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Consumption pattern of milk and milk products in Akola city

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Abstract

The present investigation entitled "Consumption pattern of milk and milk products in Akola city" was undertaken according to socio-economic status of the consumers to study the consumption pattern of milk and milk products. The investigation was based on the family data collected through household survey in the various municipal wards of Akola city. The data were collected from 20 colonies, 2 colonies were selected from each ward and 2 wards were selected from each zone of Akola city. The total number of 200 families was interviewed for the study. The findings indicated that majority of consumers were of middle age (26.76%) having higher education (44%) with lower income (44.50%). Most of the consumers (70.50%) have nuclear family belonging to service sector (44.00%). Consumer having liking for buffalo milk (64.42%) during morning and mostly consumed as tea/coffee and whole milk (39.00%). In occasional consumption of the milk products curd was found to be the most popular product in study area (69.00%) followed by paneer (48.50%).

Keywords: Milk, milk products, consumption pattern, socio-economic groups

Introduction

Dairy development is rapidly increasing all over the world. India is one of the leading producers of milk in the world. Several measures have been initiated by the government to increase the productivity of livestock, which has resulted in increasing the milk production significantly. India is first among all countries in both production and consumption of milk. Dairy industry inhabits an important place in Indian economy. It includes production of milk, its preparation for sale as well as manufacturing of dairy products. The growth of Indian dairy as a part of primary activities has been prodigious for the past three decades. The Indian dairy industry is not only a vital producer of an essential food item but it also is the largest employer in the country in both the rural sector and in the semi urban and urban regions as well. It gives an opportunity to about eighty million families in direct and indirect employment activities across India. Effective demand will come mainly from middle and high income consumers in urban and metro city areas in India. There are ways to mitigate the effects of unequal distribution of incomes (Senthikumar *et al.* 2020) [8]. The analysis of consumption pattern for consumer items particularly essentials items like milk and milk products is of great strategic importance in the formulation of development plans in growing economy (Anonymous, 2020) [2]. Present investigation has been undertaken to study the consumption pattern of milk and milk products according to socio-economic status of the families in Akola city. The study has also carried out to know the impact of age, education, occupation, family size and income on consumption of milk and milk products.

Material and Methods

A study was conducted to analyze the consumption pattern of milk & milk products in various categories of milk consumer groups in Akola city of Maharashtra. The information was obtained from the stratified random information of the consumers. Total 10 wards were selected from 5 different zones (East, West, Central, North, South) of Akola city, and from each ward 2 colonies were selected. 200 households were selected from 20 colonies *i.e.*, 10 families from each colony.

Consumers were classified according to age, education, occupation, Family size and income. The data analyzed statistically by using simple basic statistics of Snedecor and Cochran (1967) [9].

Results and Discussion

Socio-economic status of the consumers

The data on basic characteristics of the consumers according to socio-economic status presented in Table 1.

Table 1: Basic characteristics of the consumers

Sr. No.	Particulars	Frequency	Percentage
A. Age group			
1.	Children (Up to 13 years)	145	15.96
2.	Teenager (13-19 years)	107	11.78
3.	Adolescent (19-25 years)	111	12.22
4.	Adult (25-35 years)	171	18.83
5.	Middle age (35-50 years)	243	26.76
6.	Old (Above 50 years)	131	14.42
	Total	908	100.00
B. Education			
1.	Illiterate	12	6.0
2.	Primary (Up to 7 th std.)	20	10.0
3.	Secondary (8-10 th std.)	24	12.0
4.	Higher secondary (11-12 th std.)	56	28.0
5.	Higher education (Above 12 th std.)	88	44.0
	Total	200	100
C. Monthly income			
1.	Lower (Up to Rs. 20,000)	89	44.50
2.	Lower middle (Rs. 20,001 to 40,000)	61	30.50
3.	Upper middle (Rs. 40,001 to 60,000)	27	13.50
4.	Higher (Above Rs. 60,000)	23	11.50
	Total	200	100
D. Type of family			
1.	Joint family	59	29.50
2.	Nuclear family	141	70.50
	Total	200	100
E. Family size			
1.	1 to 3	41	20.50
2.	4 to 6	135	67.50
3.	7 to 9	22	11.00
4.	More than 9	2	01.00
	Total	200	100
F. Occupation			
1.	Labourer	37	18.50
2.	Business	63	31.50
3.	Service	88	44.00
4.	Farmers	6	3.00
5.	Unemployed	4	2.00
6.	Retired	2	1.00
	Total	200	100

