

Unorganized System of Milk Marketing and Producers' Attitude towards it in West Bengal: an Analytical Study

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ABSTRACT

Attitude of milk producer towards unorganized system of milk marketing is a very important aspect to understand their marketing behaviour. For measuring producers' attitude one attitude scale was developed. The young dairy farmers of West Bengal in some cases tilted towards unorganized system and the old farmers showed the opposite inclination. No high milk seller showed most favourable attitude, on the contrary, majority of the small milk seller fell either in favourable or most unfavourable attitude category. Large percentage of respondents who consumed medium amount of milk showed most unfavourable attitude and unfavourable attitude. Negligible number of college educated respondents showed most favourable attitude whereas, other showed unfavourable attitude. Highest percentage of large animal holder respondents showed most favourable attitude towards unorganized system of milk marketing. Limited number of respondents who were small land holders showed most unfavourable attitude and high percentage of large land holders showed most unfavourable attitude towards unorganized system of milk marketing. Majority of the respondents who fell in high social participation category showed most unfavourable attitude.

Key Words : Attitude; Milk marketing; Unorganised marketing system;

The contribution of agriculture towards the national GDP is decreasing day by day but the share of livestock in agriculture is increasing. About 70 million households are engaged in milk production. Small marginal and landless cattle owners produce over 70 per cent of the milk (Balaraman, 2005). Only production of milk is not enough to be successful in dairy business, but the produce should be successfully marketed. Milk producer today has neither control on fixing the price for his produce nor any say in the input prices. In many states the feed milk price ratios are decreasing over the years leading to severe competition and reduced profit margins (Natchimuthu et.al. 2007). To ensure the remunerative prices of milk it is important to understand the attitudinal factor of the producers towards the unorganized sector so that the reasons for preferring the unorganized sector over the organized sector can be understood. Apart from that the reach of the organized sector in the far flung areas of West Bengal should be ensured so that over dependence on the unorganized system can be reduced. West Bengal is such a state where milk production as

well as milk marketing is seen as a subsidiary occupation. If proper impetus is given in educating the farmers regarding the milk marketing then the state can become front runner in milk marketing also. In this connection attitudinal study of the dairy farmers of the state should be done so that their preference while selecting the marketing agency can be understood. Keeping in view the study was conducted, to measure the producers' attitude towards the unorganized system of milk marketing in West Bengal.

METHODOLOGY

According to agro-climatic conditions, National Agricultural Research Project (NARP) divided West Bengal into six zones namely— Northern hill zone, Tarai zone, New alluvial zone, Old alluvial zone, Coastal saline soil zone and Laterite and Red Soil Zone. From each zone 2 blocks were selected randomly. Out of these 2 blocks 40 farmers, who were selling milk, were selected randomly from each block, constituting a total 480 respondents.

For construction of attitude scale a huge number of statements collected and after that 22 generalised attitude statements relevant for measuring attitude towards unorganized system of milk marketing were initially selected by consulting specialists. Then the selected statements were administered to judges who were the specialist in the field. The judges were requested to sort out the attitude statements on the basis of 9 point continuum from least favourable to most favourable.

The median of the distribution of judgments for each statement or item was taken as the scale value of that particular statement. The scale value of the statement was calculated by the formula given by *Edwards (1969)*.

$$S = l + \frac{(0.50 - \sum pb)}{pw} \times i$$

- Where, S = the median or scale value of the statement
- l = the lower limit of the interval in which the median falls
- $\sum pb$ = the sum of the proportions below the interval in which the median falls
- pw = the proportion within the interval in which the median falls
- i = the width of the interval and is assumed to be 1.0

To find out the ambiguity, uncertainty or disagreement amongst the judges' responses in sorting each statement or item in a particular category, the interquartile range Q , which was an index of dispersion of the statements on scale (*Edwards, 1969*) was calculated. The statements which were having larger Q values were omitted.

The interquartile range contained the middle 50

percent of the judgments. To determine the Q -value it was necessary to find out the 75th centile (C_{75}) and the 25th centile (C_{25}). They were calculated as follows:

$$C_{75} = l + \frac{(0.75 - \sum pb)}{pw} \times i$$

$$C_{25} = l + \frac{(0.25 - \sum pb)}{pw} \times i$$

Where, l = the lower limit of the interval in which the centile concerned falls

$\sum pb$ = the sum of the proportions below the interval in which the centile concerned falls

pw = the proportion within the interval in which the centile concerned falls

i = the width of the interval and is assumed to be 1.0

The interquartile range was then computed by taking the difference between C_{75} and C_{25} . Thus, the interquartile range can be written as,

$$Q = C_{75} - C_{25}$$

Thurstone and Chave regarded large Q -value primarily as an indication that a statement was ambiguous. Statements having large Q -values were eliminated from the final list of statements (*Ray and Mondal, 2006*). Based on these eight statements for attitude towards unorganized milk marketing system were selected (Table-1).

