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**Structure and Strategy of
Supermarkets of Fruits and
Vegetables Retailing in
Karnataka: Gains for Whom?**

**Kedar Vishnu
Parmod Kumar**

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STRUCTURE AND STRATEGY OF SUPERMARKETS OF FRUITS AND VEGETABLES RETAILING IN KARNATAKA: GAINS FOR WHOM?

Kedar Vishnu and Parmod Kumar¹

Abstract

Indian Modern Food Retail Chains (MFRC) have been growing the fastest in developing countries for the last two decades. What impact will it have on existing fruit and vegetable (F&Vs) supply chains, procurement price offered to farmers and consumers' purchase prices? How do the MFRC expand their business and what strategy do they adopt? This paper analyses the evolution of MFRC, particularly during the last two decades. Further, the paper traces the current structure and expansion of retailing through supermarkets in India and discerns the strategy of the retail chains and price spread in F&Vs. The paper is based on primary survey and data were collected in 2016-17 in Bangalore, Karnataka. Field findings show that domestic modern retailers resort to joint ventures with other international companies mainly for utilising their international experience, expertise in brand development and retail led technological development. The authors noted that the MFRC have shifted away from the use of spot markets towards purchasing directly from the farmers for differentiating their product from traditional retailers, maintaining higher product quality, consistency and cutting costs in order to compete with the traditional players and wet markets. The paper concludes that most of the F&Vs and MFRC offer higher prices to the farmers as compared with traditional and spot market prices.

Background

India's agro-food sector started experiencing a transformation in the post-liberalisation era while the speed of change became rapid since the 2000s, resulting greater market share for MFRC. By 2020, the share of supermarkets is expected to reach about 20-30 per cent of food retail in cities, which is expected to further increase once hundred per cent foreign direct investment (FDI) in multi brand retailis allowed (Technopak Advisers Pvt. Ltd., 11th December 2019). This will have direct implications for farmers, given the fact that these MFRC restructure the supply chain towards more explicit forms of coordination. MFRC have recently attracted attention as there has been rapid growth in the numbers of stores and sale of F&Vs since the mid-2000s (Reardon *et al*, 2005). Reardon *et al* (2008) also argue that India's modern retail diffusion has been the fastest in the world since 2006. However, most of the previous studies captured the supermarket expansion only till 2006. There are very limited studies in India that have captured the reasons behind the fastest growth of private MFRC from 2007 onwards. What factors are behind this highest growth rate of supermarket development? What are the strategies of different MFRC in expanding their business? And how are MFRC going to benefit the farmers? These are some of the questions which are addressed in this paper.

The effect of supermarkets on food prices is triggering a strong debate in India. The opinion can be categorised into three groups. The first group of studies argue that supermarkets in developing countries focus on well-off customers, emphasising more on quality products which involve comparatively higher prices compared to other players in the market (Gulati & Reardon, 2008a:

¹ Doctoral Fellow and Professor, respectively, Institute for Social and Economic Change (ISEC), Bangalore - 560 072. Email: kedarv@isec.ac.in and pkumar@isec.ac.in

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Pritchard *et al*, 2010). The second group of studies have argued that due to greater efficiency in product procurement, supermarkets tend to offer food at lower prices than traditional retailers (TRs) (Joseph *et al*, 2008; Vishnu & Kumar, 2014). The third group of studies focused on the impact of smallholder participation in supermarkets and their positive and negative impact on farmers' income (Bignebat *et al*, 2009; Timmer, 2009). Some other studies have argued that due to mono-cropping, supermarket participation would lead to decline in land productivity and eventually it will have a negative impact on employment and farmers' income in future (Gopalakrishnan & Sreenivasa, 2009 ; Key & Runsten,1999). In spite of the immense importance of this debate, not many field evidence based studies exist in the literature. This study aims to address this gap with primary survey data comparing the prices offered by various supermarkets vis-a-vis traditional marketing channels (TMCs). The study analyses the price-spread for selected F&Vs in MFRC and TMCs in Bangalore, Karnataka (KA). The main objective of the paper is to see whether MFRC chains offer higher prices for F&Vs to the farmers as compared with the traditional markets.

