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Marketing Efficiency of Vegetable Trade by Organized vis-a-vis Unorganized Retail Markets in Guntur town, A P

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ABSTRACT

The marketing costs were more in supply chain II (municipal market) followed by supply chain III (Hawker & petty vegetable shops). The marketing margins were more in supply chain III (Hawker & petty vegetable shops). In Supply chain I (Rythu bazaar) the marketing costs very low and marketing margins were not existed because of non involvement of market intermediaries. The producer's share in the consumer's rupee was more in supply chain I (Rythu bazaar) and less in supply chain II(municipal market) and the lowest in supply chain III (Hawker and petty vegetable retailers).It was found that the marketing efficiency was highest in Rythu bazaar because of the absence of middlemen and cost incurred by the farmer was low, followed by the supply chain IV involving organized retail outlet. The marketing efficiency was lowest in supply chain III involving hawker because of the high marketing margins of middlemen and high percentage of consumer rupee was pocketed by the market intermediaries.

Key Words: Marketing Efficiency, Organized and Unorganized Retail Markets

The unorganized retail sector is expected to grow at about 10 percent per annum to reach US$ 496 billion in 2011-12 despite the steady expansion of organized retailers, according to a study by Indian Council for Research on International Economic Relations (ICRIER). Traditional independent retailers continue to dominate the retail sector in India. Retailing in India has been largely unorganized due to lack of management, poor access to capital, unfavorable regulations and lack of appropriate technology. However, of late the sector has witnessed several changes due to the entry of Indian business houses. The Organized food retailing, till recently accounted for only around two per cent of the total food retail sales. Food retail sector is reported to employ about 21 million people.

The results of the paper are expected to throw light on the marketing efficiency of different Supply chains in vegetable trade of organized and unorganized markets. In the present study, marketing costs and margins for tomato, brinjal, chillies, coccinia and okra were worked out separately for unorganized channels viz., Rythu bazar, municipal market and Hawkers and organized channels like Reliance Fresh in Guntur town, Andhra Pradesh.

MATERIAL AND METHODS

Selection of retailers:

Treatment group:

A preliminary survey of regular hawkers & petty vegetable shops operating with in less than 500 m distance in the neighbourhood of organised retail outlets in five localities i.e. Koritipadu, Laxmipuram, Arundalpet, Brodipet and Kottapet was made. From the list 30 hawkers & petty vegetable retailers were randomly selected for the present study as treatment group, as these are the traditional retailers who get affected by organized retail outlets.

Control group:

Vegetable retailers operating at more than 500 m distance from organized retailer outlets are considered as control group. There are two Rythu bazaars - direct selling markets, where small vegetable producers directly sell their vegetables under the supervision of officials of Dept. of Marketing and Dept. of Horticulture. One such Rythu bazaar is situated in one-town area (old city) and another is situated in two-town area of Guntur town. Thirty (30) producers cum retailers were selected randomly from the two Rythu bazaars based on probability proportion to total number of producers cum retailers in these two markets. From municipal market located in the heart of the town another thirty (30) retailers were selected randomly. Thus, the total sample of retailers for the study was 90 consisting of 30 in treatment group and 60 in control group.

A well structured and pre-tested questionnaire for primary data collection was developed and data collected by personal interview method. The data on turnover, profits and number of employees etc of traditional wholesalers were collected. The data was collected during Jan-March 2010 and pertains to the

Table 1. Price spread of tomato, brinjal, chilli, coccinia and okra in channel I (Rythu bazaar) (Rs/quintal) - Direct selling

S.No.	Item	Tomato	Per cent	Brinjal	Per cent	Chilli	Per cent	Coccinia	Per cent	Okra	Per cent
1	**Farmers selling price**	1400.32	100.00	900.65	100.00	2400.59	100.00	900.89	100.00	1200.55	100.00
2	**Expenses incurred by farmer**	94.25	6.71	61.45	6.78	64.85	2.66	55.29	6.14	71.43	5.92
a	Cost of gunny bags	8.50	0.61	6.60	0.73	6.60	0.27	6.50	0.72	6.50	0.54
b	Loading and unloading	14.25	1.02	15.85	1.76	15.92	0.66	15.24	1.69	15.45	1.29
c	Transportation	22.12	1.59	20.85	2.11	18.65	0.78	16.55	1.77	20.35	1.70
d	Spoilage	50.31	3.49	20.61	2.18	25.95	0.95	18.55	1.96	30.65	2.39
3	**Net price received by farmer**	1306.33	93.29	839.56	93.22	2336.76	97.34	845.61	93.86	1129.52	94.08
4	**Consumer purchase price**	1400.32	100.00	900.65	100.00	2400.59	100.00	900.89	100.00	1200.55	100.00
5	**Price spread**	94.25	6.71	61.45	6.78	64.85	2.66	55.29	6.14	71.43	5.92

