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Marketing Manners of Milk Producing Units-A Case Study of the Purvanchal Region of Uttar Pradesh, India

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Abstract: Despite the fact that India is the largest producer of milk, the milk producing units are not economically viable. This is substantiated by the fact that usually milk producers do not grow wealthy as manufacturers do. The researches in the area, generally aim at breed improvement, feeding, milking, animal health care, etc. the economic aspect of researches generally evaluate cost and benefits. However, the failure lies in the milk marketing. The present paper endeavors to capture the marketing manners of milk producing units of the Purvanchal region of Uttar Pradesh India based on a sample of size 280 drawn randomly from the region using a questionnaire. The questionnaire contained, besides general information such as yearly value of milk, number of animals and their diet, questions regarding marketing that included type of marketing. Order getting cost, product differentiations and differentiation cost, type of advertisement and cost and method of physical distribution and cost. It is found that there are miles to go in the direction of marketing. People are generally not aware of the fact that marketing can add to the performance. They have no marketing strategies. Marketing variables are playing negative role in determination of value of output. The significant variable that emerges in such determination is the quantity of output.

Key words: Milk production, milk marketing, Purvanchal region

INTRODUCTION

India is the world's largest milk producing country with share of about 14% in world milk production. Milk has achieved a unique status in terms of its out put value and contribution to the national economy, with output value exceeding Rs.100,000 crores. It has made rapid strides both in term of number of milk producers and quantity of milk produced. Over the last 2 decades, while both population and food grain production grew at around 2%, milk production grew at more than double the rate of growth of the population, thereby increasing per capita availability of milk by 112-232 gm/day during the period of 1970-1971 to 2004-2005 (Prabhat, 2005). The country has predominant vegetarian population, therefore milk and milk product have a significant place in the people's diet in general and sick people in particular. The minerals in milk are essential for body building and its maintenance. On the other hand, dairying plays a very important role in rural economy. It provides income and employment not only to the weaker section of the society but also to the farming community. In this way dairying improves socio-economic condition of village based population, of which a sizeable portion is living below poverty line.

Still today, most of the milk producing units are not economically viable in the sense that they are not able to provide what can be termed as profit. The other dimensions of viability such as market expansion, growth, pride are seldom taken into consideration. This is despite the fact that milk producing units can multiply

to grow as number of animals grow automatically. The people involved in this business are mostly those who have been traditionally there in and continuing the activity because there are no alternatives. This is substantiated by the fact that most of the owners are of same caste people of other cost are not opting for this trait. The milk producing activity is not taken as entrepreneurial activity and is many a time considered as subsidiary to agriculture. In other neighboring countries such as Bangladesh, the story is not different. For example in Bangladesh rural people most of the milk (Ghose and Maharajan, 2002) The study conducted on marketing aspect of milk producing units, at large, concentrate on marketing channels such as Cooperatives, Vendors middlemen, hotel and restaurants. A survey of such studies have been made by CAPLI. A similar study by Ghose and Maharajan (2002) also deals with channels. The researches in the area have been limited to aiming at breed improvement, health care, feeding, milking, etc. Researches on economic aspects mostly aimed at computing cost and benefits with limited notion of cost as well as of benefits. It is also assumed that prices are given and the seller is a price acceptor. Therefore, benefits can be reaped only by reducing the cost.

A question can be reasonably asked at this juncture- what marketing can contribute in the development of dairying. Marketing is an integral functional activity of all human being in their day to day life. It is a body of knowledge capable of influencing the development of individuals and also organization. Presently marketing

has occupied a predominant role in the process of industrialization and in-turn emerged as a concept for the economic development of a country. Even in these days mostly unorganized traders who turned milk trading into an exploitative market, represent milk marketing.

