

Original Research Article

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Efficiency of Marketing Channel and Cost-Benefit ratio of Farmers towards Poultry and Animal Enterprises in Burdwan District of West Bengal, India

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ABSTRACT

The study was conducted in Burdwan district of West Bengal (India) during 2015-16 due to the livestock production and commercial areas. The present paper attempts to examine the efficiency of marketing channel and cost-benefit ratio of animal and poultry enterprises of the farmers. Hence, this study was conducted to know the efficiency level of farmers towards marketing channel and cost-benefit ratio. The outcomes of the study indicate that having 72% people high with medium level efficiency of marketing channel and 44% people high with medium efficiency of cost benefit ratio of livestock enterprises and its relationship with depended variables and personal socio-economical characteristics of farmers. The study also revealed that age, Family size, land holding, farm power, house type and material possession had highly positive significant and type, family education bird population and animal population had positive significant relationship with marketing channel. And family size and land holding Material possession had highly positive significant relationship and no of animal reared and bird population had positive significant relationship with efficiency of cost-benefit ratio. Lacks of livestock market information, farmers are selling their livestock and other related products at low costs, and they do not maximize the benefits. Therefore for government should makes a policy which will be perception about marketing channel to the farmers through extension functionaries with provide additional training related to livestock technologies so that the beneficiaries learn cost management while minimizing production costs and optimizing returns.

Keywords

Efficiency,
Bird population,
Livestock,
Enterprises,
Correlation.

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Introduction

Livestock enterprise provides employment and economic support to rural families who are landless and those possess some land. Livestock are treated as a form of financial, social and natural capital. The purpose of maintaining the livestock varies in different societies in gender perspective like for income generation, food security, draught

purpose, fuel and manure, traditional life style and paying school fee. Majority (70%) of rural population are engaged in livestock based production system, as this is the only equitably distributed economic enterprise to address the issues of unemployment and poverty in rural areas. Considering this importance of livestock economy,

government has initiated several rural developmental schemes for the socio-economic rises of rural poor since independence (Biswas *et al.*, 2012). Livestock is an integral part of mixed farming system that character Indian agriculture. Livestock manure is the major source of nutrients for crop production and for sustainability soil fertility. Livestock wealth is more equitability distributed than that of land and the importance of livestock for poorer household is even more. Besides contributing food and input for crop production (Kitalyi *et al.*, 2005). Poultry farming has a special favor with the rural people because of its potential to provide supplementary income in the shortest possible time, simplicity in operation and not too heavy demand on resources (Iqbaluddin, 1998). Development of livestock production is improving the livelihood systems of smallholder families and communities. The functions of livestock in the smallholder livelihood system are food production, provision of raw materials, work energy, manure production, a means of savings and investment, a source of cash and security, as well as a source of identity. The role of livestock in the household decision making process is then reviewed, as is the overall effect of livestock on the rural economy, national and global economies (Bayer, 1992). Survival strategy for rural poor is difficult to maintain in longer term since world has been facing critical issues like food insecurity and increasing number of poor people. To shift from survival strategy to sustainable livelihood strategy for poor, intensification of diversified activity can improve the livelihood for poor (Ishwar, 2011). Stated that, for a sustainable poultry development, adopting indigenous, appropriate and affordable technology with 'low external inputs' may be conducive rather than using either 'high external inputs' or 'low internal inputs' to provide adequate employment, improve the income and

nutritional security of rural people (Reddy 1998). Survival strategy for rural poor is difficult to maintain in longer term since world has been facing critical issues like food insecurity and increasing number of poor people. To shift from survival strategy to sustainable livelihood strategy for poor, intensification of diversified activity can improve the livelihood for poor (Ishwar 2011). Smallholder mixed crop livestock systems continue to be a dominant agricultural production system in many developing countries, including India. Dairy farming is part and parcel of many such systems, and it is often seen as an important livelihood option to increase household income (Patil, 2006). The present study was designed to know the efficiency of marketing channel and cost-benefit ratio of farmers towards poultry and animal enterprises with the following specific objectives.

