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Organised Retailing of Fresh Fruits and Vegetables:

Is It Really Helping Producers?

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CONTENTS

List of Tables

List of Boxes:

ORGANISED RETAILING OF FRESH FRUITS AND VEGETABLES: IS IT REALLY HELPING PRODUCERS?

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Abstract

Several Indian companies entered into organized retailing of fresh fruits and vegetables (FFVs) in the last 3 years. This paper explores the procurement operations of these retailers and its impact on producers of fruits and vegetables at Vontimamidi (a vegetable growing cluster that is a major procurement hub of organized retailers in Hyderabad, India). The study found that those selling their produce through organized retailers are benefiting by way of higher prices than what is offered to them by the local market. The major gain in this arrangement comes from the savings on *mandi* commission charges and the cost of packing materials. However, the organised retailers, being more conscious of quality, currently procure only the first grade produce in limited quantities to meet their front-end demands. A majority of the producers, therefore, continue to depend on local *mandis* to sell bulk of their produce. The procurement arrangements (yet to evolve fully) are based on trust, and without any written or binding contract. Some of the organized retailers have set up demonstration farms, nurseries and technical support teams to enhance producer's capacity for quality production. However, a few farmers have benefited by ways of access to new seeds and right technical advice. While the demand for better quality fruits and vegetables is growing rapidly, both the government and the retailers are not doing enough to support farmers.

I. Introduction

India is currently witnessing an expansion in organised retailing by large corporate houses. This trend is closely associated with urbanization, growing consumerism and increase in number of upper-middleclass and high-income households. Many of these corporate retailers have entered into retailing of food and groceries. Rising income levels have led to increase in demand for high-value agricultural commodities, especially fruits and vegetables, dairy and meat products. In response to this demand, several speciality food and grocery retail outlets have come up in several cities across India. Some of these organised retailers have established centres in fruit and vegetable growing areas for fresh produce directly from farmers. While several trader organizations, NGOs and associations of street vendors have opposed the massive expansion of organized retailing of FFVs, mainly citing livelihood losses, many in the industry and policy circles believe strongly that organized retailing improves the agricultural supply chain and helps farmers by way of better prices. This debate is closely related to the wider issue of allowing FDI in retail and its potential impacts on street hawkers and neighbourhood *kirana* stores.

Is the organised retailing of fresh fruits and vegetable (FFVs) doing any good to producers of these commodities? Are these arrangements creating any new capacity for innovation or raising new demands for support such as technical support? How are the different actors in the agricultural innovation system[1] responding to these demands for support? This paper explores the interplay between retail chains and fruit and vegetable producers through a study conducted at Vontimamidi, a fruit and vegetable growing cluster in Medak District near Hyderabad. This is not a conventional market study exploring the efficiency of different market channels.

[1] Agricultural Innovation System refers to the network of organisations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organisation into economic use, together with the institutions and policies that affect the way different agents interact, share, access, exchange and use knowledge (World Bank, 2008)

The analytical approach adopted for this study is based on the broader framework of innovation systems[2] that focus on patterns of interaction, knowledge flows and institutional changes among the different actors. This perspective argues that the capacity for innovation emerges from the loose networks of actors that coalesce around problems and opportunities and that innovation takes place when the institutional and policy setting of these loose coalitions allows information to be mobilised and used in new ways.

The paper builds on the experiences of farmers and the insights of procurement staff of retailers. Although the scales of operations are small, there are enough indications of producers benefiting from the new system. While some of the retailers are investing in upgrading the capacity of farmers to produce quality produce, the government agencies entrusted with horticultural development and marketing are not doing anything different or useful to support farmers.

The information for this study was collected through a sample survey among vegetable growers in and around Vontimamidi. A hundred vegetable producers who are supplying their produce to five of the organised retailers (20 farmers randomly selected from each organised retailer) were contacted for the study. This was supplemented with interviews of other related actors, namely, procurement staff and senior management of organized retailers, commission agents in the *mandi,* and government extension staff.

The second section of this paper discusses the emergence of organised retail in food and grocery sector in India and the policy debates around it. The changing nature of retailing of FFVs in Hyderabad is presented in the third section. Procurement operations of various retailers are discussed in section four and the key features of this arrangement are discussed in section five. Finally, section six summarises the conclusions that may be drawn from the paper.

