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MARKETING CHANNEL AND COST ANALYSIS OF SELECTED VEGETABLES IN RANCHI DISTRICT OF JHARKHAND STATE

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Abstract: *The study was conducted with tribal vegetable growers in Ranchi district of Jharkhand state, selected purposively. Two blocks namely Ratu and Mandar were selected randomly. Five villages were selected randomly from each block. 100 respondents were selected through proportionate random sampling technique. For collection of data, a structured schedule was developed. The respondents were contacted personally for data collection. Frequency, percentage, mean and ranks were used for analysis of data and inferences were drawn. They need to be empowered to utilize their potential with proper mass media and training support; regular technical advice or training on improved technique can help to enhance their production thereby enhancing their income Around 700 million people, or 70% of India's population, live in 6,27,000 villages in rural areas. 90% of the rural population is concentrated in villages with a population of less than 2000. Rural marketing is as old as the civilization. Surplus of agro - products are exchanged in earlier days in the barter system. The introduction of currency, transport, and communication has increased the scope of rural market. This paper discusses the present scenario of rural marketing especially rural produce, and its importance, current trends, and highlights certain problems related to rural marketing. Further it highlights the improvements that make the rural marketing system most effective.*

Keywords: *Vegetable, Ranchi, Mass Media, Marketing and Agro-products.*

Introduction: Agriculture Production, processing and marketing are the three pillars of an agricultural economy like India. Agricultural production is seasonal in nature. During a particular season crops are produced in bulks which are to be distributed throughout the year keeping pace with the demand. A good marketing system can link both surplus and deficit regions, reduce price fluctuation, assure incentive price to the farmers and at the same time protect the consumer from speculative actions of dishonest traders [1]**.** Agriculture plays a vital role in the economic development of the country as it contributes about 14 per cent to the gross domestic product (GDP) and employs about 65 percent of the rural workforce. In any design of economic development in the country, development of agriculture has to be an integral part. Marketing is as critical for better performance of agriculture as farming itself. Although considerable progress has been achieved in technological improvements in agriculture by the use of irrigation facilities, a high-yielding variety seed, chemical fertilizers and plant protection measures, the rate of growth in farming has not attained the expected levels [2]. This has been largely attributed to the fact that not enough attention has been given to marketing facilities and services. Therefore, marketing reforms ought to be an integral part of the national policy for agricultural development [3].

Objectives: Keeping in view all, the present study was designed to study the following objectives:

1. Marketing cost in different marketing channels of the selected vegetables
2. Suggestions of respondents in relation to growing and marketing of vegetables

Methodology

The study was conducted on tribal vegetable growers in Ranchi district of Jharkhand state, selected purposively. Two blocks namely Ratu and Mandar were selected randomly. Five villages were selected randomly from each block. 100 respondents were selected through proportionate random sampling. For collection of data, a structured schedule was developed. The respondents were contacted personally for data collection. Frequency, percentage, mean and rank were used for analysis of data and inferences were drawn.

Marketing cost in different marketing channels of the selected vegetables: Marketing cost includes all the marketing charges from local assembling of vegetables to retailing it. The total marketing cost incurred on the marketing of the vegetables either in cash or in kind varies from place to place, time to time and channel to channel.

Table 1: Share of marketing cost through different marketing channel in case of Brinjal (Rs/quintal).

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	52.71(6.39)	68.98(6.87)	70.34(5.20)
2	Cost paid by wholesaler	---	----	65.11(4.82)
3	Cost paid by retailer	----	51.91(5.17)	55.08(4.08)
	Total	52.71(6.39)	120.89 (12.04)	190.53 (14.10)

Table 1 shows that highest marketing cost was in Channel-3 i.e 14.10 percent of consumer's rupee and lowest marketing cost was in Channel-1 i.e 6.39 percent of consumer's rupee.

Table 2: Share of marketing cost through different marketing channel in case of Tomato. (Rs/quintal)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	79.67(6.28)	105.44(7.13)	104.90(5.83)
2	Cost paid by wholesaler	----	-----	89.00(4.94)
3	Cost paid by retailer	----	74.06(5.01)	84.29(4.68)
	Total	**79.67 (6.28)**	**179.50(12.14)**	**278.19(15.45)**

Table 2 shows that highest marketing cost was in Channel-3 i.e 15.45 per cent of consumer's rupee and lowest marketing cost was in Channel-1 i.e 6.28 percent of consumer's rupee.