The statements of the scale which were finally selected were then incorporated in the final format of the interview schedule for the dairy farmers. Each of the statements was provided with 4-point response categories. The 4-points in the continuum, were 'strongly agree', 'agree', 'disagree', and 'strongly

Table 1. Producers' attitude towards unorganized system of milk marketing

S.No.	Item	Q Value	Scale Value
1.	Cost of transportation is less as milk vendors collect milk from the door step (+)	0.89	6.39
2.	Producer can influence price of the milk (+)	1.25	6.75
3.	Direct selling to final consumer ensures higher profits (+)	1.19	7.30
4.	Milk vendor can cheat the producer by hiding the prevailing milk rate (-)	1.21	1.75
5.	High quality professional advice is not available from the milk vendors (-)	1.49	2.16
6.	Barter system is possible in case of selling milk to the end consumer (+)	1.24	6.97
7.	unorganized market system is easily accessible in the remote areas (+)	0.85	7.19
8.	The rate of interest of working capital available from milk vendor is high (-)	0.82	3.30

disagree' with scores (weights) 4,3,2,1 respectively for the positive statements and with scores 1, 2,3 and 4 respectively for the negative statements.

After recording the responses of the dairy farmers, the final scoring was done with the method proposed by *Eyessenck and Crown (1949)*. According to this method, the weights of Likert and the scale values of Thurstone were combined in the form of products (*Ray and Mondal, 2006*).

The split half method was used for calculating the reliability of the attitude scales measuring producers' attitude towards unorganized system of milk marketing. The test was administered to 40 dairy farmers of a non-sample area dividing the items in to two equivalent parts with 4 odd numbered statements in one half and rest even numbered statements in other half. The Pearson Product-Moment coefficient of correlation found to be 0.84 for statements measuring producers' attitude towards unorganized system of milk marketing. Stepped up reliability of the whole measure, divided into two parts, calculated by using Spearman Brown Formula. In case of statements measuring producers' attitude towards unorganized system of milk marketing it was 0.91 which were significant at 0.01 percent level of significance. Thus the reliability and internal consistency of the attitude scales were confirmed.

The contents of the attitude scales were derived through opinions of concerned experts, professionals and extension scientists and all the scale construction steps were taken carefully, thus, it can be said that the attitude scale measured what it intended to measure.

The farmers were categorized into different groups on the basis of obtained score by the respective dairy farmer. The categorization was done on the basis of square root frequency method. Respondents were categorized in to different groups on the basis of their responses towards unorganized system of milk marketing in the following categories: most unfavourable (Less than 66.16), unfavourable (66.16-80.47), neutral (80.48-115.62), favourable (115.63-144.68), most favourable (More than 144.68).

RESULTS AND DISCUSSION

A perusal of the Table 2 reveals that the 35.63 percent of the respondents were having most Unfavourable attitude towards the unorganized system of milk marketing. On the other hand, 69 respondents

i.e. 14.37 percent of the respondents were having the most Favourable attitude towards unorganized system of milk marketing.

Table 2. Attitude of producers towards unorganized system of milk marketing (N=480)

Attitude continuum	No.	%
Most Unfavourable (<66.16)	171	35.63
Unfavourable (66.16-80.47)	95	19.79
Neutral (84.8-115.62)	63	13.13
Favourable (115.63-144.68)	82	17.08
Most Favourable (>144.68)	69	14.37

Table 3 revealed that the relatively high proportion of old farmers showed unfavourable attitude towards unorganized system of milk marketing. 39 old respondents either fell in favourable (4.37% of total respondents) or most favourable (1.67% of total respondents) attitude category. 35 (7.29%) young respondents showed their neutral type of attitude towards unorganized system. Young respondents showed slight favourableness (142 compared to 90) showed unfavourable and most unfavourable attitude towards unorganized system of milk marketing than those who showed favourable or most favourable attitude. From the result it can be concluded that in West Bengal the younger generation in some cases tilted towards unorganized system and the older generation showed the opposite tendency.