Milk review of studies: An study was carried out on the importance of milk marketing in Uttar Pradesh, India. Arora *et al.* (1998) Issues discussed are: marketable and marketed surplus of milk; marketing behaviour of milk producers' selection of agency for sale; marketing channels; average milk price received by milk producers; and the price spread in milk marketing. Vijayalakshmi and Sitaramaswamy (1995) compared the cost of procurement/distribution of the organized and informal sectors of the dairy industry in Bangalore and Kolar districts. Suriya (2001) find out that the urban Consumer mostly prefer the branded milk especially Aavin milk whereas the rural consumer prefer mostly unbranded milk. The most significant factor influencing the selection of the source of milk purchase is the physical factor namely accessibility, quality, regular supply, door delivery, timely delivery and mode of payment. Risks according to Royer (1995) that agricultural producers face are linked with decisions about the prices, quantity, quality and the timing of delivery. Hobbs (1996) identified the transaction cost as another factor, which has significant impact on marketing decision-making. Age, education and farm profit are also, according to Hobbs (1997), some factors that affect farmers in their marketing channel choice. Other studies have attempted to identify the factors that influence farmers to adopt a particular marketing strategy. For example, distribution risk is one factor that influences marketing decision-making in the agribusiness sector.

As appears, the studies do not differentiated between sale and milk marketing. Sale can be defined as selling milk under a competitive condition at given price. They are price accepters. They have no or very limited control over the market. The sale can be managed, controlled and mode by marketing activities thereby the milk producing can be rescued from being an option only lastly available. This is required to enlarge the agenda from sale to marketing in true sense.

Aim at extending the agenda of studies on milk marketing.

MATERIALS AND METHODS

The present study: The development of milk producing units is possible if they are brought up in the manner of small scale units. Therefore, this could be worth while to evaluate the marketing manners of milk producing units on the terms and conditions of small scale units.

The present study is conducted on the basis of a sample size of 280 units, drawn randomly from the purvanchal region of U.P. on The basis of a

questionnaire constructed for the purpose. The questionnaire contained besides general information such as yearly output, questions regarding, marketing aspects that include:

Type of marketing:

- Retaining complete control over the chain of production to marketing integrating both the function in one form
- Adhering to joint arrangement in marketing by issuing franchise either by product and trade name franchise or by business franchise.
- Resorting to conventional marketing chain, i.e., wholesalers and retailers system of marketing

Order getting cost:

- Direct
- Intermediary
- Cooperative
- Government

Product differentiation and product differentiation cost

Type of advertisement:

- Competitive
- Informative

Advertisement cost:

- Pamphlets
- News Paper
- Radio, T.V.
- Wall Writing
- Door to door canvassing

Method and cost of physical distribution:

- Transportation
- Cycle

Statistical tools: Simple statistical tools such as Frequency tables are used A regression is also run to capture the role of marketing cost on the volume of milk production.

The purvanchal region: The purvanchal region lies in the eastern part of Uttar Pradesh. The way it is defined in the present study, it comprises of 4 regions (Zone). They are Varanasi, Mirzapur, Azamgarh and Gorakhpur. This regions present a classic case of economic backwardness and political attentions since independence. The main feature can be seen in low income and productivity, predominance of agriculture, extremely low level of urbanization, inadequately developed infrastructure, widespread illiteracy, High birth and death rate and low level of investment. Nearly 90% of population lives in rural areas. The solution to the problem of economic background lies in economic diversification. Development of milk producing units can be one option.

Table 1: General description of variables, one-sample statistics

	N	Mean	SD	SEM
TPMKT	280	1.7500	0.94802	0.10599
ORGT COST	280	1.1500	0.35932	0.04017
ORGT EXP	280	337.7500	551.33549	61.64118
PDDIFFRT	280	0.0000	0.00000	0.00000
PDDCOST	280	439.1000	498.02688	55.68110
ADCOST	280	0.0000	0.00000	0.00000
TPADV RT	280	0.2000	0.60379	0.06751
ADINF MN	280	439.1000	498.02688	55.68110
ORFIL CST	280	1190.0000	3466.42485	387.55808
PHDST MTD	280	1.8000	0.60379	0.06751
PHDST CST	280	2722.5000	1596.55285	178.50004

