Chapter 4
Fresh Fruit and Vegetable Retail Chains in Punjab: An Organisational Profile

This chapter examines the organisation of fresh fruit and vegetable (FFV) retail chains with the help of case studies of Bharti Retail’s Easy Day and Reliance Retail’s Reliance Fresh in Punjab. It profiles the operations of the retail chains both at the front end and the back end in terms of retailing, processing and procurement of F&Vs.

4.1 Easy Day: A Profile

Bharti Retail, the retail arm of Bharti Enterprises, one of India’s leading business groups with interests in telecom, agri-business, and insurance opened the front-end convenience ‘Easy Day’ stores in Punjab. “Easy Day” retail chain is wholly owned by Bharti Retail as under present policy guidelines no foreign investment is allowed in front-end retail in India. Field Fresh Foods Private Limited is another arm of Bharti Enterprises created through a joint venture with Del Monte Pacific Limited to offer Del Monte branded processed food and beverage products in India and Field Fresh branded FFVs in India and other countries. Recently, Field Fresh Foods has also supplied to the Modern Retail Chains namely "Easy Day" outlets of Bharti Retail, Spencers, Aditya Birla’s "More" and "Big Apple" across Punjab, Delhi-NCR and Bangalore. Field Fresh had an Agri Centre of Excellence at Ladhowal, Ludhiana spread over 300 acres. Baby corn and French Peas are grown and exported to European markets. Of 300 acres, 132 acres are under Micro Irrigation, 42 acres of Spanish designed protected cultivation of Bell Peppers and Cherry Tomatoes grown in Glass Houses, Chilly Nursery in Green Houses and Cauliflowers in Net Houses. Field Fresh had Global GAP, Food Safety Management Systems, and BRC (British Retail Consortium) certifications.

4.1.1 Retailing

The Bharti Retail opened first store under the name ‘Easy Day’ in Ludhiana in April, 2008. Since then, Bharti Retail has opened 43 Easy Day convenience stores and two hypermarket stores called ‘Easy Day Market’ in Punjab, one each in Ludhiana and Jalandhar. The front-end operations were managed by Bharti Retail while back-end operations were handled by the Wal-Mart. All stores are leased-in by the retail chain.
The average size of the Easy Day store varied between 2500 to 4000 sq.ft. while that of hypermarket store was around 25,000 sq.ft. Each Easy Day store usually carried 40-45 SKUs in F&Vs (Photo 4.1). Each store was handled by 8 employees including store manager. Two employees were dedicated to F&Vs. The average footfalls in each store were around 500 during week-days and 700-750 during week-ends. About 10 per cent of the store space was usually allocated to F&Vs. However, the proportion of F&V sales to store sales was only 5 per cent. Ludhiana and Jalandhar has maximum number of stores in Punjab each with 6 and 5 stores respectively. Store level wastages and unsold produce were around 10-12 per cent which was dumped at the end of the day. Store manager perceived that F&V prices were about 10 per cent less than the mandi retail prices. Although stores did not have promotional schemes but each store sold the F&Vs at reduced price during the week-ends. A private label- ‘Great Value’- had also been introduced in the grocery section. Easy Day is currently garnering 15 per cent of its sales revenue from private labels sold under grocery, apparel, and household chemicals, categories. The product promotion was done through leaflets, banners, and week-end discount on F&Vs.

**Green Mart**

Set up by Plantsman Farm Fresh Pvt. Ltd, a subsidiary of Plantsman’s seeds and horticulture, at Patiala in 2008, this only store of the company deals in F&Vs besides groceries, seeds, ladies garments and accessories. F&Vs account for 30 per cent of the total sales which are of the order of Rs. 40000/day. It gets about 250 footfalls a day and size of the ticket is Rs. 150/customer. It has its own labels in Basmati rice and frozen green peas. It carries exotics like Chinese cabbage, broccoli and lettuce but no organics. 50 per cent of the F&Vs are from its own farms and 50 per cent from the market and other suppliers. It has devoted 25 per cent of the store space to F&Vs and three boys manage this portfolio. F&Vs are sold loose by weight and there are no pre-packs. Vegetables were found to be fresher and cheaper than those in other stores. It compares price with other retail stores which is a normal practice among retailers. It sells local delicacies like mustard green leaves *(Sarson ka Saag)* as well as processed ‘Sarson Ka Saag’ by Markfed Punjab. In fact, another store in the same town (ABRL’s More) also compared its prices with the neighboring Bharti Easy Day stores and displayed these price comparisons to inform buyers that its price were lower than that of the competitor (Singh and Singla, 2011).
Photo 4.1: Easy Day store and vegetables in display in an Easy Day store in Ludhiana

