



# STUDY OF MARKETING CHANNELS ASSOCIATED AND THEIR EFFICIENCY FOR CEREALS AND OILSEEDS

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## Abstract

The present study was carried out in the Azamgarh district of Eastern U.P. to analyze existing marketing channels and efficiency of cereals and oilseeds. The district Azamgarh was purposively selected for the study due to the convenience of the investigator. There are 22 development blocks in the district, one block namely, Pawai was selected randomly and from this block 100 respondents were chosen following the proportionate random sampling technique from 5 randomly selected villages. On the basis of holding size respondent were categorized as marginal (below-1 ha), small (1-2 ha.) and medium (2-4 ha.). Category wise 69 respondents from marginal, 22 from small and 9 farmers from medium holding size were included in study. The overall average size of farms came to 0.794 hectare. The average size of holding on marginal, small and medium farms were found 0.272, 1.558 and 2.920 hectare, respectively. There were three marketing of channels *i.e.* Channel-I, Channel-II and Channel-III through which the farmers sold their produce.

**Keywords:** Marketing channels, price spread and efficiency.

## Introduction

Rice and wheat are main cereals crops, which are grown widely in the country. Rice-wheat farming systems cover about 80% of the food requirement and about 60% of the nutritional requirement of the Indian population. In India, West Bengal rank first and Uttar Pradesh rank second in area, production and productivity of rice Azamgarh district of Uttar Pradesh paddy occupies on area 2.07 lakh ha with production 4.07 lakh metric tonnes, and productivity was 19.66 qt ha<sup>-1</sup> (*Arth Evam Sankhkiy Prabhog Azamgarh, 2015-16*). India accounts for about 14.46 percent of world's oilseeds area and 6.97% of world's oilseeds output (*FAO Year Book, 2017*). It has second and third rank in the world in the production of groundnut (8.2%) and rapeseed-mustard (13.7%). Total area under rapeseed mustard Rabi crop in India for the year 2016-17 is 5.76 million hectares as per the Government's estimates. Total area, production and productivity in U.P. were 5.93 lakh hectare, 6.02 lakh tones and 1015 Kg/ha, respectively (*D.E.S., 2015-16*). During the same period area, production and productivity of rapeseed-mustard in Azamgarh District was 1879 hectare, 1467 metric tonnes and 7.81 q/ha. The seeds and oil are used as condiment in the preparation of pickles and for flavouring curries and vegetables. Rapeseed oil is used in the manufacture of greases. The oil cake is used as a cattle feed and manure. Green stems and leaves are a good source of green fodder for cattle. The leaves of young plants are used as green vegetables as they supply enough sulphur and mineral

in the diet. The arrangements for marketing and the expansion of markets have to be made only for the surplus quantity available with the farmers, and not for total productions. The rate at which agricultural production expands determines the pace of agricultural development, while the growth in the marketable surplus determines the pace of economic developments. An increase the production must be accompanied by an increase in the marketable surplus for the economic development of the country. The knowledge of marketed and marketable surplus helps the policy maker as well as the traders. Some studies indicate that the marketed surplus-output elasticity of paddy and wheat in India is more than one. Estimation of marketable and marketed surplus in India where the production activity is carried out by millions of farmers is spatially. Scattered throughout the length and breadth of the vast country, the estimates of the marketable/marketed surplus of food grains at national level is not easy which are consumed by the producing family also. Micro studies have been used to bring out the nature and extent of distress sale of food grains by small and marginal farmers. Studies on marketing margins and costs are important, for they reveal many facets of marketing and price structure as well as the efficiency of the system. Regular monitoring of market margins at regional levels is essential for the formulation as successful implementation of marketing and price policies. A study of marketing margins should include an estimation of the producer's share in consumer's rupee, the cost of marketing functions and the

margins of intermediaries. Taking into account the significance of the aforementioned facts the study was based on following objectives. To identify the various marketing channels, assess the marketing costs & margins and marketing efficiency of cereals and oilseeds on different size of farms.