Test value = 0

	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval of the difference	
					Lower	Upper
TPMKT	16.511	279	0.000	1.7500	1.5390	1.9610
ORGT COST	28.626	279	0.000	1.1500	1.0700	1.2300
ORGT EXP	5.479	279	0.000	337.7500	215.0563	460.4437
PDDCOST	7.886	279	0.000	439.1000	328.2695	549.9305
TPADV RT	2.963	279	0.004	0.2000	0.0656	0.3344
ADINF MN	7.886	279	0.000	439.1000	328.2695	549.9305
ORFIL CST	3.071	279	0.003	1190.0000	418.5849	1961.4151
PHDST MTD	26.665	279	0.000	1.8000	1.6656	1.9344
PHDST CST	15.252	279	0.000	2722.5000	2367.2046	3077.7954

Table 2: TPMKT (Type of market)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
1.00	168	60.0	60.0	60.0
2.00	14	5.0	5.0	65.0
3.00	98	35.0	35.0	100.0
Total	280	100.0	100.0	

RESULTS AND DISCUSSION

Table 1 depicts Mean, Std. Deviation Std. Error of Mean of marketing Expenditure and behavior. In general, the standard error of mean of different variables is very small; connoting that taking different sample would mean very small change in the terms of means. The average of order getting type and expenditure is 1.15 and Rs. 33775, respectively. Product Differentiation (PDDIFFT) and Product Differentiation Cost (PDDCOST) give contradictory responses. Although they made no product differentiation but they mentions some expenditure incurred on the same. It is because they did not imagine what product differentiation could be. Similarly, expenditure on advertisement was zero but expenditure on informative advertisement is Rs. 439. This again is a contradiction. Or, use and cost of advertisement did not figure correctly in their vision. Order filling cost (ORFILCST) is Rs. 1190. Where as, most of the people are using the second option i.e., bicycle for physical distribution. The average of Type of Market (TPMKT) can be understood in the light of Table 2 that gives frequency for the same. Sixty percent of the people chose to have control over production and marketing both. Only 35%

people approved for the process of whole-seller and retailer. This makes out a total of 85% of the people who chose the 2 responses.

In the light of Table 3 and 4 most of the people are resorting to direct selling and they are also making some expenditure. This is 85% Remaining 15% people have direct selling as well as through intermediaries.

The options of marketing through cooperatives and government remained unavailed.

Table 4 gives frequency distribution of order getting expenditure. Sixty percent of the people make no expenditure. The variation of zero cost to Rs. 900 covers five percent at each level.

Table 5 gives Order filling cost (ORFILCST). The 85% people made no expenditure on order filling. The remaining range of Rs. 800.00 to Rs. 12000 have equal frequency distribution of 5% people.

Table 6 and 7 exhibits method and cost of incurred on physical distribution. Ten percent made no expenditure by distributing milk at door. The remaining 90% use bicycle for physical distribution.

The cost of physical distribution varies from Rs. 1000.00 to Rs. 8000.00. That has a very uniform distribution in the sense that higher frequency value (10% for Rs. 1800.00, 15% for Rs. 2000.

The role milk-marketing: The pathos of milk marketing manners are clearly apparent from the regression coefficients of the model where in value of Milk produced is function of Quantity of milk produced (QOFLK), Order getting cost (ORGT COST), Advertisement cost (ADCOST), Information cost (ADINF MN), Physical

Table 3: ORGTCOST (Order getting cost)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
1.00	238	85.0	85.0	85.0
2.00	42	15.0	15.0	100.0
Total	280	100.0	100.0	

Table 4: ORGTEXP (Order getting expenditure)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
0.00	168	60.0	60.0	60.0
85.00	14	5.0	5.0	65.0
160.00	14	5.0	5.0	70.0
360.00	14	5.0	5.0	75.0
750.00	14	5.0	5.0	80.0
900.00	14	5.0	5.0	85.0
1500.00	42	15.0	15.0	100.0
Total	280	100.0	100.0	

distribution cost (PHDSTCST) and Average diet (AVDIET).

Table 8 gives the model summary of the regression. Both R² and Adjusted R² are fairly good, being 0.787 and 0.757, respectively.

It is the quantity that emerges as main explanatory variable for which, standardized coefficient is 0.856 and is significant. The marketing components (Variable 2-6 in the model) are insignificant. Order getting and advertisement plays no role as such. For, the coefficient are nearing zero. The three components have negative sign substantiating the role played by them. Only marketing component that has positive sign is physical distribution cost. But the magnitude of the coefficient is very small. Surprisingly enough, the average diet of animal that can be considered as proxy for the production cost, plays no important role in the determination of value of milk produced.