The retail sector picked up in India in most segments after liberalisation. In a free market situation, the business in retail sector developed substantially with extensive capital investment by a few large corporate players. The sector developed in phases and reached the level of supermarket. Liberalisation brought in new forces as well as methods in the Indian retail sector (Singh, 2010). Many new players and new concepts became prominent as these are proliferating steadily with the FDI inwards.

Rise of Supermarkets in Developing and Developed Countries

The supermarket¹ revolution took off in early/mid 1990s in many developing and transition countries. Reardon *et al* (2003) have apprehended the spread and development of supermarkets in three waves. The first wave of supermarkets started mainly from developed countries (Table 1). The determinants of the growth of supermarkets in developed countries include rapid urbanisation, per capita income growth and improvement in domestic infrastructure during the 1980s and 1990s. These changes were also accompanied by changing consumer behaviour and women entering the workforce. The revolution in supermarkets started in developing countries only during the 1990s. The success of South America and South Africa during the mid-1990s led to an inflow of FDI in other emerging economies, including India (Reardon & Gulati, 2008b).

The second wave of supermarkets started in mid-1990s from Mexico, Central America etc. The average share of supermarkets in food retail ranged between 30-35 per cent in mid-later 1990s. The third wave of supermarkets covering developing countries was seen in the early 2000s. The fastest transformation of supermarkets is occurring in India, China, and Vietnam and also among large and relatively richer and more urbanised markets. Although urbanisation and increased incomes have been important factors in the rise of supermarkets, other factors have also played an important role. A crucial factor as stated earlier was the liberalisation of retail FDI, which helped the international companies to expand their business in developing countries. Two major trends were observed in the rise of supermarkets in developing countries; first, the supermarket sector has seen increasing participation from foreign players and hence the inflow of FDI in food retail sector was led by global retail

multinationals. Second, many international investors initially concentrated on developed countries, but due to higher competition and limited scope for expansion there, they have spread well beyond to penetrate the food markets of the poor (Reardon *et al* 2008). They have also spread from big cities to small cities.

Table1: Waves of Supermarket Diffusion in Developed and Developing Countries

Period	Countries/ Regions	Supermarkets average share in retail sale
First wave started in early 1990s	Much of south America, East Asia (outside China) and South Africa	From about 10 per cent in 1990s to about 50-60 per cent in mid-2000s
Second wave started in mid-to late 1990s	Mexico, Central America and much of southeast Asia	From 5-10 per cent in 1990 to 30-35 per cent in mid-2000s
Third wave started in late 1990s and early 2000s	China, India and Vietnam	Reported around 2-20 per cent by mid-2000

Source: Reardon & Gulati (2008b)

Supermarkets have now gone well beyond the initial rich/middle class customers in many countries to incorporate the mass market (Reardon & Gulati,2008b). The existing literature points out that on the one hand, it created opportunities for farmers and processors to gain access to quality differentiated food markets and increased income and on the other hand, it created challenges for small retailers, farmers and processors who were neither eligible nor capable to invest in this emerging competitive high value market.

The Emergence of Supermarkets in India

The development of retail business in India came in three phases. The first phase started in the 1960s and 1970s in the form of government retail chains. In this phase, the control was always in the hands of the state authorities. The second phase was cooperative retail chains that started during the 1970s and 1980s. The third and most recent phase was started during the 1990s and 2000s by private retail chains. The third phase occurred in two parts. The first part was started from south India during mid-1990s and 2000s with middle class families focused on domestic–foreign joint ventured organisations (Minten & Reardon,2010). The second part started during mid-2000s, occurred throughout India with focus on middle class, upper working class, as well as small cities and even towns (see Table 2). The first part was mainly driven by the domestic-foreign joint ventures but the second part was mainly driven by domestic capital. The state retail and cooperatives retail chains even now exist and play a major role in the market but are not growing at the rate at which private retail chains are growing.

Literature Review

As mentioned above, MFRC are quickly becoming an important driver of change in the food market in several developing countries. An emerging body of literature has studied the effect of supermarkets and hypermarkets (Reardon *et al*, 2005; Minten & Reardon, 2010) on agro-food system. There are broadly four groups of studies that address the current issues in retail. The Indian supermarket sector is still in the initial phases and hence in our literature review, we have most of the studies which cover issues

related to the retail sector in different countries, but we can draw some meaningful lessons from the same.

