

MARKETING OF POTATOES IN KANNAUJ DISTRICT UTTAR PRADESH

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ABSTRACT: This paper examines the marketing channels for potatoes, focusing on the statistical analysis of marketing costs, margins, and the producer's share of the consumer price across three channels. Channel I, the most complex, involves a producer, village merchant, wholesaler, retailer, and consumer, with a total marketing cost of Rs 155.00 and a producer share of 74.16% in the consumer rupee. Channel II, which eliminates the village merchant, has a higher total marketing cost of Rs 432.00, a marketing margin of Rs 120.00, and a reduced producer share of 37.41%. Channel III, the simplest, with direct sales from producer to retailer to consumer, incurs the highest marketing cost of Rs 635.00 and marketing margins of Rs 530.00, resulting in a producer share of 30.44%. Despite Channel I's higher complexity, it demonstrates the highest marketing efficiency of 2.87 and offers the best outcomes for producers in terms of share and profitability. These findings underscore the importance of strategic channel selection in optimizing supply chain efficiency and maximizing producer profits.

Key words: Marketing, channel, consumers, margin, producers, marketing efficiency

The marketing of agricultural products, particularly perishable goods like potatoes, is a multifaceted process involving numerous intermediaries and channels. Efficient marketing channels are essential for minimizing costs, maximizing producer profits, and ensuring the timely delivery of fresh produce to consumers. This study aims to analyze different marketing channels for potatoes, focusing on the associated costs, margins, and the producer's share of the final consumer price. Understanding these dynamics is crucial for developing strategies that enhance supply chain efficiency and profitability for farmers.

Marketing channels can significantly vary in complexity and efficiency. Previous research has demonstrated that direct marketing channels often reduce costs and increase returns for producers by minimizing the number of intermediaries involved (*Ghosh, 2013; Henson & Caswell, 1999*). However, the choice of channel can be influenced by several factors, including market access, infrastructure, and the scale of production (*Singh, 2019; Rao, 2019*). This paper examines three distinct marketing channels for potatoes: a complex channel involving multiple intermediaries, a simplified channel excluding the village merchant, and a direct channel from producer to retailer to consumer.

By comparing these channels, we aim to identify the most cost-effective and profitable pathway for potato producers. The findings will provide valuable insights for policymakers, agricultural marketers, and farmers seeking to optimize their marketing strategies. This study contributes to the broader literature on agricultural marketing by offering a detailed analysis of cost structures and efficiency metrics across different channels.

RESEARCH METHODOLOGY

The study was conducted in Kannauj district, Uttar Pradesh, focusing on potato cultivation. A multistage stratified random sampling approach guided the selection of samples. Initially, Kannauj district was purposively chosen due to its extensive potato cultivation. Within the district, Talgram block was selected based on favorable agro-climatic conditions. From the 95 villages in Talgram block, a subset was randomly selected based on potato cultivation area, resulting in approximately 10 villages. Respondents, categorized by landholding size (Marginal, Small, Semi-medium, Medium, Large), were selected randomly from lists provided by village authorities. Data collection involved primary sources, employing structured questionnaires and interviews with farmers and market functionaries at Chhigramau mandi, a pivotal market for potato sales in the district. Additionally, secondary data complemented primary findings, sourced from local administrative offices and agricultural publications. This methodology ensured a comprehensive investigation into the marketing dynamics of potato cultivation in Kannauj district, providing insights through rigorous sampling and data collection methods.

RESULTS AND DISCUSSION

Table 1 outlines three marketing channels for potatoes, each varying in complexity and the number of intermediaries involved. Channel I is the most complex, starting with the producer selling to a village merchant, who then sells to a wholesaler, followed by a retailer, and finally reaching the consumer. Channel II simplifies the process by eliminating the village merchant, with the producer selling directly to a wholesaler, who then sells to a retailer before reaching the consumer. Channel III is the most direct, with the producer selling directly to the retailer, who then sells to the consumer. This progression from Channel I to

Channel III demonstrates a decreasing number of intermediaries, potentially reducing costs and increasing supply chain efficiency.