### Research methodology

Sampling technique keeping in mind the objectives of the study, the purposive random sampling design was used for the selection of district, block, villages and respondents. The district Azamgarh of eastern U.P. was selected purposively to avoid the operational inconvenience of the investigator. Out of twenty two blocks of selected district, one block purposively Pawai was selected purposively. A list of all the villages falling under selected block was prepared and arranged in ascending order according to area covered by Paddy, Wheat and Mustard crop and five villages were selected randomly, *i.e.* Saraipul, Khairuddinpur, Ibrahimpur, Dhudhuri and Bagbahar. A separate list of Paddy, Wheat and Mustard growers of selected villages were prepared along with their size of holding. Thus, the farm holding categorized into three size groups: marginal (Below-1 ha), small (1-2 ha) and medium: (2-4 ha). From this list a sample of 100 respondents were selected following the proportionate random sampling techniques. Primary data were collected through personal interview method on well pre-structured schedule specially designed for this study, while secondary data were collected from published/ unpublished record of district and blocks, headquarters, books, journals, periodicals, and news bulletins etc. among different Cereals and Oilseeds crops in Azamgarh district. The data pertained for the agriculture year 2017-2018.

### Analytical framework

Producer's share in consumer price: It is the price received by the producer farmer as a percentage of the retail price (price paid by the consumer).

$$PS = (C - M / C) \times 100$$

Where,

PS = Producer's share in consumer price in percentage

C = Consumer's price in Rs.

M = Marketing cost, including margin

### Marketing Margin

This is the difference between receipts (sale price) of the middleman and total payment made (purchase price + expenses incurred) by the middleman during marketing of produce.

### Price spread

The difference between the price paid by the consumer and the net price received by producer was taken as the concept of

spread. The model prices at different levels were obtained to work out the gross margins of various agencies. The deduction of the costs incurred by the concerned agencies from the gross margin gave rise to net margin.

$$\text{Price spread} = \left\{ \frac{\text{Consumer price} - \text{Net price of producer}}{\text{Consumer price}} \right\} \times 100$$

## Result and Discussion

### Disposal patterns of paddy in study area

Table-1 indicate that marginal, small and medium categories of farmers disposed of their produce maximum 55.36 percent through channel-II followed by Channel-III (26.93 percent) and Channel-I 17.42 percent. As for as the adoption of different channels by various size group of farms is concerned it was found that marginal farmers did not adopt Channel-III where as medium size group of farmers did not adopt Channel-I. Only small size group of farmers had adopted all three channels for disposal of their 67.10 (channel-II) 18.59 (channel-III) and 14.31 percent (channel-I), respectively.

Table-2 indicate that marginal, small and medium categories of farmers disposed off their produce maximum 57.62 percent through channel-II followed by Channel-III 24.36 percent and Channel-I 16.42 percent. As for as the adoption of different channels by various size group of farms is concerned it was found that marginal farmers did not adopt Channel-III where as medium size group of farmers did not adopt Channel-I. Only small size group of farmers had adopted all three channels for disposal of their 61.67 (channel-II) 19.41 (channel-III) and 18.93 percent (channel-I), respectively.

Table-3 indicate that marginal, small and medium categories of farmers disposed off their produce maximum 57.72 percent through channel-II followed by Channel-III 29.31 percent and Channel-I 12.96 percent. As for as the adoption of different channels by various size group of farms is concerned it was found that marginal farmers did not adopt Channel-III where as medium size group of farmers did not adopt Channel-I. Only small size group of farmers had adopted all three channels for disposal of their 59.10 (channel-II) 34.51 (channel-III) and 06.39 percent (channel-I), respectively.

Marketing channels, Marketing cost and margins and price spread: Three channels were prevalent in the study area *i.e.*

1. Producer-Consumer
2. Producer-Village trader/ Retailer-Consumer
3. Producer-Wholesaler-Village trader/ Retailer-Consumer.

**(a) Price spread and Producer's share in consumer's rupee for the Paddy marketing in channel-I (Producer-Consumer)**

Details of marketing costs incurred by producer and producer's share in consumer's rupee, in channel-I is presented in Table-4. It is depicted from the table that total Rs. 35.00 was spent by producer to per farm sum marketing functions. No charges for bags and losses were included because bags were taken back by producers after selling of his produce. It is revealed from the table that producer's share in consumer's rupees came to 95.98 percent.