two periods i.e. 2006, before establishment of organised corporate retail chains and year 2009 i.e. after their establishment in Guntur town. Secondary data relevant to the study were collected from different reports and registers available with Dept. of Horticulture, Reliance Fresh collection centre and Rythu Bazaars, wholesale vegetable markets and sources on weekly prices of all the important vegetables since the establishment of retail chains in Guntur town.

Producer's Share in Consumer Rupee:

$P = (P_F / P_R) \times 100$ Where, P = Producer's share in consumer rupee, P_F = Price received by the farmer, P_R = Price paid by the consumer.

Marketing Efficiency: (Acharya & Agarwal, 2001): MME=FP/ (MC+MM) or MME= [RP/ (MC+MM)]-1

Where MME=Modified measure of Marketing Efficiency, MM=Net marketing margin, FP=Net price received by the farmer, RP=Price paid by the consumer, MC=Total marketing cost.

RESULTS AND DISCUSSION

The major channels identified in marketing of tomato, brinjal, chillies, coccinia and okra in Guntur town were

1. Supply chain I: Producer → Consumer, (in Rythu bazar); 2.**Supply chain II**: Producer → Commission agent cum wholesaler→ Retailer → Consumer, (in Municipal market); 3.**Supply chain III**: Producer →Commission agent cum wholesaler → Hawkers → Consumer, (at Hawkers); 4.**Supply chain IV**: Producer →Collection centre of Reliance Fresh → Reliance Fresh outlets → Consumer, (in Organized retail outlet).

Marketing costs and Marketing margins

It would worthwhile to discuss how much of the marketing costs the farmers are incurring and how much percentage of margins are being taken by the middlemen.

The particulars of price spread, total marketing costs and marketing margins incurred in different supply chains on selected vegetables were presented in tables 1 to 5 respectively. The marketing costs were more in supply chain II (municipal market) followed by supply chain III (Hawker & petty vegetable shops). The marketing margins were more in supply chain III (Hawker & petty vegetable shops) because of involvement of more number of market intermediaries where as the marketing margins were low in supply chain IV (Organized retail outlet). In Supply chain I (Rythu bazaar) the marketing costs very low and marketing

Table 2. Price spread of tomato, brinjal, chilli, coccinia and okra in channel II (Municipal market)(Rs/quintal)

S.No.	Item	Tomato	Per cent	Brinjal	Per cent	Chilli	Per cent	Coccinia	Per cent	Okra	Per cent
1	**Farmers selling price**	1170.80	78.01	810.99	81.06	2070.70	82.83	765.11	76.48	990.66	76.20
2	**Expenses incurred by farmer**	235.45	15.70	185.62	18.56	310.85	12.43	165.04	16.48	190.52	14.59
a	Transportation	60.54	4.03	60.51	6.05	50.33	2.03	50.55	5.05	40.14	3.02
b	Spoilage	45.12	3.01	25.52	2.55	40.16	1.61	20.19	2.02	30.66	2.36
c	Loading and unloading	20.49	1.36	20.45	2.05	20.86	0.83	20.43	2.06	20.18	1.55
d	Commission charges	110.65	7.30	80.95	7.91	200.37	7.96	75.55	7.35	100.95	7.66
3	**Net price received by farmer**	935.21	62.31	625.45	62.50	1760.30	70.40	600.25	60.00	800.87	61.61
4	**Wholesaler purchase price**	1170.80	78.01	810.99	81.06	2070.70	82.81	765.11	76.48	990.66	76.20
5	**Expenses incurred by wholesaler**	61.33	4.09	41.84	4.18	56.38	2.25	36.69	3.67	46.95	3.61
a	Spoilage	45.28	3.00	25.98	2.55	40.88	1.60	20.67	2.07	30.99	2.35
b	Market fee	16.32	1.09	16.32	1.63	16.32	0.65	16.32	1.60	16.32	1.26
6	**Wholesaler margin**	69.74	4.65	49.95	4.99	174.18	6.97	49.62	4.96	64.53	4.96
7	**Wholesaler selling price/ retailer purchase price**	1300	86.62	900.56	90.01	2300.70	92.01	850.71	85.04	1101	84.69
8	**Expenses incurred by retailer**	78.35	5.11	54.28	5.12	57.82	2.20	50.92	4.84	59.19	4.31
a	Transportation	12.61	0.84	10.82	0.98	10.69	0.43	10.20	1.02	15.92	1.12
b	Spoilage	30.62	1.91	20.71	1.88	25.49	0.92	15.57	1.49	20.33	1.30
c	Market fee	12.38	0.82	12.38	1.14	12.38	0.42	12.38	1.24	12.38	0.95
d	Loading and unloading	24.92	1.54	12.24	1.12	10.64	0.43	10.91	1.09	12.28	0.94
9	**Retailer margin**	122.23	8.14	46.52	4.65	143.81	5.75	100.56	10.05	141.90	10.92
10	**Retailer sale price/ consumer purchase price**	1500.8	100.00	1000.50	100.00	2500.60	100.00	1000.35	100.00	1300	100.00
11	**Price spread**	565.65	37.69	375.32	37.50	740.95	29.60	400.22	40.00	500.23	38.39

