

CHAPTER 1

INTRODUCTION

1.1 Worldwide Consumption of dairy products:

In recent years, a key issue of concern in the United States has been American dietary patterns, specifically regarding the intake of fats (Robb et al. 2006). More and more evidences show that excessive consumption of fats has links with several chronic diseases in the United States (Frazao, 1999 as quoted in Robb et.al., 2006). Whereas some studies show that mounting evidence against excessive consumption of fats has caused changes in American consumption trends, there is a general consensus that more changes have to occur in order for the average American diet to be truly healthy (Tippett and Cleveland, 1999 as quoted in Robb et.al., 2006). But, great deal of confusion exists as to which fats are harmful and which fats are good for health. In 1988, the Surgeon General [United States Department of Health and Human Services (USDHHS), 1988] produced a report wherein the reduction of total fat consumed by Americans is a key issue, but it differs from previous reports in that it places an emphasis on the reduction of saturated fats. The report emphasizes that Americans should consume diets lower in fat and also mentions that such diets should consist of low-fat dairy products. Researchers argue that fat consumption has decreased overall since the 1970s, but levels are still higher than the Dietary Guidelines suggest (Robb et.al. 2006). This has resulted in decreased consumption of high fat milk and increased consumption of low fat milk but the overall consumption of milk in America has gone down which is a cause of concern (Tippett and Cleveland, 1999; Putnam et al., 2002 as quoted in Robb et.al., 2006).

Dairy products reportedly provide more than 70% of the calcium in the American die according to recent data, and milk remains one of the most efficient and healthy sources of calcium (Putnam et al., 2002 as quoted in Robb et.al., 2006). It is primarily due to this provision of calcium that higher rates of milk consumption have been linked with decreased instances of certain chronic diseases, such as osteoporosis (USDHHS, 1988). The United States of America has the world's highest ice-cream consumption, totaling about 24 liters per capita per year. Europe's average consumption is around 6 liters per person per year. In Portugal it totals 4 liters per person per year. Unilever's ice cream business is the largest in the world, worth 4.4 billion Euros globally with a 17% market

share; Unilever offers 2000 branded ice cream products across 41 markets globally (Joao Pedro Dias da Costa Fontes, 2008)

But, the developing countries like China have a very different picture. According to Zhou et al. 2002, as quoted in Ma and Rae, (2004); increased food supplies and consumer incomes have resulted in a shift towards high quality and healthy food products, such as dairy products, particularly in urban areas of China. Fuller et.al. 2007, note that due to variations in social and economic factors, the levels of dairy products consumption also vary substantially across regions. For example, in some regions (e.g., Shanghai, Xinjiang, Beijing and Qinghai), urban dairy consumption per capita exceeded 40 kilograms, but averaged less than 15 kg in the Northeast, South and Southwest areas. The household penetration of ice-cream in cities like Beijing Guangzhou and Shanghai is also reported to be good at 53.8% (ibid).

Ma and Rae,(2004), state that dairy products consumption has become very popular in cities where younger consumers are gradually adopting westernized diets, and many dairy products (e.g., fermented milk, yogurt and ice cream) that used to be consumed mostly during warm seasons are now being consumed in large quantities year-round (FAS, 2001).

Fuller et al., 2007 argue that beyond changes in prices and income, changes in consumer perceptions of dairy products, modifications to food purchasing behavior and innovations in dairy product marketing have also contributed to expanding dairy consumption. These factors represent changes in preferences or shifts in the demand curve over time. Factors that influence perceptions about dairy products may be more likely to affect the decision to participate in dairy product consumption rather than the quantity purchased. On the other hand, greater availability and improved quality of domestic dairy products may have a greater impact on the frequency and quantity of purchases.

1.2 Dairy Consumption in India:

Dairy India 2007 (sixth edition) has estimated the size of India's dairy sector in 2005 at Rs. 227, 340 crore (valued at consumer prices). The following tables (table No. 1.1, 1.2. and 1.3) give detailed breakup of the dairy consumption in India:

Table No. 1.1 Milk production and per capita availability, 2000–06

Year	Production (million Tonnes)	Per capita availability (gm)
2000-01	80.6	220
2001-02	84.4	225
2002-03	86.2	230
2003-04	88.1	231
2004-05	92.5	233
2005-06	97.1	241
2006-07	100.9	245

(Source: www.indiadairy.com)

Table No. 1.2: Break up of usage of milk (volume) as liquid milk and in milk products

	Year 2005 (Estimated)		Year 2011 (Projected)	
	(Million MT)	Percentage	(Million MT)	Percentage
Total Milk output	94.5	100	120	100
Liquid Milk	73.1	77	97.5	81
Milk products	31.4	23	22.5	19

(Source: Dairy India 2007(sixth edition))

