CHAPTER 9
SUMMARY AND CONCLUSIONS

This study has been concerned with examining the different dimensions of consumer behaviour and demand such as, consumption patterns, consumer preferences, consumer motivation, buying process, and shopping behaviour for milk products in Chandigarh city.

The milk products included in the study were pure ghee, butter, paneer, whole milk powder, skim milk powder and processed cheese. These products have been classified as 'commonly used' (pure ghee, butter and paneer), and 'rarely used' (whole milk powder, skim milk powder, and processed cheese), and also, as manufactured by organised, unorganised and home-made sectors, for the purposes of analyses at appropriate places. The unit of investigation was a household or a family. The final sample size of the study was 469 households, selected from different sectors of Chandigarh with the help of stratified two-stage (within stratum) random sampling. The information from households was collected through a non-disguised and structured questionnaire.

The salient findings of this study are given below:

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The Consumers

An overwhelming majority of households consume 'commonly used' milk products, such as, pure ghee, butter, and paneer. The 'rarely used' milk products like whole milk powder, skim milk powder and processed cheese are, on the other hand, being used relatively by a very small number of households. The proportion of families using 'rarely used' milk products shows an increasing trend with the increase in income. A greater proportion of families belonging to educational categories $E_1$ (husband being professionally educated and wife being at least a graduate, including professionally educated wives) and $E_2$ (both husband and wife being at least graduates) use butter, paneer, whole milk powder, skim milk powder and processed cheese, while pure ghee finds favour proportionally among larger number of families in educational categories $E_3$ (husband being at least a graduate and wife being not a graduate) and $E_4$ (both husband and wife being not graduates).

Generally, the milk products produced by the organised sector are used by relatively larger number of families. Organised sector milk products have been found to be dominating the products produced by the other sectors irrespective of the income and educational categories of their users. Statistically, no significant difference exists among different income groups families with respect
to the use of milk products produced by different sectors. The proportion of families using the milk products produced by different sectors is almost the same in all the income groups. With respect to educational categories, organised sector pure ghee has been found to be used relatively by greater number of families belonging to categories $E_2$ and $E_3$, whereas butter of this sector is being used by larger proportion of families from categories $E_1$ and $E_2$. Paneer manufactured by this sector is being used more by families from category $E_1$. Milk products produced at home have been used proportionately by more families belonging to category $E_4$. The users of unorganised sector pure ghee and butter, are almost negligible. Paneer of unorganised sector has been found to be used by a few families belonging to different educational categories. Statistically, significant differences exist among families belonging to different educational categories with regard to the use of butter produced by different sectors, but the differences for the use of pure ghee and paneer are not significant.

As far as consumers of different brands of milk products are concerned 'Verka' emerges as the most favourite brand mentioned by the majority of the families for the milk products such as pure ghee, butter, paneer, and skim milk.
For whole milk powder, 'Lactogen', and for processed cheese, 'Amul' come out to be the most favourite brands with the majority of the households.

Consumption Patterns

The average monthly total, as well as per capita consumption of pure ghee, butter, and paneer has been found to be much higher than that of WMP, SMP, and processed cheese. This shows that products like WMP, SMP and processed cheese are not in popular use among all sections of the society. The main reasons mentioned by the families for this phenomenon are 'never felt the need' and 'no taste/liking', of such products. The consumption of milk products manufactured by organised sector has been found to be higher than that of the products of other sectors.

The average monthly total, as well as per capita consumption has been found to have an increasing trend with the increase in income for all the milk products studied by us. As regards pure ghee, and butter, difference of consumption among different income classes is rather small, yet there is a mild discernible pattern. Differences in the consumption of paneer, WMP, and processed cheese have been found comparatively higher among families belonging to different income groups. Consumption of milk products
such as pure ghee, butter, and paneer, shows a dominance of the organised sector in all the income groups.