To find out the level of efficiency of marketing channel and cost -benefit ratio of animal and poultry enterprises among the respondents.

To study the relationship between selected independent variables and the efficiency of marketing channel and cost-benefit ratio of animal and poultry enterprises among the respondents.

Materials and Methods

The village Namotelota under Ausgram block of Burdwan district in West Bengal was selected purposively and from one village total number of 50 respondents was selected through simple random sampling method. The primary data were collected with the help of the personal interview method during the study period. After collection of data, data were processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan.

Process implies editing, coding, classification and tabulation of collected data. The Main statistical tools and techniques used in the present study are as follows: mean, standard deviation, correlation coefficient.

The variables efficiency index of animal rearing, animal product, poultry rearing, poultry product was operationlised as the efficiency of household regarding the application and utilization of scientific management practices in animal husbandry. It was measured with the help of three point scale. The three-point scale (score assigned as fully- 2, partially-1, not at all-0) was analyzed with respect to ten activity statements. The efficiency index was calculated by

$$\text{Efficiency Index} = \frac{\text{perceived score}}{\text{maximum Score}} \times 100\%$$

Results and Discussion

Descriptive statistics of dependent variables (Y₁,Y₂) with their percentage

Table 1 presents the distribution of respondents according to the efficiency of marketing channel.72% people used medium level efficiency of marketing channel and people 18% have high level and rest 10% people used low level efficiency of marketing channel.

Table 2 presents the distribution of respondents according to the efficiency of

cost benefit ratio of livestock enterprises and poultry enterprises. it shows that, 44% respondents has medium efficiency of cost benefit ratio of livestock enterprises and poultry enterprises, followed by 36% low and 20% respondents has high efficiency of cost benefit ratio of livestock enterprises and poultry products.

Table 3 presents the coefficient of correlation between efficiency of marketing channel (Y₁) with 12 independent variables. It observe from the table that age, Family size, land holding, farm power, house type and material possession had positive and significant relationship with efficiency of marketing channel at 1 % level family and type, family education, and bird population, animal population had positive significant relationship with marketing channel at 5 % level.

Table 4 presents the coefficient of correlation between efficiency of cost -benefit ratio of animal and poultry enterprises (Y₂) with 12 independent variables. It observe from the table that family type, family size, land holding Material possession had positive and significant relationship with efficiency of cost -benefit ratio of livestock and poultry enterprises at 1% level of significant. And No of animal reared and bird population had positive and significant relationship with efficiency of cost -benefit ratio of livestock and poultry enterprises at 5 % level of significant (Fig. 1).

Table.1 Distribution of respondents according to their Efficiency of marketing channel

N-50

Variables	High	Medium	Low
Efficiency of marketing channel (Y1)	10%	72%	18%

Table.2 Distribution of respondents according to their Efficiency of Cost -Benefit ratio of animal and poultry enterprises

N-50

Variables	High	Medium	Low
Efficiency of Cost -Benefit ratio of animal and poultry enterprises (Y2)	36%	44%	20%

Table.3 Coefficient of correlation (r) between efficiency of marketing channel (y₁) and 12 independents variables (x₁- x₁₂)

S.No.	Variables	Coefficient of correlation(r)
1	(X1)Age	0.401 ^{**}
2	(X2)Cast	0.012
3	(X3)Family type	0.361 [*]
4	(X4)Family education	0.312 [*]
5	(X5)Family size	0.366 ^{**}
6	(X6)Land holding	0.462 ^{**}
7	(X7)Farm power	0.500 ^{**}
8	(X8)House type	0.474 ^{**}
9	(X9)Material possession	0.374 ^{**}
10	(X10)No of communication	0.250 ^{**}
11	(11)No of animal reared	0.230 [*]
12	(X12)Bird population	0.319 [*]