Photo 4.2: Farm pick up of vegetables and grading of cabbage at CC
4.1.2 Processing

The processing and distribution of F&Vs was done through the DC located in Sirhind. The retail chain called it as Agricultural Corporative Centre, commonly known as ‘Coop Centre’. The main purpose of the Coop Centre was random sample checking of F&Vs and then allocating it to different stores in Punjab and Haryana, according to the requirement of each store. The size of the Coop Centre was around 40,000 sq.ft. The Coop Centre aimed to build a robust aggregating, handling, packaging and delivery system of fresh produce to Bharti Retail’s Easy Day stores. The daily arrival of F&Vs at Coop Centre was around 15 tonnes. Of it, only two tonnes was procured directly from farmers. About 30-40 per cent of arrivals at Coop Centre were comprised of potato and onion only, which were procured from Agra and Nasik mandis respectively. Fruits comprised of 20-30 per cent of the total procurement and were mainly procured from Azadpur mandi in Delhi. Some of the vegetables like capsicum, French bean, Arbi and Palak were bought from Ludhiana and Chandigarh mandis. The retail chain sourced apple from ‘Concor’, banana from Tata ‘Khet Se’ and apple Fuji from IG company. The distribution cost of delivering F&Vs from Coop centre to stores varied between Re.1- Rs. 1.5/kg depending on location of the store from Coop Centre.

![Figure 4.1: Procurement and distribution system of Easy Day in Punjab](image-url)

Figure 4.1: Procurement and distribution system of Easy Day in Punjab
The stores were supplied only once during the day. Produced harvested in the evening was delivered to the stores the next day at 2 a.m. in morning after around 12-16 hours. All the stores were supplied F&Vs through the Coop Centre only. The average quantity supplied to one store was around 500 to 600 kg. The Coop Centre had three employees on chain’s pay rolls namely, Regional Head (F&V), Warehouse Manager and Quality Executive. 18-20 casual labourers worked on third party pay roll. A laborer was expected to handle about one tonne of produce daily. The Coop Centre carried out weight and quality check, another grading if needed, and store wise allocation. There was about 2-3 per cent wastage at the Coop Centre. F&Vs delivered from CC to Coop Centre were generally fully graded with occasional rejection of about 1-2 per cent while the rejection rate was higher (4-5 per cent) among F&Vs sourced from the different mandies.

### 4.1.3 Procurement

The procurement of F&Vs directly from the farmers took place through CC of the retail chain located at Jamalpur near Malerkotla (Photo 4.2). Initially, the retail chain procured F&Vs from the lead farmer who delivered the F&Vs at the CC. The lead farmer was paid a fixed commission of Re. 0.30/kg and transportation costs. However, the retail chain stopped buying from lead farmer due to the irregular supply and inconsistent quality. Buying directly from farmers resulted in saving of 4-5 per cent commission at APMC mandi, getting A grade of produce, consistent quality, and regular supply from farmers. The cost of procurement was around Re. 0.5/kg. About Re.0.6/kg was spent on transporting the produce from CC to Coop Centre in Sirhind.

Easy Day procured from the farmers through individual, oral and non-registered contact. There was no contract between the retail chain and the farmers. The vegetables were procured on the basis of their indent requirement. The retail chain did not provide any agri-input to the farmers or any advance payments to farmers. The retail chain farmers purchased the agri-inputs either from primary agricultural cooperative societies (PACS), local agri-input dealers or sometimes from Bayer Crop Science (hereafter, BCS) as their officials were regularly visiting the Easy Day farmers. Quality check, grading and weighing of produce was done manually at CC through the CC in charge (Photo 4.2).
Best Price Modern Wholesale store’s F&V Procurement in Amritsar