Table No. 1.3 Projected turnover of milk and milk products

Product type	Year 2005 (Estimated)		Year 2011 (Projected)	
	Rs. Crores	Percentage	Rs. Crores	Percentage
Total Dairy	227340	100%	520780	100%
Liquid milk	82835	36.44%	159600	30.65%
Ghee	22980	10.11%	42680	8.20%
Khoa/Paneer/ Chhana	24100	10.60%	50500	9.70%
Milk Powders	4680	2.06%	9100	1.75%
Table Butter	770	0.34%	2250	0.43%
Cheese/ Edible Casein	975	0.43%	6150	1.18%
Others (Ethnic sweets, ice-cream etc.	9100	4.00%	25050	4.81%
Retained in rural areas	81900	36.02%	225350	43.28%

(Source: Dairy India 2007(sixth edition))

The above table indicates that the market size of ethnic sweets and ice cream in 2011 will almost triple (in value terms) over the figures of 2005. Sharma N., 2007; says the demand for milk and milk products is income elastic and growth in per capita income is expected to increase demand for milk and milk products. Studies in the past have indicated that the proportion of income spent on milk and milk products increased from 11.7 per cent in rural areas and 14.7 per cent in urban areas in 1970-71 to 21.6 and 16.7 per cent in 1999-00, respectively. As the figures indicate, the percentage of income spent on milk and milk products in urban areas has not increased proportionately to that in rural areas. This could be because the incomes in urban areas have risen proportionately higher than that in rural areas. But the fact remains that the Indians, on an average, spend 20% of their household income on milk and milk products.

Bhaskaran Suku, 1996, concludes that the cultural and dietary habits of Indians (particularly the predominant Hindu population) should result in substantial increases in consumption of dairy products as incomes increase. Milk and dairy products are extensively used in Hindu diet and in religious and social festivities. There is a high positive income elasticity of demand for dairy products in India. Empirical evidence indicates that per capita consumption of dairy products in Indian households could exceed that in similarly tiered Western households. As such, it would appear that there is potential for per capita dairy consumption in India to more than double as incomes improve (ibid).

Approximately 82 per cent of the population of India is Hindus. Significant numbers of Hindus (approximately 210 million) are lacto-vegetarians (Hull, Evans & Gupta 1993 as cited in Bhaskaran Suku, 1996). As such, milk and dairy products are an important source of protein to a significantly large segment of the Indian population. Dairy products have considerable symbolic value in Hindu religious and social life. The importance of dairy products in the diet of the Hindus has been highlighted by Khanna, 1994 as cited in Bhaskaran Suku, 1996; as follows:

“The tradition of cattle keeping and milk consumption is as ancient as the civilization and culture of India. Ancient Indian history is replete with praise for cattle wealth, high quality milch animals, and India being a land of milk, butter and plenty. Reference to

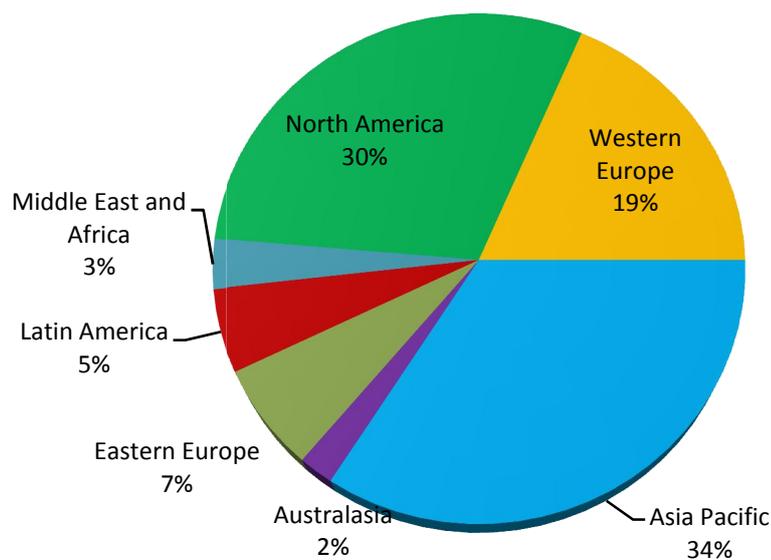
cattle as the symbol of prosperity and wealth appears in all the Vedas, epics and Puranas. Our folkloric [folkloric] figures depict Lord Krishna disporting with playful milkmaids. Cow's milk has been variously referred to as the elixir of life. Property in cows was offered as dowry or as gift signifying love and reverence ... until the Mahabharata period (5,000-6,000 years ago) fights were more often for securing animals rather than occupying land”

The table 2 above shows that 54 per cent of the milk produced in India is available as a marketable surplus for urban areas. The future for commodities like powder and ghee does not appear to be sustainable. Hence, a major shift in product mix for organized dairy industry is needed. Empirical evidence also suggests that the composition of an average Indian’s food basket is gradually shifting towards value added products (Sharma N., 2007). The projections in Dairy India 2007 also indicate substantial increase in consumption of products like Cheese, ice-cream, etc.