**(b) Price spread and producer's share in consumer's rupees for the Paddy marketing in Channel-II (Producer Village trader/Retailer-Consumer)**

Details of marketing costs and margins price spread and producer's share in consumer's rupee is presented in Table-5. Marketing cost incurred by producer and marketing costs and margins of village trader/retailer were found to be Rs. 50.00 and Rs. 40.20 and Rs. 35.00 per quintal respectively. Which were accounted for 2.77, 2.22 and 1.94 percent of consumer's price which jointly makes a price spread of 6.93 percent, this way the producer's share in consumer's rupee came to 93.07 percent.

**(c) Price spread and producer's share in consumer's rupees for the Paddy marketing in Channel-III (Producer Wholesaler-Village trader/Retailer-Consumer)**

It is revealed from the Table-6 that expenditure incurred by producer, wholesaler and retailer involve in this channel were Rs. 53.25, Rs. 51.32 and Rs. 32.20 respectively. This accounted for 2.93, 2.83 and 1.77 percent of consumer's price. Likewise the marketing margin charged by wholesaler and retailer were found to be Rs. 25.15 and Rs. 28.50 respectively which have shared the 1.39 and 1.57 percent of consumer's rupees. This way the total price spread in channel-III was came to 10.49 percent which caused a fall in producer share in consumer's rupee and was recorded to 89.51 percent.

**(d) Price spread and Producer's share in consumer's rupee for the Wheat marketing in channel-I (Producer-Consumer)**

Details of marketing costs incurred by producer and producer's share in consumer's rupee, in channel-I is presented in Table-7. It is depicted from the table that total Rs. 36.90 was spent by producer to per farm sum marketing functions. No charges for bags and losses were included because bags were taken back by producers after selling of his produce. It is revealed from the table that producer's share in consumer's rupees came to 97.89 percent.

**(e) Price spread and producer's share in consumer's rupees for the Wheat marketing Channel-II (Producer Village trader/Retailer-Consumer).**

Details of marketing costs and margins price spread and

producer's share in consumer's rupee is presented in Table-8. Marketing cost incurred by producer and marketing costs and margins of village trader/retailer were found to be Rs. 62.25 and Rs. 43.80 and Rs. 44.50 per quintal respectively. Which were accounted for 3.34, 2.35 and 2.38 percent of consumer's price which jointly makes a price spread of 8.07 percent, this way the producer's share in consumer's rupee came to 91.93 percent.

**(f) Price spread and producer's share in consumer's rupees for the Wheat marketing in channel-III (Producer Wholesaler-Village trader/Retailer-Consumer).**

It is revealed from the Table-9 that expenditure incurred by producer, wholesaler and retailer involve in this channel were Rs. 54.00, Rs. 67.30 and Rs. 41.75 respectively, Which accounted for 2.80, 3.50 and 2.17 percent of consumer's price. Likewise the marketing margin charged by wholesaler and retailer were found to be Rs. 27.35 and Rs. 67.30 respectively which have shared the 1.42 and 3.50 percent of consumer's rupees. This way the total price spread in channel-III was came to 12.44 percent which caused a fall in producer share in consumer's rupee and was recorded to 87.56 percent.

**(g) Price spread and Producer's share in consumer's rupees for the Mustard marketing in channel-I (Producer Consumer)**

Details of marketing costs incurred by producer and producer's share in consumer's rupee, in channel-I is presented in Table-10. It is depicted from the table that total Rs. 42.50 was spent by producer to per farm sum marketing functions. No charges for bags and losses were included because bags were taken back by producers after selling of his produce. It is revealed from the table that producer's share in consumer's rupees came to 99.00 percent.

**(h) Price spread and producer's share in consumer's rupees for the Mustard in Channel-II (Producer-Village trader/Retailer-Consumer)**

Details of marketing costs and margins price spread and producer's share in consumer's rupee is presented in Table-11. Marketing cost incurred by producer and marketing costs and margins of village trader/retailer were found to be Rs. 87.12 and Rs. 62.23 and Rs. 85.00 per quintal respectively. Which were accounted for 2.02, 1.44 and 1.97 percent of consumer's price which jointly makes a price spread of 5.43 percent, this way the producer's share in consumer's rupee came to 94.56 percent.