Bharti Walmart Private Limited, the joint venture between Bharti Enterprises and Wal-Mart for wholesale, Business to Business, cash-and-carry and back-end supply chain management operations in India opened its first Best Price Modern Wholesale (BPMW) cash and carry store in Amritsar in May, 2009. BPMW store in Amritsar sourced F&Vs through the lead farmer from the farmers. The lead farmer had supplied the vegetables for about one year. He supplied all the seasonal vegetables except onion, tomato, potato, ginger and garlic which were procured from the mandi. The lead farmer after receiving the indent from BPMW store contacted the farmers on mobile. The lead farmer had contact with 25-30 farmers. The produce after harvesting was picked from the farm in evening and transported to the cold store of the BPWM store at Amritsar through a hired four wheeler. The vegetables were put on display the next morning after harvesting in the evening. Thus, it took about 14 hours for the produce to reach the store from the farmers’ field. The grading was done by the farmers of their own. The chain provided the crates to the lead farmer after depositing security, which were then given to farmers by lead farmer. On average, BPWM procured only 25 per cent of vegetables of the farmers while the bulk of vegetables (about 75 per cent) had to be sold in mandi. Generally, the price given to farmer was about 10-12 per cent higher than the mandi price for A grade produce. The payment was given to the farmer on the spot after weighing vegetables in the farmers field itself. BPWM store deducted 5 per cent margin of the total value of the vegetables sold as ‘Invoice’. All rejections, wastages and unsold produce were the liability of the lead farmer. This model was called as ‘Concessionaire Model’ of procurement.

The lead farmer had to pay APMC commission of 4 per cent while selling vegetables to BPWM. He also supplied some of the exotic and other off season vegetables to BPWM under the ‘Regular Purchase Model’. Under this model, he procured vegetables from a few notified commission agents in mandi. Thus, he had to pay a commission of 5 per cent to commission agent and 4 per cent APMC charges. Lead farmer also supplied vegetables to Easy Day and Reliance Fresh stores under the Regular Purchase model (Source: an interview with lead farmer, a supplier to retail chains, and wholesale cash and carry stores).
The price to farmer was given on the basis of daily morning mandi price. The farmers were paid in cash only. The retail chain bought only A and B grade produce. The requirement of vegetables at each CC was demand driven and the farmers were informed about the indent of each vegetable for a particular day by the managers at CC either by phone or personally visiting the farm. The farmers were aware of the price in advance before transaction actually took place which helped the farmers to decide where to sell the produce. Sometimes, the retail chain defaulted partially as it procured only small quantity of good quality produce and rejected remaining quantity and grades. The farmers fetched lower price for the rest of the produce. The retail chain picked up F&Vs from the fields of nearly 150 farmers and offered them up to 7-10 per cent premium over the price in Malerkotla mandi. The Haidar Nagar together with six other villages of Malerkotla catered to almost 40 per cent F&Vs needs of the retail chain. This direct farm program of the retail chain began in December 2008 and currently farmers supplied 12 to 16 locally grown vegetables that account for about one-third of the retail chains’ requirements.

Bharti Retail had value chain partnership with BCS for sustainable agricultural growth in Malerkotla. The partnership was aimed to build a sustainable crop production model to increase the net income of small and marginal land holders, continuous supply of FFVs to the Easy Day stores and implementation of the proven “5P” process to create a win-win situation for all the stakeholders in the supply chain. The partnership began with the selection of 60 small and marginal farmers in Malerkotla. The farmers were trained to produce good quality, healthy vegetables that met the specifications set by Bharti-Walmart. The specific target was to improve the social and economic status of farmers with interventions that involved ecologically safe plant protection products and high-quality seeds. Bharti-Walmart wanted to source sustainable supplies of fresh and healthy vegetables for the franchisee Easy Day stores. The programme intended to improve the well-being of small and marginal farmers through reducing the cost of selling their vegetables. BCS and its wholly owned subsidiary Nunhems provided seed-to-harvest solutions by partnering with key stakeholders (farmers and Bharti-Walmart). BCS implemented the programme through its proven “5P” process which included:

Production: The production process involved selection and demonstration of the most suitable varieties and agronomic practices to achieve the best results. This
included soil and water analyses for proper fertiliser usage and modern, cost-effective nursery raising techniques, and was carried out under the comprehensive agronomic guidance of Nunhems experts.

**Protection:** A customized scientific plant protection programme was prepared and implemented for all the vegetables.

**Programme monitoring:** The whole programme was jointly monitored by Bharti-Walmart experts, a dedicated food chain manager and project officers from BCS.

**Passport:** This tool had been developed for traceability and record management in the local language by BCS, and was issued and implemented at every project farmer level.

**Post-harvest:** Bharti-Walmart took the lead in educating farmers in grading and procurement at a village level to reduce selling costs and ensure farmers get a better return on their produce.

