rural and Urban Consumers

Impact of Price	Rural	Urban	Total
Yes	23	17	40
No	56	73	129
Sometimes	21	10	31
Total	100	100	200

In rural areas 56% respondents buying pattern is not affected by the cost factor and rest 23% is affected by the price and the buying pattern of 21% respondents can be change on the basis of conditions and requirements. In urban area 73% responses shows that their buying behavior is not affected by the price factor. Only 17% respondents purchasing decision of biscuit is effected by price and 10% consumers buying behavior is based on circumstances.

The following hypothesis is calculated by using chi square test.

H₀: There is no significant difference in buying pattern of biscuits in rural and urban areas of Jaipur due to price.

H_{1:}   There is significant difference in buying pattern of biscuits in rural and urban areas of Jaipur due to price.

*x²*calculated >*x²*tabulated; 11.09 > 5.991**(Annexure#2)**

Calculated value is higher than table value so the null hypothesis is rejected. There is a significant difference in buying pattern of the product in rural and urban areas due to price. The result shows that rural market is comparatively more price sensitive. So, various brands should launch small packages of biscuits to decrease this effect.

Table 4: Consumption Timings of Urban and Rural Respondents

Timings	Rural	Urban
Morning	22	16
Evening	11	72
Anytime	58	7
Open	9	5
Total	**100**	**100**

Table 4 reveals that rural consumers do not have any fix time of consumption. A major portion (58%) of respondents consume biscuits anytime. 11% rural respondents consume biscuits in evening at tea time and 22% at morning time. In urban areas 16% consumers consume at morning time and 7% prefer at anytime while 72% consumers consume biscuits in evening at tea time.

Following hypothesis is calculated by using chi square test.

H₀: There is no significant difference in the consumption timing of biscuits in rural and urban area.

H_{1:}   There is a significant difference in the consumption timing of biscuits in rural and urban area.

*x²*calculated >*x²*tabulated; 86.92 > 7.815**(Annexure#3)**

The result shows that calculated value is more than tabulated value. It means that null hypothesis is rejected and alternate hypothesis is accepted. The result shows that timing of consumption of both the areas is different. So, selected brands can come with new flavours or modifications in present biscuits by considering this time factor.

Table 5: Packaging of Various Categories

	Parle		Priya Gold		ITC		Britannia	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Glucose	326	340	173	132	214	231	158	163
Sweet and Salty	306	321	165	187	186	186	240	253
Cream	212	232	212	220	203	182	180	192
Marie	216	227	245	261	179	186	193	201
Salty	277	291	195	221	150	171	163	170

In this table respondents were asked to give their opinion about packaging of biscuits. Respondents gave their responses in ranks and researchers assigned weights to their responses. Assigned weights are as under:

Rank	Weight
Rank 1	4
Rank 2	3
Rank 3	2
Rank 4	1

Table 5 reveals that out of five categories, in four categories (Glucose, Sweet and Salty, Cream and Salty) Parle has most attractive packaging in the opinion of both rural and urban respondents. The table also shows that Priya Gold packaging is highly appreciated by respondents in case of Marie but in glucose and sweet and salty category, this brand is on lowest responses. Britiania has lowest rank in packaging for cream category. Results of Table 5 shows that there is a great need of improvement in packaging for Priya Gold and ITC brands.

Suggestions

There are various products of selected brands from which respondents are not so much aware. Selected brands should look forward for promoting its new products in the rural and urban markets. In the recent time, it has been seen that small packages have become an instant hit for the consumers. This would increase the choice of respondents as he wants to experiment with various varieties but is obstructed by his low purchasing power. The study also shows that rural respondents are majorly using biscuits at any time and urban respondents are in evening time. So there is a great potential in both the types of market rural as well as urban. Companies should think for attractive packaging and promotional aspects to increase their market share. Since, Parle is a leading brand; still it has to come with new marketing strategy and flavours to retain the present market share. Other brands has to improve their products and marketing strategies for faster growh.

Conclusion

Biscuit Industry has flourished in India enormously over the years and is still growing phenomenally. The rural India harbours 70% of the total population. This vast population has now a high propensity to consume and they have much more per-capita income than earlier[7]. The companies have started to follow this track and exploit the market. The study has already explored that Parle is a leading brand name. People are the brand slaves of some of the variety like Parle-G, Monaco and Krackjack. But other selected brands ITC, Priya Gold, and Britannia are also in growing stage. They have come up with the innovative products, in different packs and tastes and low price to the consumers and have started to give a good competition to Parle. The study also shows that there is a wide scope of biscuit industry in rural market for these selected growing brands.

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Appendix

Annexure 1

Source of Variation	Sum of Square	Degree of Freedom	Mean Square	F- Ratio	F-Critical Value
Between	640	1	640	640/209.8	5.32
Samples				= 3.05	(For1,8
Within	1678.4	8	209.8		d.f.)
Samples					
Total	2318.4	9			

F calculated = 3.05 and F Tabulated = 5.32; F Calculated < F Tabulated

1.06   < 5.32

Annexure 2

Observed Frequency (O_i)	Expected Frequency (E_i)	(O_i-E_i)	(O_i-E_i)^2	(O_i-E_i)^2/(E_i)
23	20	3	9	.45
56	64.5	-8.5	72.25	1.12
21	15.5	5.5	30.25	1.95
17	20	-3	9	.45
73	64.5	8.5	72.25	1.12
10	15.5	5.5	72.25	1.95
Total				11.09

Annexure 3

Observed Frequency (O$_i$)	Expected Frequency (E$_i$)	(O$_i$-E$_i$)	(O$_i$-E$_i$)^2	(O$_i$-E$_i$)^2/(E$_i$)
22	19	3	9	.47
11	41.5	-30.5	930.25	22.42
58	32.5	25.5	650.25	20
9	7	2	4	.57
16	19	3	9	.47
72	41.5	30.5	930.25	22.42
7	32.5	25.5	650.25	20
5	7	-2	4	.57
Total				86.92

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