1.3 Ice cream Industry:

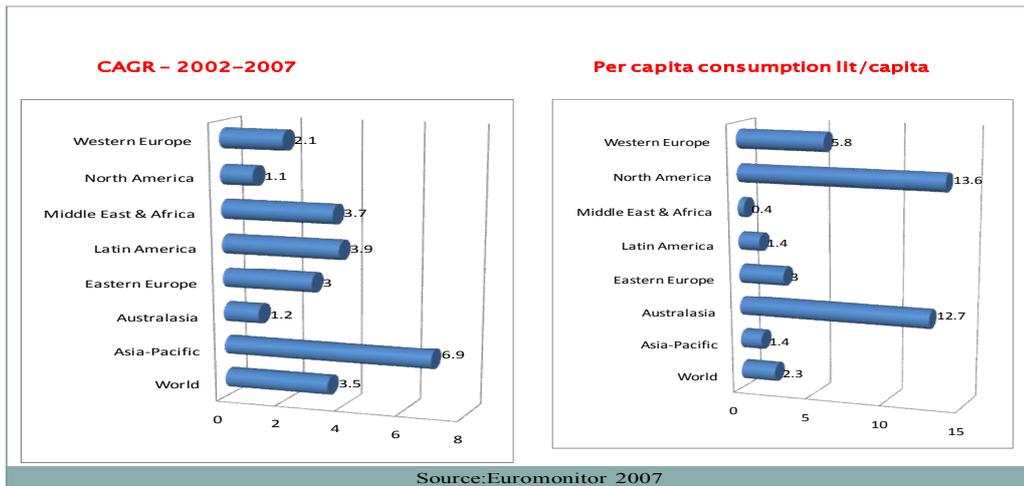
Euromonitor 2007 estimates the world ice cream market at 15 billion liters (\$61.6 billion in value). Asia Pacific contributes to 34% (5.13 billion liters) of worldwide consumption. The chart No. 1.1 shows the contribution of other parts of the world.

Chart No. 1.1: Continent wise contribution in ice cream consumption



Source: Euromonitor 2007

Chart No. 1.2: Word wide growth rate and consumption of ice cream



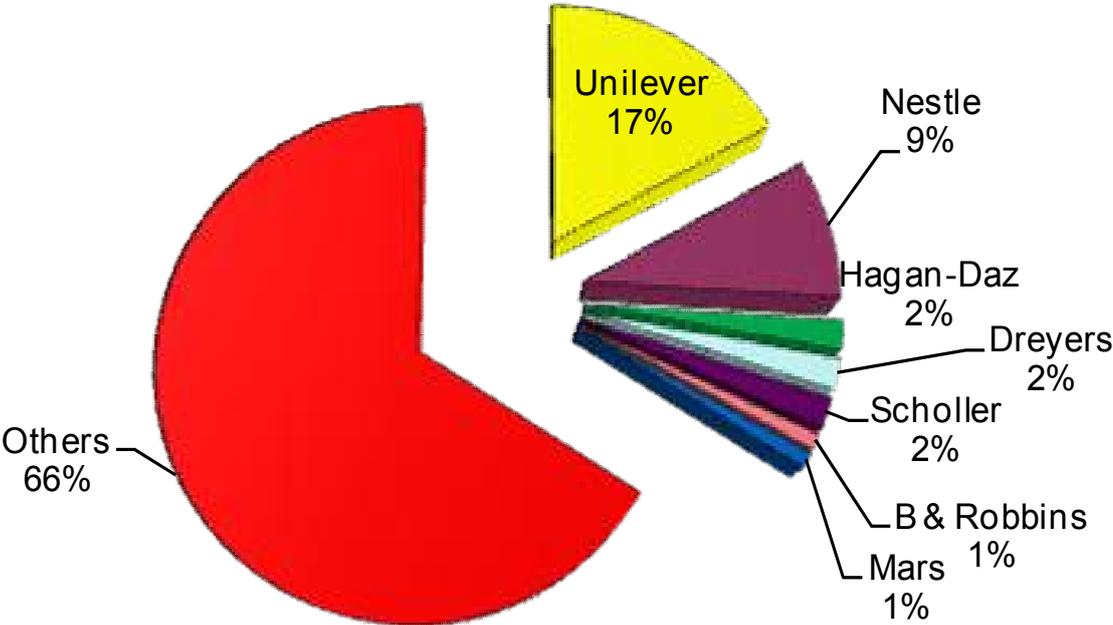
Worldwide per capita consumption of ice cream is 2.3 liters with USA leading at 22 liters Australia, 18 liters, UK 7 liters, Thailand 1.8 liters, Pakistan 400 ml and India 300 ml (Euromonitor 2007, Soni sushil, 2009, Muralidharan A., 2009). The Asian market is growing at a rate of 6.9% over last year's whereas the experts estimate the growth rate of Indian market to be 12% (Financial Express, 6th April 2009, Muralidharan A., 2009). If anything the figures indicate for Indian market is that there is huge potential lying untapped and a better understanding of Indian customer is the need of the hour. Madhu Parikh, CEO of Universal Dairy Products (Cream Bell brand of ice creams) supports this argument when he says that India offers great opportunity for ice cream marketers as it has right climate for ice cream consumption with lowest per capita consumption meaning large untapped potential (Bhattacharya S., 2004)

The International Dairy Foods Association (IDFA), 2006 (as quoted in Wayland Milch, 2007); conclude that nearly 90% of American households purchase ice cream and ice cream contributes to 87% of US frozen dessert market. Ice cream penetration at all India level is estimated to be 15% (Vadilal's 23rd Annual Report for the year ended on 31st March, 2008). The penetration is higher in large metros at 29% as compared to 23-24% in small and medium towns. The penetration in rural areas is however, abysmally low at 9.5%. In rural areas Kulfis and ice cream made by cottage industries are popular.