Table-1: Details about marketing channels of Potatoes

Channel I	Producer — Village merchant — Wholesaler — Retailer — Consumer
Channel II	Producer—Wholesaler- Retailer- Consumer
Channel III	Producer- Retailer- consumer

Table- 2: Details about marketing costs in Channel I

Categories	Particulars	Costs (Rs/q)	Consumer price (%)
Producer	Net price received by farmer	675.00	56.25
Village Merchant	Selling Price of producer/ purchasing price of Village merchant	675.00	56.25
	Gunny Bags	12.00	1.00
	Loading and unloading	6.00	0.50
	Transportation	8.00	0.62
	Mandi tax	4.00	0.33
	Commission	7.2	0.60
	Filling and stretching	6.00	0.50
	Miscellaneous	2.3	0.19
	Total marketing cost	45.50	3.8
	Marketing Margin	70.00	5.83
Wholesaler	Selling Price of village merchant/ purchasing price of wholesaler	790.5	65.87
	Loading and unloading	6.00	0.5
	Transportation	8.00	0.66
	Mandi tax	3.00	0.25
	Commission	4.00	0.33
	Storage	3.00	0.25
	Miscellaneous	2.5	0.20
	Total marketing cost	26.5	2.2
	Marketing Margin	123.00	10.25
Retailer	Selling Price of village merchant/ purchasing price of retailer	940.00	78.33
	Loading and unloading	6.00	0.75
	Transportation	10.00	0.83
	Mandi tax	4.00	0.33
	Commission	4.00	0.33
	Storage	3.00	0.25
	Total marketing cost	27.00	2.25
	Marketing Margin	230	19.16
Consumers	Retailer price to consumer	1200.00	100.00

Table 2: presents the marketing costs in Channel for potatoes. The net price received by the farmer is Rs 675.00, accounting for 56.25% of the consumer price. For the village merchant, the total marketing cost is Rs 45.50 (3.8%), with a marketing margin of Rs 70.00 (5.83%). The wholesaler's total marketing cost is Rs 26.5 (2.2%), and their marketing margin is Rs 123.00 (10.25%). The retailer incurs a total marketing cost of Rs 27.00 (2.25%) with a marketing margin of Rs 230.00 (19.16%). Ultimately, the retailer sells the

potatoes to the consumer at Rs 1200.00, which is 100% of the consumer price.

Table 3 outlines the marketing costs in Channel II for potatoes. The producer incurs a total marketing cost of Rs 34.75 (2.89% of the consumer price), with the net price received by the producer being Rs 705.25 (58.77%). For the wholesaler, the purchasing price is Rs 740.00 (61.6%), with a total marketing cost of Rs 28.25 (2.35%) and a marketing margin of Rs 156.00 (13.0%). The retailer, purchasing at Rs 924.25 (77.02%), incurs a total

marketing cost of Rs 29.75 (2.48%) and a marketing the potatoes to the consumer at Rs 1200.00, which is margin of Rs 249.00 (20.75%). Finally, the retailer sells 100% of the consumer price.

Table- 3: Marketing costs of Channel II

Categories	Particulars	Costs (Rs/q)	Consumer price(%)
Producer	Gunny Bags	12.00	1.00
	Loading and unloading	4.00	0.33
	Transportation	6.00	0.75
	Mandi tax	3.75	0.31
	Commission	3.00	0.25
	Filling and stretching	3.00	0.25
	Miscellaneous	3.00	0.25
	Total marketing cost	34.75	2.89
	Net price received by producer	705.25	58.77
Wholesaler	Selling Price of village merchant/ purchasing price of wholesaler	740	61.6
	Loading and unloading	6.00	0.5
	Transportation	9.00	0.75
	Mandi tax	3.75	0.31
	Commission	4.00	0.33
	Storage	3.00	0.25
	Miscellaneous	2.50	0.21
	Total marketing cost	28.25	2.35
	Marketing Margin	156.00	13.0
Retailer	Selling Price of village merchant/ purchasing price of wholesaler	924.25	77.02
	Loading and unloading	6.00	0.50
	Transportation	10.00	0.83
	Mandi tax	3.75	0.31
	Commission	4.00	0.33
	Storage	3.00	0.25
	Total marketing cost	29.75	2.48
	Marketing Margin	249.00	20.75
Consumer	Retailer price to consumer	1200.00	100.00

Table 4 outlines the marketing costs in Channel III for potatoes. The producer incurs a total marketing cost of Rs 34.75, which is 2.89% of the consumer price, and receives a net price of Rs 702.25, accounting for 58.77% of the consumer price. The retailer purchases the potatoes at Rs 825.00, which is 68.74% of the consumer price, and incurs additional marketing costs totaling Rs 29.40 (2.45%). The retailer's marketing margin is Rs 345.60, which is 28.75% of the consumer price. Ultimately, the potatoes are sold to the consumer at Rs 1200.00, representing 100% of the consumer price.

