A Study of Brand Loyalty Towards Dairy Products

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Abstract

India is one of the highly milk producing countries in the world. Dairy industry is contributing to a great extent in GDP in Punjab whereas Punjab is known for agriculture & dairy products. The study was aimed to analyze factors influencing purchase of dairy products in Punjab. A probability sampling technique, convenience sampling method has been used. The collected data was analyzed with the help of SPSS, the Factor Analysis was conducted to identify the attributes, brand loyalty and regression analysis was also used to evaluate the factors affecting the consumer loyalty towards dairy products. The four factors come out from various attributes : Product Quality, Brand Popularity, Distribution, Product Freshness and Product Pricing. The two factors were come out from brand loyalty : Brand Commitment and Brand Continuity. The study found that the overall effect of independent variables (Product Quality, Brand Popularity, Distribution, Product Freshness, and Product Pricing) on dependent variable (Brand Commitment and Brand Continuity) is statistically significant.

Key Words

Consumer Loyalty, Dairy Brands, Dairy Products, Factors Influencing Consumer Loyalty.

INTRODUCTION

Indian dairy sector has large share of unorganized dairy sector that is

sold by small vendors who collect the milk from local producers and sell it directly to the households both in urban and rural areas; whereas organized dairy sector represents milk that is processed using modern technology and marketed through organized channels under their own brands e.g. AMUL, VERKA, etc. The main dairy products are milk, cheese, paneer, curd, lassi, flavoured milk, powder milk, ice cream, and other milk products, etc. The Indian proverb "Health is Wealth" indicates the importance of milk and milk products. A prudent man always gives preference to his/her health. If a human being has a good health, then he/she can serve himself/herself and the nation. India's approximately 60 percent of population resides in rural areas/villages & semi-rural areas and do agricultural & allied activities for livelihood, and agricultural is the base of Indian economy. It is one of the fastest growing economies in the world, therefore, income level of the consumers is growing up resulting into higher demand of milk products, buying behaviour and improved lifestyles. The Indian dairy market is highly dominated by the unorganised sector. 80% market is controlled by local vendors, private milkmen and 20% market is under-organised sector which includes cooperatives, private companies. These companies set up efficient & effective channel of milk procurement and distribution. In this manner, raw milk is collected from the farmers, after which it is processed, packed and distributed to various channels. In present time of globalization, needs & wants of consumers change with time and various kinds of products available in the market and also due to changing socio-economic patterns, the focus is shifting towards developing the organised sector. India is 'The Oyster' of the global dairy industry, provides opportunities to entrepreneurs worldwide, who wish to take advantage of this fastest growing market for milk and milk products. The increased production of milk has improved the per capita milk availability to 355 grams per day. The milk production has increased to 165.4 million tonnes in 2016-17. It has increased by 19% during 2016-17 in comparison to the year 2013-14. Likewise, per capita availability of milk has increased from 307 grams in 2013-14 to 355 grams in the year 2016-17, the share of livestock sector was 4.5% in 2015-16.The demand of milk and milk products in India is projected to increase to 146.3 million tonnes in 2014-15 and further to 191.3 million tonnes in 2019-20. A sustained growth in availability of milk and milk products is prevailing for the growing population in dairy. Thus, it is an important secondary source of income for millions of rural households engaged in agriculture.

Table 1
Production of Milk (in MTs)

Years	Production (in Million Tons)
2007-08	107.9
2008-09	112.2
2009-10	116.4
2010-11	121.8
2011-12	127.9
2012-13	132.4
2013-14	137.7
2014-15	146.3
2015-16	155.5
2016-17	165.4

http://www.nddb.org/information/stats/milkprodindia

Table 1 depicted that the production of milk in India has increased every year from 2007-08 to 2016-17 i.e. 107.9 to 165.4 million tonnes. India was ranked 1st produced approx. 146.3 Million Tonnes in 2014-15 and rising consumption with better margins in the value-added dairy products (VADPs) driving the dairy players to get into and at higher profitable level. In 2015-16, the total milk production in India increased by 155.5 MT, 165.4 Million Metric Tonnes in 2016-17. Most private players are concentrating on value-added products as margins are much higher compared to liquid milk. Some key characteristics of Indian dairy sector are largely unorganized (CRISIL Report 2015), by unorganized, we mean the milk that is sold by small vendors who collect the milk from local producers and sell it directly to the households and sweet shops in both urban and rural areas; whereas organized dairy sector represents milk that is processed using modern technology and marketed through organized channels under their own brands e.g. AMUL, VERKA, MOTHER DAIRY, etc.

