

Packaged Drinking Water Analysis of Consumers Needs, Awareness, Satisfaction and Loyalty of Krishnagiri District

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Abstract

Purpose: Drinking Water is most precious for humans, but most of the urban and backward dry places of the study areas were suffering from clean drinking water shortage in the effect of development of industries. It is using huge quantity of water. In this situation consumers are pushing to purchase the packaged drinking water at cost, because in all the places of India drinking water are giving free of cost by government and it is not clean for drinking. The purpose of the present research was to identify and analyze the consumer attitude and behavior of packaged drinking water in Krishnagiri District, Tamilnadu. This research solved consumer fears among the packaged drinking water needs.

Methodology: The research used convenient sampling method for collecting the primary data from various users of Krishnagiri district. And it is used interview schedule method and also used various statistical tools for analyzing and interpreting research such as Analysis of Variance test, multiple regression analysis and Chi-square test. It is tested for sampling reliability, pre-test and pilot study before collecting the primary data.

Findings: There is no significant difference between the age group in years of packaged drinking water users with regard to factors of consumer attitude, since the P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to factors of consumer attitude. The study finds Consumer behavior is extracting consumer attitude, because it is continuously change their behavior for choosing their brand. Hence mode of income earning of daily are low level of consumer attitude of packaged drinking water users and business profit withdraw of income are high level of consumer attitude of packaged drinking water users.

Originality: The result of the research is there is no significant difference between the age group in years of packaged drinking water users with regard to factors of consumer attitude. The consumer behavior is extracting consumer attitude because continuous changes of behavior makes attitude in preferring the packaged drinking water. The implications of the future and practical research are to analyze the consumer loyalty and consumer satisfaction of the packaged drinking water.

Keywords: Water, Consumer Behavior, Consumer Attitude, Consumer Satisfaction, Consumer Loyalty, Awareness, Brand, Quality, Health Safety, Hygienic, Water Bottle, Consumer Service, Quality Service and Packaged Drinking Water.

Introduction

Water is a most important things for human life, without water nobody ca living the universe. Peoples now a day's mostly prefer packaged drinking water, because it is most health safety especially braded waters. The most popular water brands in India are Bisleri, PepsiCo, Coca-Cola and Parle. In Krishnagiri District so many brands are available such as Bisleri, Kinley, Aquafina, Kingfisher. Bailley, Qua, Himalayan

Water, Manikchand Oxyrich, Tata Water Plus and Railneer. It is mainly for hygienic, taste, style, easy availability and safety for health of the packaged drinking water users. The reason for branded products are giving quality services with health safety and hygienic. The study area was having low level drinking water resources. So these consumers are must to purchase drinking water at cost for solving our own drinking water problems. Indian packaged drinking water market was valued at Rs.160 billion in the year 2019 and it has around 6000 licensed packaged drinking water companies. Some of the packaged drinking water companies are offering online market for sale particularly Bisleri, Bailley and Aquafina brands. Around 90% of the consumers prefer packaged drinking water regularly and has more knowledge about the package drinking water. It is hygienic and good for health. In the study area consumers buying attitude and behavior are different like huge numbers of consumers prefer Bisler, Aquafina, Kinley and Bailley brands. The Bisleri and Aquafina packaged drinking water brands are covered highest market value in the district. The packaged drinking water is 50% sold at various place offices, institutions, hotels, restaurants, motels and catering. Packaged drinking water is accounted 67% of market share in India and 160 billion sales in the year 2018. Indian markets are reached 22% Compound Annual Growth Rate (CAGR).

Objectives of the Study

The article has been following major objectives. They are,

1. To know the consumers needs of the packaged drinking water.
2. To study the consumer awareness of the packaged drinking water.
3. To analyses the consumer satisfaction of packaged drinking water ad its reasons.
4. To study the consumer Loyalty of the particular packaged drinking water brands.

