



## Impact of Corporate Retail Marketing Linkage on Price Spread of Cabbage in Odisha

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### ABSTRACT

The study was undertaken with the main objectives to analyze the impact of corporate retail marketing on price spread and profit of cabbage cultivators in Odisha. Findings revealed that producers linked with corporate retail chain received higher profits compared to producers linked with traditional supply chain. Producer's share in consumer's rupee was 46.08 percent for farmers supplying their vegetables to corporate retail collection centre where as producer's share in consumer rupee was 27.84 percent for farmers supplying through commission agents. For farmers supplying their produce through wholesalers, producer's share in consumer's rupee was 29.87 percent.

**Key words :** Cabbage, Corporate retail marketing, Price spread.

The Indian retail industry has scaled impeccable growth over the last decade with an amiable acceptance to organised retailing formats. The Business Monitor International (BMI) India Retail Report forecasts that the total retail sales will grow from \$411.28 billion in 2011 to \$804.06 billion by 2015. According to a research report named 'Retail Sector in India' by Research and Markets, Indian retail sector accounts for twenty two per cent of the country's gross domestic product (GDP) and contributes to eight percent of the total employment. The report further highlighted that hypermarkets (currently accounting for 14% of mall space) will witness immense progress in the Indian landscape. But the penetration of corporate retail in vegetable retailing has faced resistance from various trader's organizations, NGOs and associations. Despite the opposition by several policy circles, the group believes that it will have positive impact on agricultural supply chain.

Keeping the controversies in view the present study was conducted to analyze the impact of corporate retail chain linkage on farm producers profit for cabbage.

### MATERIAL AND METHODS

The present investigation was conducted at Bhubaneswar, Odisha. Data were collected during January 2011 – April 2011. To study the impact of corporate retailing on price spread of cauliflower and marketing efficiency of different supply chain data were collected from 100 farmers.

Out of these 100 farmers 40 farmers were supplying their produce to corporate retail outlet i.e. Reliance Fresh and other 60 farmers were supplying their produce to local mandi. Farmers supplying their produce to corporate retail outlets were termed as corporate retail market farmers (CRM farmers) and farmers supplying their produce through traditional market channels were termed as traditional retail market farmers (TRM farmers). Data were collected through a well prepared pretested schedule. Cost of cultivation, incremental benefit cost ratio, marketing margin, producers share in consumer's rupee, marketing efficiency were calculated for each supply chain.

### RESULTS AND DISCUSSION

#### Existing Pattern of market channels in Selected Areas

In the study area three channels were identified for the present study. They were as follows:

#### Channel-I

Producers → Commission agents → Wholesalers → Retailers → Consumers

#### Channel- II

Producers → Wholesalers → Retailers → Consumers

#### Channel- III

Producers → Corporate Market Collection Centre → Corporate Retail Market's City Processing Centre → Retail Outlet → Consumers

Table 1. Cost of cultivation of cabbage under different supply chain linkage (Rs/ha).

S. No	Agronomic practices	First buyer or market of the farmers links		
		I Commission agent	II Wholesaler	III Collection centre
1	Land preparation	15651.43 (20.69)	12900.00 (21.10)	19982.50 (20.21)
2	Nursery	8682.85 (11.48)	7366.00 (12.05)	18986.25 (19.20)
3	Transplanting	4200.00 (5.55)	3240.00 (5.30)	7500.00 (7.58)
4	Irrigation	4748.57 (6.27)	4564.00 (7.46)	5310.00 (5.37)
5	Intercultural operation	5297.17 (7.00)	5112.00 (8.36)	8550.00 (8.60)
6	Plant protection	9810.06 (12.97)	10484.20 (17.11)	22465.38 (22.72)
7	Harvesting	4491.42 (5.93)	6720.00 (10.99)	7650.00 (7.70)
8	Marketing	22749.14 (30.07)	10736.00 (17.56)	8415.00 (8.50)
9	Total cost	75630.64	61122.20	98859.13

Note: Figures in parentheses indicate percentage to the respective total cost

Table 2. Farmers profit for cabbage.

Market channels	Cost of cultivation (Rs/ha)	Average price received (Rs/quintal)	Average yield (quintal/ha)	Gross return (Rs/ha)	Net profit (Rs/ha)	Net profit (Rs/kg)
I	75630.64	500.00	259.28	129640.00	54009.36	2.08
II	61122.20	436.25	250.00	109062.50	47940.30	1.91
III	98859.13	675.00	271.25	183093.75	84234.62	3.10

Table 3. Incremental Cost Benefit analysis for cabbage (Rs/ha).