Table 3. Price spread of tomato, brinjal, chilli, coccinia and okra in channel III (Hawker &petty vegetable shops)

S.No.	Item	Tomato	Per cent	Brinjal	Per cent	Chilli	Per cent	Coccinia	Per cent	Okra	Per cent
1	**Farmers selling price**	1170.80	68.85	810.99	67.56	2070.70	79.63	765.11	71.28	990.66	66.09
2	**Expenses incurred by farmer**	235.45	13.85	185.62	15.47	310.85	11.95	165.04	14.49	190.52	12.71
a	Transportation	60.54	3.56	60.51	5.04	50.33	1.94	50.55	4.05	40.14	2.68
b	Spoilage	45.12	2.65	25.52	2.13	40.16	1.54	20.19	2.02	30.66	2.04
c	Loading & unloading	20.49	1.20	20.45	1.70	20.86	0.80	20.43	2.04	20.18	1.35
d	Commission charges	110.65	6.44	80.95	6.60	200.37	7.67	75.55	6.38	100.95	6.64
3	**Net price received by farmer**	935.21	55.00	625.45	52.09	1760.30	67.68	600.25	56.79	800.87	53.38
4	**Wholesaler purchase price**	1170.80	68.85	810.99	67.55	2070.70	79.61	765.11	76.44	990.66	66.03
5	**Expenses incurred by wholesaler**	61.33	3.61	41.84	3.48	56.38	2.17	36.69	3.67	46.95	3.13
a	Spoilage	45.28	2.65	25.98	2.12	40.88	1.54	20.67	2.04	30.99	2.04
b	Market fee	16.32	0.96	16.32	1.36	16.32	0.63	16.32	1.63	16.32	1.09
6	**Wholesaler margin**	69.74	4.10	49.95	4.16	174.18	6.70	49.62	4.96	64.53	4.30
7	**Wholesaler selling price/ Hawker purchase price**	1300	76.45	900.56	75.01	2300.7	88.45	850.71	85.00	1101	73.38
8	**Expenses incurred by Hawker**	50.55	2.82	45.32	3.55	60.21	2.24	40.79	4.08	55.81	3.47
a	Transportation	20.51	1.21	20.12	1.65	20	0.77	20.43	2.05	20.70	1.38
b	Spoilage	30.04	1.61	25.20	1.90	40.21	1.47	20.36	2.03	35.11	2.09
9	**Hawker margin**	350.62	20.62	255.18	21.25	240.89	9.26	160.24	16.01	345.29	23.01
10	**Hawker sale price/ consumer purchase price**	1700.50	100.00	1200.60	100.00	2601	100.00	1000.87	100.00	1500.30	100.00
11	**Price spread**	765.22	45	575.83	47.91	840.92	32.32	400.16	43.21	700.51	46.62

Table 4. Price spread of tomato, brinjal, chilli, coccinia and okra in channel IV (Organized retail outlet) (Rs/quintal)

