

# Organised Fruit and Vegetable Marketing Channels in Andhra Pradesh

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## Abstract

*Marketing of fruits and vegetables has assumed new dimensions with rise in per capita income and health consciousness, mostly in urban areas of India. This study looks at existing Marketing Channels viz., Agricultural Produce Marketing Committees, Rythu Bazaars and organised Private Retail and compares benefits accruing to consumers in Andhra Pradesh. The various dimensions studied include, preferred channel by consumers; quality of produce in different marketing channels; consumer satisfaction with prices; convenience factor; service factor; impact of display; promotional advertising and price display on channel preference. According to the study, except for little benefit to consumers, not much benefit has accrued to producers even from Organized Private Retail. However small and medium farmers are benefited through Rythu Bazaars since farmers are able to sell their produce directly to consumers and get a good price. There is a mismatch between demand and supply due to lack of information and knowledge on production, price and market dynamics within and outside India. The study suggests that in order to prevent seasonal glut and ensure price stability throughout the year, the government must take steps to prepare Mandal level plans for agricultural produce, estimate the quality of produce coming to the market, route excess produce to other consumption centers and look into processing and export opportunities. Timely information must be provided to farmers by extension staff to prevent crop loss and ensure good price to the farmers.*

## Introduction

The importance of fruits and vegetables assumes high significance as they form an essential part of the daily diet and hence are always in great demand throughout the year. The marketing of fruits and vegetables has assumed new dimensions with rise in per capita income and health consciousness, mostly in urban areas of India. Nearly 76 percent of fruits and vegetables are consumed in fresh form and only two percent of vegetables and four percent of fruits are being processed (Meena, R.K. and Yadav J.S. 2001.). The change in life styles and

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economic growth has brought a new dimension for the fruit and vegetable markets. These have created new inputs to correct the existing supply chain which has a number of loopholes in price and infrastructure, which include, the component of the consumer rupee not reaching the farmer and lack of improvement in market infrastructure even though it has grown by leaps and bounds (Sharan,1998).

In the past, the government had a major role in price fixation of fruits and vegetables through open auction in Agricultural Produce Marketing Committees (APMCs). In this market, middle men had a major role as the supply chain had a number of loopholes, benefitting them rather than producers and consumers. The Government as part of open market policy relaxed the restrictions and wanted to contain the middle men to provide better price for producers and consumers.

The traditional marketing channels where middlemen dominate the farmers are existing in the supply chain (Gupta, S.P and Varma, J.S., 2000). However, Governmental efforts and initiatives have resulted in the introduction of various new marketing systems aimed at improving the channel by decreasing wastage and thereby benefiting the farmers and consumers in getting better prices. Apart from governmental channels in fruits and vegetables, the new channels viz., Organised Private Retailers (OPR) have entered into the fruit and vegetable market. Hence there is need to study these channels and compare benefits accruing to consumers. In view of this a study was taken up of Organised Fruit and Vegetable Marketing Channels in Andhra Pradesh.

## **Objectives**

The objective is to study existing Marketing Channels and compare the benefits to fruit and vegetable consumers in Andhra Pradesh through different organised supply chain models.

## **Supply chain models**

The organised fruit and vegetable channels available in Andhra Pradesh are Agricultural Produce Marketing Committees (APMCs), Rythu Bazaars (RBs) and Organised Private Retail marketing (OPR) non-regulated markets.

### **a. Agricultural Produce Marketing Committees (APMCs)**

The Government of India (GOI) started to control the procurement and processing of agriculture commodities through regulated markets. The Agricultural Produce Marketing Committees (APMCs) came in to existence in all the states and union territories. Presently there are about 7566 principal and sub-markets

put together (MOA website) which are working under the sphere of regulated markets.

Regulated markets occupy a very important position in the contemporary agricultural marketing scenario. Construction of market yards all over the country is similar to the creation of infrastructure like storage godowns, auction platforms, grading platforms, internal roads etc by the government. Introduction of homogeneous marketing practices, elimination of unauthorized deduction, reasonable and fixed market prices, correct weighing, timely payment, timely settling of market disputes etc. are some of the parameters for successful functioning of regulated markets. The major purpose of these markets is to create a favorable environment for farmers' produce by controlling prices and maintaining transparency.

