

**HEB****“Relationship between Service Quality,  
Customer Satisfaction and Brand Loyalty:****CASS****with Special Reference to Cow milk Sale in Pouches by Mother Dairy and Milk  
Dispensed through Bulk Vending Boothsin Delhi NCR***Vinod Kumar Rai,(Research Scholar) & Prof Ashok Sharma*

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*Address for Correspondence: editojohp@gmail.com***ABSTRACT:**

India is the largest producer of Milk accounting for about 17.4% of world's total milk production in 2012 . India consumes most of its own milk production hence it is neither a significant importer nor exporter. The per capita availability of milk has also increased to 355 grams per day in 2016-17, from 178gms / day in 1991-92. Milk and dairy products are very vital source of human nutrition. . Post liberalization in 1991 many players have entered the dairy sector and competing with AMUL and Mother Dairy particularly in Delhi NCR . timely regular delivery and consistent quality and other services play very important role in creating customer satisfaction and brand loyalty. sale of milk through bulk vending booth is continuously on a declining trend from 11 lakh litre per day to 6 lakh litre per day at present .where as sale of cow milk has increased from 60thousand litre per day to 7.3 lakh litre per day . Milk through bulk vending booth is a value proposition from customers point of view . But here comes the service quality and customer satisfaction . The customers coming to milk vending booths have to stand in que to get token and get milk . They have to bring containers also to carry milk as it is sold loose . Hence, buying milk from booth is time consuming and inconvenient. Mother Dairy Cow milk has become biggest selling brand of more than Rs 1000 Cr turnover in in Two years and Three months becomes a fascinating study . Contrasting trend in sale of Cow milk and sale through bulk vending booth is the area of further research in the light of relationship between service quality , customer satisfaction and brand loyalty Further in depth study Survey and research data based inference can help in unravelling the causes behindsuch phenomena .

**Introduction :**

India is the largest producer of Milk accounting for about 17.4% of world's total milk production in 2012. India consumes most of its own milk production hence it is neither a significant importer nor exporter. With the implementation of Operation Flood Programme, imports of dairy products have reduced significantly. With the rise in income level, demand for processed dairy products have increased resulting in little dairy surpluses for exports. The demand is estimated to be about 200-210 Million MT by 2021-22. With an annual milk production of 165.4 million tonnes in 2016-17 (DAHDF), India is not only the largest milk producer, but also is one of the fastest growing and lowest cost milk producers in the world. Milk production in India has been growing at over 4% annually and its share in milk production in the world has increased from about 5% in 1970 to 17.4% in 2012. The per capita availability of milk has also increased to 355 grams per day in 2016-17, from 178gms / day in 1991-92. Milk is the single largest agricultural commodity in India, with an output value of about Rs 349,572 crore at current prices for 2012-13 which is more than the combined value of paddy and wheat estimated at Rs 171,766 and Rs 110,000 crore respectively. Milk also accounts for more than 2/3rd of the value of livestock output, estimated at about Rs 5,37,535 crore for 2012-13 at current prices. India's private final consumption expenditure on milk and milk products at current prices is estimated to be about Rs 332,728 crores for 2011-12 (CSO, 2013). The higher income elasticity of demand for milk and milk products (1.96 in rural and 1.32 urban areas) coupled with growing urban population and changing food habits meant rapid growth in demand, which has been met by higher rate of growth in production (Saxena, 2000). Dairy consumption in developing countries is expected to increase by 25 percent by 2025 as a result of population growth and rising incomes.

In spite of robust economic growth and being a major producer of food in the world, India is home to about 195 million undernourished persons, accounting for about 24% of the undernourished population in the world as estimated by the Food and Agricultural Organization (FAO) in its publication -"The State of Food Insecurity in the World-2015". Milk and dairy products are very vital source of human nutrition. According to FAO's Senior Nutrition Officer Ellen Muehlhoff, milk and dairy products can be an important source of dietary energy, protein and fat. As part of a balanced diet they are also rich in micronutrients critical for fighting malnutrition in developing countries where the diets of poor people are often starch- or cereal-based and lack diversity. Hence, availability of good quality milk and dairy products becomes very critical. Post liberalization in 1991 many players have entered the dairy sector and competing with AMUL and Mother Dairy particularly in Delhi NCR. These players offer a gamut of services with their products and hence assessment of service quality, customer satisfaction and Brand loyalty becomes very interesting. Milk being highly perishable commodity it is to be made available at a fixed time. Door delivery, timely regular delivery and consistent quality and other services play very important role in creating customer satisfaction and brand loyalty.