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[2] Innovation in this case is viewed as a process of generating and accessing knowledge and putting it into use. Central to the process are the *interactions* of different people and their ideas; the *institutions* (the attitudes, habits, practices and ways of working) that shape how individuals and organizations interact; and *learning* as a means of evolving new arrangements specific to local contexts. (Hall *et al*, 2004, 2007)

II. Organized food retailing in India

Retail is one of the fastest growing sectors in the world. "The retail business in India is estimated to grow at 13% per annum from US$ 322 billion in 2006-07 to US$ 590 billion in 2011-12. While the unorganized sector is expected to grow at about 10% per annum, the organized retail is estimated to grow at 45-50% per annum during the same period" (ICRIER, 2008). However, organised retail constitutes only around 4% of the total retail sales in India, compared to 75-80% in developed countries such as USA, Japan and UK. In India, organized retailing is spreading fast, though the growth is currently focused around cities and tier-1 towns.

"Food and grocery constitutes the bulk of Indian retailing and its share is about 60%" (Images, 2008). Organised retailing accounts for about less than 2 percent of the food retailing industry in India. However, the share of organised retailing in food and grocery segment could grow to 15-20% if the current trends in expansion of organised retail continue (Reardon and Gulati, 2008).

Nilgiris, established in 1905 as a dairy farm near Ootacamund in South India could perhaps be the first organised supermarket in India[3]. Though *Spencers* has been part of Indian retail landscape since 1863, it began selling groceries only in 1920. *Safal*, established in 1988 by the National Dairy Development Board (NDDB), was the first organised retailing venture for fruit and vegetables in North India mainly Delhi[4]. Establishment and expansion of the "Food World" outlets by the RPG Group starting with the first outlet in Chennai in 1996 led to enhanced corporate interest in food retailing.

[3] It opened another store in Bangalore in 1936 and the next one at Erode (TN) in 1962. It initially focussed on dairy products, bakery and chocolates, but in 1945 expanded its range of produce to include grocery and other food items. It currently has more than 90 stores under the brand name "Nilgiris 1905".

[4]Safal Fruit and Vegetable Unit was set up in the year 1988 by National Dairy Development Board with an objective to provide a direct link between fruit and vegetable growers and consumers. Presently, it is an unit of Mother Dairy Foods Processing Ltd, a wholly owned company of Mother Dairy Fruit & Vegetable Ltd. Safal has set up 279 specially designed modern retail outlets in and around Delhi to market fresh and frozen fruit and vegetables. It sources fruits and vegetables through more than 100 producer associations set up in select villages.

RPG (Spencers), Reliance (Fresh), ITC (Choupal Fresh), Aditya Birla (More). Heritage (fresh@), Pantaloon Retail (Food Bazaar), Bharti (Easy day), Express Retail (Big Apple), are some of the major corporate houses currently active in food retailing in India. Much of the expansion in food and grocery retailing in India is currently concentrated in the southern states, in and around Chennai, Hyderabad and Bangalore.

What is the impact of this expanding corporate retail of agricultural products, especially fruits and vegetables on producers, intermediaries and consumers in India? The evidence is limited and the opinion seems to be divided. The focus of discussions is around livelihood losses of street hawkers and neighbourhood stores who currently sell more than 98% of food and groceries. The ICRIER (2008) study found that the un-organised retailers situated near the organised retailers were experiencing a decline in their volume of business and profit in the initial years after the entry of large organised retailers. The impacts are expected to be "larger in the long run, when the organised retailing of food and grocery reach at least 25-30% of the total sales" (Reardon and Gulati, 2008). However, the consumers are gaining from low prices offered at the shops of organised retailers (Gaiha and Thapa, 2007; ICRIER, 2008).

Concerning impact on farmers, the available evidence vary from significant benefits arising from direct sales to organised retailers (ICRIER, 2008) to no impact as "corporates are procuring only from the *mandis*" (India FDI Watch, 2007; Navdanya, 2007). A study on contract farming arrangements in dairy, poultry and vegetables reported significant gains in the income of farmers who are part of contract arrangements in comparison to non-contract farmers (Birthal *et al* 2005). However the performance of contract farming vary considerably depending on the nature and type of contracting agency, nature of technology, crop/producer and the local and national context [Singh, 2007]. Another study citing global experiences points to lowering of prices received by the farmers, when large retailers purchase in bulk (CPA, 2007).