#### **b. Rythu Bazaars (RBs)**

Direct marketing has been a long felt need of the farmers and consumers in the country as it goes a long way in ensuring higher remuneration to the farmers (Suhag, K.S., et al, 2000) and meeting the satisfaction level of the consumers through direct sale of the agricultural commodity by the farmers to the consumer, at affordable prices. Direct marketing of agricultural produce helps in complete elimination of middle men and commission agents who charge a high level of commission fee from the agriculturists/farmers coming to the market yards for selling their produce by artificially inflating the retail prices. The efficacy of direct agricultural marketing infrastructure facility can be increased by providing common facilities for proper weighing, cleaning, grading and packaging of agricultural produce being brought to the market yard by the farmers for sale. The Rythu bazaar (farmers' market) in AP is one of the farmer friendly direct marketing systems in operation in the country.

Rythu Bazaars were introduced with a view to eliminate the middlemen and arrange facilities for the farmers to sell their produce directly to the consumers at reasonable rates fixed on a daily basis. The system benefits both the farmers and the consumers. The producers/farmers are supplied properly calibrated weighing scales with weights for selling their produce. All these facilities are provided to the farmers and customers free of cost. The major purpose of these markets is to ensure remunerative prices to farmers and provide fresh vegetables and fruits to consumers at a reasonable price. Another is to provide a direct interface between producers and consumers by eliminating intermediaries in the trade.

### **c. Organised Private Retail marketing (OPR)**

Organized Private food Retailing started in the mid 1980, in the metropolitan and big cities in India except in Calcutta. In India, after 1990, a wide range of merchandise or chain stores (food retail formats) have come up, known by names like Supermarkets, Hypermarkets, Neighborhood stores, Discount stores, Specialty Stores and Convenience Stores. Today big companies including multi-nationals have entered the food and non-food retailing across India. Indian consumers are happy with stored rather than branded goods and are very conservative about packaged foods; about six million street vendors are engaged in food retail currently at US \$70 billion and are expected to reach US \$150 billion by 2025.

At the Food Forum India (FFI) 2008, it was expressed that the reasons for the growing retail, are growing income, changing life style and food habits, increasing purchasing capacity, the big change in terms of growing number of working women, the impact of western life styles, increasing expenditure on food items, use of plastic money which are big motivating factors for future and present retail business in India. The purpose of the retail chain is to provide a parallel chain to consumers who can afford to buy at well-maintained stores which are near to the place where they live. These chains assure reach and availability according to their customers' choice.

### **Methodology**

The methodology adopted for the study was multistage random sampling technique. A total of six districts in three regions (two districts in each region) were selected for the study. The districts include Visakhapatnam and Vijayawada from Coastal region; Hyderabad and Warangal from Telengana region; Kurnool and Tirupati from Rayalaseema region - on the basis of different income groups and socio economic conditions spread across the three regions mentioned. Keeping in view three marketing channels to be looked at, two APMCs, four Rythu Bazaars and two OPRs in each district were selected, making it a total of six APMCs, 12 Rythu Bazaars and six organised retailer selected for collecting primary data. From each district 100 consumers totaling to 600 respondents were selected for primary data collection through a pre-designed interview schedule. Likert's Five-point scale was used to elicit the information from the respondents of three Marketing Channels. The scoring system is as follows 1. Strongly disagree (SDA)

2. Disagree (DA) 3. Neither agree nor disagree (Neutral) 4. Agree (A) 5. Strongly agree (SA). The questions were grouped under different dimensions and each dimension covered five variables. The scores of the variables have been analyzed.

### Analysis and Results

The primary data was collected from 600 consumers and analyzed on 7 dimensions using simple statistical tools and methods like mean, standard deviations and comparison of channel 1. Agricultural Produce Marketing Committee (APMC), with channel 2. Rythu Bazaar (RB), channel 2. RB with channel 3. Organised retailer (OPR) and Channel 1. Agricultural Produce Marketing Committee (APMC) with Channel 3. Organised Private Retailer (OPR). Computed t- test. The mean of the dimensions were calculated (scores of the variables) and all the channels are significant, the highest mean value is considered as the consumer preferred channel. The dimensions are 1. Channel preferred by consumers for fruits and vegetables 2. Quality of fruits and vegetables available in different marketing channels 3. Consumer satisfaction with Channel prices for fruits and vegetables 4. Convenience factor influence on channel preference 5. Service factor and consumer channel preference 6. Impact of display on channel preference 7. Promotional advertising and price display. The major observations through analysis are presented below:

### Preferred Channel for buying Fruits and Vegetables

The respondents were asked about their preference for buying in the APMC, RB and OPR. The responses are presented in the following Table.