Majority of consumers were in category of middle age (26.76%) followed by adult (18.83%). About 40 per cent of the consumers belong to children, teenager and adolescent *i.e.*, below 25 years. The remaining consumer belong to old age group (14.42%). Present findings are in line with Kamble (2010) [6]. He recorded that the majority of consumers were in category of middle age (22.62%) followed by adult (20.93%). Nearly 45.00% of the consumers were divided into age group of up to 25 years and from 25-50 years while these falling in the old age group were less than one tenth (9.80%). Most of the consumers (44.00%) had attained higher education (above 12th) and around 28.00 per cent consumers belong to higher secondary group. While nearly 12.00 per cent consumer attained secondary and 10 per cent consumer attained primary

level education. Whereas the group of consumers who are illiterate are around 6.00 per cent. Similar observations were recorded by Ashwini *et al.* (2022) [3] that majority of consumers (29.00%) had attained secondary college level education and around 25.00 per cent consumers belong to higher secondary group. While nearly 17.00 per cent consumer each of primary and college level education. Whereas the group of consumers who are illiterate are around 12.00 per cent.

Most of the families (44.50%) were belong to lower category of monthly income whereas 30.50 per cent, 13.50 per cent and 11.50 families were belong to lower middle, upper middle and higher category of monthly income respectively. Anole *et al.* (2021) [1] noticed that 21.25 per cent families were belong to lower category of monthly income whereas 36.66 per cent, 30.00 per cent and 12.08 families were belong to lower middle, upper middle and high category of monthly income respectively. 70.50% belongs to nuclear family while 29.50% of them belongs to joint family. Kadam (2016) [5] concluded that out of the 500 respondents surveyed, majority of respondents (64.20%) belongs to nuclear family and the rest 35.80 per cent belong joint family. 20.50 per cent households had up to three members in the family. There was maximum 67.50 per cent of households had four to six members and 11.00 per cent households were belong to category of seven to nine members whereas only 1.00 per cent households had more than nine members in their family. Anole *et al.* (2021) [1] observed that the 21.25 per cent households had up to three members in the family. There was maximum 67.92 per cent of households had four to six members and 8.75 per cent households were belong to category of seven to nine members whereas only 2.08 per cent households had more than nine members in their family.

Consumer of milk and milk products are mostly in service (44.00%) followed by business (31.50%). Around 18.50 per cent consumers were labourer and 3.00 per cent of the consumers were farmers. Very few consumers were found to be unemployed (2.00%) and only one percent found in category of retired servicemen which mentioned under other occupation. Present findings are in line with Ashwini *et al.* (2022) [3] that the consumer of milk and milk products are mostly in service (33.50%) followed by farmers (32.00%). Around (18.00%) consumers were businessmen and (14.00%) of the consumers were labourer. Very few consumers were found to be unemployed (2.50%).

The data on distribution of consumers according to preference of cow and buffalo milk presented in Table 2.

Table 2: Distribution of consumers according to preference of cow and buffalo milk

Sr. No.	Category	Frequency		Percentage	
		Cow milk	Buffalo milk	Cow milk	Buffalo milk
1.	Children	120	25	82.75	20.83
2.	Teenagers	34	73	31.77	68.22
3.	Adolescent	19	92	17.11	82.88
4.	Adult	18	153	10.52	89.47
5.	Middle age	29	214	11.93	88.06
6.	Old	103	28	78.62	21.37
	Total	323	585	35.57	64.42

It is cleared that majority of consumers (64.42%) preferred buffalo milk over cow milk (35.57%). In those who prefer

buffalo milk were 20.83 per cent children, 68.22 per cent teenager, 82.88 per cent adolescent, 89.47 per cent adult, 88.06 per cent the middle age group and out of old there are 21.37 per cent consumers prefer buffalo milk over cow milk. While those having liking for cow milk were 82.75 per cent children, 31.77 per cent teenagers, 17.11 per cent adolescent, 10.52 per cent adult, 11.93 per cent middle and 78.62 per cent belonging to old age group. It is observed that there was remarkable liking of cow milk in children *i.e.*, 82.75 per cent followed by old age (78.62%).