The consumption of milk products varies with respect to educational categories. These patterns are not uniform across different milk products. The average monthly consumption rate, total, as well as per capita for pure ghee is higher among families belonging to educational category E\(^4\). The consumption rate for other products is higher among the families belonging to educational categories E\(^1\) and E\(^2\). However, total consumption rate of butter is higher in case of families belonging to category E\(^4\) than category E\(^2\). The consumption rate of milk products manufactured by organised sector vis-a-vis other sectors is proportionately greater in categories E\(^1\) and E\(^2\) as compared to E\(^3\) and E\(^4\). Families belonging to educational categories E\(^3\) and E\(^4\) consume the products produced by the unorganised and the home-made sector comparatively in larger quantity than do the families belonging to categories E\(^1\) and E\(^2\).

The results of multiple regression model reinforce the patterns as observed above regarding the effect of income and education on consumption. The F values indicate that the fitted models explain the variations in per capita consumption of the milk products significantly.

Preferences: Product, Sector, Brand, and Packaging

The most common purpose motivating the households
to consume 'commonly used' milk products such as pure ghee, butter, and paneer is that these have become 'a part of their regular diet'. So far as 'rarely used' milk products like WMP, SMP and processed cheese are concerned, these have been found to be mostly used for preparations on occasional purposes such as festivals, religious and social ceremonies, parties and preparation of sweets at home. The proportion of families using all the milk products as 'a part of their regular diet' shows an increasing trend with the increase in income. Education of the families has not been found to be a factor affecting the purpose for which various milk products are consumed by them.

While buying milk products, the households consider 'freshness', 'taste', 'hygienical packaging', 'presence of protein content', and 'flavour', in that order, as important product attributes; and, 'reliability of seller', 'brand/company name' are reckoned by them as important general attributes. To these are added attributes relating to 'nutritional value', 'easy and regular availability', 'price', 'packaging', and 'habit of use' by the respondents while making the specific brand choice or brand preference. 'Fat content', 'colour', 'moistness', and 'advertising' have not been considered important by the families. Statistically significant concurrence of rankings given by the households belonging to different income and educational
categories, to various attributes considered for the choice of milk product or its brand(s), has been found.

A few families (5.97%) who do not consume 'commonly used' milk products have given 'medical restriction' and 'high cost' as reasons. For the large number of families (81.45%) who do not use 'rarely used' milk products, 'never felt the need' and 'no taste/liking' have emerged as the main reasons.

The households purchase milk products manufactured by the organised sector taking into account attributes such as, 'more hygienic preparation', 'no fear of adulteration', 'preferred taste', and 'easy availability', in that order of importance. 'Family liking', and merit of 'offering better value for money', are some of the other important factors inspiring their choice. Households belonging to different income groups as well as different educational categories reveal almost a similar pattern in ranking different factors considered for the purchase of these products.

'Freshness of the product', 'regular availability', 'price', and 'family liking' have emerged as the important reasons for using unorganised or home-made sectors' milk products by those families who have been exclusively, or in addition to the use of organised sector milk products, using unorganised or home-made sectors' milk products.
Compared to the milk products produced by other sectors, such as, unorganised and home-made, organised sector milk products are perceived 'more reliable in quality', 'hygienically prepared', 'cleanly packaged', 'delicious in taste' and 'offering good value for money', by the majority of the households. As far as 'moisture content', 'digestibility', 'nutritional value', and 'flavour' are concerned, the majority of the households have been 'neutral' in their opinion, i.e., they have rated these factors neither in favour of the organised sector nor that of any other sector's products. 'Price' factor has been rated slightly higher for organised sector products by the majority. No significant differences have been observed among the households belonging to different income levels as well as educational categories as far as perception of organised sector products is concerned. However, families where both husband and wife possessed at least graduation qualification, rated the above attributes 'slightly' more favourably for organised sector milk products.

The respondents are loyal to organised sector milk products, and their loyalty extends beyond the time period of 5 years. A majority of the families have been found to be loyal towards their favourite brands for a period of five years and more. It has been seen that although the extent of brand loyalty is high, yet the intensity of brand
loyalty is only moderate. About 47 per cent households are found to be loyal to their most preferred brand through 'searching for brand', 'waiting for its availability', and 11 per cent stating that they would first try for the above alternative failing which they would go for some other brand.