**Table: 1. Channel preferred by Consumers for Fruits and Vegetables**  
N = 600

S. No.	Marketing Channels	t-values
1	APMC & RB	194.870*
2	RB & OPR	209.286*
3	OPR & APMC	128.830*

\*1% significance level

Mean values for APMC = 2.65, RB = 2.55 and OPR = 2.05

An in-depth examination revealed that the mean value of APMC is more than the other two channels indicating that the APMC was most preferred by consumers followed by Rythu bazaars and OPR. The preference for buying fruits and vegetables in APMC by consumers may be because of the availability of fresh produce at low price when compared to the other two channels. Farm fresh fruits and vegetables are available at whole sale prices directly from farm at the whole sale market.

### Quality of Fruits and Vegetables available in Marketing Channels

The respondents were asked about the quality of fruits and vegetables available in the three channels. The responses are presented in Table 2.

**Table: 2. Quality of Fruits and Vegetables available in different Marketing Channels** Total respondents: 600

S. No.	Marketing Channels	t-values
1	APMC & RB	113.071*
2	RB & OPR	140.676*
3	OPR & APMC	171.664*

\*1% significance level

Mean values for APMC = 1.63, RB = 1.79 and OPR = 2.29

It is observed from Table 2 that the three channels significantly differed in this criterion also. In-depth assessment reveals that the mean value of OPR is better than the other two channels. It reveals that the OPR is preferred over APMC and Rythu bazaar mode of supply chain. The reason may be due to better sales environment such as air-conditioned shopping areas with friendly sales personnel to help consumers. The perishables look fresh and the color of the fruits and vegetables, with increased shelf life due to air temperature maintained in the organized private retail, create market demand. Middle and higher income group consumers are quality conscious hence the choice is Organised Private Retail. In OPR outlets, fruits and vegetables arrive in time as compared to the other two markets so that they look very fresh.

### Satisfactory Prices

Consumer satisfaction with prices in different marketing channels is presented in Table 3.

**Table 3. Consumer Satisfaction with Prices of Fruits and Vegetables**  
N = 600

S. No.	Marketing Channels	t-values
1	APMC & RB	147.827*
2	RB & OPR	244.936*
3	OPR & APMC	363.088*

\*1% significance level

Mean values for APMC = 4.58, RB = 4.20 and OPR = 3.95

The analysis reveals that APMC is more preferred over the other two channels namely RB and OPR. APMC was preferred over other channels due to the fact that the customer is getting items at whole sale prices. Rythu bazaar is attracting more number of customers in Andhra Pradesh state in particular from different income groups because of reasonable prices, next to the APMCs and at lesser prices when compared to organised private retailers. Organized private retailer's maintenance cost is high when compared with the other two markets because of manpower, creation of ambience through appropriate temperature and lighting, hired locations generally dominating the price factor over the other two markets. APMCs and Rythu Bazaars are organized in governmental infrastructure providing opportunity to different types of farmers to sell their produce in these markets. The extra costs as mentioned in the case of unregulated markets above does not exist, hence fruits and vegetables are available at low and affordable prices to the consumers of all classes.

### Convenience Factor and Purchasing Decision

The influence of convenience factor in the different marketing channels is presented in Table 4.

**Table 4. Convenience factor influence on channel preference**  
Total respondents: 600

S.No.	Marketing Channels	t-values
1	APMC & RB	185.879*
2	RB & OPR	190.739*
3	OPR & APMC	227.693*

\*1% significance level

Mean values for APMC = 3.20, RB = 3.34 and OPR = 3.45

It is observed from Table 4 that the three channels differ significantly. The examination of the outcomes reveals that the mean value of OPR is better than the other two channels. It reveals that OPR is more convenient for customers than RB and APMC. The reason might be that OPRs have setup their markets near to the residents' locations by hiring small rented buildings which offer more convenience for local consumers. Convenience factor is that which allows flexible operational timings to the urban nuclear families that are basically from the working class. The buying pattern can be flexible as per customer convenience.