The FAO (2005) study on food retailing in Asia indicates that implications of the rise of supermarkets for farmers do not come from the type of store, but from the methods of procurement and logistics used and the quality standards applied. The same study indicates that the farmers experience many problems such as the following in supplying to supermarkets:

- Delisting of suppliers and rejection of produce by the retailers for not conforming to volume, quality and delivery
- Price competitions between chains which make them reluctant to raise prices in order to enable farmers to pay for on-farm investments.

The Indian Government, however, considers organised retailing as beneficial as it can set up supply chains, give better prices to farmers for their produce and facilitate agro-processing (GOI, 2006). While organised retailing may partially support some of these much required changes, the role of the government, especially its different organisations [involved in agricultural research, extension and marketing] in creating a better production and marketing system is not very clear.

III. Organised retailing of FFVs in Hyderabad

Until 2000, Hyderabad had only two organized retailers selling FFVs, the Trinethra and the Food World. Trinethra was founded in 1986 as a multiple outlet retail store network in Hyderabad, Secunderabad and Vizag (Table 1).

Table 1. Expansion of organised retail selling FFVs

Sl. No.	Name	Year of inception at Hyderabad	Number of stores at Hyderabad	Total No of stores in India (March 2010)
1	Trinethra *	1986	79	275 (till Jan 2007)
2	Food World	1996	20	67
3	Spencers	2001	28	250
4	Food Bazaar	2003	11	174
5	Choupal Fresh	2006	6	6
6	Reliance Fresh	2006	45	624
7	@Fresh	2006	32	75
7	More	2007	92	579
8	SPAR	2008	1	3

*Aditya Birla Group acquired Trinethra in early 2007 and renamed these stores as More.

Food World, which opened its first outlet at Chennai in 1996, extended its presence to Hyderabad the same year. This was followed in 2001, by RPG's Spencer's and Pantaloon Retails' Food Bazaar in 2003. Subsequent years, witnessed expansion of these initiatives and entry of more corporates into retailing FFVs. For instance, ITC opened its first Choupal Fresh store in Hyderabad in mid-2006. Reliance entered the scene with its first Reliance Fresh store in Hyderabad during the end of the same year. Heritage also entered the scene with @Fresh stores at the same time. The latest to enter this field is SPAR which had set up its shop at Hyderabad in 2008.

IV. Evidence from the field

Location: *Vontimamidi*

Vontimamidi is a village located in Shameerpet mandal of Rangareddy district in Andhra Pradesh state of India. This village is located near Hyderabad-Siddipet highway and is about 40 km from Secunderabad. The location makes it a central point in the cluster of nearby mandals spread around 30-40 km with Vontimamidi as the epicentre. The mandals include Wargal, Mulugu, Shamirpet, Toopran, Jagdevpur, Ghanpur and Doulatabad. Approximately 14,000 farmers grew vegetables in villages around Vontimamidi. Main vegetables cultivated in this region includes, ridge gourds, bottle gourds, snake gourds, cucumber, brinjals, chillies, beans and tomatoes.

The first procurement centre at Vontimamidi was established by Reliance in November 2006. ITC and More established their collection centres at Vontimamidi in 2007. In the same year, Spencer's set up its vegetables procurement centre at Mulugu near Vontimamidi and Heritage opened its pack house at Adivimasjid, a village in Mulugu mandal.

Table 2 provides the procurement details by these organized retailers. In addition a local vegetable *mandi* was established at Vontimamidi in July 2008 where around 75 commission agents operate and the average daily transaction of vegetables is around 300 tonnes.

Nature of existing marketing arrangements

Choupal Fresh

Choupal Fresh is a pilot project operated by ITC's Agri-Business Division, with the professed objective of developing vertical integration of farmers with market. ITC established its collection centre for fresh vegetables at Vontimamidi in 2007.