The **first**, an academic group has focused on the impact of smallholder participation and revealed both positive and negative impact on farmers' income from F&V crops and on farm productivity (Bignebat *et al*, 2009; Timmer,2009; Singha *et al*, 2014). Fischer & Qaim (2012) find a positive impact of participation on farmers' income in Kenya. Similarly, Rao *et al* (2012) established that participation in supermarket channels increases farm productivity and technical efficiency in Kenya. Similar to the above finding, studies from India (Mangala & Chengappa,2008;Singh, 2010) also revealed the positive impact of supermarket participation on farmers' income. However, a few authors have argued that due to mono-cropping, supermarket participation would lead to a decline in land productivity and that will have a negative impact on employment and income in future (Gopalakrishnan & Sreenivasa, 2009; Key & Runsten, 1999). However, the existing literature from India does not provide any concrete evidence on this important question. There are still no concrete examples of how supermarket chains will help smallholders in the modern supply chain.

The **Second** strand of literature addresses the emergence of supermarkets from the 1960s (Reardon & Gulati, 2008a). The existing studies have mainly focused on the expansion and pattern of supermarket diffusion mainly from the 1990s to early 2000s. Reardon & Minten (2011) observed that India went through three waves of transformation in the retail sector: The widespread government retail chains during the 1960s and 1970s decade; the diffusion of co-operative chains in 1970s and 1980s and there after slowdown in the growth of government and cooperative retail chains during the mid-1990s to 2000s; and from 2006 onwards. What surprised them was the speed and expansion of private supermarket retail chains during this phase. After the gradual build-up in the first and second phase and even the firstpart of the third phase, the tide of modern private retail moved very fast with the fastest growth in the world since 2006 onwards (Reardon & Minten, 2011). The suddenness and size of such a rise has not been fully documented. The work done by many scholars (Joseph *et al*, 2008; Srivastava, 2008; Mukherjee & Patel, 2005; Mangala & Chengappa, 2008) caught the phenomenon at its beginning but not till the recent past. Therefore, the present study addresses the issue at its right time. We try to explain this trend that started from 2007 onwards and what accounts for the speed, size and suddenness in the second phase of the third wave in Indian F&Vs retail transformation.What factors are behind the highest growth rate of supermarket development? What are the strategies of different supermarket companiesin expanding their business?

The **third** group of studies on retail evolution has mostly focused on the developed countries' experience. These studies have revealed that MFRC have helped reduce losses in the supply chain for F&Vs and helped increase competition in developed countries (Eriksson *et al*, 2012; Schipmann and Qaim, 2010). Several studies are concentrated on the improvement in quality standards and food safety by MFRC (Berdegué *et al*, 2005; Dries *et al*, 2004). The entry of foreign retailers with knowledge and capital can provide much-needed productivity improvements to Indian retail and up stream sectors. These studies have revealed that in order to increase product quality and consistency and differentiate their products from traditional produce, retailers and leading supermarket chains in Central America are imposing private standards on their fresh produce suppliers (Berdegué*et al*, 2005).

It is widely discussed in the literature that FDI in single and multi-brand retail is allowed for increasing competition in the domestic sector to meet the growing consumer demand for higher quality products and increasing investment to the supply chains infrastructure. On the other hand, the studies highlighted that international retailers exclude marginal and small farmers and mostly purchase from medium and large farmers (Singh, 2010). Furthermore, a study from north India has shown that it will impact negatively on the employment generation and most of the traditional shops may lose their business (Joseph *et al*, 2008). The entry of foreign retailers is seen as a threat to the existence of millions of unorganised and traditional stores and street vendors who dominate the Indian retail industry (Lakatos & Fukui, 2013). Furthermore, some studies have argued that lack of institutional arrangements and an effective governance mechanism to regulate and monitor operations of the MFRC leave room for opportunistic behaviour by the supermarkets (Singh, 2011). The MFRC behaviour may be opportunistic while procuring F&Vs from farmers. Since supermarkets are expanding rapidly since 2007, the need has been felt for better understanding the benefits of supermarkets for farmers and consumers who are associated with them.