All the farmers went through the “5P” process with the help of a dedicated team of Bharti-Walmart and BCS specialists. Small- and large-scale farmer meetings were convened to disseminate the benefits to the larger farming community in the project villages. Awareness campaigns on the safe handling and use of pesticides were conducted with the help of specifically designed tools and demonstrations. Farmers were also trained in best plant protection application technologies. The whole programme was implemented with a clear view to improve the economic well-being of farmers as well as making a good social and ecological impact and therefore directly contributing to sustainable agriculture. BCS claimed that partnership resulted in 35 per cent increase in net income of farmers. Due to this partnership, Bharti-Walmart was able to receive sustained supplies of vegetables, consumers availed the fresh and healthy vegetables at Easy Day stores, while BCS provided the agri-inputs in a sustainable manner (www.bayercropscience.com).

The Easy Day retail chain also implemented ‘Sustainable Agricultural Program’ in Haider Nagar village (near Malerkotla) under corporate social responsibility (CSR) programme. The program highlighted chain’s commitment to provide quality fresh produce to retail stores through better agronomic practices and efficient supply chain management. The programme provided closed loop sanitation and energy-efficient
modern solutions through community toilets and bio-gas plants to the community in Haider Nagar village. Haider Nagar now had about 50 toilets with a proper sewerage system. Posters carrying messages to improve hygiene were also displayed in the narrow lanes of the village. The chain also installed about 20 community dustbins, from where the waste was directly taken to the biogas plants. The retail chain had also installed seven bio-gas plants in the village. The chain also formed six self-help groups to serve as an effective interface between the local community and the company.

4.1.4 Quality Specifications and Rejections
The retail chain has specified different quality norms for different vegetables. The bhindi should not be blackened, soft and smooth one, small in size and curled and without borer attack. Generally, 3-4 inch long bhindi was considered for A, 2-3 inch for B and below 2 inch for C grade. The retail chain procured only A and B grades of bhindi for their retail stores. It did not buy any C grade produce. The rejection rate at CC varied across different crops. In tomato, rejection rate sometimes, reached as high as 20 per cent. The rejection rate in cabbage was around 4-5 per cent. In bhindi, it was around 3 per cent.

In cauliflower, the retail chain preferred white, compact, disease and insect free, medium sized curds without any brown spots and exposure to sun light. The cauliflower sold to retail chain was packed in crates which were provided free of cost by the chain. One crate usually carried 12-15 (8-10 pieces) kg. of vegetable. The rejection rate in cauliflower at CC was around 4-5 per cent. The leftover and rejected produce was sold in the local markets. If it was of too poor quality, then it was either used as fodder or given to the daily wage labourers.

4.2 Reliance Fresh- A Profile
Reliance Retail Limited (RRL), a subsidiary of Reliance Industries Ltd. (RIL), was set up to lead Reliance Group’s foray into organized retail. The Reliance Fresh (hereafter, RF), a wholly owned subsidiary of RRL was born on 3rd November, 2006 with its first store in Hyderabad. RF was evolved from Ranger Farms which wholesaled FFVs to push-cart vendors and other bulk customers. Since then, RRL has rapidly grown to operate 700 stores across 13 states at the end of 2007-08. RRL launched its first
‘Reliance Digital’ store in April 2007 and its first and India’s largest hypermarket ‘Reliance Mart’ in Ahmedabad in August 2007. RRL has also launched its first few specialty stores for apparel (Reliance Trends), footwear (Reliance Footprints), jewellery (Reliance Jewels), books, music and other lifestyle products (Reliance Timeout), auto accessories and service format (Reliance Autozone) and also an initiative in the health and wellness business through ‘Reliance Wellness’. RRL also focused on building strong relationships in the agri-business value chain through RF store which sold F&Vs, and staples. The Reliance Food Processing Solutions Pvt. Ltd. was another arm of Reliance Industries Ltd, which was into wholesaling, and export. It focused on selected SKUs like onions, grapes etc. Sometimes, it supplied to the RF stores (Singh and Singla, 2011). On 24th January 2007, 12 "Fresh" outlets opened in Chennai increasing the total store count to 40. RF tested its retail concepts by controlled entry, beginning in the southern states. RIL planned to invest $63.50 billion (Rs. 2,500 billion) over the next five years in the retail business with 4,000 retail outlets in different cities (Pradhan and Mangaraj, 2008).