Dairy Industry in Punjab

Dairy is one of the booming industries in Punjab. It is contributing to a great extent in GDP in Punjab whereas Punjab is known for agriculture & dairy products.

Figure 1 : Milk Production of Punjab
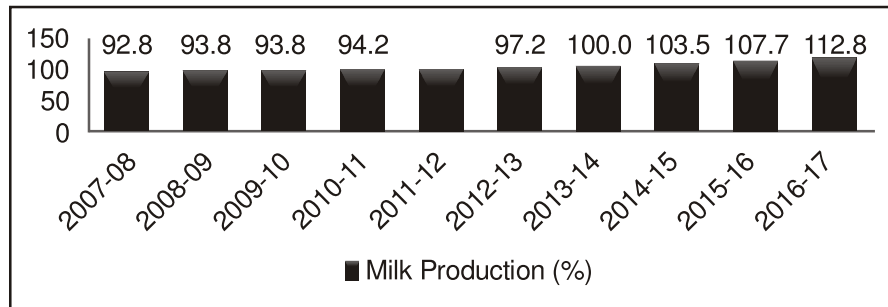
Source : NDDB

Figure 1 that depicted the milk production of the Punjab State is increasing every financial year from 2007-08 to 2016-17 i.e 92.8% (9,282) thousand tonnes to 112.8 % (11,282) thousand tonnes.

LITERATURE REVIEW

Yayyar (2012) investigated packed and unpacked fluid milk consumption and preferences among Turkish households. The proportional stratified sampling method was employed. The questionnaire was used to collect responses from 347 households. The multinomial logit procedure was used to investigate the socio-economic and demographic characteristics of consumers that determine household's fluid milk consumption choices among packed and unpacked fluid milk. The study found that consumers preferred more packed fluid milk. The household heads, education, with higher income, and households having children less than seven years of age consumed packed milk. The unpacked fluid milk consumption found comparatively less because of other factors except income and working class households. The study has some implications for milk producers and companies, because milk production & manufacturing firms are increasing rapidly, the researcher suggested that Turkish companies design effective pricing & promotional strategies for fluid milk consumption.

Anand *et al.* (2013) identified consumer's brand preferences and loyalty-an empirical study with special reference to packaged milk in Thanjavur, Tamil Nadu. The convenience sampling method; the primary data through questionnaire was collected. The statistical tools such as Chi-square test and one-way ANOVA was used to analyze the data and to measure the consumer brand loyalty towards brand preferences with the help of SPSS16. The researchers have taken the packaged milk products of Arokya, Vijay, Aavin and KC brands for the research. The sample was collected from 100

consumers. The study found that quality, price, marketing strategies, taste, advertising and design of package considered as important factors for the brand loyalty which leads to brand preferences.

Chandran and Arumugasamy (2013) analyzed the consumer satisfaction towards Arokya Milk Nagercoil town, Kanyakumari district. The structured questionnaire was used to collect data from 110 respondents and books, journals and magazines were used as secondary instrument for data collection by convenient sampling method. The research indicated that mostly consumers prefer fresh milk. The study found that easy availability, reasonable prices, attractive packaging and door delivery considered as factors affecting consumer purchases and goodwill retain the consumers.

Dhaliwal and Singh (2014) studied behavioural brand loyalty among the brands of toothpaste : A study of urban & rural Punjab. The cluster sampling technique was used for the study and 600 respondents were selected on cluster sample basis from different socio-economic background e.g. education, income, occupation from selected three urban & rural districts of Punjab. The data was collected through questionnaires and data analysis t-test and ANOVA analysis was used. The study found that majority of the buyers of toothpaste consistently loyal to their brands. The result of ANOVA test was that there was a shift in purchasing behaviour of the customers for their favourite brand of toothpaste. The paired t-test found that for the two buy, customers were stick to their favourite brand, but for next buy they change to some other brands of toothpaste. The frequency of purchase was surveyed that majority of buyers preferred to buy brand of toothpaste every month.

Parmar (2014) studied the brand loyalty for cosmetic products among youth. The study revealed that young consumers were well aware about different cosmetic brands and products category available in market. The brand loyalty is built by good quality and switching over to other brands because of allergic reaction or poor quality. The celebrity marketing doesn't greatly affect buying behaviour of youth. Most of respondents were loyal to the same brand irrespective of any product category. Majority of the respondents spend annually less than Rs. 1000 on cosmetic products. The study explained that excellent quality factor plays an important role on brand name, price, celebrity marketing, brand loyalty programme.