About 500 companies in the United States make and distribute ice cream and that doesn't include mom-and-pop cone shops, like Ezra and Karen Van Horn's in Williamstown, where ice cream is made on-site. According to CNNMoney.com, a handful of giant companies — including Unilever and arch-rival Nestle — dominate the \$20 billion U.S. ice cream industry. So is the case with India market. Although, handful of companies like Amul, Kwality Walls, Vadilal, Mother Dairy control major branded market; We can find at least 5-10 local ice cream makers in every town and at least one in every village with a population more than 20,000.

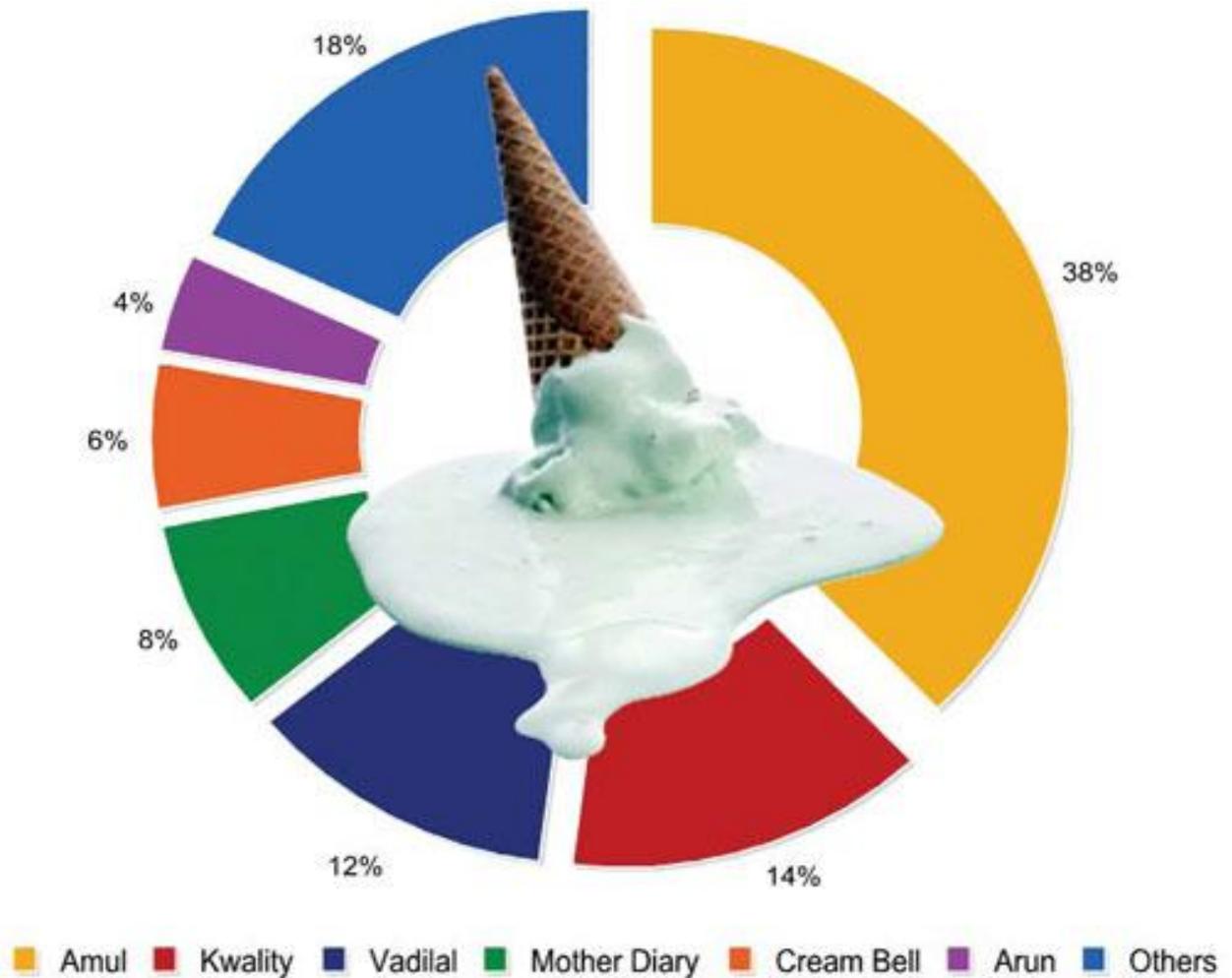
The following Chart present the market shares of major brand in the World market (Chart No. 1.3) (Euromonitor, 2007) and Indian market (Chart No. 1.4) (Muralidharan A., 2009).