In the above backdrop we will focus on comparison between two variants of milk launched by Mother Dairy in Delhi NCR study the relationship between service quality, customer satisfaction and brand loyalty.

Mother Dairy launches Cow milk in July 2016 and it becomes a variant contributing more than 1000 Cr to its topline in two years and three months . Growth in Cow Milk sale by Mother Dairy has been a surprise for all including Mother Dairy people who have launched it .. This study traces the process of conceptualization to launch and its exponential growth in Delhi NCR market . This has become more relevant in the back drop of launch of cow milk by PATANJALI also at lower prices . Key insights and learning from the success story has been briefly presented below.Reaching 100 Cr mark in a year for Coke Zero took heavy advertising cost . Mother Dairy launches Cow Milk and crosses Rs 500 Cr mark in one year and Rs 1000 Cr mark in two years and three months that too without much advertising cost . This fabulous journey gives key insights about how brands are build Mother Dairy, akin to other competitors, sold milk in the variants named as standard milk , toned milk , double toned milk and full cream milk . These variants were prevalent since last 32 years and selling 32 lakh litre milk per day in these variants was itself a matter of pride . Many national and international brands like Britannia, Reliance etc have tried to compete with Mother Dairy in the past but currently Mother Dairy and Amul dominate the Delhi NCR market as big organized

### **1. Consumer Insights**

The above backdrop and based on consumer feed backs through various surveys, the following critical pointers emerged –

- a. Small kids, in the age band of 2-7 years as children in general do not like milk- due to taste and specs of Malai (cream).
- b. The mothers are hassled too and it is a struggle, especially in the morning hours, when the milk is given to these kids. Milk being an essential part of balanced nutrition, specially in vegetarian diet preference prevalent in the country, any deviation makes the mother unsatisfied and anxious about the health of the child.
- c. The consumers who are buying poly pack milk are always doubtful about the origin of the milk, whether it is Cow milk or buffalo or in absence of any declaration on the pack, if the same is made of milk powder etc. they believed, the absence of any declaration about the origin of the milk, makes it doubtful with regard to the efficacy of milk as balanced nutrition for their children.
- d. Increasing preference toward Cow origin products-Recent success of Cow Ghee by Patanjali reinforced that idea that given a choice consumer will prefer Cow milk as compared to prevailing variants. Cow milk is well entrenched in the cultural and social ethos of the Indian culture and at the same time supported by science about it being optimally nutritional, especially for children and the aged segment of the population.
- e. Science supported the Myth of cow milk being easily digested- the protein structure, compared to buffalo milk, is simpler in structure and hence easily digested by the young children.
- f. Ancient Wisdom- on further investigation, the various text books on Ayurveda was consulted and it emerged that cow milk is also highly espoused and recommended by the ayurvedic text book. Charak Sanhita, an ancient text book on Ayurveda, describes cow milk as-“Sweet , tender and cool in Nature”

## 2. Segmentation of consumers-MD decides to launch Cow Milk

Milk, as said earlier, was traditionally sold as variants comprising different fat percentages. Therefore, five types of milk was offered as given below-

- a. Full Cream milk
- b. Standard Milk
- c. Toned Milk
- d. Double tone milk
- e. Skim milk

As is suggestive by the name, the milk has different level of fat and it was left to the choice of the consumer to pick what suits them.

MD decided to segmentise the consumers and target a latent demand. Therefore, it decided to foray into cow milk segment with the following proposition-

- a. Target group- children between the age group 2-7, who do not find milk interesting due to taste and malai specs.
- b. Homogenization- to improve the taste, milk was homogenized (fat globules broken down to very small size thus no formation of malai on boiling)
- c. Optimizing Nutrition- the nutrition requirement of children of the age 2-7 years were studied and various research on the same were referred. The R&D team conducted many test and finally came with an optimized nutritious, tastier milk option, sourced from ‘‘Cow’’.