S.No.	Item	Tomato	Per cent	Brinjal	Per cent	Chilli	Per cent	Coccinia	Per cent	Okra	Per cent
1	**Farmers selling price**	1300.30	81.23	940.51	78.31	2230.60	85.77	885.86	80.51	1140.50	81.43
2	**Expenses incurred by farmer**	105.21	6.57	80.62	6.71	120.96	4.65	75.51	6.86	75.82	5.41
a	Transportation	30.15	1.88	25.60	2.13	35.69	1.37	25.09	2.28	25.14	1.80
b	Spoilage	35.21	2.16	25.55	2.03	45.84	1.74	20.93	1.90	20.76	1.48
c	Loading and unloading	25.31	1.58	15.62	1.30	26.31	1.01	12.61	1.35	13.62	1.07
d	Bagging/packing	15.24	0.95	14.98	1.25	13.89	0.53	11.32	1.33	10.59	1.06
3	**Net price received by farmer**	1195.20	74.66	830.55	71.60	2110.30	81.12	810.92	73.65	1065.30	76.02
4	**Collection centre purchase price**	1300.30	81.23	940.51	78.31	2230.60	85.77	885.86	80.51	1140.50	81.43
5	**Expenses incurred by collection centre**	125.32	7.83	100.96	8.41	160.41	6.17	102.66	9.33	101.52	7.25
a	Transportation	15.20	0.95	15.62	1.30	35.22	1.35	15.52	1.41	15.22	1.09
b	Processing/grading	80.96	4.92	60.27	4.98	90.69	3.45	60.66	5.51	60.99	4.28
c	Packing	10.74	0.67	10.33	0.86	15.46	0.59	10.31	1.00	10.89	0.78
d	Loading and unloading	20.69	1.29	15.28	1.27	20.34	0.78	15.49	1.41	15.41	1.10
6	**Collection centre margin**	175.62	10.94	160.68	13.28	210.25	8.06	115.62	10.16	160.97	11.32
7	**Reliance Fresh sale price/ consumer purchase price**	1600.80	100.00	1201	100.00	2600.60	100.00	1100.30	100.00	1400.50	100.00
8	**Price spread**	405.11	25.34	340.24	28.40	490.66	18.88	290.82	26.35	335.19	23.98

Table 5. Marketing costs and Marketing margins of different supply chains (Rs/qtl):

Particulars	Channel	Tomato	Per cent	Brinjal	Per cent	Chilli	Per cent	Coccinia	Per cent	Okra	Per cent
Marketing costs	1. Rythu bazaar(I)	94.25	6.71	61.45	6.78	64.85	2.64	55.29	6.14	71.4	5.92
	2. Municipal market(II)	375.13	24.88	281.74	27.85	425.05	16.88	252.65	25.03	297	22.51
	3. Hawker & petty vegetable shops (III)	347.33	20.28	272.78	22.49	427.4	16.36	242.52	22.24	293	19.3
	4. Organized retail outlet(IV)	230.53	14.4	181.58	15.12	281.4	10.82	178.17	16.19	177	12.66
Marketing margins	1. Rythu bazaar(I)	-	-	-	-	-	-	-	-	-	-
	2. Municipal market(II)	191.97	12.79	96.47	9.64	318	12.72	150.18	15.01	206	15.88
	3. Hawker & petty vegetable shops (III)	420.36	24.72	305.13	25.41	415.1	15.96	209.86	20.97	410	27.31
	4. Organized retail outlet(IV)	175.62	10.94	160.68	13.28	210.3	8.06	115.62	10.16	161	11.32

margins were not existed because of non involvement of market intermediaries and farmers share was more. The marketing costs were less in supply chain I where direct marketing is practiced by vegetable growers through Rythu bazaars and in supply chain IV, where organized retail outlets collect the produce from farmers and sell directly through their outlets. The marketing margins were also low in these channels.

Producer's share in the consumer's rupee

It was well established that the percentage of producer's share in the consumer's rupee decreases as supply chain length increases and also with increase in value addition activity.

The producer's share in the consumer's rupee in different supply chains on tomato, brinjal, chilli, coccinia and okra were presented in table 6. The producer's share in the consumer's rupee was more in supply chain I (Rythu bazaar) denotes that the farmers are getting lion share in consumer's rupee by direct selling of their produce to consumers. Similarly in supply chain IV (Organized retail outlet) the farmers have better share in consumer's rupee by direct selling of their produce to retail chains. The producer's share in the consumer's rupee was less in supply chain II(municipal market) and the lowest in supply chain III (Hawker and petty vegetable retailers) shows that the farmers realised less share in consumer's rupee because most of the money is going in the form of margins to the middlemen either wholesalers cum commission agents, retailers and hawkers etc.

Marketing Efficiency

Marketing Efficiency is the effectiveness or competence with which a market structure performs its designated function. The movement of goods from producer to the consumer at the lowest possible cost consistence with the provision of the services desired by the consumers may be termed as marketing efficiency. A high level of consumer satisfaction even at a high marketing cost may increase marketing efficiency if additional satisfaction derived by the consumer outweighs the additional cost incurred in the marketing process.