Table 2. Procurement by different market agents at Vontimamidi

Sl. No.	Organised Retailers	Average daily procurement from Vontimamidi (tonnes)		Number of farmers selling their produce (daily average)
		Other days	**Weekends (Saturday/Sunday)**	
	Organised retailers			
1	ITC-Choupal Fresh	4-5	7	30-50
2	Reliance Fresh (Ranger Farms)	13-14	16	30-50
3	RPG –Spencers	10	12	25-30
4	Heritage- @ Fresh	26-30	42-45	50
5	Aditya Birla-More	7	17	35-40
6	**Local *mandi*, Vontimamidi**	300	300	500

The procured vegetables are sorted, cleaned and graded in this collection centre before its dispatch to the distribution centre. In 2008, ITC established a two-acre crop nursery with demonstration farm at Vontimamidi. The company has employed a technically qualified farm manager for handling ground level operations like procurement, nursery management and dissemination of better crop management practices among vegetable growers (Box 1). The company maintains a list of contact farmers and it is encouraging some of them to undertake cultivation of exotic crops.

Fresh@:

Fresh@ is a chain of retail stores, promoted by Heritage Foods India Limited, a leading private dairy and agri-business company in South India. These stores provide a complete range of daily home need products with a distinct focus on fresh fruits, vegetables and grocery. Heritage has established a pack house with 60 tonne capacity at Adivimasjid, a village in Mulugu mandal in 2008. The pack house has facilities for cleaning, sorting, grading and ripening fruits. Heritage works with 187 farmers spread around 4 clusters (each cluster comprises 12-13 villages). Out of this, 131 are designated as “custom farmers” who are its preferred producers and it supports them with inputs and technical support. About 180 farmers supply vegetables such as carrots, cauliflowers, gourds, chillies and capsicum to the pack house regularly. More than 52 varieties of fruits and vegetables including Green leafy vegetables are handled here. Apart from this, Heritage has opened collection centres at Mulugu, Vontimamidi, Siddipet, Ghanpur and Chevella. Technical support to farmers is provided by an experienced agronomist. The production operations are co-ordinated by a production manager. Field level operations are co-ordinated by 15 production and procurement assistants working in the field. Heritage, which maintains a field nursery for farmers, is instrumental in promoting cultivation of new crops such as carrots, cauliflower and potato (Box 1).

Spencer's

Spencer's is one of India's largest multi-format retailers, and it focuses on food and grocery, electrical and electronics, home and office essentials, garments and personal care. The company is one of the oldest players in agri-food retailing. Spencer's procurement facility was established at Mulugu village in 2007. It procures fresh vegetables as per their requirement directly from farmers and also from the local *mandi* whenever there is a shortfall in the supply at the collection centre. The collection centre maintains a list of 150 farmers and on an average 25 farmers supply vegetables daily in its collection centre. The company doesn't provide any sort of advice or technical support to farmers. Once procurement is done, the produce is cleaned and packed and sent to its distribution centre from where FFVs are dispatched to its different stores.

Ranger Farms

Ranger Farms is the procurement wing of Reliance Fresh, the vegetable and fruit retail wing of Reliance Retail. The procurement centre of Ranger Farms was established at Vontimamidi in 2006. About 35-50 farmers supply produce to this centre daily. Procurement of all kinds of vegetables is done here. Though a trained agriculture graduate looks after the procurement operations at Vontimamidi, the collection centre doesn't provide any specific technical support to growers. It has also established three other collection centres in the region, and these are located at Moinabad (all green leafy vegetables), Shankerpalli (all cole crops) and Madanapalli (tomatoes).

More

More is the brand name of Aditya Birla Retail Limited which operates 672 food and grocery stores across India. In January 2007, it acquired control of Hyderabad-based supermarket chain Trinethra and renamed all these stores as More. More established its procurement centre at Vontimamidi in 2007. Its collection centre is in regular touch with about 350 farmers. About 35-40 farmers regularly supply vegetables to its collection centre. It has established another collection centre at Shankerpalli. It is not providing any technical support to growers.

Local *mandi*, Vontimamidi:

A local *mandi* for fruits and vegetables was established by the state government at Vontimamidi in July 2008. About 75 commission agents operate in this *mandi*. There is no system of formal auction in this *mandi* and the prices are fixed by the commission agents based on arrival of commodities and price offered by the traders. All produce, irrespective of quality is brought at the *mandi*. Farmers bring their produce to the *mandi* in the evening hours and sell it to the commission agents, who in turn sell the commodities to traders at distant places such as Kareemnagar, Siddipet and Nizamabad.