Chart No. 1.3 Worldwide ice cream market shares



Worldwide Ice cream Market Shares

Chart No. 1.4 Ice cream market shares in India



Amul (Gujarat Co-operative Milk Marketing Federation Ltd.), which was introduced in 1996 is the leader in Indian market with a market share of 38% followed by Kwaliti Walls with market share of 14% (Muralidharan A., 2009, Soni S., 2009). In fact Kwaliti Walls was the market leader before Amul hit the market. Amul with its “Real Milk Real Ice-cream” went aggressively in the market. With its unique scheme of giving the Deep Freezers to retailers on deposit, Amul built the cold chain faster and ensured that the control of retail deep freeze space remained with them. Vadilal from Ahmedabad was also a key player before introduction of Amul but now they have been focusing on Western markets.

Mother Dairy, a brand originally owned by National Dairy Development Board is very strong in Northern markets and is now making inroads in Western markets like Mumbai Metro. Taking advantage of the strong distribution chain used for its Safal brand of peas, Mother Dairy believes logistics and cold chain facilities will hold its brand in good stead in the markets it enters. Mr. Paul Thachil, Chief Executive Officer, Mother Dairy says, "The cold chain for distribution is common for our ice cream and frozen peas. We have aligned our products for distribution in a similar way." (The Hindu Business Line 1st February 2006). In Mumbai, Mother Dairy has 5,500 stockists for its peas brand - its ice creams are available in 1,500 outlets. However, Amul Ice Creams continues to rule in the Mumbai market at a 32 per cent share followed by Kwality Walls with a share of 18 per cent (ibid).

Arun, Chennai based brand of Hatsun Agro Product Ltd is strong in South Indian markets whereas Dinshaws from Nagpur is more prominent in Western and Eastern markets.

Almost 40% of the ice creams sold in the country are consumed in the western region with Mumbai being the main market, followed by 30% in the north, 20% in the south and 10% in the east. (<http://www.agriculture-industry-india.com>)

The focus of most of the players has been kids and health conscious people. Indian ice cream majors are now chanting a new mantra: "An ice cream a day, keeps the doctor away." Says Mr. R. S. Sodhi, Chief General Manager of Gujarat Co-operative Milk Marketing Federation Ltd (GCMMFL) (Financial Express, 6th April 2009). HLL's Moo (Nutritional Ice Cream) targeted at Kids, Amul's recent launches of "Prolife", probiotic ice cream and "Sugar Free" ice creams and Arun's launch of low sugar variant of ice cream confirm this. Pre- and Pro-biotic is the most promising category whereas low calorie, reduced calorie foods and diabetic foods are becoming increasingly popular in all segments of food industry. This is seen by the launch of any low calorie ice cream and milk variants. Health concerns have also created a boom in low fat, low calorie foods. This has led to strong demand for flavorings, which effectively mask the taste of sweeteners and artificially recreate the mouth feel of fat (Ravindra Kumar, 2005, Sardana and Dokras, 2005).

Developing exclusive parlors seems to be the order of the day. GCMMFL is planning to extend its retail initiative 'Amul Parlors' from 800 to 3,000 across the country. Competitor HLL is also planning to extend Unilever's retail brand 'Kwality Walls Swirls' parlors in accordance with the growing number of shopping malls in India. In a bid to reach out to a wider audience, HLL has introduced its parent company's 'Walls Swirls format' in India. Currently, HLL has over 30 Walls Swirls parlors across the country." Primarily, we have set up parlors in leading malls in India. We plan to increase the number to match the retail boom," says Venkatesan (Financial Express, 6th April 2009).

Hatsun Agro has planned its new range of outlets which will sell ice cream by the scoop priced at Rs 20 a scoop of 100 gm. A feature of these parlors will be the wide selection of flavors, over 25 flavors with five new substituted for the existing ones each month to ensure more variety. The company is investing over Rs 15 Lacs in each of these outlets.

Unlike soft drink, ice cream marketing needs both advertising and merchandising. Merchandising has come a long way. In the 1920s, to sell its Wall's ice cream, Unilever printed the logo 'W' on cards and distributed them. If a child in a household displayed the card in window, it was a signal to the ice cream salesman on a push cart to stop by. Now the companies like Amul and Baskin Robbins sell their ice cream through internet. Maintaining the temperature below -18 degree Celsius and making it available at an arm's length is the key of successful distribution and marketing of ice cream (Fuller et.al. 2007).

