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K Dhanya & N Venkatesa Palanichamy

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K Dhanya✉¹ & N Venkatesa Palanichamy²

¹PG Scholar. Department of Agriculture and Rural Management, Tamil Nadu Agricultural University, Coimbatore - 641 003.

²Professor, Department of Agriculture and Rural Management, Tamil Nadu Agricultural University, Coimbatore - 641 003.

✉ Corresponding author: K Dhanya, Email: dhanyakandasamy@gmail.com

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Abstract

India is the largest milk producing country since 1997 and also the largest consumer of dairy products. In India, the co-operatives and private dairies have access to only 20% of the milk produced. Approximately, 34% of the milk is sold in the unorganized market whereas 46% is consumed locally. Players are emphasizing on offering the consumer better quality differentiated milk products. Consumers are looking for more healthier dairy options. This study analysis the major factors influencing the buying decision of Aroma milk among the consumers in Coimbatore district, Tamil Nadu. The major attributes included for determining the decision behaviour were quality, health consciousness, price, packaging, availability and door delivery. The results concluded that the consumers prefer to purchase Aroma milk on the basis of quality. Also, it is certain that, people are health conscious about the product they purchase in day-to-day life.

Key

Words:

Consumer's preference, consumer's attitude, buying behaviour, market and pricing.

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Introduction

India has been showing a tremendous milk production over these 40 years and now indeed, it has the world's substantial dairy industry in terms of milk production with the estimation of total milk output as 165 million tonnes during the Financial Year 2016-17 (National Dairy Development Board) holding more than 16% contribution to the World's total milk production. Of this, Uttar Pradesh is the massive contributor of 17.6% and Tamil

Nadu clutches ninth position by contributing 5.03%. The Indian GDP exhibits a decline phase in agriculture and livestock sector from 34.2 percent and 4.82 percent in 1980-81 to 17.46percent and 4.43percent in 2015-16 (National Dairy Development Board), where as the share of livestock has been subscribing an increase in Indian agricultural GDP from 13.88 percent in 1980-81 to 27.25percent in 2012-13 (National Accounts Division). Getting the tag of World's largest milk

producer, India also clutches the proud of being the largest consumer of dairy products. The consumption of dairy products' has been exponentially growing due to its rich nutritional qualities in the country, and in regards with the facts and figures, India's milk production will further grow at a CAGR of around 14% between 2015-16 and 2021-22.

Kariyawasam et al. (2006) studied consumer attitude and perception towards a milk product in Sri Lanka and observed that consumers tended to purchase tetra-pack considering the attributes included in value and package subsets mainly, including purity, appearance, size, convenience and informational labeling etc. However, consumers did not believe that it enhanced those attributes included in 'food safety' and 'nutritional' subsets. The statistical outcome showed that age, gender, level of education and income had a significant impact on this behavior. In a another study conducted by Rangasamy & Dhaka (2008) on marketing efficiency of Dairy Products for Co-operative and Private Dairy Plants in Tamil Nadu and the study aimed at comparing the marketing of milk and milk products by dairy plants of co-operative and private sectors in Tamil Nadu and recorded that the marketing cost for toned milk was same in both sectors whereas, it was higher for other milk in the co-operative dairy plant. The study also found that value addition in dairy products should be done without compromising quality and consumer-oriented market research and development should be accorded greater attention. Therefore, the present study was designed to identify the

factors influencing the buying behavior of Aroma dairy products.

Materials and Methods

Research Design: Stratified simple random samplings were used for data collection and in total 120 respondents were selected out of which 75 were Aroma product buyers and 45 were non-buyers.

Method of Data Collection: Primary data was collected through well-structured interview schedule regarding socio-economic characteristics, buying behavior and constraints faced by the consumers. Secondary data related to production of milk, demography were collected from various websites, publishes and unpublished sources.

Tools used for analysis: The Factor Analysis statistical tools were used for analysis and interpretation of the data where the observed data values are expressed in the form of functions of a number of possible causes in order to find which are the most important.

Results and Discussion

Consumer buying decision is affected by various factors that determine the product and brand preference of consumers. Marketing begins with identification of consumer needs and wants and trying to fulfil the through various elements of marketing mix. Product knowledge is more important in case of both producers and consumers which will affect the buying behaviour of the consumers.

Rotated Factor Matrix

The rotated factor matrix for the attributes of Aroma Milk relating to the buying behaviour is given in Table1.