No low milk producer showed neutral attitude towards unorganized system of milk marketing. Majority of the milk producer who produced low amount of milk showed favourableness towards unorganized system of milk marketing, whereas majority of the respondents who produced higher amount of milk showed unfavourable tendency. No high producer of milk showed most favourable attitude. Similar trend was found in case of milk disposal also. The results suggested that the producer who produced higher amount of milk were having somewhat unfavourable attitude as the unorganized system represented by the milk vendors, who were not capable to handle high producer's large amount of milk efficiently. No farmer who sold large amount of milk showed most favourable attitude, whereas, majority of the farmers who sold small amount of milk either fell in favourable (9 respondents) or most unfavourable (49 respondents) attitude category. 117 (24.38%) respondents who consumed medium

Table 3. Distribution of dairy farmers according to their attitude towards unorganized system of milk marketing in West Bengal (N=480)

S. No.	Variables/ Category	Attitude of producers towards unorganized system of milk marketing				
		Most Unfavourable (<66.16)	Unfavourable (66.16-80.47)	Neutral (80.48-115.62)	Favourable (115.63-144.68)	Most Favourable (>144.68)
1.	<i>Age (Years)</i>					
	Young(Upto 34)	77(16.04)	65(13.55)	35(7.29)	37(7.71)	53(11.04)
	Middle(35- 50)	52(10.83)	22(4.58)	16(3.33)	24(5.00)	8(1.67)
	Old (>50)	42(8.75)	8(1.67)	12(2.50)	21(4.37)	8(1.67)
2.	<i>Milk Production (Lit.)</i>					
	Low(<6.13)	19(3.96)	4(0.83)	0(0.00)	11(2.29)	49(10.21)
3.	<i>Medium</i> (6.13-15.12)	94(19.58)	91(18.96)	54(11.25)	56(11.67)	20(4.17)
	High (>15.12)	58(12.08)	0(0.00)	9(1.88)	15(3.13)	0(0.00)
4.	<i>Milk consumption (Lit)</i>					
	Low(<83)	25(5.21)	10(2.08)	16(3.33)	14(2.92)	17(3.54)
	Medium (. 83-3.09)	117(24.38)	81(16.88)	40(8.33)	52(10.83)	52(10.83)
	High (>3.09)	29(6.04)	4(0.83)	7(1.46)	16(3.33)	0(0.00)
5.	<i>Milk sell (Lit.)</i>					
	Low(<4.89)	8(1.67)	1(0.21)	2(0.42)	9(1.88)	49(10.21)
	Medium(4.89-12.43)	104(21.67)	93(19.38)	52(10.83)	51(10.63)	20(4.17)
	High (>12.43)	59(12.29)	1(0.21)	9(1.88)	22(4.58)	0(0.00)
6.	<i>Education</i>					
	No Education	20(4.17)	12(2.50)	5(1.04)	10(2.08)	26(5.42)
	Primary	13(2.71)	12(2.50)	6(1.25)	15(3.12)	17(3.54)
	middle	12(2.50)	29(6.04)	24(5.00)	12(2.50)	8(1.67)
	Secondary	45(9.38)	34(7.08)	20(4.17)	20(4.17)	11(2.29)
	HigherSecondary	41(8.54)	8(1.67)	5(1.04)	15(3.13)	6(1.25)
	College	40(8.33)	0(0.00)	3(0.63)	10(2.08)	1(0.21)
7.	<i>Family size</i>					
	Low(<3)	41(8.54)	12(2.50)	13(2.71)	16(3.33)	24(5.00)
	Medium (3-9)	84(17.50)	78(16.25)	48(10.00)	57(11.88)	45(9.38)
	High (>9)	46(9.58)	5(1.04)	2(0.42)	9(1.88)	0(0.00)
8.	<i>Animal holding</i>					
	Small(<2.26)	21(4.38)	6(1.25)	5(1.04)	20(4.17)	45(9.58)
	Medium (2.26-5.34)	96(20.00)	86(17.91)	49(10.21)	54(11.25)	22(4.58)
	Large (>5.34)	54(11.25)	3(0.62)	9(1.87)	8(1.67)	2(0.42)
9.	<i>Distance (Kms.)</i>					
	Near(<1)	30(6.25)	7(1.46)	16(3.33)	19(3.96)	44(9.17)
	Medium (1-5.92)	87(18.13)	76(15.83)	44(9.17)	31(6.46)	24(5.00)
	Far(>5.92)	54(11.25)	12(2.50)	3(0.63)	32(6.67)	1(0.21)
10.	<i>Land Holding (Acres)</i>					
	Small(<1.18)	17(3.54)	6(1.25)	10(2.08)	27(5.62)	13(2.71)
	Medium (1.18-3.06)	121(25.21)	85(17.71)	45(9.38)	30(6.25)	51(10.63)
	Large (>3.06)	33(6.88)	4(0.83)	8(1.67)	25(5.20)	5(1.04)
11.	<i>Social Participation</i>					
	Low(<1.34)	34(7.08)	14(2.92)	18(3.75)	14(2.92)	23(4.79)
	Medium (1.34-6.49)	75(15.63)	78(16.25)	40(8.33)	53(11.04)	35(7.29)
	High (>6.49)	62(12.92)	3(0.63)	5(1.04)	15(3.13)	11(2.29)

(Figures in parenthesis indicates percentage)

amount of milk showed most unfavourable attitude and 81 (16.88%) of them showed unfavourable attitude.