1.4 Need, Importance and Relevance of the Topic:

July is National Ice Cream Month in America as designated by President Ronald Reagan and Americans have been organizing Ice cream Socials over last 25 years and ice cream is a staple dessert for them (Cartmell Connie, 2007). Ice cream consumption in India is still majorly limited to metropolitan towns. Despite being a hot country with a young population, India has never made ice-cream culture its own, unlike in the West (Sharma Shalini, 2009).The younger generation is showing a promising trend of consuming ice cream all round the year; but the variation of sales in summers and winters or rainy season still is a bothering factor. The efforts of companies in

developing the cold chain infrastructure and retail network and making ice cream available at lower price point of Rs. 5 in India; have definitely provided an impetus to the consumption of ice cream and increased the per capita consumption from 250 ml to 300 ml over last five years. But, with a large untapped market; the growth is not very significant. India is far away from the worldwide average per capita consumption figure of 2.3 liters. The per capita consumption is 800 ml even in neighboring Pakistan (Sharma Shalini, 2009). Ice cream's contribution to the Food segment remains a tiny Rs 1,000-crore (taking into account organised players only). On the other hand, coffee is a Rs 6,000-crore industry, confectionery Rs 3,400 crores, and soft drinks, Rs 3,000 crores (CMIE as quoted in Sharma Shalini, 2009).

Worldwide marketing opportunities in the ice-cream industry seem rather well known:

- 1) Removing the need for seasonality;
- 2) Targeting impulse;
- 3) Targeting families and
- 4) Promoting pleasure and experimentation (Global Market Review of Ice-Cream – Forecasts to 2012, 2008 as quoted in João Pedro Dias Fontes da Costa, and 2008).

The main market growth drivers are:

- 1) Health: fortification, low and light, whole and natural;
- 2) Fruit flavors: encourage consumers to feel less guilty about their purchase;
- 3) Functional and fortified ice cream;
- 4) Indulgence, luxury and premium ice cream; 5) Getting ethical to attract more consumers to your brand, 6) Convenience (ibid)

The current literature although gives the history of milk and milk product consumption in India and consumption trends; there is no literature available on the insights of Indian ice cream consumer and the reasons of low consumption of ice cream in India.

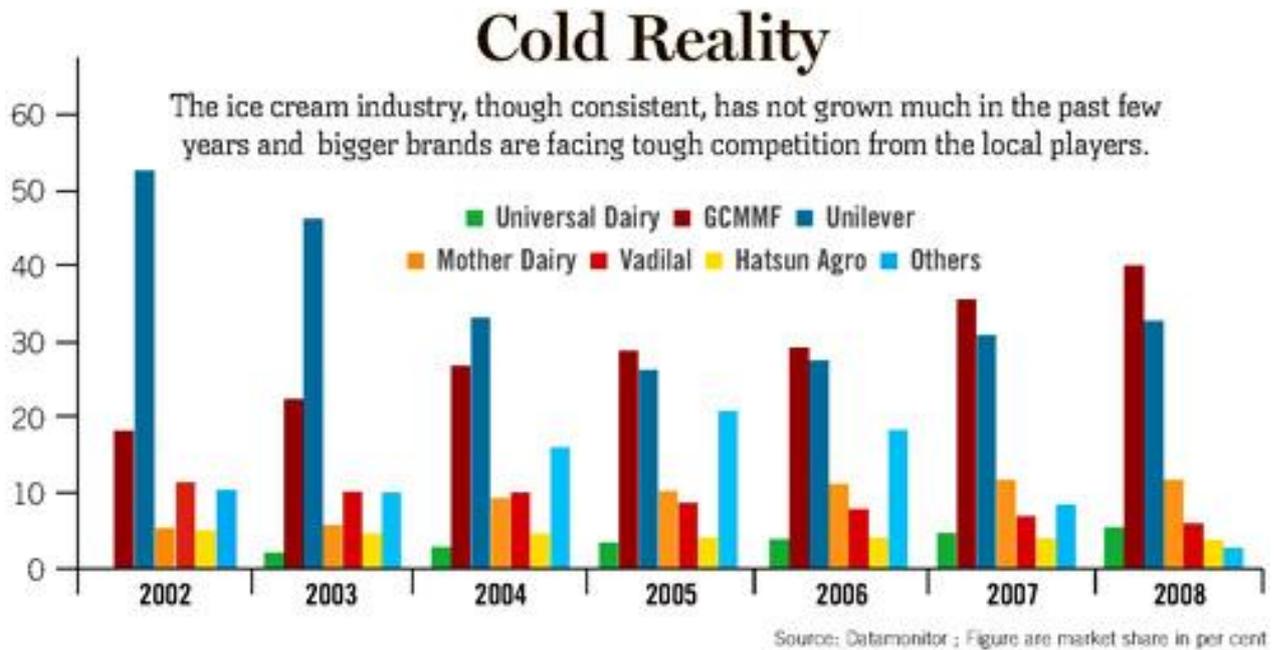
How a 'summer' product such as ice cream has become a craze in cold countries such as Austria and not in India remains a mystery that even Indian companies are unable to fathom. Even, how Pakistan, which has worse infrastructure, can have three times India's per capita ice cream consumption is another riddle that companies here admit to

not having an answer to. Unless industry players can generate a burning desire for the product among consumers, ice cream looks set to remain in deep freeze (Sharma Shalani, 2009). The per capita consumption will increase only when ice-cream manufacturers broad-base the positioning for their ice-creams.” (Financial Express, 27th February, 2003)