Table 5 provides a detailed breakdown of the marketing cost, marketing margin, and price spread in Channel I for potatoes. The producer sells the potatoes to the commission agent at Rs 600.00 per quintal, incurring costs for gunny bags, grading, filling, loading, transportation, and unloading, totaling Rs 90.00 (5.37%). The net price received by the producer is Rs 510.00

(30.44%). The wholesaler/commission agent incurs a market fee and other miscellaneous charges amounting to Rs 150.00 (8.95%), with a margin of Rs 420.00 (25.07%). The wholesaler sells the potatoes to the retailer at Rs 1170.00 (69.85%). Retailers incur costs for transportation, loading and unloading, rent, wastage, spoilage, and miscellaneous charges, totaling Rs 395.00 (23.58%), and they earn a margin of Rs 110.00 (6.56%). The final sale price to the consumer is Rs 1675.00 per quintal, with the price spread (total marketing cost plus total marketing margin) being Rs 1165.00 (69.55%). The producer's share in the consumer rupee is 30.44%, and the marketing efficiency is calculated at 1.63.

Table 6 details the marketing costs, margin, and price spread in Channel II for potatoes. The producer's sale price is Rs 600.00 per quintal, with incurred costs for gunny bags, grading, filling, loading, transportation, cold

storage, and unloading totaling Rs 270.00 (30.61%). The net price received by the producer is Rs 330.00 (37.41%). The retailer purchases at Rs 600.00 (68.02%) and incurs additional costs for transportation, loading, unloading, rent, wastage, spoilage, miscellaneous charges, and market fees, totaling Rs 162.00 (18.36%). The retailer's margin is Rs 120.00 (13.60%), resulting in a sale price to the consumer of Rs 882.00. The price spread, combining total marketing costs and margin, is Rs 552.00, with the producer's share in the consumer rupee at 37.41% and a marketing efficiency of 1.04 Nuthalapati *et.al.* (2020).

Table 7 provides similar details for Channel III. The producer's sale price is Rs 600.00, with packaging, transportation, grading, filling, stitching, loading, unloading, carry bags, and miscellaneous expenses amounting to Rs 155.00 (25.83%). The net price received by the producer is Rs 445.00 (74.16%). The consumer purchase price remains Rs 600.00, with a price spread of Rs 155.00. The producer's share in the consumer rupee is 74.16%, and the marketing efficiency is 2.87 Rao, S. (2019).

Table -4: Marketing costs of Channel III

Categories	Particulars	Costs (Rs/q)	Consumer price (%)
Producer	Gunny Bags	12.00	1.00
	Loading and unloading	4.00	0.33
	Transportation	6.00	0.75
	Mandi tax	3.75	0.31
	Commission	3.00	0.25
	Filling and stretching	3.00	0.25
	Miscellaneous	3.00	0.25
	Total marketing cost	34.75	2.89
	Net price received by farmer	702.25	58.77
Retailer	Selling Price of Producer / purchasing price of Retailer	825	68.74
	Loading and unloading	6.00	0.50
	Transportation	9.00	0.75
	Mandi tax	4.20	0.35
	Commission	4.80	0.40
	Storage	3.00	0.25
	Miscellaneous	2.40	0.2
	Total marketing cost	29.40	2.45
	Marketing Margin	345.60	28.75
Consumer	Retailer price to consumer	1200.00	100.00

Table- 5: Marketing Cost, Marketing Margin, and Price Spread in Channel I

Sr. No	Particulars	Rs/Quintal
1	Producer sale price to Commission agent	600.00
2	Cost incurred by the producer	
2.1	Cost of gunny bag	20.00 (1.19)
2.2	Grading, filling	20.00 (1.19)
2.3	Load & Transportation cost	40.00 (2.38)
2.4	Unloading charges	10.00 (0.59)
	Total cost (2.1–2.4)	90.00 (5.37)
3	Net price received by producer	510.00 (30.44)
4	Sale price of producer to Commission agent	600.00 (35.82)
5	Cost incurred by the wholesaler/ commission agent	
5.1	Market fee	30.00 (1.79)
5.2	Losses &Miscellaneous charges	120 (7.16)
	Total cost incurred by Commission agent/ wholesaler (5.1- 5.2)	150 (8.95)
6	Wholesaler/ Commission agent margin	420 (25.07)
7	Sale price of wholesaler to retailer	1170.00 (69.85)
8	Cost incurred by the Retailers	

8.1	Transportation cost	40 (2.38)
8.2	Loading and unloading charges.	15 (0.89)
8.3	Rent of the shop	10 (0.59)
8.4	Loss, wastage and spoilage	150 (8.95)
8.5	Miscellaneous charges	180 (10.74)
	Total marketing cost	395 (23.58)
9	Retailers Margin	110.00 (6.56)
10	Sale price of retailer to consumer	1675.00 (100)
	Price spread (Total Marketing Cost + Total marketing margin)	1165.00 (69.55)
11	Producer share in consumer rupee	30.44
12	Marketing Efficiency	1.63