Bidwe *et al.* (2009) ^[4] observed that the majority of the families (73.00%) preferred buffalo milk, though few families (10.50%) inclined for cow milk. The similar trends of finding were also reported by Kamble (2010) ^[6] under the study on consumption pattern of milk and milk products in Parbhani city.

The data on distribution of consumers according to mode of consumption of milk presented in Table 3.

Table 3: Mode of consumption of milk by the consumer

Sr. No.	Category	Monthly income (Rs.)	Mode of consumption				
			Whole milk	In tea or coffee	Both in tea or coffee and milk	In a form of milk products	In all above forms
1.	Lower	Up to Rs. 20,000	7 (07.86)	32 (35.95)	37 (41.57)	12 (13.48)	8 (08.98)
2.	Lower middle	Rs. 20,001 to 40,000	6 (09.83)	16 (26.22)	23 (37.70)	8 (13.11)	19 (31.14)
3.	Upper middle	Rs. 40,001 to 60,000	3 (11.11)	2 (07.40)	11 (40.74)	6 (22.22)	13 (48.14)
4.	Higher	Above Rs. 60,000	2 (08.69)	3 (13.04)	7 (30.43)	4 (17.39)	12 (52.17)
Total			18 (09.00)	53 (26.50)	78 (39.00)	30 (15.00)	52 (26.00)

(Figures in brackets indicate percentages)

Data regarding mode of consumption as majority of the consumers (39.00%) from different income groups consume the milk both in tea or coffee and as it is *i.e.*, for drinking whereas 26.50 per cent of the consumers used milk for the preparation of tea or coffee. 26.00 per cent of the consumers took the milk in all the forms. While 09.00 percent of the consumers consumed as a whole milk. The similar trends of

finding were also reported by Kamble (2010) ^[6]. He observed that out of the total consumers, majority of them utilized milk for drinking (35.56%) followed by in meals (18.97%), in tea (18.56%), in coffee (15.86%) and others (11.02%).

The data on occasional consumption of milk products by different income group presented in Table 4.

Table 4: Occasional consumption of milk products

Sr. No.	Category	Monthly Income	Type of milk products					Total
			Curd	Shrikhand	Ghee	Paneer	Other products	
1.	Lower	Up to Rs. 20,000	44 (49.43)	19 (21.34)	17 (19.10)	23 (25.84)	36 (40.44)	139
2.	Lower middle	Rs. 20,001 to 40,000	56 (91.80)	25 (40.98)	32 (52.45)	31 (50.81)	43 (70.49)	187
3.	Upper middle	Rs. 40,001 to 60,000	21 (77.77)	19 (70.37)	24 (88.88)	22 (81.48)	18 (66.66)	104
4.	Higher	Above Rs. 60,000	17 (73.91)	15 (65.21)	19 (82.60)	21 (91.30)	17 (73.91)	89
Total			138 (69.00)	78 (39.00)	92 (46.00)	97 (48.50)	114 (57.00)	519

(Figures in brackets indicate percentages)

Most of the consumers (69.00%) consumed curd occasionally and 39.00 per cent consume shrikhand. While 46.00 per cent consumers consumed ghee and 48.50 per cent consumed paneer occasionally. Other milk products such as cheese, fermented milk products, lassi, milk shakes, khoa and khoa based products like gulabjamun, pedha, burfi and other sweets, *etc.* were preferred by 57.00 per cent consumers for occasional consumption.

The similar results were also obtained by Roy (2004) ^[7]. He observed that the milk products like channa, curd and ghee were consumed by 43.75, 51.25 and 38.75 per cent respectively of the sample households. These results are also in line with the results obtained by Bidwe *et al.* (2009) ^[4]. He reported that more number of families preferred dahi followed by ghee and occasionally preferred to consume shrikhand, basundi and ice-cream purchased from market.

Conclusions

It is concluded from the present investigation that, selected

factors such as age, education, income, occupation and family size have wide impact on consumption pattern of milk and milk products. As income, family size and educational status of the consumer increases consumption pattern of milk and milk products also increases and hence these are the most important factors while studying the consumption pattern of milk and milk products.

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