### **Influence of Service Factor on Consumer Channel Preference**

Influence of the service factor on consumer channel preference is in Table 5.

**Table 5. Service Factor and Consumer Channel Preference**  
N = 600

S.No.	Marketing Channels	t-values
1	APMC & RB	411.669*
2	RB & OPR	176.618*
3	OPR & APMC	188.833*

\* 1% significance level

Mean values for APMC = 2.00, RB = 2.36 and OPR = 2.46

The three channels significantly differ in service factor influence on customers as may be seen in Table 5. Further observation of results reveals that the mean value of OPR is more than the other two channels. It reveals that OPR is relatively more convenient for customers followed by RB and later APMC. The reasons may be that door delivery of fruits and vegetables is possible in OPR but not in the case of the other two channels. The reason may be competition among the different private and public marketing channels. Different services like door delivery, personal attention, credit and debit card payment options, and acceptance of codex coupons facilitate to bring more customers to organized private retailers. These facilities are not available in the regulated markets and may not be possible due to the number of customers and high volumes of sales per day and may not be able to concentrate on a particular customer.

### **Physical Display and Channel Preference**

Impact of physical evidence (clean and good ambiance with attractive displays) on channel preference in different marketing channels is in Table 6.

**Table 6. Impact of Display on Channel Preference**  
**N = 600**

S.No.	Marketing Channels	t-values
1	APMC & RB	170.808*
2	RB & OPR	172.686*
3	OPR & APMC	198.479*

\*1% significance level

Mean values for APMC = 1.62, RB = 1.81 and OPR = 1.99

It is observed from Table 6 that the three channels differ somewhat in outcomes. The mean value of OPR is more than the other two channels and reveals that OPR is more attractive than RB and APMC. The reasons may be good ambiance maintained by the OPRs to attract consumers to improve their business and curtail competition, and is possible only in small setups like OPRs. Neatness and cleanliness of premises in OPRs are possible as they have a small customer base and area when compared with other regulated markets. Big infrastructure in the regulated markets located at a distant place cannot compete with the OPRs because of its high volume of sales and number of customers.

**Advertising and Price Display**

The responses to the query whether customers are attracted by promotional advertising and display of prices while buying Fruits and Vegetables, are presented in Table 7.

**Table 7. Promotional advertising and Price Display**  
**N = 600**

S.No.	Marketing Channels	SD	t-values
1	APMC & RB	.055	215.077*
2	RB & OPR	.027	303.162*
3	OPR & APMC	.034	103.43*

\*1% significance level

Mean values for APMC = 1.26, RB = 1.83 and OPR = 2.00

It is observed from the above table that the three channels significantly differ in results. The mean value of OPR is higher than the other two channels which indicates that OPR is more attractive than the other two. The reason might be because of promotional price, as expressed by 57.82 per cent of the respondents, which motivates their buying behavior. Promotional price were mainly observed in OPR outlets which attract the consumers without seeking much help about the price of each and every article, since they are displayed on every rack clearly whether the buyer wants to purchase or not. Promotional price displayed in the outlets from time to time is not of much benefit to the consumers but can provide better sales only through organized private retailers.

## **Conclusions**

The major observations from the study are that producers are not much benefited even after the addition of new marketing channels to the existing system of APMC. The government allowed the private sector to enter into organized retail apart from providing producers a chance to sell their produce through Rythu Bazaars. However this study reveals that except for little benefit to consumers, not much benefit has accrued to producers even from organized private retailers. Small and medium farmers are getting benefited through Rythu bazaars since farmers are able to sell their produce directly to consumers and getting a good price; but the large and medium farmers are forced to sell through APMC and OPR channels due to the large quantity of produce. However they are not getting a good price and are forced to sell in volumes but with economy of scale. It is observed that there is a mismatch between demand and supply due to lack of information and knowledge on production, price and market dynamics within and outside India.

## **Suggestions**

In order to prevent seasonal glut and ensure price stability throughout the year, the government must take steps to prepare Mandal level plans for agricultural produce. Quality of produce coming to the market needs to be estimated. If there is any excess produce, it could be routed to other consumption centers with minimum transportation cost provided by the government. At the same time, processing and export opportunities also need to be looked into.

Extension staff must provide timely information to the farmers to prevent crop loss and ensure good price to the farmers.

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