The *mandi* lacks all kinds of basic infrastructure (storage, parking, clean water) and there is no modern or digital weighing system. The commission agents charge a brokerage fee varying from 4-10% of the price. The farmers also have to bear the unloading charges (Rs.2/bag). The exact percentage of commission depends on advance credit taken by farmers from commission agents and the personal relationship and reputation of the farmer. Commission agents usually provide advance credit to those farmers who need finances for purchase of inputs like seeds and fertilizers and through this the agent secure their supply. Usually no interest is charged on the money lent. However, the agents charge a higher percentage of brokerage from such farmers to compensate for the interest.

V. Key features of procurement by organized retailers

Organised retailers procure about a quarter of the total vegetables produced and marketed from the region. These figures are likely to go up, (assuming that the retailing of FFVs are adding significant revenues to the corporates), with opening of similar outlets in and around Hyderabad and elsewhere. The key features of the arrangement are as follows:

Better price realisation by farmers [compared to mandi]

All the five organised retailers procuring from Vontimamidi, base their daily procurement price on the prices prevailing each day for each of the commodities at the Bowenpally market at Secunderabad. The procurement prices are set generally higher than the price prevailing at the Bowenpally market. Farmers generally gain by selling through these procurement centres as they save on brokerage charges and packing costs. There have also been instances where farmers have not benefited as the *mandi* prices were high on the same day. Out of 100 farmers, 69 had the experience of selling the same produce at both the retailer and the local *mandi* on the same day. Table 3 illustrates the percentage net gain the farmers had by selling through the organized retailer (vis-à-vis the local *mandi*).

Table 3. Net gain (Organised retailer vis-à-vis local *mandi*)*

Sl. No.	% gain**	No.of producers	% of producers
1	-25 to 0	3	4.34
2	0 to 25	9	13.04
3	25 to 50	26	37.68
4	50 to 75	17	24.63
5	75 to 100	5	7.24
6	>100	9	13.04
	Total	69	100.00

*Net gain= retailer price – net price at the *mandi* after deducting other charges
** % gain= (net gain/net price at the *mandi*)X 100

While more than 95% of farmers have gained by selling through the organised retailers, about 62% of the producers' gain was 25 to 75% more than what they got from selling in the *mandi*.

Wider choice of sale for producers

Till 2006, the vegetable producers have been selling all their produce through commission agents at the agricultural produce market at Bowenpally in Hyderabad. But establishment of procurement outlets by organised retailers at Vontimamidi gave farmers a wider choice for sale. Opening of a local vegetable *mandi* at Vontimamidi also helped by way of a nearer market for sale. As all the produce cannot be sold at the organized retail every day, farmers depend on the local *mandi* to sell bulk of their produce.

Almost every farmer believe that the device used to weigh in their produce at the local *mandi* is not proper as the commission agents use the traditional hanging weigh balance. The organised retailers are using the digital weighing machines which farmers believe to be more accurate. The *mandi* doesn't discriminate FFVs on quality and so all the produce could be sold there. This is one of the major advantages with the *mandi*. The organized retailers are more conscious of quality and they generally accept only quality produce. Farmers currently decide on their choice of sale as mentioned in Table 4.

Table 4. Decisions on sale of produce

Sl. No.	**Methods used for deciding the point of sale**	**%**
1	Farmers call the retailers (check demand and prices)	64
2	Retailers call farmers on phone and inform their requirement and price	32
3	Take the produce to the first retailer, then to the next and then to *mandi*	4

n=100

The main attraction for producers to sell through organised retailers is the high price. The second major reason is the use of electronic weighing scales. Savings from commission charges (4-10%) payable at the local *mandi* is the next major reason for their preference for organized retailers (Table 5).

Table 5. Reasons for sale through organized retailers

Sl. No.	Reasons for sale through organized retailers	Rank
1	Higher prices	1
2	Correct weighment (use of electronic weighing scales)	II
3	Cost savings on commission charges (at the *mandi*)	III

Insufficient institutional development

Organised retailers brought about a new institution in marketing of FFVs by creating a system of preferential payment for quality. The scale of direct procurement, being small, hasn't yet impacted the local *mandi*, where farmers continue to sell bulk of their produce.