Table1. Rotated component matrix

S. No	Factors Influencing Buying Behavior	Component					
		1	2	3	4	5	6
1.	Due to good Aroma of milk.	0.988	0.073	0.013	0.001	0.046	0.001
2.	It is having essential fat contents.	0.987	0.072	-0.001	-0.015	0.034	0.007
3.	It is ensuring perfect milk consistency	0.987	0.076	0.000	-0.001	0.047	0.003
4.	It has unique taste.	0.985	0.089	0.009	-0.007	0.048	0.005
5.	It is suitable for all age group.	0.984	0.062	0.010	0.002	0.044	-0.001
6.	It has no adulteration.	0.982	0.068	0.008	-0.007	-0.043	0.004
7.	It is rich with protein content.	0.104	0.722	-0.111	-0.004	-0.245	0.179
8.	It is suitable for health conscious consumers.	0.149	0.637	0.149	-0.105	0.165	0.029
9.	It is adopted by patients (with diabetics, high BP and heart problem, etc.)	0.201	0.586	-0.012	-0.004	0.289	-0.014
10.	Contains required calories for pregnant women, babies and teen ages & Children.	0.109	0.421	0.040	0.124	0.003	-0.260
11.	It has reasonable price.	0.017	0.074	0.761	-0.139	-0.054	0.138
12.	Hike in price is suitable for quality.	0.048	-0.107	0.751	0.194	0.134	0.001
13.	Price in comparison to other brands is satisfactory.	-0.078	0.235	0.455	0.245	-0.153	-0.360
14.	Products delivered at right time.	-0.013	0.017	0.005	0.705	0.053	-0.178
15.	Regular availability.	0.004	-0.048	0.100	0.701	-0.094	0.123
16.	Door Step delivery.	0.048	-0.017	0.115	-0.166	0.807	0.028
17.	Door delivery timing is consistent.	0.095	0.290	-0.153	0.231	0.524	0.019
18.	Quality of packing in terms of proper sealing and no leakages	-0.061	-0.027	0.162	-0.080	-0.043	0.770
19.	Requirement item are correctly printed on the label.	0.029	0.0358	-0.173	0.303	0.167	0.499

Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser; Rotation converged in 7 iterations.

The variable defining Factor1 with buying behaviour is mentioned below in the their factor loading and communality for the Table 2.
given attributes of Aroma Milk relating to the

Table2. Factor1-quality

S. No	Variable	Factor Loading	Communality (H^2)	CRONBACH'S Alpha
1.	Due to good Aroma of milk.	0.988	0.984	0.729
2.	It is having essential fat contents.	0.987	0.981	
3.	It is ensuring perfect milk consistency	0.987	0.980	
4.	It has unique taste.	0.985	0.979	
5.	It is suitable for all age	0.984	0.973	

6.	group. It has no adulteration.	0.982	0.971
<p>Among the attributes of Aroma Milk, the attributes such as ‘good aroma of milk’, ‘essential fat contents’, ‘perfect milk consistency’, ‘unique taste’, ‘suitable for all aged group’, ‘no adulteration’ are categorized under “Quality”. All these six attributes has high communality indicating that the attributes within the factor 1 have very high association among them. These attributes explain this factor to the extent of 72.90 percent.</p>		<p>H₀₁: The first hypothesis is proved by the fact that consumers give high importance to the quality of the product, either knowingly or unknowingly appraises the fluid milk for its quality.</p> <p>The variables defining factor 2 with their factor loading and communality for the Attributes of Aroma milk relating to the buying behaviour is given below in the Table3.</p>	

Table 3 Factor-health

S. No	Variable	Factor Loading	Communality (H ²)	CRONBACH'S Alpha
1.	It is rich with protein content.	0.722	0.636	0.683
2.	It is suitable for health conscious consumers.	0.637	0.489	
3.	It is adopted by patients (with diabetics, high BP and heart problem, etc.)	0.586	0.469	
4.	Contains required calories for pregnant women, babies and teen ages & Children.	0.421	0.274	

It is observed from the above table that the attributes of Aroma Milk such as ‘rich with protein content’, ‘suitable for health conscious consumers’, ‘adopted by patients’ and ‘calories for pregnant women’ are categorized under “Health” factor. The high factor loading of the attributes indicates that factor 2 underlies that variable. The higher value of the communality for the four

attributes indicates that higher amount of variance is explained by the extracted factors. The included four variables explain this factor to the extent of 68.3 percent. The variables defining factor 3 with their factor loadings and communalities for the Attributes of Aroma milk relating to the buying behaviour is given below in the Table 4.