Table 3 Share of marketing cost through different marketing channel in case of Cauliflower (Rs/100 piece)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	29.65(6.30)	51.35(7.77)	53.83(4.86)
2	Cost paid by wholesaler	----	----	60.76(5.48)
3	Cost paid by retailer	----	40.60(6.15)	34.93(3.15)
	Total	29.65(6.30)	91.95(13.92)	149.52(13.49)

Table 3 shows that highest marketing cost was in Channel-3 i.e 13.49 per cent of consumer's rupee and lowest marketing cost was in Channel-1 i.e 6.30 percent of consumer's rupee.

Table-4: Share of marketing cost through different marketing channel in case of Potato. (Rs/quintals)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	103.63(16.37)	149.19(10.28)	156.46(9.15)
2	Cost paid by wholesaler	----	-----	71.37(4.17)
3	Cost paid by retailer	----	54.84(3.78)	43.04(2.52)
	Total	**103.63(16.37)**	**204.03(14.06)**	**270.87(15.84)**

Table 4 shows that highest marketing cost was in Channel-1 i.e 16.37 per cent of consumer's rupee and lowest was in Channel-2 i.e 14.06 percent of consumer's rupee.

Marketing Margin in Different Marketing Channels of Selected Vegetables: Marketing margin is the difference between the prices prevailing at successive stage of marketing at a given point of time [4]. Following tables from table 5 to 8 shows the marketing margin through different marketing channels of the selected vegetables.

Table 5: Marketing margin in different marketing channels in case of Brinjal (Rs/quintal)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Producer's margin	---	----	---
2	Wholesaler's margin	----	----	210.53(15.58)
3	Retailer's margin	----	315.50(31.43)	296.21(21.92)
	Total	**----**	**315.50(31.43)**	**506.74(37.50)**

Table 5 shows that in sale through Channel-2, the retailer's margin was 31.43 per cent of consumer's rupee. In sale through Channel-3, margin received by the wholesalers and retailers

was 15.58 and 37.50 per cent of the consumer's rupee.

Table 6: Marketing margin in different marketing channels in case of Tomato (Rs/quintal)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Producer's margin	---	----	---
2	Wholesaler's margin	----	----	262.40(14.58)
3	Retailer's margin	----	159.34(10.77)	110.50(6.14)
	Total	**----**	**159.34(10.77)**	**372.90(20.72)**

Table 6 shows that in sale through Channel-2, the retailer's margin was 10.77 per cent of consumer's rupee. In sale through Channel-3, margin received by the wholesalers and retailers was 14.58 and 6.14 per cent of the consumer's rupee.

Table 7: Marketing margin in different marketing channels in case of Cauliflower (Rs/100 piece)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Producer's margin	---	----	---
2	Wholesaler's margin	----	-----	194.57(17.55)
3	Retailer's margin	----	155.08(23.48)	297.64(26.85)
	Total	**----**	**155.08(23.48)**	**492.21(44.40)**

Table 7 shows table that in sale through Channel-2, the retailer's margin was 23.48 per cent of consumer's rupee. In sale through Channel-3, margin received by the wholesalers and retailers was 17.55 and 26.85 per cent of the consumer's rupee.

Table 8: Marketing margin in different marketing channels in case of Potato (Rs/quintal)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Producer's margin	---	----	---
2	Wholesaler's margin	----	-----	207.13(12.12)
3	Retailer's margin	----	262.10(18.06)	235.45(13.77)
	Total	**----**	**262.10(18.06)**	**442.58(25.89)**

Table 8 shows that in sale through Channel-2, the retailer's margin was 18.06 per cent of consumer's rupee. In sale through Channel-3, margin received by the wholesalers and retailers was 12.12 and 13.77 per cent of the consumer's rupee.