Most companies go on the defensive when asked about ice-cream’s laggard status, saying it cannot be compared with other foods. “Ice cream is still not an everyday item of consumption in India,” says Paul Thachil, CEO of Mother Dairy. “It has to compete with an array of other options including even a spoonful of sugar.” Adds R. S. Sodhi, Chief General Manager of GCMMF (Amul) “It is still associated with special occasions, celebrations and seasons, and is definitely not something you could hang out over with friends, unlike coffee or pizza.” (ibid)

The researcher has worked in Indian Dairy industry with Gujarat Co-operative Milk Marketing Federation Ltd., in sales and marketing area, as Branch Manager and Regional Manager; for around 9 years. He has witnessed the launch of Amul ice cream in Maharashtra and was involved in marketing of Amul ice cream for 5 years. His experience and the focused group discussions conclude; although Amul’s entry in Indian market has given a momentum to the cold chain and infrastructure development; it has not helped much in developing the new consumers of ice cream. Amul’s reach even today is limited to metropolitan and urban areas. Amul’s efforts have helped it mostly in replacing Kwality Walls and Vadilal, the then major players in Indian ice cream market (Chart No. 1.5). Power shortages could be a major constraint inhibiting the expansion of cold chain in rural and semi-urban areas (Muralidharan A., 2009).

Chart No. 1.5 Brand wise growth/decline for ice cream market



(Source: Sharma Shalini S., 2009 “In a hot country like India, ice cream fails to melt hearts” Business world Issue Dated 9-15 June 2009)

The marketing inputs of Amul were directed towards supporting the viability of distribution and retailing and increasing the consumption of existing consumers through consumer schemes mainly offering volumes at the same price (e.g. 1.25 liters pack at a price of once liter pack) or offering one pack free on purchase of one pack. They have also started opening exclusive parlors. Kwality Walls is targeting three consumer segments through specific sub-brands: Cornetto for youth, Paddlepop for children aged 8-12, and Selection for in-home consumption. Mother Dairy has introduced vitamin-C laced ice lollies. However, a concerted effort to give the consumer reason to consume more ice cream is missing. Individual companies do advertise in summers, especially during high-visibility sports events, but the initiatives lack imagination. (Sharma Shalini, 2009)

The positioning of Amul ice cream is against competition. The punch line “Real Milk Real Ice- cream” was to highlight that Amul’s ice cream is a real ice cream (Kwality Waals and Vadilal sell frozen desserts) with 100% milk fat (Real Milk). However, Amul has been widely accepted by Indian consumer because of “Good Quality at Reasonable Price” proposition; it has failed to make a distinct impression in consumer’s

mind as “Real Milk Real Ice cream”. The Indian consumer seems to be completely unaware about the difference in ice cream and frozen dessert. Shortage of flavors or packing, particularly in summer season, is a cause of concern. Amul’s Badam and Pista Kulfi was a runaway success during its launch but when the demand picked up Amul could not meet even 50% of the demand generated (unpublished company reports). Making ice cream available at right temperature and product hygiene at retail level is another area of concern for the ice cream marketers.

Despite all attempts to heat up the Indian ice cream market; a lot of ground still remains to be covered. HUL promised much but didn’t give the market right inputs and impetus to grow enough. Amul did a wonderful job of breaking the myth that ice cream is a luxurious item. But what next? Looking at the vast gap of per capita consumption, industry requires lateral thinking for a radical change.