## 3. Where do you get cow milk?

Now the problem was sourcing of pure cow milk as Northern Indian farmers always sold milk as mixed cow and buffalo milk because the milk was purchased as Mixed milk .Even if farmers bring milk at collection centre separately , it was mixed in the same can due to logistical challenge . In some cases this mixing happened at milk chilling centre as the infrastructure was not designed for handling cow milk and buffalo milk separately. This phenomena was prevalent as milk was being sold as Standard Milk , Toned milk , Double toned or Full Cream milk in the market . Since final product was being sold as mix milk from the last 40 years , need for separation was never felt . For launching cow milk ; the availability and traceability was the biggest challenge .

Fortunately in Chittor district of Andhra Pradesh Mother Dairy found out that 96 -97 % milk available was cow milk .Separating 3-4 % villages having buffalo population was comparatively easy . It was planned to have record of animal wise milk production at the village collection centre so that traceability of cow milk was ensured . It was very essential as source and origin was critical for maintaining consistency of quality. Teams were constituted for continuous and random testing so that purity was assured. Once sourcing problem was sorted out next step was chalked out.

## 4. Developing the 4 P’s-

To launch the product, the MD team went back to the drawing board and worked on the following –

- a. Product- 4% Fat, Homogenized, easily digested cow milk.

- b. Packaging – light pink with mother and child illustration and depiction of cow. To bring science in the visual element, protein structure illustration in form of a pneumonic was shown. The Charak Sanhita text was also highlighted in the pack.
- c. Pricing- to ensure trial, it was priced at par with the prevalent Toned milk prices (largest selling variant)
- d. Promotion- an extensive promotion plan was made as detailed below-
- i. Warming up to the benefit of cow milk- the functional benefit of cow milk was highlighted (Happy Tummy’ being the core)
- ii. Followed by the now famous campaign of ‘‘Chutki Me Doodh Gayab’’, highlighting the fact that the milk is so tasty that it vanishes (from the glass of the child) in a jiffy.
5. Launch and Consumer response- Cow milk was launched in July 2016 and met with immediate patronizing by the consumers. The insight of the team- that a good product, rightly targeted and priced supported by commitment to meet the consumers needs, will sure succeed, was proven correct- Once again! In an age when imitation is the best form of flattery, many brands including Amul followed suit but for MD cow Milk, with its complex product proposition and simple communication coupled with honest intentions, saw the battle and war both being won, without much resistance. There are many players now selling cow milk including AMUL but no one has got the response Mother Dairy has got . The approximate sale figure of cow milk is given as under:

Mother Dairy 7.3 lakh litre / day Amul 0.6

Govardhan 0.5

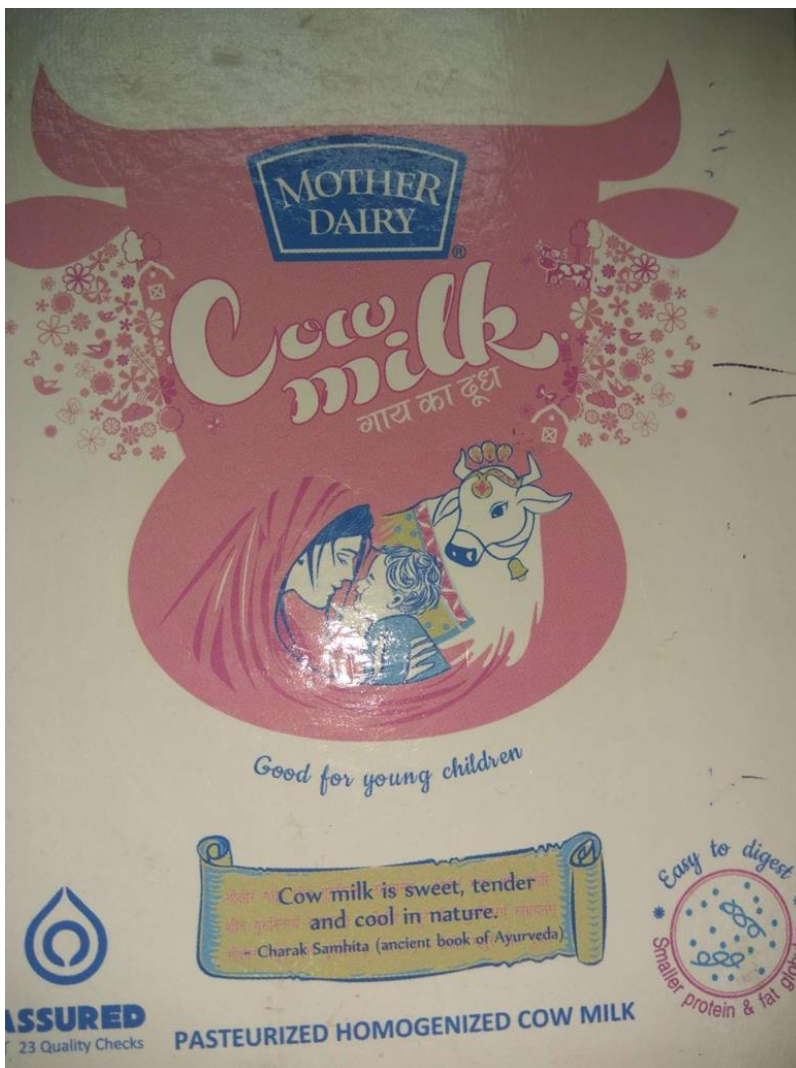
Patanjali 2.25 lakh litre / day

( Data based on estimates by Dairy officials )

Cow Milk journey continues and its demand is growing every month .After launch ; cow milk had crossed Rs 1000 Cr turnover within two years and three months . Monthwise sale volume in lak;h litre per day( llpd) is given below:

Sales of cow milk in Delhi NCR							
Month	(LLPD)	Month	(LLPD)	Month	(LLPD)	Month	(LLPD)
Jul'16	0.61	Apr'17	3.36	Jan '18	5.30	Oct'18	7.03
Aug '16	1.20	May,17	3.46	Feb '18	5.48	Nov '18	6.59
Sep'16	1.45	Jun'17	3.55	March'18	5.52	Dec'18	7.11
Oct'16	1.86	Jul'17	4.08	April '18	5.73	Jan'19	7.32
Nov,16	1.95	Aug'17	4.31	May'18	5.86		
Dec'16	2.30	Sep'17	4.63	June '18	5.76		
Jan'17	2.62	Oct'17	4.46	July'18	6.27		
Feb,17	2.91	Nov'17	4.80	Aug'18	6.67		

Mar,17	3.08	Dec '17	5.06	Sept'18	6.91		
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The distribution channel, placement of product and demand outstripping supply has created a momentum of its own. The success of cow milk has generated an euphoria that may lead to elbowing out very successful variants and cannibalizing the other variants of milk. Once upon a time sale of toned milk was the biggest variant and it was also named as token milk as bulk vending booths dispense milk through tokens. Consumers had more faith in quantity and quality of milk dispensed through such automatic machines. But over a period of last 12 years sale of milk through bulk vending booth is continuously on a declining trend from 11 lakh litre per day to 6 lakh liter per day at present. Cow milk and toned milk through milk booth, both are being sold in the same brand Mother Dairy but what is the differentiating factor between the two. As far as customer value proposition is concerned, the milk containing same fat and SNF content as token milk and sold in pouches is priced much higher and hence toned milk through milk booths being relatively cheaper. It is a value proposition from customers point of view. But here comes the service quality and customer satisfaction. Sale of milk being sold through bulk vending booth in lakh litre per day is given below :

2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
10.71	10.25	9.37	8.93	8.29	7.93	7.21	6 lakh litre per day

The customers coming to milk vending booths have to stand in que to get token and get milk. They have to bring containers also to carry milk as it is sold loose . Hence , buying milk from booth is time consuming and inconvenient .Can it be improved by improving service quality and increased customer satisfaction . Same brand selling milk as cow milk creates such huge demand and its most trusted variant as token milk ( toned milk ) is on a declining trend.It is really fascinating to study the relationship and find out the correlation between these .