Brand switching tendency has been observed among the families though the actual number of households switching their brands is far smaller as compared to that of those who do not.

Reasons for brand switching have been found to be two-fold. Families have shown the tendency to switch over in case the brand is not available with their retailers. Other reasons like 'monotony' of consuming the same brand day in and day out, 'friends recommendations' and 'manufacturing defect' in their preferred brand, have also inspired the switch over.

It has been found that proportionately larger number of households belonging to higher income, usually, buy the available larger size packages, whereas families belonging to low income have given their preferences for smaller size packages for all the milk products studied, except in case of skim milk powder, where no association of this kind has come to light. However, the association was statistically significant only in case of pure ghee and butter. 'Convenience in handling' and 'economy of purchase'
have emerged as the dominating reasons for preference of
different package sizes for almost all the milk products.
On the other hand, 'rate of consumption' and 'fear of
spoilage' for more perishable milk products such as butter,
paneer and processed cheese, have proved to be discouraging
factors for larger package sizes.

The preferred package sizes are mainly as under:

<table>
<thead>
<tr>
<th>Milk Product</th>
<th>Preferred Package-sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure ghee</td>
<td>1 kg, 2 kg</td>
</tr>
<tr>
<td>Butter</td>
<td>200 g, 500 g</td>
</tr>
<tr>
<td>Paneer</td>
<td>200 g</td>
</tr>
<tr>
<td>WMP</td>
<td>1 kg</td>
</tr>
<tr>
<td>SMP</td>
<td>500 g</td>
</tr>
<tr>
<td>Processed cheese</td>
<td>200 g</td>
</tr>
</tbody>
</table>

Only very few families, belonging to income group
$I_1$ (Rs 1001-2500) and $I_2$ (Rs. 2501-4000) have desired the
availability of smaller package-sizes, as are not available
in those sizes in the market yet.

A majority of the families have shown their
preference to buy pure ghee, WMP, SMP, and processed
cheese, in 'tin packaging', while 'polythene packaging'
and 'water proof plastic packaging' have been preferred
for butter and paneer.
The buyers of milk products generally peruse 'the date of manufacturing', 'price', and 'quality mark' on the packages before buying a product. They also desire that some additional information like 'expiry date of the product', 'ingredients/contents of the product', and 'retail price including taxes' should also be given on the packages.

**Consumer Buying Process**

Advertising in one form or another, followed by shop displays at the retail shops, have emerged as the major sources of information to which the consumers of milk products have had recourse. However, 'advertising' did not figure out to be an important factor in influencing a consumer's product and brand choice decisions. Pieced together, it is revealed that while advertising has a tremendous potential as a source of information, and, as such, it facilitates a consumer's choice of milk products, other factors do play a more important role in the consumers' ultimate decision in this regard. The income level does not seem to have any impact on the use of sources of information, but education level has. 'Shop display', 'recommendation of the shop-keeper' and 'hoardings' comparatively, are being more used as sources of information, by the families belonging to educational category E₁, while
'magazine advertisement' are more popular with the families in category $E_2$. Families belonging to educational category $E_4$, comparatively, are more influenced by 'television advertisement', 'gift offers', and 'cinema advertisements'.

As regards the different aspects of purchase process with regard to milk products, we have noticed that the budgeting decisions are made by husband and wife jointly, or usually by wife. Wife has been found to be dominating in making this decision in families belonging to income class $I_3$ (above Rs. 4000) as also in families under all the educational categories, except educational category $E_2$ (both husband and wife at least graduates), where joint decisions are more in vogue. Statistically, significant differences have been found regarding the role dominance in budgeting decisions according to both income and educational classifications of the households.

Product purchase decisions are, generally, 'wife dominated', followed by 'joint' decisions. Statistically, no significant difference has been found in the different income and educational categories, with respect to role dominance, in making milk products buying decisions.

