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Study on marketing of potato in Alipurduar district of West Bengal

¹Saikat Ray and ²Pritesh Dwivedi

¹Research Scholar, Business Administration in Agribusiness, Sam Higginbottom University of Agriculture, Technology & Sciences, Prayagraj, Uttar Pradesh, India

²Assistant Professor, Department of Agricultural Economics, Sam Higginbottom University of Agriculture, Technology & Sciences, Prayagraj, Uttar Pradesh, India

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Corresponding Author: Saikat Ray

Abstract

The project title “A Study on Marketing of Potato in Alipurduar District of West Bengal” was carried out under the guidance of Mr Pritesh Dwivedi. Alipurduar district was purposely selected due to production of Potato is at commercial level. Multi - stage random sampling procedure was followed to select respondents. Out of 6 blocks of Alipurduar district Alipurduar block-I was selected purposely based on number of respondents was doing Potato farming. 10 villages were selected randomly. The number of Potato growers interviewed was 100 which were divided into Four groups (Marginal, small, medium and large) later on. The number of respondents were selected randomly in each random 10 villages. A structured schedule was used to collect the data through survey method. When conclusion was drawn there were it is seen that marketing channels in Potato marketing, which helped to calculate total marketing cost, marketing margin, marketing efficiency and price spread. The constraints were also discussed with growers and suggested some suitable measures. This present study pertains to the agriculture year 2022-2023.

Keywords: Marketing channels, marketing margin, marketing efficiency, constraints and suggestions

Introduction

The potato, *solanum tuberosum* L, which belongs to the family of solanaceae, is one of the most important crops of the world and is popular both in fresh and processed forms. The potato was originally believed to have been domesticated by native Americans independently in multiple locations, but later genetic studies traced a single origin, in the area of present-day southern peru and extreme northwestern bolivia. Potatoes were domesticated there approximately 7,000–10,000 years ago, from a species in the *s. Brevicaule* complex. In the andes region of south america, where the species is indigenous, some close relatives of the potato are cultivated.

Potato (*Solanum tuberosum*) is the most important food crop of the world. Potato is a temperate crop grown under subtropical conditions in India. The potato is a crop which has always been the ‘poor man’s friend’. Potato is being cultivated in the country for the last more than 300 years. For vegetable purposes it has become one of the most popular crops in this country. Potatoes are an economical food; they provide a source of low cost energy to the human diet. Potatoes are used for several industrial purposes such as for the production of starch and alcohol. Potato starch (farina) is used in laundries and for sizing yarn in textile mills. Potatoes are also used for the production of dextrin and glucose. As a food product itself, potatoes are converted into dried products such as ‘potato chips’, ‘sliced’ or ‘shredded potatoes’.

It is a much-branched bushy herb, usually 0.5 to 1m in

height possessing underground stems bearing the edible tubers. The leaves are odd pinate with a large terminal leaflet. It flowers in cymose panicles.

Potato is grown almost in all states of India. However, the major potato rowing states are Himachal Pradesh, Punjab, Uttar Pradesh, Madhya Pradesh, Gujarat, Maharashtra, Karnataka, West Bengal, Bihar and Assam.

Materials and Methods

There are 23 districts in West Bengal, out of these Alipurduar district was selected purposely due to large production of potato at commercial level. Total area of Alipurduar district 3,136 sq.km and number of tehsil is 6. There are 6 Blocks in Alipurduar district name of the blocks are Alipurduar-I, Alipurduar-II, Falakata, Kalchini, Kumargram, Madarihat. Among them Alipurduar-I Block was selected purposely for the research work. A list of villages in Alipurduar-I Block were obtained from the Block Office. 5 percent villages were selected randomly for study on the basis of research work. A list of all respondents of Potato growers was obtained from village panchayat in all selected villages. 10 percent respondents will be selected randomly for study on the basis of land holding capacity. Primary and Secondary market was selected randomly for data collection. BARABAZAR MARKET and BOUBAZAR MARKET are the main market for Alipurduar block-I in Alipurduar district, where Potato is assembled for sale and distribution was selected purposely.

Tools and formula

The analysis of results was done by using different analytical tools and the results are tabulated and presented in the next segment.

Chi square test A chi-square statistic tool is one way to show a relationship between two categorical variables.

The chi square formula is:

$$\chi^2 = \sum (O_i - E_i)^2 / E_i$$

where, O_i = observed value (actual value)

E_i = expected value.

Garett's Ranking Techniques

This was used to evaluate the problems faced by the sample respondents and to know preference among the given factors. In this method the respondents will asked to assign ranks to the factors.

$$\text{Percent position} = 100 (R_{ij} - 0.5) / N_j$$

Where,

R_{ij} = Rank given for the i th variable by j th respondents N_j = Number of variables ranked by j th respondents.