The **fourth** group of studies focused on the comparison of prices charged to the customers by the supermarkets and traditional shops. A recent study (Minten & Reardon, 2008) shows that in the early stages of penetration of supermarkets in developing countries, sale prices in supermarket outlets were usually higher compared to traditional shops for processed and fresh foods. But once the supermarkets started having vertical integration of the food supply chains, the food sale price in supermarkets became lower because of the achievement of efficiency in the supply chain.

In addition to this, the existing literature also investigates the consumer shopping preference for supermarkets vs traditional shops. The effect of supermarkets on food prices is triggering a strong debate in India. On the one side, Gulati & Reardon (2008a) have argued that supermarkets in developing countries focus on rich customers; as a result, they stress on good quality products with higher prices than the other suppliers. On the other hand, due to greater efficiency in product procurement, the supermarkets tend to offer food at lower prices than TRs (Joseph *et al*, 2008). In spite of the importance of this debate, not many survey-based evidences are brought out in the existing literature. Hence we aim to address this gap, for Bangalore, which is an interesting case to compare the prices offered by various company supermarkets as compared with traditional channels. We have attempted to capture the prices spread for a few F&Vs from Karnataka. There are hardly any studies that trace the emergence and elaborate on the structure of supermarkets and their expansion. Being in the initial development stage, the price spread and sourcing of the suppliers also need to be looked into. Keeping this broad theme in mind, we have set the following objectives to address in this paper.

1. To trace the current structure and expansion of supermarkets in India
2. To discern the strategy of the retail chains and price spread in F&Vs and study who gains from this retailing

Methodology

Due to the non-availability of secondary data on retailing, the data used in this paper is mainly based on primary survey in Bangalore which was conducted in the month of January, 2017. Most of the details of

existing supermarkets were collected from Bangalore to trace the current structure and expansion of supermarkets. We purposefully selected Bangalore for two reasons: first, most of the supermarkets have started operating in Bangalore as early as mid-1990s and second, along with private players, a few cooperative chains were already operating in Bangalore. As a result, we could compare the spread and expansion of cooperative vis-a-vis private supermarket chains.

The data on the number of stores, formats and operating area of collection centres were mainly collected from their websites, primary survey and focused group discussions which took place in the month of January, 2017. The major objective of the paper, to trace the current structure and expansion of supermarkets and their strategy, was fulfilled using a structured questionnaire. We interviewed 18 different modern organised retail chains for capturing their expansion plans, strategies of different modern organised retail chains for expanding F&V business, procurement prices for major F&Vs and products offered by various MFRC during January, 2017. This includes Nilgiri's, HOPCOMS, Safal, Spencer's, Food World, Subhiksha, Star Bazaar, Namdhari Fresh (NF), Hyper City, Big Bazaar, Food Bazaar, Metro, ITC Choupal Fresh, Reliance Fresh (RF) & Smart, Easyday, More, Walmart and SPAR. The focus has been put on those MFRC which are operating in F&Vs. For capturing the strategies of different supermarkets, we interacted with various experts at different stages of operations. Bangalore, Chikkaballapur, Malur (from Kolar district), Bidadi (from Ramanagara district) and Hoskote were selected for our interactions as we held discussions with experts at these locations during January, 2017. Almost all the supermarket chains have shown their presence by establishing their collection centres in the above areas. Second, details of procurement prices for major F&Vs were collected from farmers at Hopcoms, Big Basket, More, NF, Reliance Smart and Trent collection centres from the above mentioned areas. Using a structured questionnaire, the primary survey was conducted for capturing procurement prices and sale prices of different MFRC from the mentioned area in the state of Karnataka. This was done on 21, 22 and 23 January, 2017. We interviewed 100 farmers for capturing procurement prices of major F&Vs from Bangalore, Chikkaballapur, Malur from Kolar district, Bidadi from Ramanagara district and Hoskote during January 2017. The next day, the sale prices for selected F&Vs were collected on 22, 23 and 24 January, 2017 from the above company supermarket outlets to see the price spread in F&Vs. In addition, we had focused on group discussion with a few farmers from each supermarket chain to capture the details of inputs and guidance provided by the company to farmers.