Brand purchase decisions have often been found to be 'wife dominated', or made jointly by 'both husband and wife'. Statistically, significant differences have been observed among households belonging to different income
categories in terms of the role dominance in brand buying decisions in case of 'commonly used' milk products. It indicates that higher the income level, the greater are the chances that wife will dominate in brand buying decisions. However, for 'rarely used' milk products, no significant difference exists among households in different income categories. Also, no significant difference obtains among households in different educational categories regarding brand buying decisions for milk products (both commonly and rarely used products).

Store selection decisions are made jointly by 'husband and wife'. No significant differences have been found in terms of the role dominance in making store selection decisions, among households in different income as well as educational categories.

Actual purchasing of milk products is made by the wife, the husband, and both of them jointly, in that order of dominance. Wife dominance in actual purchasing of milk products increases with the increase in income. Husband's role in actual purchasing decreases as the educational category of the couples transforms from $E_1$ to $E_4$ through $E_2$ and $E_3$. In case of 'commonly used' milk products, the differences among households in different income and educational categories regarding the role dominance in the actual purchase, are found to be statistically
significant, while it is not so in the case of 'rarely used' milk products.

The families generally visit milk bars/manufacturer's retail shops, general merchant shops, confectionary stores, departmental stores, and provisions stores for purchasing different milk products. 'Nearness, (that is, relative physical contiguity) to home', 'availability of refrigeration facilities', carry better quality products', and 'pleasant behaviour of the store's personnel' are the factors which affect households in the selection of stores for purchase of milk products.

The majority of the families buy their products from a single particular store. Those who generally buy their products from different stores, have mentioned 'availability', 'quality of products and service', and 'variety of brands' as reasons for doing so.

The consumers visit their stores for purchasing less perishable products like, pure ghee, whole milk powder and skim milk powder, generally, on a monthly basis, and for buying easily and early perishable products, such as, butter and paneer on a weekly basis, and for the purchase of processed cheese on a fortnightly or monthly basis.
The basic conclusions emerging from the study are:

1. There is a marked preference for organised sector milk products. This is especially so in the case of households with higher educational achievements.

2. Income and education are important variables determining consumption patterns.

3. The consumers belonging to different income and educational groups appear more or less homogeneous with respect to the other aspects of consumer behaviour, (that is, consumer preference, consumer motivation, shopping behaviour, etc.) except in the case of role dominance in purchase decisions.

4. The housewife emerges to be the dominant decision maker in the family. Her role domination increases as the family climbs higher up the socio-economic ladder.

5. Freshness, taste, hygiene, flavour, protein content, credibility of the seller, price, quality of packaging, availability of the product, etc. are the attributes which determine the consumer behaviour and demand regarding various milk products and their brands.

6. The most popular brands are 'Verka' for pure ghee
butter, paneer and skim milk powder; 'Lactogen' for whole milk powder; and 'Amul' for processed cheese.

7. The extent of consumers' brand loyalty is high but its intensity is low. The consumers tend to switch over to other brands because of monotony of use, manufacturing defects or non-availability of a particular brand.

8. People belonging to higher income group tend to prefer larger package-size. 'Convenience' and 'economy' are two most important attributes of package-size preference. 'Tin packaging' is preferred for pure ghee, whole milk powder, skim milk powder and processed cheese, while 'polythene packaging' is preferred for paneer and butter. The consumers desire information regarding 'expiry date of the product', 'ingredients/contents of the product' and 'retail price including taxes', in addition to other information given on the packages.

9. Advertising emerges as the major source of information but has little effect on final decision-making.

10. The consumers generally buy milk products from milk bars/manufacturer's retail shops, general merchant shops, confectionary stores, and provisions stores; and, their visit to these stores is generally on monthly or weekly basis depending upon the perishability of the product.
The factors like nearness to home, availability of refrigeration facilities and pleasant behaviour of the store personnel weigh very much for store preference/selection.

These conclusions will, hopefully, have direct relevance for formulating a marketing strategy for milk products in the city of Chandigarh by a consumer oriented company. Further, these conclusions can be taken as tentative hypotheses for conducting suitable research and thereby, framing marketing strategies for consumers in other markets. Some of these conclusions can be the starting points for conducting in-depth studies in specific areas of consumer behaviour.