

## Product Profile and Marketing Channels used by Milk Processors in Karnal District of Haryana

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### ABSTRACT

India is the largest milk producing country in the world; milk production is more than 127 million tons in a year. Out of the entire production, 55 per cent are consumed as fluid milk and rest 45 per cent are sent for industrial processing. In spite of having largest milk production, India is a very minor player in the world market. Hence, there is a crucial need to develop entrepreneurship in the field of milk processing. For the present study, Karnal district of Haryana was selected purposively for its importance in milk production and processing due to presence of NDRI. The objective was to find out the product profile and marketing channels used by dairy entrepreneurs. There were 41 registered milk processors and all the processors were interviewed for the study as respondents. It was observed that all the respondents process their available milk for butter, *ghee*, *paneer* and *dahi*. In addition with these major products, the respondents were also manufacturing ice-cream, *khoa*, cheese, *lassi*, flavoured milk, etc. Paneer, butter, ghee and dahi were the major dairy products preferred and consumed by the people in the study area.

**Key words:** Product profile, marketing channel, milk processors.

### INTRODUCTION

The milk production system in India is characterized by large numbers of small and geographically dispersed dairy producers who have marketable surpluses of milk but face diseconomies of scale in marketing it to demand centers in distant urban areas. The traditional middlemen who procure milk from rural areas close to the cities offer at best modest returns to the farmers. The milk processing industry is small compared to the huge amount of milk produced every year. Only 10 per cent of all the milk is delivered to some processing units. A specific Indian phenomenon is the unorganised sector of milkmen, vendors who collect the milk from local producers and sell the milk in both, urban and non-urban areas, which handles around 65-70 per cent of the national milk production. In the organised dairy industry, the cooperative milk processors have a 60 per cent market share. The cooperative dairies process 90 per cent of the collected milk as liquid milk whereas the private dairies process and sell only 20 per cent of the milk collected as liquid milk and 80 per cent for other dairy products with a focus on value-added products (Karmakar and Banerjee, 2006).

In spite of having largest milk production, India is a very minor player in the world market. Hence, there is a

crucial need to develop entrepreneurship at local levels in the field of milk processing.

### METHODOLOGY

Present study was conducted purposively in Karnal district of Haryana for its importance in milk production and processing due to presence of National Dairy Research Institute (NDRI), Karnal. The list of milk processors was obtained from the Nagar-Nigam, Karnal. There were 41 registered milk processors and all the milk processors were interviewed for the study as respondents. Entrepreneurial behaviour of the milk processors was studied and assessed by using Entrepreneurial Behavioural Scale. The product profile and marketing channels used by the dairy entrepreneurs' were studied with help of well structured pre-tested interview schedule.

### RESULTS AND DISCUSSION

#### Product profile of the respondents

Table 1 showed that all the respondents process available milk with them for making butter, ghee, paneer and dahi. In addition to these major products, the respondents were also manufacturing ice-cream, *khoya*, cheese, *lassi*, flavoured milk, etc. Paneer, butter, ghee and dahi were the major dairy products preferred and

consumed by the people in the study area. As per the demand of market or consumer, the milk processors manufacture milk products. During festivals and marriages the demand for milk and milk products increases, so they manufacture those products, which give maximum return in terms of income.

**Table 1: Distribution of respondents according to their milk product profile**

Type of Products	Respondents	
	Frequency	Percentage
Butter	41	100.00
Ghee	41	100.00
Whole cream	15	36.58
Ice-cream	02	04.87
Paneer	41	100.00
Khoa	40	97.56
Cheese	17	41.46
Lassi	27	65.85
Flavored milk	11	26.82
Dahi	41	100.00

### Milk utilization pattern of the respondents for manufacturing of milk products

The milk utilization pattern of the respondents was very much cumbersome. It was observed that the majority of the respondents were separating cream from 50 per cent of the available milk and remaining milk after separation of cream *i.e.* skimmed milk was mixed in the remaining 50 per cent milk. After mixing the skimmed milk into remaining milk with full fat (6%), newly composed milk was used for manufacturing milk products such as *paneer*, *khoa*, *cheese*, *lassi*, flavoured milk, *ice-cream*, *etc.* The practice of separation of cream from procured milk to save man power, electricity and time in separation of cream from total procured milk were noticed.

It was concluded from the table 2 that after the separation of cream from the half of procured milk, maximum milk was utilized for paneer making due to high demand in the study area and nearby places.