Thanigachalam and Vijayarani (2014) examined the consumer behaviour towards FMCG in Puducherry regarding the health care products, household care and food & beverages. Sample of 500 respondents was selected by using purposive sampling technique. The respondents were collected through structured interviews and T-test, one-way ANOVA, and factor analysis was used

to test the hypothesis. The study concluded that the companies have to sell their products at reasonable prices with good quality, and availability in all stores to retain and attract new customers. Brand loyalty is a competitive weapon to fight with competitors and increase its market share. The researcher suggested that as sales promotional schemes are important, the companies must take it seriously as to plan & implement effectively & efficiently.

Ganesh and Rosario (2015) studied consumers' perception towards brand loyalty of FMCG products in Cuddalore District. The data was obtained through questionnaires filled by 560 respondents. T-test and one-way ANOVA was used to test the hypothesis. The study found that the brand equity was important for FMCG products, because consumers strongly depend on the brand for the product. Brand awareness, brand loyalty, perceived quality and brand associations had significant effect on brand equity in Indian FMCG industry.

Kumar (2015) identified consumer brand loyalty- A study with special reference to Lakshya Milk in Haryana. The primary data was collected through structured questionnaire from 100 respondents by visiting on the booths of Lakshya milk and the secondary data collected by referring to journals, articles, magazines and websites. The simple percentage, average with tabulation was used as tools for data analysis. The study found that taste, freshness, availability, price and packaging, consumers believed that Lakshya milk deserves their loyalty. The newspaper considered as effective tool of awareness in the area for the company.

OBJECTIVE OF THE STUDY

- To evaluate the factors affecting the consumer loyalty towards Dairy Products - a study of selected districts of Punjab.

RESEARCH METHODOLOGY

A descriptive research design was selected as appropriate for this study. In this study, a Probability Sampling Technique, Convenience Sampling method has been used for selecting the respondents from the 'Universe'. The Punjab state is selected for the study. The study was being conducted in Jalandhar and Patiala districts of Punjab. The study was limited to organised sector of milk & dairy industry, the products of top 5 milk & dairy companies - Amul, Verka, Mother Dairy, Milkfood & Nestle selected for the study. On the basis of random selection, different sectors of occupation as Servicemen, Housewives, Students, Professionals, and Businessmen were taken up for the sample. A total of 240 consumers belonging to different occupations, selected randomly, were surveyed.

This study was conducted during Feburary-April 2018. The data was collected for the present study from both Primary as well as Secondary sources of collection. The primary data was collected through Structured Questionnaire/ Survey related to the study to gather responses from the targeted consumers. The secondary data was collected from journals, magazines, website of Indian dairy industry, Statistical Abstract of Punjab (2011), and other published data. For this study, the questionnaire was developed in a similar context of the present study. The brand loyalty statements were on five point Likert scale. The factors affecting the choice of dairy brand were given in the questionnaires to know the responses on the five point Likert scale : 1-Extremely Unimportant, Unimportant, 3-Can't say, 4-Important and 5-Extremely Important. The collected data was analyzed with the help of SPSS. The Factor Analysis was conducted to identify the factors of consumer loyalty and also Regression Analysis was used.

DATA ANALYSIS & RESULTS

Table 2
Principal Component Analysis Results of Attributes

Factors and Item	Factor Loadings
KMO = .675 **Product Quality :** Smell Taste Fat Content Quality	 .804 .784 .670 .600
Brand Popularity : Certification of Brand Brand Image Shelf Display Brand Knowledge	 .760 .742 .613 .610
Distribution : Location of Retail Outlet Availability Cleanliness	 .852 .702 .695
Product Freshness : Hygiene Freshness Packaging	 .697 .682 .581
Product Pricing : Discount Offers Price	 .771 .640

Interpretation

The result of Principal Component Analysis (PCA) is shown in the Table 2, the Varimax Rotation was used to determine the dimensionality of the variables considered. Factors with Eigen Values of above 1.00 were extracted and factors loading above 0.5 were retained. The analysis came out with five factors: Product Quality, Brand Popularity, Distribution, Product Freshness and Product Pricing. All the five factors had factors loading within the acceptable range of higher than 0.50 (0.550-0.852). The Product Quality factor consists of consumers' responses related to the variables : influencing quality, smell, taste and fat content of branded dairy products. The brand popularity attributes representing the relative importance that consumers place for preferring branded dairy products such as certification of brand, brand image, shelf display and brand knowledge. Distribution represents location of retail outlet, availability, and cleanliness regarding store. The product freshness composed of consumer's agreement with variables which describe the products, freshness, packaging, and hygiene of the dairy products. The product pricing factor has variables like discount offers, price of branded dairy products.