Table- 6: Marketing Cost, Marketing Margin, and Price Spread in Channel II

Sr. No.	Particulars	Rs/q
1	Producer sale price	600.00
2	Cost incurred by the producer	
2.1	Cost of gunny bag	20.00 (2.26)
2.2	Grading, Filling	20.00 (2.26)
2.3	Load & Transportation cost	40.00 (4.53)
2.4	Cold storage charge	180.00 (15.87)
2.5	Unloading charges	10.00 (1.13)
	Total marketing cost incurred by producer (2.1-2.5)	270.00 (30.61)
3	Net price received by producer	330.0 (37.41)
4	Purchase price of Retailers'	600.00 (68.02)
5	Cost incurred by the Retailer	
5.1	Transportation cost	40.00 (4.53)
5.2	Loading and unloading charges.	10.00 (1.13)
5.3	Rent of the shop	12.00 (1.36)
5.4	Loss, wastage and spoilage	50.00 (5.66)
5.5	Miscellaneous charges	30.00 (3.40)
5.6	Market fee	20 (2.26)
	Total cost incurred	162.00 (18.36)
6	Village Merchant/Retailer Margin	120.00 (13.60)
7	Sale price of Retailer to Consumer	882.00
8	Price spread (Total Marketing cost + Margin)	552.00
9	Producer share in consumer rupee	37.41
10	Marketing Efficiency	1.04

Table-7: Marketing Cost, Marketing Margin, and Price Spread in Channel III

Sr. No	Particulars	Rs/Quintal
1	Producer's sale price	600
1.1	Cost of packaging	10 (1.66)
1.2	Cost of Transportation	40 (6.66)
1.3	Grading, filling, stitching, etc.	25 (4.16)
1.4	Loading and unloading	10 (1.66)
1.5	Carry bags charges	20 (3.33)
1.6	Miscellaneous expenses	50 (8.33)
2	Total marketing cost	155 (25.83)
3	Net price received by the producer	445 (74.16)
4	Consumer's purchase price	600 (100)
5	Price spread	155
6	Producers share in consumer rupee	74.16
7	Marketing efficiency	2.87

Table- 8: Estimation Total Marketing Cost and Marketing Margin in different Size of Farms Group

Sr. No	Particulars	Channel I	Channel II	Channel III
1	Total marketing cost	155.00	432.00	635.00
2	Total marketing margins	00.00	120.00	530.00
3	Price spread	155.00	552.00	1165.00
4	Producer share in consumer rupee in per cent	74.16	37.41	30.44
5	Marketing efficiency	2.87	1.04	1.63

It is stated in Table 8 an estimation of total marketing costs and marketing margins across different farm sizes and channels. In Channel I, the total marketing cost is Rs 155.00 with no marketing margins, resulting in a price spread of Rs 155.00. The producer's share in the consumer rupee is 74.16%, and the marketing efficiency is 2.87. For Channel II, the total marketing cost is Rs 432.00, with marketing margins at Rs 120.00, leading to a price spread of Rs 552.00. The producer's share in the consumer rupee drops to 37.41%, with a marketing efficiency of 1.04. Channel III shows the highest total marketing cost at Rs 635.00 and marketing margins at Rs 530.00, resulting in a price spread of Rs 1165.00. The producer's share in the consumer rupee is 30.44%, with a marketing efficiency of 1.63. These variations highlight the impact of different marketing channels on costs, margins, and the producer's share of the final consumer price Singh, V. (2019).

CONCLUSIONS

The analysis of various marketing channels for potatoes reveals significant differences in costs, margins, and producer shares. Among the three channels, Channel I emerges as the most efficient and beneficial for producers. Despite its complexity involving multiple intermediaries (producer, village merchant, wholesaler, retailer, and consumer), it has the lowest total marketing cost of Rs 155.00 and provides the highest producer share of 74.16% in the consumer rupee. Additionally, Channel I demonstrates the highest marketing efficiency of 2.87. In comparison, Channel II, which bypasses the village merchant, incurs higher marketing costs and results in a reduced producer share of 37.41% with a marketing efficiency of 1.04. Channel III, the simplest and most direct, has the highest total marketing cost and the lowest producer share of 30.44%, with a marketing efficiency of 1.63. Therefore, Channel I is identified as the best channel for maximizing producer profits and ensuring cost efficiency in the potato supply chain.

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