Cooperative Food Retail Chains

The establishment of marketing cooperatives was encouraged by the government to provide marketing facilities to farmers during the decades of 1970s and 1980s. The anticipated advantages were an increase in the bargaining strength of farmers; improvement of members' economic well-being by marketing products, removal of intermediaries and direct sale to the consumers. The existing literature in India has neglected the role played by the cooperatives in F&Vs marketing. First, the neglect seems to have occurred because researchers have been fascinated by and concentrated more on how economic liberalisation and globalisation have initiated an explosion of private modern retail investment and multi-nationalisation. Second, the neglect was also due to the withering away of the state and

cooperative food retail segments in various countries (Reardon & Minten, 2011). An attempt is made here to explain the emergence of cooperatives in India in the following sections.

Mother Dairy: Safal

Mother Dairy and Amul are the product-specific established retail chains. They have become successful in India and are quoted as models. Mother Dairy in Delhi was set up by the National Dairy Development Board (NDDB) in 1974 with the objective of making milk available to city consumers. Following the success of its dairy industry, NDDB established the Mother Dairy F&Vs project in Delhi in 1988 under the brand name known as Safal. (Reardon & Minten, 2011).

Mother Dairy was the first cooperative chain to start business in F&Vs in India. Safal was established and supported by the collection-cum-grading centres in rural areas, each covering a cluster of 8-10 villages. The farmers supply their produce through associations or in an individual capacity. The Safal team guides farmers on post-harvest care and assists in packaging and transportation services to the associated farmers. Safal procures around 60 per cent of F&Vs from the farmers' associations, around 20 per cent from village aggregators and another 20 per cent from the APMC markets (Trebbin, 2014). At present, Safal is operating about 400 retail outlets in Delhi, Noida, Ghaziabad, Faridabad, Gurgaon and 23 retail outlets in Bangalore which captures more than 1.5 lakh customers per day (Table 2). To compete with other private players, Safal sources F&Vs predominantly from known suppliers. So they practice and promote the use of chemical-free, safely ripened fruits. The operations of Safal have a dual advantage. First, their network is spread over a large span and second, the aggregators have established personal support with the suppliers. This is a typical chains model.

Hopcoms

The Horticultural Producers' Co-operative Marketing and Processing Society Ltd. (HOPCOMS) was established in 1965 in KA. The HOPCOMS was established to create a proper system for the marketing of F&Vs so that it benefits both the farmers and consumers. Prior to the establishment of HOPCOMS, no proper system existed for the marketing of horticultural producers in KA. At present, HOPCOMS operates in Bangalore Rural, Bangalore Urban, Chikkaballapura, Kolar, Ramanagar and Mysore districts of KA. A large part of the capital share is contributed by the government and hence the stakes of members and their participation in the decision making is very much limited.

HOPCOMS sources F&Vs from its own members; therefore it is purely a growers' organisation having growers as members. It deals with all horticultural products except the planting materials. At present, HOPCOMS has more than 10,000 farmers as its members. The number of HOPCOMS outlets have increased from 237 during 2007 to 330 during 2017 in KA. Due to the tremendous demand for F&Vs, HOPCOMS concentrated its outlets in Bangalore, as around 280 outlets are operating only in Bangalore. HOPCOMS has targeted mainly middle-class customers; therefore, they offer medium quality F&Vs with good remunerative prices. HOPCOMS also sells F&Vs for other enterprises like hotels, restaurants and others. The state-supported retail chains operate with an assurance of the state absorbing the losses and hence they are not always focused.

Due to the lack of efficiency and limited operation of the state-owned retailers, the government felt the need to bring more players into the food retail chains. During the decade of 1980s, the priority of the government was more on promoting cooperatives to benefit farmers and consumers. The cooperative retail chains were quite successful in expanding operations in Delhi and to some extent in Bangalore. However, with the beginning of the decade of 1990s, the cooperatives couldn't expand their branches and business as compared with the private MFRC. On the one hand, this is happening mainly due to lack of cooperation and coordination between members, lack of incentives to work hard and other problems. On the other side, cooperatives were unable to fulfill the higher quality demand and quality standards of the consumers. For producing higher quality, the cooperatives failed to supply all the required inputs to the producers; as a result, they lacked the ability to develop proper vertical coordination between producers and consumers. Lack of transparency was another reason for the slower expansion of the cooperatives.