However, the governance mechanism of the new supply chain created by the retailers has not been fully developed. The institutions related to contracts, payments, grades and standards, are yet to evolve. The marketing system of the organised retailers does not fit into the standard contract farming and corporate farming formats. Neither there is a pre-determined procurement price nor is inputs or technical support provided as part of this arrangement. It is mostly *contact farming* -- an informal procurement arrangement, where the retailers enter into informal arrangements with producers who can provide quality produce. There is no mechanism for sharing production and marketing risks. The procurement volumes and prices change daily based on the front-end demand (communicated by the head office) and prices at the local market. Each party is free to explore better avenues of procurement and sale.

If these arrangements have to expand and succeed, there is a need for developing a code of conduct for commercial relations among retailers and the producers. The Government can and should play an important role in facilitating the development of this code of conduct [and also its compliance], so that chances of potential conflicts between retailers and producers are reduced as far as possible thereby reducing potential losses to both parties in future.

There is enough reason to believe that the retailers are so far not biased against small farmers [Table 6]. Global experience indicates that small holders are likely to be excluded from these new supply chains, when organised retailers start employing stringent quality parameters in procurement [FAO, 2005].

Table 6. Holding size of sample farmers (acres)

Holding size	%	Average area [acres]
Less than 2.5	31	1.78
2.5- 5.0	34	3.88
5.0 – 10.0	21	8.28
More than 10	14	18.86

n=100

Enhancing capacity for innovation

Introduction of new knowledge on improved seeds and farming practices, deployment of trained staff for advising farmers and putting in place a new procurement system that values better quality have all resulted in incremental improvements in capacity for innovation. Out of the five organised retailers, only ITC and Heritage have established mechanisms to transfer new technologies to farmers (Box 1). Both have established production-cum-demonstration plots in the area and have recruited trained personnel to manage these activities who also provide technical advice to farmers. ITC and Heritage have also distributed sample seeds of vegetables (supplied by seed companies) to farmers. Heritage has a bigger professional team to provide technical support to producers, especially to its “custom” farmers. Procurement operations of Ranger Farms (Reliance) at Vontimamidi are led by an agricultural professional, but the company is not providing any formal extension support to producers. More and Spencers have no provision for offering technical support to farmers. Only 15% of the farmers reported receiving any kind of advice from retailers on vegetable production (Table 7).

Box 1: Extension Support by Organised Retailers - ITC and Heritage

ITC Choupal Fresh

ITC has established a 2-acre crop nursery cum demonstration farm at Vontimammadi. New varieties of vegetables are tested here and the site is also used as a training centre. The Agricultural Extension Officer [AEO] of ITC is assisted by 2 technical assistants at the site. The assistants are selected from the local area and trained by the AEO, who undertakes regular field visits to ITC's contact farmers and provide technical guidance over phone.

This technical team is responsible for the following:

- Identify vegetables growing village clusters
- Study the cropping pattern, seasonality, quantity, duration and availability of the crop within the village
- Identify the nodal farmers
- Develop the collection centres and finalize the quality parameters
- Introduce new varieties
- Demonstrate new technologies and advise on field problems

Recently 24 farmers were selected and trained on production of vegetables to acquire the Global GAP (Good Agricultural Practices) certificate. GAP is a standard that covers the entire activity of agricultural production process for the certified product from before the plant is in the ground until the product is harvested. ITC extension team prepared the checklist based on the Global GAP named as Choupal Fresh GAP. The 24 farmers trained by ITC were found to comply with the GAP guidelines by FOOD CERT, the organization entrusted with GAP certification in India and were certified for GAP.

Heritage's Fresh@

Heritage has established a nursery cum demonstration farm near its pack house at Mulugu mandal near Vontimamidi. It has established a big team of professionals to manage its production, procurement and extension activities. Senior Manager (Production and procurement), who is a post-graduate in Agricultural Business Management, is the head of the Extension team. Deputy manager (Procurement) and two Production and Procurement Executives report to him. Fifteen field assistants holding Diploma in Agriculture are working under the Production and Procurement Executives. Technical support is provided by an experienced agronomist.