Marketing channels	BenefitIn Rs.	CostIn Rs	Cost Benefit ratio	Comparison of Marketing channels	Incremental BenefitIn Rs.	Incremental CostIn Rs.	Incremental Cost Benefit ratio
Channel II	109062.50	61122.20	1.78	Channel I Over channel II	20580.40	14508.44	1.41
Channel III	183093.75	98859.13	1.85	Channel III Over channel I	53453.75	23228.49	2.30

Table 4. Price spread in different market channels for cabbage (Rs/quintal).

S.No.	Particulars	Channel I	Channel II	Channel III
1.	<b>Expenses incurred by farmer</b>			
	a. Labour	10.00 (0.79)	12.00 (1.15)	30.00 (2.60)
	b. Packing, loading and unloading	35.00 (2.77)	40.00 (3.86)	50.00 (4.34)
	c. Commission charge	29.16(2.31)	0.00 (0.00)	0.00 (0.00)
	d. Transportation	55.00 (4.36)	50.00 (4.83)	40.00 (3.47)
	e. Personal expenses	20.00 (1.58)	25.00 (2.41)	25.00 (2.17)
	Sub total	149.16(11.83)	127.00 (12.27)	145.00 (12.60)
2.	<b>Producers sale price/ Commission agent's/ Wholesaler's/ORM's purchase price</b>	500.00(39.68)	436.25(42.14)	675.00 (58.69)
3.	<b>Net price received by the farmer</b>	350.84(27.84)	309.25(29.87)	530(46.08)
4.	<b>Expenses incurred by the commission agent</b>			
	a. Labour	8.00 (0.63)	-	-
	b. Packing, loading and unloading	25.00 (1.98)	-	-
	c. Transportation	65.00 (5.15)	-	-
	d. Shop rent	25.00 (1.98)	-	-
	e. Market entry fee	25.00 (1.98)	-	-
	f. Personal expenses	20.00 (1.58)	-	-
	<b>Sub total</b>	<b>168.00 (13.33)</b>	-	-
5.	<b>Commission agent's margin</b>	88.00 (6.98)	-	-
6.	<b>Commission agent's sale price</b>	750.00 (59.52)	-	-
7.	<b>Expenses incurred by the wholesaler</b>			
	a. Labour	7.00 (0.55)	15(1.44)	-
	b. Packing, loading and unloading	30.00 (2.38)	45(4.34)	-
	c. Transportation	45.00 (3.57)	55(5.31)	-
	d. Shop rent	20.00 (1.58)	25(2.41)	-
	e. Market entry fee	30(0.0 2.38)	25(2.41)	-
	f. Personal expenses	25.00 (1.98)	20(1.93)	-
	<b>Sub total</b>	<b>157.00 (12.46)</b>	<b>185(17.87)</b>	-
8.	<b>Wholesaler's margin</b>	105.00 (8.33)	128.75(12.43)	-
9.	<b>Wholesaler's sale price</b>	1012.00 (80.31)	750(72.46)	-
10.	<b>Expenses incurred by the retailer</b>			
	a. Labour	5.00 (0.39)	10.00 (0.96)	45.00 (4.30)
	b. Packing, loading and unloading	25.00 (1.98)	30.00 (2.89)	105.00 (9.13)
	c. Transportation	35.00 (2.77)	40.00 (3.86)	45.00 (4.30)
	d. Shop rent	15.00 (1.19)	15.00 (1.44)	60.00 (5.79)
	e. Market entry fee	20.00 (1.58)	20.00 (1.93)	-
	f. Personal expenses	15.00 (1.19)	20.00 (1.93)	-
	<b>Sub total</b>	<b>115.00 (9.12)</b>	<b>135.00 (13.04)</b>	<b>255(22.17)</b>
11.	<b>Retailer's margin</b>	137.00 (10.87)	150.00 (14.49)	250(21.73)
12.	<b>Retailer's sale price/ Consumer's purchase price</b>	1260.00	1035.00	1150.00
13.	<b>Producer's share in Consumer's rupee (%)</b>	27.84	29.87	46.08