Conclusion: The average of Type of market can be understood in the light of the frequency for the same. Sixty percent of the people chose to have control over production and marketing both. Only 35% people approved of the process of whole-seller and retailer. This makes out a total of 85% of the people who chose the two responses.

The average of order getting type and expenditure is 1.15 and Rs. 33775, respectively. Most of the people are resorting to direct selling and they are also making some expenditure. This is 85% Remaining 15% people have direct selling as well as through intermediaries. The options of marketing through cooperatives and government remained unavailed.

Product differentiation and product differentiation cost give contradictory responses. Although they made no product differentiation but they mentions some expenditure incurred on the same. It is because they did not imagine what product differentiation could be.

Table 5: ORFILCST (Order filling cost)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
0.00	238	85.0	85.0	85.0
800.00	14	5.0	5.0	90.0
11000.00	14	5.0	5.0	95.0
12000.00	14	5.0	5.0	100.0
Total	280	100.0	100.0	

Table 6: PHDSTMTD (Physical distribution milk at door)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
0.00	28	10.0	10.0	10.0
2.00	252	90.0	90.0	100.0
Total	280	100.0	100.0	

Table 7: PHDSTCST (Physical distribution cost)

	Frequency	(%)	Valid (%)	Cumulative (%)
Valid				
1000.00	14	5.0	5.0	5.0
1200.00	14	5.0	5.0	10.0
1500.00	14	5.0	5.0	15.0
1800.00	28	10.0	10.0	25.0
2000.00	42	15.0	15.0	40.0
2050.00	14	5.0	5.0	45.0
2200.00	56	20.0	20.0	65.0
3000.00	28	10.0	10.0	75.0
3100.00	14	5.0	5.0	80.0
3200.00	14	5.0	5.0	85.0
5000.00	28	10.0	10.0	95.0
8000.00	14	5.0	5.0	100.0
Total	280	100.0	100.0	

Similarly, expenditure on advertisement was zero but expenditure on informative advertisement is Rs. 439. This again is a contradiction. Possible, use and cost of advertisement did not figure correctly in their vision.

Order filling cost is Rs. 1190. Where as most of the people are using the second option i.e., bicycle for physical distribution.

Sixty percent of the people make no expenditure. The variation of zero cost to Rs. 900 covers five percent at each level.

Eighty five percent people made no expenditure on order filling. The remaining range of Rs. 800.00 to Rs. 12000 have equal frequency distribution of five percent people. Ten percent made no expenditure by distributing milk at door. The remaining ninety percent use bicycle for physical distribution.

The cost of physical distribution varies from Rs. 1000.00 to Rs. 8000.00 that has a very uniform distribution in the sense that higher frequency value (10% for Rs. 1800.00, 15% for Rs. 2000 and 20% for Rs. 2200) lie in the middle of the distribution.

From the fore-going analysis, it can be concluded that there are miles to go to make the milk producing a

Table 8: Regression analysis

Model summary					
Model	R	R ²	Adjusted R ²	SE of the estimate	
1	0.887(a)	0.787	0.757	272.15523	
Coefficients (a)					
Model	Unstandardized coefficients		Standardized coefficients		
	B	SE	Beta	t	Sig.
Constant	5.636	99.692		0.057	0.955
QOFMLK	15.3153	1.438	0.856	10.646	0.000
ORGT COST	-0.033	0.098	-0.029	-0.333	0.741
ADCOST	-0.042	0.100	-0.040	-0.420	0.677
ADINF MN	-0.134	0.143	-0.101	-0.939	0.353
PHDSTCST	0.032	0.025	0.132	1.243	0.221
AVDIET	0.097	0.197	0.039	0.490	0.626

a Predictors: (Constant), QOFMLK, ORGT COST, ADCOST, ADINF MN, PHDSTCST, AVDIET, Dependent Variable: value of milk produced

profitable business. There are serious lapses on this front and milkmen should be trained for marketing strategies. They can be trained to use price of milk as strategic variable and not as a given constraint.

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