Every month in the first week training classes for the technical staff are conducted by outside experts on production and plant protection aspects. The technical staff in turn trains the custom and registered farmers. Initially, village meetings are conducted and the services of the firm are explained. Interested farmers can register by filling an agreement form and such farmers would be provided a code and an identity card. Some of the custom farmers who are willing to invest on poly houses are encouraged to grow exotic vegetables such as yellow and red capsicum, broccoli, red cabbage, china cabbage, etc. These are procured by the company.

Table 7. Services received from the retailers

Sl. No.	Type of service	% of respondents who have received the service
1	Sample packet of vegetable seeds	12
2	Advice on vegetable production	15

Retailers have brought in the much-needed incentives for quality production by introducing a new system of pricing based on quality. Some of the retailers are also trying to develop the capacity of farmers to cultivate new crops and produce commodities with better quality. Procurement and technical staff of retailers maintain close contacts with select farmers who are supplying produce to their procurement centres. Many of these farmers depend on the staff of retailers to obtain information and new knowledge related to quality production, new standards, changing market demands and cultivation of new crops

Considering the general paucity of human resources for horticultural extension, the placement of technically qualified persons for production and procurement operations and the establishment of demonstration plots by the retailers need to be appreciated. Public sector extension is generally weak in the horticultural sector. The Department of Horticulture (DoH), Government of Andhra Pradesh, has a provision of only two horticultural staff (1 horticultural officer and one field consultant) for each division comprising 6-7 mandals (1 mandal on an average comprises of 30-35 villages). Due to vacancies in the field, the two member team is forced to attend to more than one division. Moreover, the priority of DoH is on distribution of inputs and subsidies.

New actors, new roles and opportunities for more and effective interactions

All retailers have established procurement centres, distribution centres/packing houses where storing, grading, cleaning and packing are done before the produce is distributed to the retail outlets. These initiatives are strengthening the supply chain infrastructure for these perishable commodities, and are reducing spoilage to a large extent.

Dispersed production and high perishability of horticultural products are two major challenges before the organised retailers. Continued consumer loyalty depends on the ability of retailers in ensuring a regular supply of quality FFVs and therefore developing a reliable supply chain is a priority for organised retailers.

DoH and the research stations working on vegetables and fruits could learn a lot from the experience of some of the retailers such as ITC and Heritage, who are experimenting with new models of support for its preferred farmers. A lot could be gained by forging effective partnerships between different agencies involved in research, extension and marketing. The importance of problem solving advice, regular field visits and continuous intermediation to develop capacities for producing better quality fruits and vegetables is increasingly clear. Vontimamidi falls under the jurisdiction of Shameerpet mandal and so far the DoH office has not engaged productively either with the organised retailers or with the farmers, who are eager to improve the production of growing fruits and vegetables. Without an effective mechanism for capacity upgradation, which also includes technology development and promotion, the potential offered by organised retailing would never be fully realised. And this would require a new kind of intermediation or extension.

VI. Conclusions

Organized retailing of fruits and vegetables by the corporate sector is expected to expand in India. While retailers are experimenting with a new business model, the producers are testing out a new approach in marketing fruits and vegetables. The arrangements are still evolving, This upgrade in production and marketing of FFVs is currently creating new capacities for innovation in horticulture. While the state could do more to support and strengthen these arrangements [by way of research, extension, marketing and infrastructure development], it seems to be totally disengaged from this whole process of change.

The current debate on organized retail of FFVs is highly skewed in terms of its impact on traditional small retailers. Protecting the interests of small retailers is important, but the interests of producers who outnumber the different market intermediaries by any count, should also receive equal consideration.

Producers do benefit when alternate marketing channels emerge and this study clearly supports this. The benefits are not only related to higher incomes, but also in terms of improved capacity to undertake quality production and dealing with new ways of marketing. However, only a few farmers have benefited so far, as the retailers only deal with few farmers who could currently meet their limited requirements. Farmers would continue to depend on traditional *mandis*, even with expansion of organised retail and therefore upgrading the infrastructure and trading practices at these *mandis* should receive continued attention..