There were three basic reasons for RIL choosing foods and vegetables for entering into retailing. First, it wanted to go after the very core of the great Indian retail opportunity. Food accounted for over two-thirds of the $200 billion Indian retail market and yet, it had seen hardly any penetration by modern retail so far. Second, its aim was to build a high-profitability business and food was perhaps the best place to start. Third, the grossly inefficient food supply chain provided a well resourced and well managed organization like RIL with an opportunity to think of amending the flaws which would also make business sense (Pradhan and Mangaraj, 2008).

4.2.1 Retailing
The first RF store in Punjab was opened in Jalandhar in 2008. All RF stores sold the F&Vs. The retail chain had around 40 stores in Punjab. All the RF stores were convenience stores (Photo 4.3). The size of each store varied between 3000 to 5000 sq.ft. Stores remained open from 8 am to 9pm all seven days of the week. The average footfalls in weekdays were around 300 while on week-ends increased to 500. All stores were owned. Number of F&V SKUs per store ranged between 50-60, occupying about 10-15 per cent of store space (Photo 4.3). Each RF store was managed by one store manager and 14 store staff working in two shifts. The
Photo 4.3: Reliance Fresh Store and F&Vs in display at a store in Punjab

Photo 4.4: Arrival of cauliflower; and grading and sorting of cabbage at CC
employees at the store trained specifically for F&Vs were called the ‘F&V champions’. The share of sales of F&V in total sales of RF stores was about 2.5 per cent. It was not into institutional sales at all as these were credit sales. Banana bunches were split into bunches of four to six fruits to avoid losses due to handling by the customers in the stores. RF had been planning free home delivery to customers with a minimum purchase value. The sales were not allowed from CC or DC. On an average, a RF outlet sold around 7.5 qtls. of F&V/day. The product promotion was done through leaflets, banners, and bi-weekly promotional schemes. The chain managers were of the view that prices of tomato, potato and onion were lower in the stores than that on the un-organized retailers. In addition to the loose selling of onion and potato, both were also sold in pre-packed form, each pack weighing 2 kg. The chain did not sell any cut and packed vegetables in Punjab. The RF had also adopted a ‘market down’ strategy in all the stores to clear the unsold F&Vs at lower price. The store level wastages hovered around 12 per cent, including dumping. The unsold F&Vs were dumped. RF stores also stocked their own private label in staples and food under ‘Reliance Select’ label. The ‘Reliance Select’ products earned 15-40 per cent profits to the retail chain. The chain mangers revealed that they faced tough competition from the Easy Day stores in Punjab.

When the chain started the operations in Punjab, it followed the Direct Store Delivery (DSD) model to procure the F&Vs. Under DSD model, vendor delivered F&V to the store after which it became the property and liability of the store. After delivering the produce at store, vendor’s responsibility ceased. All wastages/damages were borne by the retail chain (Singh and Singla, 2011). However, latter on chain stopped to procure F&Vs through this model as the rejection rate was very high (between 25-40 per cent across different vegetables). Thus, RF started to develop its own back-end linkages with farmers to procure F&Vs directly from them. RF had initially decided not to sell F&Vs in areas where it faced intense opposition to these sales. The stores stocked primarily FMCG and groceries. Such first store without F&Vs was opened in Bhubaneshwar in Orissa in 2008. However, latter on when chain found that F&Vs category attracted the most footfalls to a supermarket. After initial opposition, the RF tried shifting F&V from prominent storefronts to the rear. It also displayed promotion boards from FMCG suppliers so as to shift focus away from F&Vs. However, strategy did not work in such a short period of time. Over a period of time, the protests came
down due to opening of organized retail stores by other retail giants like Bharti Retail’s Easy Day, Aditya Birla’s More, Future Group’s Big Bazaar etc.