Most of the respondents were manufacturing *dahi* from skimmed milk due to consumers' preference for low fat dahi which is popularly known as "*seprata dahi*". Very few *i.e.* 4.7 per cent of the respondents were manufacturing ice-cream, but the pattern of manufacturing ice-cream by those respondents was different depending upon the type of milk they used.

Those respondents, who were using skimmed milk for manufacturing ice-cream, incorporate vegetable oil to add fat content in those ice-creams. As the requirement of fat content for different milk products is different, the respondents were adjusting the fat content as per the product they manufacture, for example, the fat requirement for *paneer* is 4 to 4.5 per cent but the fat requirement for flavoured milk and *lassi* is low.

**Table 2: Milk utilization pattern of respondents for manufacturing of milk products**

Characteristics	Category of Products	Milk Used (lit.)	Product Produced
Whole milk (6% fat)	Whole cream	157,317	18,634 (kg.)
	Milk (3% fat)		
	Paneer	154,024	24,644 (kg.)
	Khoa	64,927	14,391 (kg.)
	Cheese	11,951	1,195 (kg.)
	Lassi	14,317	17,254 (lit.)
	Flavored milk	7,268	6,905 (lit.)
	Ice cream	2,427	4,439 (kg.)
Skimmed milk (<0.5% fat)	Dahi	32,439	31,459 (kg.)
	Ice cream	244	488 (kg.)

### Products manufactured from whole cream

Cream which was separated from milk with high fat content *i.e.* 6 per cent fat or more was used to manufacture butter and ghee after processing the cream. It was concluded from the findings that, the separated cream from milk had 50 per cent fat of content, water and fat soluble nutrients. Further, the cream was mostly used to prepare butter and ghee and some portion of cream was also sold as raw cream for various purposes like fruit cream and marriages and parties.

**Table 3: Products manufactured from whole cream**

Category	Cream used	Product Produced
<i>Butter</i>	5,463	2,687 (kg.)
<i>Ghee</i>	12,585	6,116 (kg.)

### Milk procurement

It is concluded from the table 4 that, milk vendors were acting as major *i.e.* 46.34 per cent supplier of milk for milk processing unit. However, milk vendor and milk producers were also act as second (36.58%) largest source of milk for milk processing units. Some of the milk processors were also have their dairy farms and they use the milk produced at their farm for milk processing.

**Table 4: Milk procurement pattern**

Source of procurement	Frequency	Percentage
Milk Vendor	19	46.34
Milk Vendor + Self Production	06	14.63
Milk Vendor + Milk Producers	15	36.58
Milk Vendor + Milk Producers + Self Production	01	02.43

**Disposal of milk and milk product**

The table 5, it is observed that majority of respondents were selling their milk and milk products within Karnal city or nearby cities of Karnal, whereas 7.32 per cent of the milk processors were selling their milk and milk products within Karnal city, nearby cities, metro cities and other states. It is concluded from this table that the respondents were have market availability in the Karnal city and surrounding areas city.

**Table 5: Disposal of milk and milk product**

Category	Frequency	Percentage
Karnal city	12	29.26
Karnal city + Nearby Cities	24	58.53
Karnal city + Nearby Cities + Metro	02	04.88
Karnal city + Nearby Cities + Metro + Other States	03	07.32

**Sale of milk and milk products**

It is observed from the table 6 that majority (65.85%) of the respondents were selling their milk and milk products directly to the consumers or to the retailers available in the city or nearby cities. It is also inferred from the table 6 that only 12.19 per cent of the respondents were selling their milk and milk products to whole-sellers, retailers and directly to consumers. So it is concluded from the findings that majority of respondents had quick access to the market to sell their milk and milk products.

**Table 6: Sale of milk and milk products**

Category	Frequency	Percentage
Consumer	09	21.95
Consumer + Retailer	27	65.85
Wholesale + Retailer + Consumer	05	12.19

**CONCLUSION**

In spite of having largest milk production, India is a very minor player in the world market. Hence, there is a crucial need to develop entrepreneurship in the field of milk processing. In the present study, all the respondents produced butter, *ghee*, *paneer* and *dahi*. In addition to these major products, the respondents were also manufacturing ice-cream, *khoa*, *cheese*, *lassi*, flavoured milk. It showed that there was vast scope for development of entrepreneurship in the dairy sector through milk

production and processing.

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