Statement of the Problem

Now the current commercial world consumers are expecting quality products. In the modern marketing consumers are mostly prefer packaged drinking water. It is more quality and healthy

compare to ordinary water. Packaged drinking water companies offer different types of products in economic preference of the consumers. Most of the consumers are aware the packaged drinking water, at the same time most of the consumers are not aware the packaged drinking water. Educated consumers are aware the packaged drinking water ad at the same time uneducated consumers of aware the packaged drinking water because regularly using the ordinary water like rivers, bore well ad tap water. And the development of urban areas of available sufficient water, so consumers compulsory want to purchase packaged drinking water. The need ad aware of the packaged drinking water is most important. So this research analyses the packaged drinking water needs, awareness, satisfaction and loyalty of consumers' Krishnagiri District.

Packaged Drinking Water Market

Packaged drinking water revenue segments amounts to 5.55 billion dollars in 2022. The market is expected 4.84% (CAGR) to grow annually in 2022-2027. In comparison of international market most of the revenue is generated by United States is 83.02 billion dollars in 2022. In total population of the world the revenues generated of per person is 3.95 dollars in 2022. The packaged drinking water volume segments are expected to 28,142 ml by 2027. Indian packaged drinking water market was valued at Rs.160 billion in the year 2019 and it has around 6000 licensed packaged drinking water companies. Some of the packaged drinking water companies are giving services and delivery from online market particularly Bisleri, Bailley and Aquafina brands. The revenue of the packaged drinking water market segment amounts in to US\$ 5.55 billion in 2022. And the market value is expected to grow annually by 4.84% CAGR in 2022-2027.

Table 1 Revenue of Packaged Drinking Water used at Home

Year	Revenue in US\$ (in billions)
2014	3.41
2015	3.78
2016	4.26
2017	4.83
2018	5.00

2019	5.32
2020	5.00
2021	5.39
2022	5.50
2023	5.74

Sources: Statista.com

Analysis and Interpretation of Statistical Data

The collected data was analysed by two different statistical methods like Multiple Regression analyses,

Chi-square test and structural equation model. The study used tabulation, percentage and interpretation for research explanations. The research also analyses three different hypotheses.

Analysis of t -Test

Null Hypothesis: There is no significant difference between Nuclear and Joint family with respect to Factors of Consumer Behaviour and Consumer Satisfaction

Table 2 t Test for Significant Difference between Nuclear and Joint Family with Respect to Factors of Consumer Behaviour and Consumer Satisfaction

Factors of Packaged Drinking Water	Mode of Family				t value	P value
	Nuclear		Joint			
	Mean	SD	Mean	SD		
Consumer Attitude	11.38	3.64	11.78	3.87	1.29	0.20
Functional	18.57	4.99	18.86	4.45	0.72	0.48
Psychological	12.89	2.95	13.25	2.89	1.46	0.15
Economic	13.18	2.92	13.34	2.93	0.65	0.52
Health	10.87	3.37	10.97	3.17	0.36	0.72
Consumer Behaviour	55.50	11.40	56.42	10.92	0.96	0.34
Consumer Satisfaction	55.47	8.13	57.25	7.99	2.58	0.010**
Customer Loyalty	39.20	4.31	40.54	4.61	3.57	<0.001**

Since the P Value is less than 0.01, null hypothesis is rejected at 1% level with regard to consumer satisfaction factors and factors of consumer loyalty. Hence there is a significant difference between Nuclear and Joint Family of Packaged Drinking Water users with regard to the factors of Consumer satisfaction and Consumer Loyalty. Based on the mean score, the joint families have better consumer loyalty than those from Nuclear family in all dimensions because Joint families have more members in the family.

There is no significant difference between the Nuclear and Joint family of packaged drinking

waters users with regard to consumer attitude factors, functional factors, Psychological factors, Economic factors, Health factors and factors of consumer behaviour, since P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to consumer attitude factors, functional factors, psychological factors, Economic factors, health factors and factors of consumer behaviour.