Note: Figures in parentheses are percentage to consumer's purchase price

Table 1 reveals that the cost of cultivation of cabbage per hectare was highest for farmers having linkage with corporate retail market. The cost of cultivation for CRM producers was Rs.98,859.13/ha where as for producers supplying their produce through commission agents, it was Rs.75,630.64 per hectare. The cost of cultivation was Rs.61,122.20/ha for producers whose 1<sup>st</sup> buyer was wholesalers. It was found that CRM producers were spending only 8.50 percent of total cost of cultivation on marketing where as it was 30.07 and 17.56 percent of total cost of cultivation for producers having linkage with commission agents and wholesalers, respectively. The study reveals that spending on plant protection and nursery was more for CRM producers in comparison to TRM producers. CRM producers were spending 22.72 percent and 19.20 percent of total cost of cultivation on plant protection and nursery, respectively while farmers supplying their produce through commission agents were spending only 12.97 percent of total cost of cultivation on plant protection where as for producers having linkage with wholesalers it was 17.11 percent. The amount spent on nursery was 11.48 percent of total cost of cultivation for producers whose 1<sup>st</sup> buyer was commission agent and it was 12.05 percent of total cost of cultivation for producers supplying their produce through wholesalers. The findings are line with Mangala (2008) and Kishor (2009).

It is evident from Table 2 that farmers using channel II were getting less profit than other two market channels. Profit for channel II was Rs.1.91/kg of the produce. Producers supplying their produce to corporate retail market's collection centre i.e. channel III were realizing highest profit (Rs.3.10/kg) than other two market channels.

The incremental cost benefits analysis for cabbage (Table 3) indicated that market channel II was compared first with market channel I. Market channel I was preferred since incremental cost benefit ratio was 1.41 i.e. greater than 1. Channel II was excluded from further analysis. Channel I was compared with channel III. The incremental cost benefit ratio was found to be 2.30. It was found that spending additional amount of Rs.23,228.49/ha on market channel III will yield Rs.53,453.75/ha of additional benefit. The price spread of cabbage in all the three marketing channels was worked out (Table 4). In channel I, commission agent's margin was 6.98 percent, wholesaler's margin was 8.33 percent, retailer's margin was 10.87 percent and producer's share in consumer's rupee was 27.84 percent. In channel II, wholesaler's margin was 12.43 percent, retailer's margin was 14.49 percent and producer's share in consumer rupee was 29.87 percent. In channel III, the market margin for corporate retail market was 21.73 percent and producer's share in consumer rupee was highest (46.08 %).

## CONCLUSIONS AND POLICY IMPLICATIONS

It may be concluded that farmers with corporate retail outlet linkages received higher gross returns, net profit and net profit/kg. The major advantage for producers associated with CRM was in the form of reduction in marketing cost and higher productivity. Producer's share in consumer rupee was also found to be more compared to producers supplying their vegetables through traditional supply chain. The findings are in line with Fernie (1995), Helen (2000), Jetia (2000) Weatherspoon and Reardon (2003), Neven and Reardon (2004)

Based on these findings the following policy implications are suggested:

- Vegetable Producer's associations should be encouraged by the government to promote direct marketing in order to reduce the clutches of intermediaries.
- More farmers should be encouraged to have linkages with corporate retail markets as they reduces the marketing costs incurred by the farmers, also increases the marketing efficiency and producer's share in consumer's rupee.

## LITERATURES CITED

- Business Monitor International 2011** India retail report for the fourth-quarter of 2011. <http://www.slideshare.net/janejack/bmi-india-retail-report-q4-2011-aug2011.html>
- Jetia A 2000** Mc Donald's food chain. *I.C.F.A.I Journal of supply chain management*, 4(1):160-170
- Fernie J 1995** International Comparisons of Supply Chain Management in Grocery Retailing. *Service Industries Journal*, 15 (4):134-145
- Helen M F W 2000** Buyer supplier relationships in the UK fresh produce industry. *British Food Journal*, 102 (1): 6-17
- Kishore B 2009** Impact of organized retail marketing on vegetable farmers in Guntur district of Andhra Pradesh. M.Sc. Thesis Acharya N.G.Ranga Agricultural University, Hyderabad, A.P.
- Mangala K P 2005** Impact of food retail chains on producers, consumers and retailers. Ph.D. Thesis. University of agricultural sciences, Bangalore, India.
- Neven D and Reardon T 2004** The rise of Kenyan supermarkets and the evolution of their horticulture product procurement systems. *Development Policy Review*, 22 (6): 669-699
- Weatherspoon D D and Reardon T 2003** The rise of supermarkets in Africa: Implications for agrifood systems and the rural poor, *Development policy review*, 21 (3): 333-355