Table 3
Principal Component Analysis Results of Brand Loyalty

Factors and Item	Factor Loadings
KMO = .840	
Brand Commitment :	
I would like to continue using the same dairy brand.	.598
When I do not find my preferred branded dairy product, I generally switch to another branded dairy product.	.647
I recommend others to use products of my dairy brand.	.762
I feel good about my decision to buy branded dairy products.	.591
I am committed to my dairy brand.	.812
The dairy brand belongs to a company which I use, has high integrity.	.630
Brand Continuity :	
The branded dairy products make me feel safe.	.732
I am using branded dairy products since long time.	.742
I will continue using the same dairy brand even if its price changes.	.680

Interpretation

The result of Principal Component Analysis (PCA) is shown in the Table 3, the Varimax Rotation was used to determine the dimensionality of the variables considered. Factors with Eigen Values of above 1.00 were extracted and factors loading above 0.5 were retained. The analysis came out with two factors: Brand Commitment and Brand Continuity. The factors had factors loading within the acceptable range of higher than 0.50(0.550-0.812). The brand commitment attributes representing the relative importance that consumers place for preferring branded dairy products such as commitment, recommendation, and brand integrity. The brand continuity composed of consumer's agreement with variables which describe the safe products, long time usage, and price of the dairy products.

Regression Analysis

Table 4(a)
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.528a	.279	.253	.86415801	1.760

a. Predictors : (Constant), Product Pricing PP, Product Freshness PF, Distribution Disc, Brand Popularity BP, Product Quality PQ
b. Dependent Variable : Brand Commitment Brand Commitment

Table 4(a) indicates that 27.9% of the variation in brand commitment is explained by variation in the Product Pricing, Product Freshness, Distribution, Brand Popularity and Product Quality.

Table 4(b)
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	40.199	5	8.040	10.766	.000a
Residual	103.801	139	.747		
Total	144.000	144			

a. Predictors : (Constant), Product Pricing PP, Product Freshness PF, Distribution Disc, Brand Popularity BP, Product Quality PQ
b. Dependent Variable : Brand Commitment Brand Commitment

Table 4(b) shows that the overall effect of independent variables on dependent variable is significant.

Table 5(a)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.508[a]	.258	.231	.87670073	1.856

a. Predictors : (Constant), Product Pricing PP, Product Freshness PF, Distribution Disc, Brand Popularity BP, Product Quality PQ

b. Dependent Variable : Brand Commitment Brand Commitment

Table 5(a) shows that 25.8% of the variation in brand continuity is explained by variation in the Product Pricing, Product Freshness, Distribution, Brand Popularity and Product Quality.

Table 5(b)

ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	37.164	5	7.433	9.671	.000[a]
Residual	106.836	139	.769		
Total	144.000	144			

a. Predictors : (Constant), Product Pricing PP, Product Freshness PF, Distribution Disc, Brand Popularity BP, Product Quality PQ

b. Dependent Variable : Brand Commitment Brand Commitment

Table 5(b) shows that the overall effect of independent variables on dependent variable is statistically significant.

FINDINGS OF THE STUDY

- It has found that attributes come out with five factors: Product Quality, Brand Popularity, Distribution, Product Freshness and Product Pricing.
- It has found that brand loyalty come out with two important factors: Brand Commitment and Brand Continuity.
- The Product Quality, Brand Popularity, Distribution, Product Freshness and Product Pricing have statistically significant effect

on brand commitment and brand continuity which describes the factors affecting the consumer loyalty towards Dairy products.

LIMITATIONS OF THE STUDY

- Due to time constraint and limited resources only few related studies have been considered, and only two districts of Punjab i.e. Patiala and Jalandhar were included in the study.
- The primary source of data has been used with limited number of respondents taken for the study.

CONCLUSION

The Indian dairy market is highly dominated by the unorganised sector. 80% market is controlled by local vendors, private milkmen and 20% market is under-organised sector which includes cooperatives, private companies.The analysis came out with five factors : Product Quality, Brand Popularity, Distribution, Product Freshness and Product Pricing of attributes. The Brand Commitment and Brand Continuity factors of loyalty come out to describe commitment and continuity of brand. The study found that 27.9% of the variation in brand commitment is explained by variation in the Product Pricing, Product Freshness, Distribution, Brand Popularity and Product quality. The overall effect of independent variables (Product Pricing, Freshness, Distribution, brand popularity and quality) on dependent variable (brand commitment) is significant. 25.8% of the variation in brand continuity is explained by variation in the Product Pricing, Product Freshness, Distribution, Brand Popularity and Product Quality. The overall effect of independent variables (Product Pricing, Freshness, Distribution, Brand Popularity and Quality) on dependent variable (brand continuity) is statistically significant.

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