Marketing Efficiency

Table 9: Marketing efficiency in different marketing channels of Brinjal (Rs/quintal)

S.N.	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	567.44	654.30	70.34(5.2)
2	Cost paid by wholesaler	---	----	65.11(4.82)
3	Cost paid by retailer	----	51.91(5.17)	55.08(4.08)
4	Producer's margin	---	----	---
5	Wholesaler's margin	----	----	210.53(15.58)
6	Retailer's margin	----	315.50(31.43)	296.21(21.92)
7	Total marketing cost and marketing margin	52.71(6.39)	436.39(43.47)	697.27(51.60)
8	Consumer's price	824.83	1003.80	1351.60
9	Net price received by producer	772.12		
10	Shepherd's index of marketing efficiency(8/7)	15.65	2.30	1.94
11	Acharya's modified method [(8/7)-1]	14.65	1.30	0.94

Marketing efficiency has been worked out and presented in Table 9 for Brinjal. The total marketing cost and marketing margin involved in channel-1 was Rs. 52.71, Rs.436.39 in channel-2 and Rs.697.27 in case of channel-3. Since the marketing margin and marketing cost in case of channel-3 was higher, the shepherd's index of marketing efficiency was very low for channel-3. For channel-1, because of saving in marketing cost due to absence of intermediaries and relatively low consumer's price, the marketing efficiency was higher. It was highest for channel-1 i.e 15.65 and lowest in channel-3 i.e 1.94.

Table 10: Marketing efficiency in different marketing channels of Tomato (Rs/quintal)

S.N.	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	79.67(6.28)	105.44(7.13)	104.90(5.83)
2	Cost paid by wholesaler	----	-----	89.00(4.94)
3	Cost paid by retailer	----	74.06(5.01)	84.29(4.68)
4	Producer's margin	---	----	---
5	Wholesaler's margin	----	----	262.40(14.58)
6	Retailer's margin	----	159.34(10.77)	110.50(6.14)
7	Total marketing cost and marketing margin	79.67(6.28)	338.84(22.91)	651.09(36.17)
8	Consumer's price	1268.70	1479.70	1800.10
9	Net price received by producer	1189.00	1140.90	1149.00
10	Shepherd's index of marketing efficiency(8/7)	15.92	4.37	2.76
11	Acharya's modified method [(8/7)-1]	14.92	3.37	1.76

Marketing efficiency has been worked out and presented in Table 10 for Tomato. The total marketing cost and marketing margin involved in channel-1 was Rs. 79.67, Rs.338.84 in channel-2 and Rs.651.09 in case of channel-3. Since the marketing margin and marketing cost in case of channel-3 was higher, the shepherd's index of marketing efficiency was very low for channel-3. For channel-1, because of saving in marketing cost due to absence of intermediaries and relatively low consumer's price, the marketing efficiency was higher. It was highest for channel-1 i.e 15.92 and lowest in channel-3 i.e 2.76.

Table 11: Marketing efficiency in different marketing channels of Cauliflower (Rs/100 piece)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	29.65(6.30)	51.35(7.77)	53.83(4.86)
2	Cost paid by wholesaler	----	----	60.76(5.48)
3	Cost paid by retailer	----	40.60(6.15)	164.12(14.8)
4	Producer's margin	---	----	---
5	Wholesaler's margin	----	-----	147.18(13.27)
6	Retailer's margin	----	55.43(8.39)	34.93(3.15)
7	Total marketing cost and marketing margin	29.65(6.30)	147.38(22.31)	460.82(41.56)
8	Consumer's price	470.57	660.59	1108.60
9	Net price received by producer	440.92	413.56	466.89
10	Shepherd's index of marketing efficiency(8/7)	15.87	4.48	2.41
11	Acharya's modified method [(8/7)-1]	14.87	3.48	1.41

Marketing efficiency has been worked out and presented in table 11 for Cauliflower. The total marketing cost and marketing margin involved in channel-1 was Rs. 29.65, Rs.147.38 in channel-2 and Rs.460.82 in case of channel-3. Since the marketing margin and marketing cost in case of channel-3 was higher, the shepherd's index of marketing efficiency was very low for channel-3. For channel-1, because of saving in marketing cost due to absence of intermediaries and relatively low consumer's price, the marketing efficiency was higher. It was highest for channel-1 i.e 15.87 and lowest in channel-3 i.e 1.41.