No high milk consumer respondents were found in most favourable attitude category. In West Bengal, results revealed that, farmers with higher milk disposal capacity showed an unfavourable attitude because the unorganized system couldn't handle their milk efficiently. Apart from that the large farmers were also well aware of the facilities available for organized milk marketing which was not available for the unorganized system, which in turn created a negative feeling towards unorganized system of milk marketing in West Bengal.

Majority of the college educated respondents showed most unfavourable attitude whereas, 36 illiterate respondents showed favourable or most favourable attitude towards unorganized system of milk marketing. Similarly majority of the respondents who studied up to higher secondary level showed most unfavourable attitude. Only 1 (0.21%) college educated respondents showed most favourable attitude, on the contrary, 32 respondents who were educated up to primary level showed most favourable or favourable attitude. Thus, it can be said that the farmers with low education or no education had an addiction towards unorganized system of milk marketing while the higher educated respondents showed opposite tendency. It suggested that the farmers with higher educational background were more aware of the less facility and the opportunity of unorganized system and developed an unfavourable attitude.

In case of family size, 41 (8.54% of total respondents) fell in most unfavourable attitude category and 12 (2.50%) of them fell in unfavourable attitude category. 48 (10.00%) respondents with medium family size fell in neutral attitude category. No respondent with high family size fell in most favourable attitude category. 45 (9.58%) respondents with small animal holding showed most favourable attitude whereas, 20 (4.17%) of them showed favourable attitude. On the contrary only 2 respondents with large animal holding fell in most favourable attitude category and also 8 of them showed favourable attitude. 54 (11.25%) respondents with larger animal holding showed most favourable attitude. The farmers with larger animal holding

showed a negative attitude towards unorganized system because the farmers with larger animal holding generally fell in large milk producer category and due to their well awareness of comparative disadvantage of unorganized system they developed unfavourable attitude towards unorganized system of milk marketing in west Bengal. Forty four (9.17%) respondents who travelled medium distance showed neutral attitude. Inadequate transport and access to markets remain major obstacles to economic development and employment (*Sardaryan, 2002*). This was supported by the fact, that 54 respondents who travelled a long distance showed most unfavourable attitude towards unorganized system of milk marketing as they were getting benefits from organised system which was not provided by the unorganized system. Thus, to improve marketing condition it is necessary to improve the transportation facilities especially for perishable commodities like milk. 13 (2.71%) respondents with small land holding showed most favourable attitude whereas, only 5 (1.04%) respondents with higher land holding showed most favourable attitude. On the contrary, 17 (3.54%) small land holders showed most unfavourable and 33 (6.88%) large land holders showed most unfavourable attitude towards unorganized system of milk marketing.

In case of social participation, 62 (12.92%) respondents with higher social participation showed most unfavourable attitude and only 11 (2.29%) of them showed most favourable attitude. On the contrary 23 (4.79%) farmers with low social participation showed most favourable attitude. Thus from the results it can be said in a nutshell that farmers with higher social participation showed unfavourable attitude tendency towards unorganized system which was due to the fact that farmer with higher social participation were more cosmopolite in nature and their awareness of comparative disadvantage of unorganized system created their unfavourable attitude towards unorganized system of milk marketing.

CONCLUSION

From the results it can be concluded that several socio-economic characteristics affected the attitudinal tendency of the farmers while selecting

the marketing agency. The reach of the organized agencies should be improved in the far flung areas and the organized society should be more remunerative in terms of providing bonuses and helping the farmers when they need money. Strengthening the infrastructure for milk collection, transportation, processing, packaging, pricing, and marketing through organized system can also change the minds of the milk producers (Rajendran, K. and Mohanty, S.,2004). The activity of the market

middlemen should be reduced so that the producers' share in consumers' rupees can be increased. Attitude of the farmers towards organized system should be improved which can be achieved by decreasing their preference level towards unorganized system of milk marketing. For achieving this proper extension activities should be undertaken in West Bengal.

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