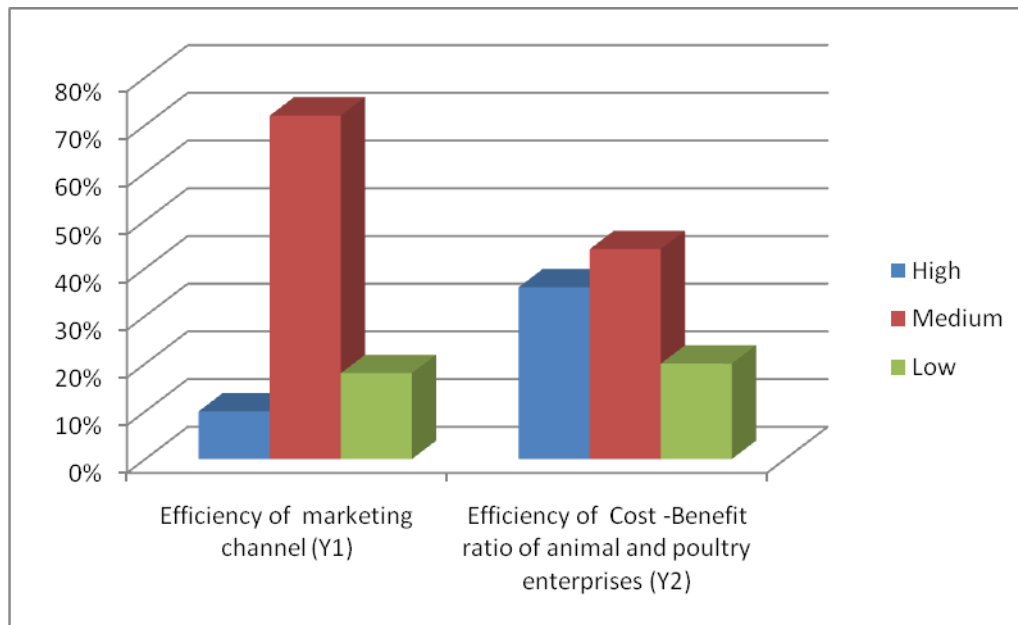
Correlation is significant at 5 % level - * and significant at 1 % level -**

Table.4 Coefficient of correlation (r) between efficiency of Cost -Benefit ratio of animal and Poultry enterprises (y₂) and 12 independents variables (x₁- x₁₂)

S.No.	Variables	Coefficient of correlation(r)
1	(X1)Age	0.124
2	(X2)Cast	-0.088
3	(X3)Family type	0.512 ^{**}
4	(X4)Family education	-0.104
5	(X5)Family size	0.453 ^{**}
6	(X6)Land holding	0.338 ^{**}
7	(X7)Farm power	-0.077
8	(X8)House type	-0.090
9	(X9)Material possession	0.215 ^{**}
10	(X10)No of communication	-0.036
11	(11)No of animal reared	0.331 [*]
12	(X12)Bird population	0.342 [*]

Correlation is significant at 5 % level - * and significant at 1 % level -**

Fig.1 Efficiency of marketing channel and cost-benefit ratio of farmers
Toward poultry and animal Enterprises



The finding of this study indicated that there is need of government to provide extension officers with the capacity, support and physical means to expose small scale farmers to markets and by so doing, efficiency in production and marketing of cattle is achieved and huge profits realized. It can be concluded that marketing of livestock is probably one of the most complex policy issues to be addressed for improving household food security in communal areas since livestock production is their main source of income.

Lack of livestock market information: farmers are selling their livestock and other related products at low costs, and they do not maximize the benefits. Therefore for government should makes a policy which will be perception about marketing channel to the farmers through extension functionaries.

Chicken and dairy farmers should visit to near local extension agents and have computed their break-even costs of production based on prevailing milk price, milk made product and chicken price per kilogram. Once calculated,

policy makers and planners when making decisions related to design of appropriate policies and investment respectively to support smallholder poultry and dairy development can use these estimates.

Provide additional training related to livestock technologies so that the beneficiaries learn cost management while minimizing production costs and optimizing returns.

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