Table 4. Factor- price

S. No	Variable	Factor Loading	Communality (H ²)	CRONBACH'S Alpha
1.	It has reasonable price.	0.761	0.626	0.710

2.	Hike in price is suitable for quality.	0.751	0.633
3.	Price in comparison to other brands in the market is satisfactory.	0.455	0.481

It is observed from the above table that the attributes of Aroma milk such as 'reasonable price', 'hike in price suitable for quality' and 'price comparison to other brand' constituted factor 3 are characterized as "Price". The higher factor loading of the attributes indicate that factor 3 under lies that variable. The higher value of communality for

the three attributes indicates that higher amount of variance is explained by the extracted factors. The included four variables explain this factor to the extent of 71.0 percent. The variables defining factor 4 with their factor loadings and communalities for the Attributes of Aroma milk relating to the buying behaviour is given below in the Table 5.

Table 5. Factor- availability

S. No	Variable	Factor Loading	Communality (H ²)	CRONBACH'S Alpha
1.	Products delivered at right time.	0.705	0.532	0.663
2.	Regular availability.	0.701	0.528	

Among the variables of motivation, the variables such as 'delivered at right time', 'regular availability' with high factor loading on factor 4 are characterized as 'Availability'. The higher factor loading of the variables indicate that factor 4 under lies that variable. The higher value of communality for the two attributes indicates that the variables within

the factor 4 have very high association among them. The included two variables explain this factor to the extent of 66.30 percent. The variables defining factor 5 with their factor loading sand communalities for the Attributes of Aroma milk relating to the buying behaviour is given below in the Table 6.

Table 6 Factor- door delivery

S. No	Variable	Factor Loading	Communality (H ²)	CRONBACH'S Alpha
1.	Door Step delivery.	0.807	0.696	
2.	Door delivery timing is consistent.	0.524	0.445	0.693

It is observed from the table that, the attributes of Aroma milk such as 'door step delivery' and 'door delivery time' constituted factor 5 are characterized as "Door Delivery". The highest factor loading of the attributes indicate that factor 5 underlies that variable. The higher value of communality for the two

attributes indicates that higher amount of variance is explained by the extracted factors. The included two variables explain this factor to the extent of 69.3 percent. The variables defining factor 6 with their factor loadings and communalities for the attributes of Aroma milk relating to the buying behaviour is given below in the Table 7.

Table 7. Factor-packaging

S. No	Variable	Factor Loading	Communality (H^2)	CRONBACH'S Alpha
1.	Quality of packing in terms of proper sealing and no leakages	0.770	0.631	0.651
2.	Requirement item are correctly printed on the label.	0.449	0.528	

It is observed from the above table that, the attributes of Aroma milk such as 'proper sealing' and 'label information' constituted factor 6 are characterized as "Packaging". The higher factor loading of the attributes indicate that factor 6 under lies that variable. The higher value of communality for the two attributes indicates that higher amount of variance is explained by the extracted factors. The included two variables explain this factor to the extent of 65.1 percent. Akbay and Tiryaki (2009) analyzed unpacked and packed milk preferences in Samsun province of Turkey. The results indicated that better educated household head, higher income households, younger and female household head and people who agreed with 'unpacked milk is not healthy' consumed more packed fluid milk than did others. Moreover, consumers who agreed with statement 'price of packed milk is expensive compare to unpacked milk' were less likely to consume packed fluid milk than did others. Ahmed and

Amin (2014) conducted a research to assess the impact of packaging on product purchase. According to the finding of the research study, it was observed that the packaging was the most important factor. It was further concluded that the packaging elements like its color, packaging material, design of wrapper and innovation were more important factors when consumers making any buying decision. Finally, it has also been concluded that the Packaging is one of the most important and powerful factor, which influences consumer's purchase decision.

H₀₂: The above finding proves the second hypothesis that the most important expectation of the consumers is the good aroma of Aroma milk.

Motivational factors for purchase of aroma milk

Factor analysis on these attributes relating to purchase decision factors for Aroma milk are identified under six buying decision and the results are presented in the Table 8.

Table 8 Motivational factors for purchase of aroma milk

S. No	Factors	Number of Variables	Eigen Value	Percentage of Variation	Cum. Percentage of variation
1.	Quality	6	6.094	32.072	32.07
2.	Healthy Consciousness	4	1.774	9.335	41.41
3.	Price	3	1.541	8.109	49.52
4.	Availability	2	1.307	6.879	56.39
5.	Door Delivery	2	1.071	5.637	62.03
6.	Packaging	2	1.052	5.539	6.57

It is observed from the Table 8, that the six factors such as quality, healthy

conscious, price, availability, door delivery and packaging were extracted out of nineteen attributes. These factors account for about 67.57 percent of variance in the data. Eigen value for the first factor 'quality' is 6.094 which indicate that the factor contains very high in formation than the other factors. The first factor, 'quality' provides the maximum in sights of purchase decision of Aroma milk in the study. It is very important factor, because the consumers prefer to purchase Aroma milk on the basis of quality. To improve this situation, the industry will give more importance to the attributes concerning the "quality" of milk. The second important factor called "healthy conscious" accounts for 9.335 percent variance.