### **Literature Review :**

The extent to which a firm successfully serves the purpose of customers is perceived service quality (Zeithaml, Parsuraman, & Berry, 1990). Value is the central attraction of any exchange process. Value obtained and value sacrificed in an exchange process determines the perception of customers in any exchange . It is either measured as a one-dimensional variable or a multidimensional scale (Gale, 1994). The customer's overall assessment of the utility of a product made available by the service provider is value offer while perceived value is based on what is given" (Zeithaml 1998). The service quality construct is mostly conceptualized in the context of service marketing literature (Lee, Lee, & Yoo, 2000). It deals with the concept of perceived service quality. The customer journey approach is seen as complementary to service blue printing because blueprinting represents what "an organization plans for a customer, [whereas] touchpoints and journeys represent what actually happens from the customer's point of view" (Zomerdijk and Voss, 2010) The discrepancy between planned and actual service delivery is conceptualized in the influential gap model introduced by Parasuraman et al. (1985). Therefore , modeling service delivery from customers point of view is an important aspect for service providers . Value is defined in terms of the subjective worth of a product or service considering tradeoff between benefits and costs (Babin & Attaway, 2009). Service value has been identified as an antecedent of satisfaction and behavioral intention or loyalty (Cronin, Brady, Hult, & G. T. M., 2000). According to (Cronin, Brady, Hult, & G. T. M., 2000) service quality is linked with value and satisfaction. Several studies found positive high relationship between service quality and satisfaction (Cronin, Brady, Hult, & G. T. M., 2000). Service quality has been theorized to find out the difference between customer expectations of a service and perceptions (experience) of the service received (Gronroos, 2001). The relationship between perceived value and overall satisfaction has been supported by many studies (Cronin, Brady, Hult, & G. T. M., 2000), (Patrick & Backman, 2002). Satisfaction and perceived value has been suggested to be the direct antecedents of loyalty (Patrick J. F., 2004).

Interpretation of consumer behavior in terms of loyalty and satisfaction is enhanced when it is analyzed from a perceived value perspective (Terblanche, 2009).

Customer loyalty is conceptualized to mean deeply-held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same brand purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior (Oliver, 1999). Loyalty of milk and Dairy product consumer is conceptualised to mean the likelihood that a consumer of milk and milk products is expected to do business with the organization in the future and engage in positive word-of mouth communication about the service. Three main models on the factors affecting loyalty are identified in literature, these are satisfaction model using consumer satisfaction to measure value (Cronin, Brady, Hult, & G. T. M., 2000); value model linking perceived value to consumption outcome (Chang & Wildt, 1994); and indirect models support that loyalty can be obtained through value and satisfaction (Lai, Griffin, & Babin, 2009). (Ganpathi, 2012) discussed that Customer Service was the number One reason for any customer for patronizing a particular outlet for milk and milk products .

#### **7. Research gaps identified in the proposed field of investigation:**

The service actions and service quality are linked together (Heskett, Sasser, & Schlesinger, 1996) The concept of service quality and service satisfaction have been greatly regarded and broadly used in marketing journals and academia. The benefits of customer satisfaction and service quality have been admired by marketing researchers, who have viewed them as indices of competitive benefit for the organization (Ruyter, Bloembergen, & Peetersa, 1997). Brand loyalty, on the other hand, is one significant pillar in marketing, whose significance stems from its last effect on customers' repeated purchases. In fact customers who purchase frequently are considered the starting point of any business (Caruana, 2002).

Even though these concepts Brand loyalty, customer satisfaction, service quality have been used in marketing literature, but the link between these concepts in marketing of liquid milk and milk products in India still remain unclear. Further analysis based on data will throw some light in these concepts in dairy sector . what appears from sales data declining sale of milk through Bulk vending booth and increasing sale of cow milk in the same brand is certainly due to service quality , convenience and customer satisfaction . Only Further in depth study and Survey and research data based inference can help in unravelling the causes behind such phenomena



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