It was found that the marketing efficiency was highest in Rythu bazaar because of the absence of middlemen and cost incurred by the farmer was low, followed by the supply chain IV involving organized retail outlet. The marketing efficiency was lowest in supply chain III involving hawker because of the high marketing margins of middlemen and high percentage of consumer rupee was pocketed by the market intermediaries. (Table 7)

It can be concluded that the marketing efficiency was highest in the Rythu bazaar and the farmer got the highest share of consumer rupee when compared to other channels but the limitation was only the registered farmers/farmers groups with valid

Table 6. Producer's share in consumer's rupee of different supply chains:

Particulars	Supply chain	Tomato	Brinjal	Chilli	Coccinia	Okra
Net price received by the vegetable producer (Rs/qtl)	Rythu bazaar(I)	1306.33	839.56	2336.76	845.61	1129.52
	Municipal market(II)	935.21	625.45	1760.33	600.25	800.87
	Hawker & petty vegetable shops (III)	935.21	625.45	1760.33	600.25	800.87
	Organized retail outlet(IV)	1195.21	830.55	2110.32	810.92	1065.27
Consumer purchase price (Rs/qtl)	Rythu bazaar(I)	1400.32	900.65	2400.59	900.89	1200.55
	Municipal market(II)	1500.80	1000.50	2500.56	1000.35	1300.00
	Hawker & petty vegetable shops (III)	1700.52	1200.55	2600.95	1000.87	1500.31
	Organized retail outlet(IV)	1600.78	1200.95	2600.55	1100.30	1400.45
Producer's share in consumer's rupee (% age)	Rythu bazaar(I)	93.29	93.22	97.34	93.86	94.08
	Municipal market(II)	62.31	62.51	70.40	60.00	61.61
	Hawker & petty vegetable shops (III)	55.00	52.10	67.68	59.97	53.38
	Organized retail outlet(IV)	74.66	69.16	81.15	73.70	76.07

Table 7. Marketing Efficiency of different vegetable supply chains in Guntur town: (Rs/qtl)

Channel	Particulars	Tomato	Brinjal	Chilli	Coccinia	Okra
Supply chain I	FP	1306.30	839.56	2336.80	845.61	1129.50
(Rythu bazaar)	MC	94.25	61.45	64.85	55.29	71.43
Direct selling	MM	0	0	0	0	0
	ME	13.86	13.66	36.03	15.29	15.81
Supply chain II	FP	935.21	625.45	1760.30	600.25	800.87
(Municipal	MC	375.13	281.74	425.05	252.65	296.66
market)	MM	191.97	96.47	317.99	150.18	206.43
	ME	1.65	1.65	2.37	1.49	1.59
Supply chainIII	FP	935.21	625.45	1760.30	600.25	800.87
(Hawker)	MC	347.33	272.78	427.44	242.52	293.28
	MM	420.36	305.13	415.07	209.86	409.82
	ME	1.22	1.08	2.09	1.33	1.14
Supply chainIV	FP	1195.2	830.55	2110.30	810.92	1065.30
(Organized	MC	230.53	181.58	281.37	178.17	177.34
retail outlet)	MM	175.62	160.68	210.25	115.62	160.97
Direct selling	ME	2.94	2.43	4.29	2.76	3.15

laminated photo identity cards are allowed to sell their vegetables in Rythu bazaars.

In case of organized retail outlet the marketing efficiency was marginally higher compared to channel II and III but much lower than Rythu bazaar. The main drawback was that the organized retail enterprises take vegetables only from a few farmers and take small / fixed quantity of vegetables from each farmer based on indents from outlets. They purchase only First Average Quality (FAQ) quality vegetables and reject non FAQ quality. Therefore here also only a few vegetable producers were benefited.

In case of municipal market the marketing efficiency was low because the marketing for vegetables was mostly in the hands of middlemen, (commission agents cum wholesalers) lack of price control, market intelligence, high commission charges, intermittent situations of gluts and scarcities etc. put both producer and consumer at a disadvantage.

Conclusions:

Establishment of more number of Rythu bazaars will benefit both the producers and consumers to a great extent and improves the marketing efficiency. Though in organized retail chains also the marketing efficiency was better relative to unorganized supply chains, the consumer's prices were higher and they procure only FAQ quality produce in small quantities from small number of farmers and reject other quality produce. However, unorganized retail markets provide employment to several people from very poor socio economic back ground in urban areas and migratory rural poor. Hence keeping in view the socio economic developmental aspects, it was suggested to promote more number of Rythu bazaars in urban towns to benefit the producers and consumers directly.

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