Chi-Square Test Analysis

Null Hypothesis: There is no association between the Occupation and the level of consumer satisfaction.

Table 3 Chi-Square Test for Association between the Occupation and the Level of Consumer Satisfaction

Occupation	Level of Consumer Satisfaction			Total	Chi-square test	P value
	Low	Moderate	High			
Agriculture	69 (24.60) [42.90]	139 (49.60) [46.30]	72 (25.70) [43.90]	280 (100.00) [44.80]	13.13	0.11*

Private Employee	46 (25.80) [28.60]	87 (48.90) [29.00]	45 (25.30) [27.40]	178 (100.00) [28.50]	13.13	0.11*
Government Employee	20 (35.70) [12.40]	26 (46.40) [8.70]	10 (17.90) [6.10]	56 (100.00) [9.00]		
Business	13 (21.30) [8.10]	22 (36.10) [7.30]	26 (42.60) [15.90]	61 (100.00) [9.80]		
Others	13 (26.00) [8.10]	26 (52.00) [8.70]	11 (22.00) [6.70]	50 (100.00) [8.00]		
Total	161 (25.80) [100.00]	300 (48.00) [100.00]	164 (26.20) [100.00]	625 (100.00) [100.00]		

Source: Primary data

Since the P value is less than 0.05, the null hypothesis is rejected at 5 percent level of significance. Hence, it is concluded that there is an association between the occupation of users of packaged drinking water and the level of consumer satisfaction of the packaged drinking water users. Based on the row percentage, occupation of agriculture, 24.60% are low level of satisfaction, 49.60% are moderate level of satisfaction and 25.70% are high level of satisfaction. The occupation of others, 26% is low level of satisfaction, 52% are moderate level of

satisfaction and 22% are high level of satisfaction. Hence occupation of agriculture consumers are low level of satisfaction and others is high level of consumer satisfaction.

ANOVA Analysis

Null Hypothesis: There is no significant difference between the Annual income in Lakhs with respect to Factors of Consumer behaviour and Consumer Satisfaction.

Table 4 ANOVA for Significant Difference between the Annual Income in Lakhs with Respect to Factors of Consumer behaviour and Consumer Satisfaction

Factors of Packaged Drinking Water	Annual Income in Lakhs				F value	P value
	Below 1	1-2	2-3	Above 3		
Consumer Attitude	11.34 (3.40)	11.49 (3.84)	12.34 (4.59)	11.64 (4.05)	1.39	0.25
Functional	18.53 (4.58)	18.64 (5.00)	19.28 (5.35)	18.82 (5.12)	0.47	0.70
Psychological	12.77 (2.77)	13.10 (3.06)	13.75 (3.12)	13.33 (3.20)	2.40	0.07
Economic	13.16 (2.85)	13.19 (2.95)	13.66 (3.29)	13.27 (2.86)	0.55	0.65
Health	10.70 (3.16)	10.99 (3.43)	11.06 (3.44)	11.87 (3.56)	1.81	0.15
Consumer Behaviour	55.17 (10.08)	55.92 (12.23)	57.75 (13.26)	57.29 (12.16)	1.30	0.27
Consumer Satisfaction	55.77 (7.47)	56.12 (8.73)	56.49 (8.50)	57.36 (9.74)	0.59	0.62
Customer Loyalty	39.28^a (4.11)	39.67^a (4.73)	41.10^b (4.54)	40.07^{ab} (5.27)	3.34	0.019*

Since the P value is less than 0.01, null hypothesis is rejected at 1% level with regard to the no factors of packaged drinking water users. Hence there is a

significant difference between the Annual incomes of packaged drinking water users with regard to the no dimensions. Based on Duncan Multiple Range Test

(DMRT), below 1 lakh and 1-2 lakhs is significantly differs with 2-3 lakhs and above 3 lakhs at 5% level, but there is no significant difference between below 1 lakh and 1-2 lakhs and also 2-3 lakhs and above 3 lakhs in no factors of packaged drinking water users, below 1 significantly differs with 2-3 lakhs and above 3 lakhs and also 1-2 lakhs significantly differs with above 3 lakhs at 5% level, but there is no significant difference between below 1 lakh and 1-2 lakhs and also 1-2 lakhs and 2-3 lakhs and also 2-3 lakhs and above 3 lakhs in no factors of packaged drinking water users.