The Eigen value of this second factor is 1.774 and it show that people are health conscious about the product they purchase in day-to-day life. The third and fourth factors 'price' and 'availability' account for 8.109 percent and 6.879 variance with the Eigen value of 1.541 and 1.307 respectively. It is certain that consumers give more preference to pricing and for its quality level, also the product being delivered at right time. The fifth and the sixth factors, 'door delivery' and 'packaging' account for 5.637 percent and 5.539 variance with the Eigen value of 1.017 and 1.052 respectively. Door step delivery and packaging is also important in making purchase decision for Aroma milk.

Table 9 Results of KMO and Bartlett's Test

Kaiser-Meyer- Olkin measure of sampling adequacy	0.882
Bartlett's Test of Sphericity	Approx Chi-Square
	11020.828
	Degree of freedom
	171
	Significance
	0.000

High value of Kaiser-Mayer-Olkin (KMO) test of sampling adequacy (0.882) indicates the correlation between the pairs of variables explained by other variable sand thus factor analysis considered be appropriate in this model.

Motivational factors influencing the overall decision behaviour of the consumers

The multiple regression analysis has been executed to analyse the motivational factors among the Aroma milk consumers and the overall score on purchase decision behaviour is treated as dependent variable whereas motivational factors such as quality, health conscious, price, availability, door delivery and packaging are taken as in

dependent variables. The results of regression co- efficient of the independent variable are mentioned be low in the Table 10.

Table10 Impact of motivational factors on consumer decision behaviour

S. No	Motivational Factors	Regression Co-efficient
1.	Quality	0.562**
2.	Healthy Consciousness	0.250**
3.	Price	-0.003 ^{NS}
4.	Availability	0.249*
5.	Door Delivery	0.037 ^{NS}
6.	Packaging	0.327**
	Constant	3.129**
	R ²	0.912
	F-Statistics	331.474**

(** - Significant at 1 percent level, * - Significant at 5 percent level, NS - Not Significant)

It can be seen from the Table 10, that the regression analysis among the sample respondents, the significantly influencing motivational factors are quality, health conscious, availability and packaging. An increase in quality, healthy conscious, availability and packaging results an increase on consumer decision behaviour. The analysis reveals that an increase in the consumer decision behaviour by 0.562, 0.250, 0.249 and 0.327 respectively from its mean level. The factors price and door delivery were not considered as significant. The impact changes on motivational factors explain the change on decision behavior to the extent of 91.20 percent, since R^2 is 0.912.

Similar to the present study, Jothi (2013) conducted a study on consumer behavior of Aavin. The study focused on consumer behavior is a subset of consumer behaviors, which is concerned with decisions that lead up to the act of purchase. It could be the influence of the variable price brand image, quality of the product, regularity of service. The study attempts to bring out the factors leading to the purchase behavior and perception of consumers in buying Aavin milk. The consumers are satisfied with quality of Aavin brand compared to other brands. Robinson (1999) conducted a research on the customer preference towards dairy products. The study made an attempt to identify the customer's preference towards dairy products and to know about the factors which influence the selection of different brands of dairy products. The study revealed that the company should make survey to know the expectations

of the consumers and produce that product in the manner so as to attract more customers towards their brand and advertisement can be done through mass media to increase sales and to educate customers about the product. Elangovan & Gomatheeswaran (2015) focused on consumer behavior towards various brands of milk and milk products. Consumers' lifestyles are influenced by number of factors. Like culture, subculture, values, demographic factors, social status, reference groups, household and also the internal makeup of the consumer, which are emotions, personality motives of buying, perception and learning. The study was examining the differences in consumer's behavior with socio and economic characteristics towards brand selection.

Conclusion

Aroma milk has a good reputation among the customers, so it can be extended supplying products towards the customer demand for and availability in markets must be maintained for the consumer to stay in the same Aroma brand. Based on the findings of the study, there is still a large portion of consumers not satisfied with Aroma brand. Industry can target that segment and use it as an opportunity to expand their sales by satisfying those consumers also by retaining the existing consumers. For that they have to make their quality and availability their utmost importance than any other factors.

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