**(i) Price spread and producer's share in consumer's rupees for the Mustard marketing in channel-III (Producer-Wholesaler-Village trader/Retailer-Consumer)**

It is revealed from the Table-12 that expenditure incurred by producer, wholesaler and retailer involve in this channel

were Rs. 90.32, Rs. 111.67 and Rs. 49.40 respectively, Which accounted for 2.01, 2.49 and 1.10 percent of consumer's price. Likewise the marketing margin charged by wholesaler and retailer were found to be Rs. 105.10 and Rs. 98.66 respectively which have shared the 2.34 and 2.20 percent of consumer's rupees. This way the total price spread in channel-III was came to 10.15 percent which caused a fall in producer share in consumer's rupee and was recorded to 89.85 percent.

### Conclusion

Total disposal quantity of paddy was 1715.00 quintal which was disposed off through three channels. Disposal quantity under Channel-I, Channel-II and Channel-III were 298.74, 949.46 and 461.86 quintal, respectively. Total disposal quantity of wheat was 1253.00 quintal Channel-I, Channel-II and Channel-III it worked out and respective values were 205.73, 722.03 and 305.24 quintals, respectively. Marginal and small sample farms sold out higher amount of production through channel-II. Medium sample farms disposed off their produce through channel-III. Total disposal quantity of mustard was 139.18 quintal which was disposed off through three channels. Disposal quantity under Channel-I, Channel-II and Channel-III were 18.04, 80.34 and 40.80 quintal, respectively. The producer received the maximum share of the consumer's rupee for paddy, wheat and mustard 95.98, 97.89, and 99 percent in channel-I and minimum in channel-III 89.51, 87.56 and 89.85 percent in Pawai and Shahganj mandi. The result showed that producer's share in consumer's rupee decreased with the increase in no. of the intermediaries.

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**Table 1: Disposal pattern of Paddy through different marketing channel under different size group of farms (qt.)**

S. No.	Size group of farm	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	137.98 (42.81)	142.05 (44.08)	42.26 (13.11)	322.29 (100)
2.	Small	102.70 (14.31)	481.57 (67.10)	133.39 (18.59)	717.66 (100)
3.	Medium	58.06 (08.66)	325.84 (48.62)	286.21 (42.71)	670.11 (100)
<b>Total</b>		<b>298.74</b> <b>(17.42)</b>	<b>949.46</b> <b>(55.36)</b>	<b>461.86</b> <b>(26.93)</b>	<b>1715.06</b> <b>(100)</b>

(Figure in parentheses indicate the percentage to the total)



**Table 2: Disposal pattern of Wheat through different marketing channel under different size group of farms (qt.)**

S. No.	Size group of farm	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	73.98 (38.36)	99.63 (51.66)	19.23 (09.97)	192.84 (100)
2.	Small	101.31 (18.93)	330.11 (61.67)	103.89 (19.41)	535.31 (100)
3.	Medium	30.44 (06.03)	292.29 (57.90)	182.12 (36.07)	504.85 (100)
<b>Total</b>		<b>205.73</b> <b>(16.42)</b>	<b>722.03</b> <b>(57.62)</b>	<b>305.24</b> <b>(24.36)</b>	<b>1253.00</b> <b>(100)</b>

(Figure in parentheses indicate the percentage to the total)

**Table 3: Disposal pattern of Mustard through different marketing channel under different size group of farms (qt.)**

S. No.	Size group of farm	Channel I	Channel II	Channel III	Total Quantity
1.	Marginal	9.28 (31.20)	14.87 (50.00)	5.59 (18.80)	29.74 (100)
2.	Small	6.62 (06.39)	39.57 (59.10)	24.34 (34.51)	70.53 (100)
3.	Medium	2.14 (5.50)	25.90 (66.56)	10.87 (27.94)	38.91 (100)
<b>Total</b>		<b>18.04</b> <b>(12.96)</b>	<b>80.34</b> <b>(57.72)</b>	<b>40.80</b> <b>(29.31)</b>	<b>139.18</b> <b>(100)</b>

(Figure in parentheses indicate the percentage to the total)

**Table 4: Price spread for the Paddy marketing in channel-I (Producer-Consumer) (Rs./qt)**

S. No.	Particular	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by Producer	1700.50	95.98
2.	Marketing cost Incurred by the producer	35.00	2.02
a.	Transportation cost	8.50	0.49
b.	Cost of bag	15.00	0.86
c.	Weighing charge	6.00	0.35
Q	Loading Unloading	5.50	0.32
e.	Losses	-	-
3.	Producer's selling price/consumer purchase price	1770.00	100