4.2.2 Processing and Distribution
The processing and distribution of F&Vs was carried out at the City Processing Centre (CPC) located in Sirhind. The Sirhind location was chosen to establish CPC by the chain due to its geographical closeness with Haryana. Thus, CPC supplied F&Vs to all the stores of both Punjab and Haryana. The CPC had 50000 sq.ft. area and major activities involved receiving, sorting, grading, allocation and dispatch. The CPC was managed by 6 supervisors for three shifts. Around 20 casual workers also worked per shift. All city indents were consolidated and demands placed by the CPC to the CC. The CPC did not have mechanical facilities and all the processing of F&Vs was done manually. CPC had controlled atmosphere facility only for some imported F&Vs. At CPC, the produce stayed for maximum of 12 hours. It had capacity to handle 50-60 tonnes of F&Vs per day. However, daily handling was around 30 tonnes comprising of 10 tonnes of fruits and 20 tonnes of vegetables. The produce procured from the farmers at CC was graded, put into crates and sent to CPC which undertook grading, if needed, and did store wise crating and packing including cutting and packing F&Vs. Although initial sorting and grading of the produce was done at CC, some vegetables like cabbage and cauliflower were subjected to further shredding at CPC which led to further weight loss of 3-4 per cent. After that, weighing in crates and store wise allocation of the produce was carried for dispatch to stores. Wastages at CPC were around 2 per cent. F&Vs were delivered only once during the early morning between 2 am to 3 am. Thus, the harvested produce reached to the stores the next day after around 12-16 hours. Distribution cost varied between Re. 1 to Rs. 1.5/kg depending upon the location of the store.

4.2.3 Procurement
The RF retail had set up the CCs in Jandiala (near Amritsar), Malerkotla and Sirhind to procure F&Vs directly from farmers. The four wheelers which were used to transport the F&Vs to retail stores were usually used to source F&Vs from CC to CPC. Sometimes, same four wheeler was also used to source F&Vs from the mandis to CPC. A RF four wheeler can carry 390 crates (four tonnes of vegetables). Of the total procurement of F&Vs, procurement from national sources accounted for 20 per
cent, directly from farmers constituted 70 per cent and the rest 10 per cent was sourced from APMC mandis (Figure 4.4). The direct procurement by the chain resulted in saving of 6 per cent commission at APMC mandi, getting Reliance Retail (RR) grade, consistent quality, and regular supply of the produce from farmers. Onion and potatoes were mainly procured from mandi. RF had the APMC wholesaler license to buy directly from mandi where they paid 1 per cent market fee. RF also had some vendors in Vallah mandi in Amritsar who procured on the behalf of retail chain and supplied to the chain at CPC. About 125 farmers were registered with the CC at Jandiala. The farmers brought vegetables in their own or hired vehicles to the CC (Photo 4.4). The produce was graded at CC before delivering to the CPC (Photo 4.4). RF did not provide any crates to the farmers to pack the vegetables. Usually, fixed quantity of each vegetable was packed in crates. For example, in each crate, 5 kg each of Palak, and Dhania, 8 kg of cauliflower, 10 kg of cabbage and 15 kg of cucumber was packed. The average F&Vs procured at each CC was 4-5 tonnes/day delivered by about 30 regular farmers. The first truck was dispatched from Jandiala CC by around 12.30 p.m. This truck also carried tomatoes from the Jalandhar mandi while on the way to Sirhind CPC. The second truck arrived at CC after collecting vegetables from Vallah mandi around 12.15 p.m. and was dispatched to CPC by around 3 p.m. The maximum procurement at Jandiala CC was around 6 tonnes and minimum two tonnes per day. Most of the vegetables for the retail stores were mainly procured from the farmers. However, during short supply, these were also procured from the markets nearby to the CCs. Fruits were mainly sourced from Ludhiana, Malerkotla and Chandigarh mandis. Main vegetables procured at Jandiala CC were radish, carrot, cauliflower, cabbage, cucumber, long melon, melon, brinjal, bitter gourd, and okra. At Jandiala CC, cauliflower and cabbage constituted about 30 per cent of the total procurement and 10 per cent of the total F&Vs in stores.

The daily procurement of cauliflower and cabbage was one tonne each. The minimum procurement per farmer in cauliflower/cabbage was around 400 kg and maximum up to two tonnes per farmer. Cauliflower and cabbage were supplied by 15-20 farmers in each crop. Over a period of time, number of farmers supplying to RF had increased. The chain generally worked with those farmers who could supply good quality of vegetables consistently. The Malerkotla CC procured about 25-30 per cent of cabbage and cauliflower, 15 per cent of okra and radish each of total production of the
supplying farmers. The other vegetables procured were carrot, peas, cucumber, brinjal, bitter gourd and bottle gourd. The Jandiala CC procured an average of 10-15 SKUs ranging from a maximum of 20 and minimum of 10, all from 30 farmers.