Results and Discussion

Age of Respondents

Farmers Type							
Sr. no.	Age (in year)	Marginal	Small	Medium	Large	Total	Percentage
1.	Up to 30	10	02	01	00	13	13%
2.	Between 31 – 50	35	08	03	01	47	47%
3.	51 & above	30	03	04	03	40	40%
	Total	75	13	08	04	100	100%

Table 1. Reveals about the distribution of respondents on the basis of Age; in the study area in which 13% respondents were under the age group up to 30; 47%

respondents were between 31 to 50; and 40% respondents were 51 & above.

Education qualification of the Respondents

Sl. No	Category	Farmers Type				Total	Percentage
		Marginal	Small	Medium	Large		
1.	Illiterate	26	00	00	00	26	26%
2.	Literate	19	02	00	00	21	21%
3.	Primary	14	04	02	00	20	20%
4.	Jr. High School	05	01	02	01	09	09%
5.	High School	07	02	03	01	13	13%
6.	Intermediate	03	04	00	01	08	08%
7.	Graduate	01	00	01	01	03	03%
8.	Post Graduate	00	00	00	00	00	0%
	Total	75	13	08	04	100	100%

Table 2 reveals about the literacy of farmers in the study area in which 03% respondents had done Graduate, 08% respondents completed Intermediate, followed by 13% High

School, 09% Jr. High School, 20% Primary level and 21% Growers are Literate and 26% are Illiterate.

Distribution of respondents on the basis of caste

SL. No.	Category	Farmers Type				Total	Percentage
		Marginal	Small	Medium	Large		
1.	Scheduled Caste (SC)	19	04	03	01	27	27%
2.	Other Backward Caste (OBC)	23	05	02	01	31	31%
3.	General Caste (GEN)	33	04	03	02	42	42%
	Total	75	13	08	04	100	100%

Table 3. Reveals about the distribution of respondents on the basis of caste, in the study area in which 27% growers were under Scheduled Caste group; 31% growers were

under Other Backward Caste and 42% were under General caste group.

Marketing efficiency of mang in different marketing channels

Particulars	Units	Channel 1	Channel 2	Channel 3
Consumer purchase price	Per Quintal	1697	1813	2119
Total marketing price		97	413	319
Total net margin of intermediaries		-	188	115
Net price received market intermediaries		1600	1400	1800
Marketing efficiency		5.71%	4.38%	6.64%

Table 4- reveals about the marketing efficiency of different marketing channels in which marketing efficiency of channel I by conventional method is 20.21, marketing efficiency of channel II is 3.18 and marketing efficiency of

channel III is 6.36. The total marketing price was high in channel II in comparison of other channels. The maximum net price received by the farmers is high in channel III.

Constraints restricting against marketing of potato

Sl. No.	Issues	Garret Score	Garret Rank
1.	Absence of minimum support prices	82	(I)
2.	Existence of large number of intermediaries in marketing process	70	(II)
3.	High cost of transportation	63	(III)
4.	Inadequate of appropriate credit facilities	58	(IV)
5.	Lack of market information	52	(V)
6.	Unorganized marketing system	50	(VI)
7.	Lack of suitable packaging material	47	(VII)
8.	Heavy loss in the market	42	(VIII)
9.	Too much fluctuation in prices	37	(XI)
10.	Commission agents not maintaining the proper records of sale and rate	29	(X)

Table 5. reveals about the constraints restricting against marketing of Potato in which Absence of minimum support price ranks (I) followed by Existence of large number of intermediaries in marketing process (II), High cost of transportation (III), Inadequate of appropriate credit facilities (IV), Lack of market information (V), Unorganized marketing system ranks (VI), Lack of suitable packaging material ranks (VII), Heavy loss in the market (VIII), Too much fluctuation in prices (IX), Commission agents not maintaining the proper records of sale and rate (X)

Conclusion

It can be concluded that, overall 40% of sample farmers belonged to medium and large sized farmers group and it indicates that farmer group are in a position to accept change in input use, which is a welcome sign for input sector of Agriculture and price fluctuations are very high in a year, which effects the profitability of farmers and middle men are being profited due to this. The traders are playing major role in Potato marketing due to which farmers are not able to get their actual share in consumer rupee. The present marketing which is donated by marketing channel 1 is inefficient, because the farmer is getting a better price for the same quality of produce in marketing channel II. There is no value addition involved in marketing channel I which is the major marketing channel at present por post-harvest practices like its taste, colour, cleaning, grading and packaging of farmers are hindering the quality of potatoes and not attracting the processor during the open auction process, is fetching a poor price for their produce. Farmer are preferring marketing channel II over marketing channel I as they are getting better price for the same quality of Potatoes than in marketing channel I but the poor post-harvest handling process are not attracting the processors. And constraints faced by the king potato growers in Alipurduar where high price fluctuations in market, lack pf transportation, lack of storage facilities are the major constraints faced by farmer in the study area.

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