**Table 5: Price spread for the Paddy marketing in channel-II (Producer-Village trader/ Retailer-Consumer) (Rs./qt)**

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	1680.25	93.07
2.	Marketing cost incurred by producer	50.00	2.77
a.	Transportation cost	15.50	0.86
b.	Cost of gunny bags	15.00	0.83
c.	Weighing charges	6.00	0.33
d.	Loading and Unloading	8.25	0.46
e.	Losses	5.25	0.29
3.	Producer's sale price/ retailer purchase price	1730.25	95.83
4.	Marketing cost incurred by Village Trader	40.20	2.22
a.	Grading and cleaning	8.20	0.45
b.	Loading Unloading	10.50	0.58
c.	Transportation cost	15.50	0.86
d.	Weighing charges	6.00	0.33
5.	Retailer's net margin	35.00	1.94
6.	Price spread	125.20	6.93
7.	Grass market margin	35.00	1.94
8.	Consumer's Purchase price	1805.45	100

**Table 6: Price spread for the Paddy marketing in channel-III (Producer- Village trader/Retailer-Consumer) (Rs./qt)**

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	1624.73	89.51
2.	Expenditure incurred by producer	53.25	2.93
a.	Transportation cost	5.05	0.28
b.	Cost of gunny bags	15.00	0.83
c.	Loading Unloading	10.90	0.60
d.	Market fees	8.00	0.44
e.	Losses	8.10	0.45
f.	Weighing charge	6.20	0.34
3.	Producer sale price/W.S. purchase price	1677.98	92.44
4.	Expenditure incurred by W.S.	51.32	2.83
a.	Transportation cost	10.50	0.58
b.	Weighing charges	6.00	0.33
c.	Loading Unloading	12.50	0.69
d.	Storage charges	5.00	0.26
e.	Grading and cleaning	5.70	0.31
f.	Losses	5.12	0.28
g.	Market fees	6.50	0.36

5.	W.S. Net margin	25.15	1.39
6.	W.S. sale price/Retailer purchase price	1754.45	96.66
7.	Expenditure incurred by Retailer	32.20	1.77
a.	Transportation cost	15.70	0.87
b.	Loading Unloading	10.50	0.58
c.	Weighing charges	6.00	0.33
8.	Retailer's Net margin	28.50	1.57
9.	Price spread	190.42	10.49
10.	Grass market margin	53.65	2.96
11.	Retailer's sale price/ consumer purchase price	1815.15	100.00

Table 7: Price spread for the Wheat marketing in channel-I (Producer-Consumer) (Rs./qt)

S. No.	Particular	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by Producer	1708.80	97.89
2.	Marketing cost Incurred by the producer	36.90	2.11
a.	Transportation cost	10.20	0.58
b.	Cost of bag	15.70	0.90
c.	Weighing charge	6.00	0.34
Q	Loading Unloading	5.00	0.29
e.	Losses	-	-
3.	Producer's selling price/consumer purchase price	1745.70	100

Table 8: Price spread for the Wheat marketing in channel-II (Producer-Village trader/Retailer-Consumer) (Rs./qt)

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	1715.35	91.93
2.	Marketing cost incurred by producer	62.25	3.34
a.	Transportation cost	10.00	0.54
b.	Cost of gunny bags	20.50	1.10
c.	Weighing charges	6.00	0.32
d.	Loading and Unloading	10.25	0.45
e.	Losses	15.50	0.83
3.	Producer's sale price/ retailer purchase price	1777.60	97.27
4.	Marketing cost incurred by Village Trader	43.80	2.35
a.	Grading and cleaning	12.05	0.65
b.	Loading Unloading	10.25	0.45
c.	Transportation cost	15.50	0.83
d.	Weighing charges	6.00	0.32
5.	Retailer's net margin	44.50	2.38
6.	Price spread	150.55	8.07
7.	Grass market margin	44.50	2.38
8.	Consumer's Purchase price	1865.90	100