Sometimes, RF switched from one CC to other CC to procure F&Vs, where procurement price of some of the F&Vs was lower. For example, in case of cauliflower and cabbage, RF usually sourced from Malerkotla, but if procurement price of the vegetables was higher at Malerkotla CC and lower at Jandiala CC, then chain sourced both the vegetables from the Jandiala CC. It took two hours from farm to CC, another hour from CC to CPC and 10 hours to store making for a total time of 12-14 hours. These were bought pre-graded by the farmers and CC only did occasional sample quality checks. The chain did not introduce any package of practices for vegetables and provide any agri-inputs to farmers. The farmers were paid in cash on the spot on daily basis. Recently, RF has also opened the zero balance accounts with the HDFC Bank and farmers’ payments were directly credited in their saving accounts. Transport cost upto CC was included in price. If the cost of transport to mandi was Re.0.5/kg and only Re. 0.2/kg to CC then Re. 0.3/kg was deducted from farmer price. The backward calculations based on differential cost pricing were made to arrive at the farm gate price for the farmers. The farm gate price was generally the

**Figure 4.2: Procurement and distribution operations of RF in Punjab**
APMC *mandi* price-transportation cost of F&Vs to *mandi*. Price was conveyed in advance in morning based on previous day *mandi* price.

The CC staff at Jandiala included a CC in-charge and a field in-charge (both regular) supported by five to seven laborers. The labourers were paid by a third party. Generally, there was one labour for each tonne of F&Vs procured. Procurement cost at CC was determined by volume of F&Vs delivered at CC. Generally, it was around Re. 0.40/kg plus primary transport cost from CC to CPC. The primary transport cost was around Re. 0.50/kg. Initially, rejection rate at CC was around 10 per cent. However, latter on chain revealed its quality standards to farmers. The rejection rate reduced to 3-4 per cent. The chain also incurred the weight loss while transporting produce from CC to CPC. The weight loss was around 2 per cent and only 0.5 per cent from CPC to store. The procurement cost for the retail from APMC *mandi* comprised of: 6 per cent commission, one per cent market cess, and labour and transportation cost. Thus, total cost of procurement from *mandi* was around 8 per cent.

The CC incharge claimed that direct procurement from farmers had benefited the RF as the chain received only RR grades compared to RR grade and other grades in *mandi*, the chain could meet the target of procurement due to fixed quantity agreed in advance with farmers. Further, bargaining power of the farmers had increased as presence of retail chains and *mandi* gave them multiple options to sell their produce. Moreover, exploitation of the farmers had reduced in *mandi* as RF and other retailers in the area had absorbed more than 30 per cent of the farmers produce. The demand for F&Vs remained unchanged in *mandi* but due to reduced supply in *mandi*, farmers realised higher returns in *mandi*. For farmers, selling to RF resulted in time saving, transparent price, proper weighing of produce and lower cost of marketing of produce. However, chain also faced several problems in F&V retailing which were: inconsistent quality of produce, price fluctuations in market, poor information dissemination to farmers, un-balanced production of F&Vs, instability of front end sales, and poor quality and perishability of the produce.
4.2.4 Quality specifications and Rejections

RF had specified the quality for different vegetables. For cauliflower, RF preferred medium (500-700 gms), white, compact curds; without insect pest attack and not exposed to sun-light. Cauliflower had to be harvested immediately after maturity; otherwise it lost its compactness and would fetch less price in the market. The quality of the vegetables was checked manually first at CC and then again at CPC. The retail chain procured only the RR grade produce. Thus, farmers had to sell the rejected produce in the local market. In cabbage also, RF preferred medium to large size flowers, without any cuts and disease and insect-pest attack. The heads were to be harvested when they were solid (firm to hand pressure) but before they cracked or split. The leaves were to be unexpanded, crispy and tightly packed. In cabbage, harvesting could be delayed by 1-2 days even after maturity which gave farmers some extra time to decide where to sell the produce. In tomato, chain bought only big sized tomatoes without any sunscald. In case of okra, RF preferred long sized, without any insect-pest or virus attack.

The rejection rates varied across different vegetables. Initially, rejection rates both at CC and CPC were higher but overtime, the farmers became aware of the quality norms set by the chain and the rejection rate came down, and ranged between only 3-4 per cent. Initially, rejection rate was about 25 per cent in cauliflower, 20 per cent in cabbage, 10 per cent each in tomato and okra. However, after about one year operation of the chain in the area, rejection rates reduced. It was compulsory for the farmers to carry out the sorting and grading at the field level before carrying vegetables to the CC of the retail chain.