Since the P value is less than 0.05, the null hypothesis is rejected at 5% level with regard to consumer loyalty. Hence there is significant difference between the annual incomes of packaged drinking water users with regard to consumer loyalty. Based on Duncan Multiple Range Test (DMRT), below 1 lakh and 1-2 lakhs is significantly differed with 2-3 lakhs and above 3 lakhs at 5% level, but there is no significant difference between below 1 lakh and 1-2 lakhs and also 2-3 lakhs and above 3 lakhs in

consumer loyalty. Based on the Duncan Multiple Range Test (DMRT), above 3 lakhs is significantly differed with below 1 lakh and 1-2 lakhs at 5% level, but there is no significant difference between below 1 lakh and 1-2 lakhs and 2-3 lakhs and also between 2-3 lakhs and above 3 lakhs in overall consumer loyalty.

There is no significant difference between annual income of the packaged drinking water users with regard to the factors of consumer attitude, functional factors, psychological factors, economic factor, health factors, consumer behaviour and consumer satisfaction, since the P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to factors of consumer attitude, functional factors, psychological factors, economic factor, health, consumer behaviour and satisfaction.

Chi-Square Test Analysis

Null Hypothesis: There is no association between level of mode of family income and the level of consumer attitude.

Table 5 Chi-Square Test for Association between the Level of Mode of Family Income and the Level of Consumer Attitude

Mode of Family	Level of Consumer Attitude			Total	Chi-Square Test	P value
	Low	Moderate	High			
Nuclear	100 (23.90) [64.90]	201 (48.10) [69.30]	117 (28.00) [64.60]	418 (100.00) [66.90]	1.45	0.49*
Joint	54 (26.10) [35.10]	89 (43.00) [30.70]	64 (30.90) [35.40]	207 (100.00) [33.10]		
Total	154 (24.60) [100.00]	290 (46.40) [100.00]	181 (29.00) [100.00]	625 (100.00) [100.00]		

Source: Primary data

Since the P value is less than 0.05, the null hypothesis is rejected at 5% level of significance. Hence, it is concluded that there is an association between the mode of family and the level of consumer attitude of the packaged drinking water users. Based on the row percentage, mode of nuclear family, 23.90% of consumers are low level of consumer attitude, 48.10% of consumers are moderate level of consumer attitude and 28% are high level of consumer attitude. In the family in joint, 26.10% of consumers are low level of consumer attitude, 43% of consumers are moderate level of consumer attitude and 30.90% of the consumers are high level

of consumer attitude. Hence the mode of family of nuclear is low level of consumer attitude of packaged drinking water users and joint mode of family are high level of consumer attitude of packaged drinking water users.

Conclusion

Educated Consumers are having more awareness about packaged drinking water purity, safety, quality and needs compare to uneducated rural consumers. And it more safety for health, the maximum number of consumers is attitudes prefers branded packaged drinking water products such as Bisleri, Aquafina,

Kingfisher, Kinley etc., so packaged drinking water is most needed. Consumer are support to the branded packaged drinking water products is good for health ad ordinary water affect the health, it is creating fever ad cold problems. Consumers are mostly like branded products in the effects of style, taste, availability and for health conscious. It is occupied the vital role for solving the drinking water shortage in urban areas. It concludes that the research, the Krishagiri district consumers are fully satisfied with packaged drinking water, to aware the needs of the packaged water and also mostly loyal with branded products.

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