**Table 9: Price spread for the Wheat marketing in channel-III (Producer-Village trader/ Retailer-Consumer) (Rs./qt)**

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	1686.00	87.56
2.	Expenditure incurred by producer	54.00	2.80
a.	Transportation cost	10.50	0.55
b.	Cost of gunny bags	15.50	0.80
c.	Loading Unloading	10.25	0.53
d.	Market fees	6.00	0.31
e.	Losses	5.50	0.29
f.	Weighing charge	6.25	0.32
3.	Producer sale price/W.S. purchase price	1740.00	90.37
4.	Expenditure incurred by W.S.	67.30	3.50
a.	Transportation cost	18.50	0.96
b.	Weighing charges	6.00	0.31
c.	Loading Unloading	10.50	0.55
d.	Storage charges	15.00	0.80
e.	Grading and cleaning	15.50	0.80
f.	Losses	10.80	0.56
g.	Market fees	6.00	0.31
5.	W.S. Net margin	27.35	1.42
6.	W.S. sale price/Retailer purchase price	1834.65	95.28
7.	Expenditure incurred by Retailer	41.75	2.17
a.	Transportation cost	20.25	1.05
b.	Loading Unloading	15.50	0.80
c.	Weighing charges	6.00	0.31
8.	Retailer's Net margin	48.60	2.52
9.	Price spread	239.50	12.44
10.	Grass market margin	75.95	3.94
11.	Retailer's sale price/ consumer purchase price	1925.50	100.00

**Table 10: Price spread for the Mustard marketing in channel-I (Producer-Consumer) (Rs./qt)**

S. No.	Particular	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by Producer	4190.25	99.00
2.	Marketing cost Incurred by the producer	42.50	1.00
a.	Transportation cost	11.20	0.26
b.	Cost of bag	20.00	0.47
c.	Weighing charge	6.00	0.14
Q	Loading Unloading	5.50	0.13
e.	Losses	-	-
3.	Producer's selling price/consumer purchase price	4232.75	100



**Table 11: Price spread for the Mustard marketing in channel-II (Producer-Village trader/ Retailer-Consumer) (Rs./qt)**

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	4075.65	94.56
2.	Marketing cost incurred by producer	87.12	2.02
a.	Transportation cost	15.28	0.35
b.	Cost of gunny bags	20.00	0.46
c.	Weighing charges	6.25	0.15
d.	Loading and Unloading	20.05	0.47
e.	Losses	25.54	0.59
3.	Producer's sale price/ retailer purchase price	4162.77	96.58
4.	Marketing cost incurred by Village Trader	62.23	1.44
a.	Grading and cleaning	18.03	0.42
b.	Loading Unloading	20.07	0.47
c.	Transportation cost	15.50	0.36
d.	Weighing charges	8.00	0.19
5.	Retailer's net margin	85.00	1.97
6.	Price spread	234.35	5.43
7.	Grass market margin	85.00	1.97
8.	Consumer's Purchase price	4310.00	100

**Table 12: Price spread for the Mustard marketing in channel-III (Producer-Village Trader/ Retailer-Consumer) (Rs./qt)**

S. No.	Particulars	Rs./qt.	Producer's share in consumer's Rupees
1.	Net price received by producer	4028.04	89.85
2.	Expenditure incurred by producer	90.32	2.01
a.	Transportation cost	15.05	0.34
b.	Cost of gunny bags	20.00	0.45
c.	Loading Unloading	20.90	0.46
d.	Market fees	8.00	0.18
e.	Losses	20.12	0.45
f.	Weighing charge	6.25	0.14
3.	Producer sale price/W.S. purchase price	4118.36	91.86
4.	Expenditure incurred by W.S.	111.67	2.49
a.	Transportation cost	20.05	0.45
b.	Weighing charges	6.25	0.14
c.	Loading Unloading	20.81	0.46
d.	Storage charges	15.55	0.35
e.	Grading and cleaning	20.71	0.46
f.	Losses	21.80	0.49
g.	Market fees	6.50	0.14
5.	W.S. Net margin	105.10	2.34
6.	W.S. sale price/Retailer purchase price	4335.13	96.70
7.	Expenditure incurred by Retailer	49.40	1.10
a.	Transportation cost	20.65	0.46
b.	Loading Unloading	20.50	0.46
c.	Weighing charges	8.25	0.18
8.	Retailer's Net margin	98.66	2.20
9.	Price spread	455.15	10.15
10.	Grass market margin	203.76	4.54
11.	Retailer's sale price/ consumer purchase price	4483.19	100.00