Table 12: Marketing efficiency in different marketing channels of Potato (Rs/quintal)

Sl.No	Particulars	Channel 1	Channel 2	Channel 3
1	Cost paid by Producer	103.63(16.37)	149.19(10.28)	156.46(9.15)
2	Cost paid by wholesaler	----	-----	71.37(4.17)
3	Cost paid by retailer	----	54.84(3.78)	43.04(2.52)
4	Producer's margin	---	----	---
5	Wholesaler's margin	----	-----	207.13(12.12)
6	Retailer's margin	----	262.10(18.06)	235.45(13.77)
7	Total marketing cost and marketing margin	103.63(16.37)	466.13(32.12)	713.45(41.73)
8	Consumer's price	824.83	1451.60	1709.50
9	Net price received by producer	529.44	985.46	996.09
10	Shepherd's index of marketing efficiency(8/7)	7.96	3.11	2.40
11	Acharya's modified method [(8/7)-1]	6.96	2.11	1.40

Marketing efficiency has been worked out and presented in table 12 for Potato. The total marketing cost and marketing margin involved in channel-1 was Rs. 103.63, Rs.466.13 in channel-2 and Rs.713.45 in case of channel-3. Since the marketing margin and marketing cost in case of channel-3 was higher, the shepherd's index of marketing efficiency was very low for channel-3. For channel-1, because of saving in marketing cost due to absence of intermediaries and relatively low consumer's price, the marketing efficiency was higher. It was highest for channel-1 i.e 13.03 and lowest in channel-3 i.e 2.40

Suggestions for Sound Agricultural Marketing in India

1. Suitable structure of support prices for various farm commodities adjusted from time to time.
2. Adequate arrangement of agricultural produce on support price if the price falls below the level.
3. Regulated infrastructure of markets and warehouses, which ensure fair prices
4. Rural roads must be compliment and coordinate with railways, nearest waterways (port), airports if possible.
5. The efficient marketing is predominantly influenced by efficient distribution system it means products such ultimate consumer in the quickest time possible at minimum cost.
6. The development of communication systems appropriate to rural market may cost up to six times as much as reaching an urban

market through established media, need rural communication facilities [5].

7. The state marketing board or federation or market committees also the producers, traders and sellers have necessarily to be consulted as they have the principle interest towards it s use.
8. The arrivals of various products such as Food grains, Vegetables, Dairy products, Flowers etc. need speedy transport.
9. Public weighing machines one in each rural market to ensure correct weightment both for farm and non-farm arrivals. Storage godowns and an office also required.
10. For storage facilities the government should not depend on private agencies to store food grains (National commission on Agriculture recommended).
11. Rural markets need more number of godowns and ancillary platforms for packaging places, market office cum information cell, bank and post office.
12. Rural marketing is the nerve center of a rural economy, rural markets are the channels for the movements of goods and services as well as to promote cultural integration [6].
13. Agricultural technology must reach all over the country, irrespective of size of land holding.
14. Improve physical communication facility to nook and corner of the country.
15. Land reforms need effectively implemented, because the land is basic asset of rural people.
16. Rural communication must be in regional language and dialects.
17. The existing marketing staff must be increased and adequate training must be given.
18. Extending of financial support for modernization of the agro-processing units is also needed.
19. Processing units should utilize fully capacity.
20. There is need to find out markets for agro-processed products within and out side of the country.
21. The proper packaging technology must be improved.

Conclusion: Considering the emerging issues and challenges, government support is necessary for the development of marketing of agricultural produce. The government may adjust suitable budget allocations to rural infrastructure plans, and proper supervision for effective plan implementation. The core areas like transport, communication, roads, credit institutions, crop insurance for better utilization of land and water at appropriate level. The rural people and markets will definitely develop rural income and reduce poverty, on the whole countries economy will boost at an expected level. MANAGE an extension management institution may provide extension services to rural people in crop information, price information, insurance and credit information by using various media [7]. MANAGE may recommend / advice to central and state governments on suitable infrastructure development, current problems in rural markets and problem solving techniques [8].

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