With more and more consumers aspiring for shopping convenience and quality, the organized retailing of FFVs is going to expand and this would push the demand for quality produce. If producers have to benefit from this new marketing revolution, their ability to produce quality horticultural produce needs to be strengthened. This would require the support of both public and private sector. Organised retailing of FFVs can also be undertaken by producer groups if their capacities for production and marketing quality produce could be enhanced. Government should support such initiatives, so that they too benefit directly from the increasing consumer preference for quality.

Public sector extension support for horticulture producers is currently very weak. Strengthening the same would require deployment of more number of well trained manpower and also resources. However, what is more important is the establishment of a different kind of extension that could support farmers to produce quality FFVs and help them access right kind of input and output markets. A lot could be learnt from the experiences of ITC and Heritage and from other public initiatives such as Safal (Mother Dairy Fruit and Vegetable Ltd) and VFPCK (Vegetable and Fruit Promotion Council, Keralam).

The public sector extension need to pro-actively engage with the organised retailers and design extension programmes that can enhance the capacity of producers and producer groups in producing better quality fruits and vegetables. Although this study has not found any discrimination against small farmers, global experience indicates that small holders are likely to be excluded from these new supply chains, when organised retailers start employing stringent quality parameters in procurement. Extension can and should assist small farmers in enhancing their capacity to deal with these new quality requirements.

Some of the organized retailers have started to support producers with new seeds, advice and personal visits to farmer fields. However, they need to recruit more technically trained staff in procurement and farm advisory services and design specific educational programmes on quality production and post-harvest handling.

The procurement arrangements are based on trust, and without any written or binding contract. If the scale of operations expand, written contracts would become important. Government and businesses should work together in developing better and transparent guidelines on contract arrangements that ensure risk as well as profit sharing.

REFERENCES

Birthal, PS, Joshi, PK and Ashok Gulati (2005). Vertical co-ordination in high value food commodities: Implications for small holders, MTID Discussion Paper No, 85, International Food Policy Research Institute, Washington.

CPA (2007). "FDI in Retail-III, Implications of Wal Mart's Backdoor Entry", Centre for Policy Alternatives, New Delhi.

FAO (2005). Changes in food retailing in Asia: Implication of supermarket procurement practices for farmers and traditional marketing systems, Agricultural Management, Marketing and Finance Division, Occasional Paper 8, Food and Agricultural Organisation, Rome.

Gaiha, R and Ganesh Thapa (2007). Supermarkets, small holders and livelihoods prospects in select asian countries, ASARC Working Paper, Australia South Asia Research Centre, Australian National University, Canberra.

GOI (2006). Report of the Planning Commission Working Group on Agricultural Marketing Infrastructure and Policy Required for Internal and External Trade for the XI Five Year Plan (2007-12) Government of India.

Hall, AJ, B.Yoganand, Rasheed Sulaiman V, Raina R, Prasad, S, Naik, G and Clark NG (Eds) (2004). *Innovations in Innovation*: Reflections on Partnerships and Learning, ICRISAT, Patancheru, India and NCAP New Delhi, India.

Hall, AJ Rasheed Sulaiman V and Peter Bezkorowajnyj (2007). Reframing Technical Change: Livestock Fodder Scarcity Revisited as Innovation Capacity Scarcity- A conceptual framework, UNU-MERIT and ILRI, Hyderabad.

ICRIER (2008). "Impact of Organised Retailing on the Unorganised Sector", Working Paper 22, Indian Council for Research on International Economic Relations, New Delhi

Images (2008). "Indian Retail Directory 2008", Images Multi-media Private Limited New Delhi.

India FDI Watch (2007). "*Resist Corporate Hijack of Retail Trade"*, National Movement for Retail Democracy, New Delhi.

Navdanya (2007). "Corporate Hijack of Retail, Retail Dictatorship Vs Retail Democracy, Navdanya Research Foundation for Science, Technology and Ecology, New Delhi.

Reardon, T and Ashok Gulati (2008). The rise of supermarkets and their development implications-International experience relevant for India, IFPRI Discussion Paper 00752, International Food Policy Research Institute, Washington.

Singh, Sukhpal (2007). Agribusiness in South Asia-A fact sheet, Oxfam and Make Trade Fair Campaign, New Delhi.

World Bank (2008). Enhancing Agricultural Innovation: How to go beyond Strengthening of Research Systems, Economic Sector Working Report, The World Bank, Washington, D.C, pp. 149