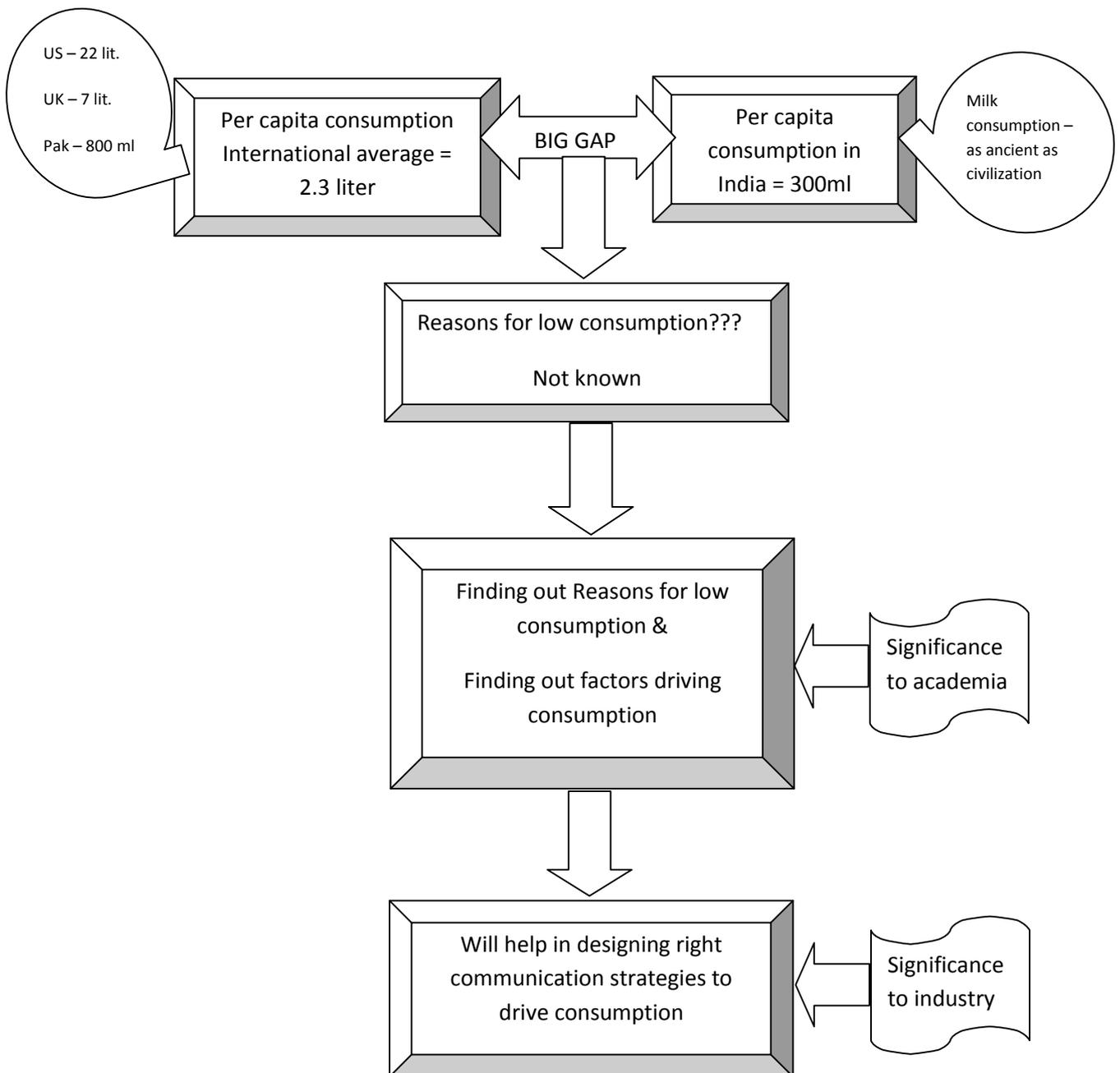
AC Nelson carries out retail surveys for almost all dairy products including ice cream. These surveys are limited to finding out the region wise retail penetration of ice cream. Consumer surveys and understanding the consumer seems to be missing link.

India’s household penetration of ice cream is 15% (Vadilal’s 23rd Annual Report for the year ended on 31st March, 2008) as against 90% for US (IDFA, 2006). With per capita consumption of 300 ml as against 22 liters for US the average consumption per person in India, for those who eat ice cream (15% of the population), is 2 liters ($300 \text{ ml} \div 0.15$). However, the metropolitan cities and urban areas contribute to major chunk of this. The understanding of behavior and preferences of these consumers of ice cream will help the marketers of ice cream to design right communication program. Chart No. 1.6 summarizes the significance of the study.

With this background, the research aims at understanding the customer’s perception of ice cream as a constituent in his/her consumption basket and understand the consumption pattern. An organization needs to first understand how the customer defines the quality of the product or service and then work to boost on its product or service quality on those customer defined parameters (Kotler & Armstrong, 1998). The study is an attempt to find out the customer’s perception of quality of ice cream in different segments, their preferences and explores the correlation amongst different

segments, their preferences and different aspects of consumption and consumption pattern. Amul's Managing Director, Mr. B.M. Vyas suggested of incorporating the study of customer's brand switching behavior also in the research.

Chart No. 1.6 Significance of study



1.5 Objectives of Research:

The study was conducted with following specific objectives:

1. To Study consumer perception of ice cream
2. To critically analyze consumer preferences for ice cream and identify factors driving the consumer preferences.
3. To study consumption pattern of ice cream
4. To find out the critical factors governing consumption of ice cream
5. To find out the factors leading to brand switching by consumers of ice cream
6. To recommend strategies for increasing the consumption of ice cream

1.6 Major Hypotheses:

- 1 The demographic characters of ice cream consumers affect the consumption pattern of ice cream.
 - 1a. The demographic characters of ice cream consumers affect the frequency of consumption of ice cream.
 - 1b. The demographic characters of ice cream consumers affect the average quantity of ice cream consumption per occasion.
- 2 The consumer's attributed reasons for ice cream consumption affect the consumer preferences for ice cream.
- 3 The ice cream's position in the Maslow's hierarchy of needs of consumer affects the consumer preferences for ice cream.
- 4 There is an association between consumer preferences for ice cream and the consumption pattern of ice cream.
 - 4a. There is an association between the consumer preferences for ice cream and frequency of ice cream consumption.
 - 4b. There is an association between the consumer preferences for ice cream and the average quantity of ice cream consumption per occasion.