Table 2: Major Supermarkets for F&Vs in India During 2007 -2017

Particulars	2007		2017		
	India	India	Karnataka		Bangalore
Reliance Fresh ^a	22	597	208	(34.8)	65
More ^b	198	495	100	(20.2)	55
Spencer's ^c	68	135	40	(29.6)	40
Food World ^a	31	70	40	(57.1)	40
NF ^a	13	24	24	(100.0)	24
ITC Choupal Fresh ^a	3	54	-	-	-
HOPCOMS ^a	237	330	330	(100.0)	280
Nilgiri's ^a	44	160	37	(23.1)	37
Star Bazaar ^a	3	24	8	(33.3)	8
Big Bazaar ^{d, e}	56	239	26	(10.9)	17
Food Bazaar ^e	86	8	2	(25.0)	2
Safal ^{f, g}	330	423	30	(7.1)	23
Subhiksha ^h	300	-	-	-	-
Easy Day ⁱ		700		-	
Total	1391	3259	845	(25.9)	591

Sources: a): Author's primary survey (2017)

(b c d e f g h i) details were collected from the companies' websites and news papers. For details, seeⁱⁱ

Note: Figures in parentheses are Karnataka percentage of all India.

Private Food Retail Chains

Liberalisation policies in the 1990s allowed private sector entry into retail business that gave rise to the emergence of major private players in food retail. Although steps were taken to encourage the development of supermarkets in the recent past, the business opportunities in this sector were long knocking the doors in India. The third phase of the supermarket revolution can be classified into two parts: The first part of which started in the mid-1990s to the early 2000s, and the second started after 2005 and still continuing (Reardon & Minten, 2011).

First Phase of Private Modern Retail Development

The first phase of the private retail chain has been discussed by many academicians (Srivastava,2008; Joseph *et al*, 2008; Mukherjee & Patel,2005; Mangala & Chengappa,2008). In this first phase, the supermarket development was mainly concentrated in southern India with a middle class focus and driven by domestic-foreign joint ventures. It featured the initiative mainly of the Rama Prasad Goenka (RPG) conglomerate and its Asian joint venture partners and several regional chains in south India. The initial growth of MFRC in the mid-1990s and early 2000s was limited and attracted only the locally available capital flow.

Historical Emergence of Supermarkets

Here, there were a few regional chains which operated on a small scale from south India. These included Nilgiri's and Subhiksha. The Nilgiri's chain was established in 1905 as a dairy farm near Ootacamund in South India and was possibly the first organised supermarket in India to open the first store in Bangalore and the next one at Erode (Tamil Nadu) in 1962 (Singh, 2010). Nilgiri's initially focused on dairy products, chocolates and bakery, but in 1945 expanded its range of products and started including grocery and other food items. In India, it is the first attempt by any regional retail to start and develop the concept of the supermarket.

The first new generation MFRC in India were developed by the RPG group during 1996 when they launched the first Food World supermarket chain from Chennai. The RPG group acquired Spencer's in 1989 and retained it until 1999 as part of the Spencer's division within the RPG. The Centre for Management Research (CMR,2003) analysed the strategic choice of RPG to establish Food World in south India. First, RPG decided to enter new areas and was welcomed by consumers. On its initial opening, the Food World was literally flooded by people. Many academicians argued that the RPG group was mostly responsible for the rise of the MFRC from south India (Reardon & Minten, 2011; Vishnu & Kumar, 2014). RPG went into joint venture in 1999 with Dairy Farm International (DFI), based in Hong Kong to expand their business while utilising their procurement logistics expertise. As a result, Dairy Farm took 49 per cent share and RPG retained 51 per cent stake. Together, they started 94 supermarkets spread over Bangalore, Hyderabad, Chennai and expanded to Pune during 2004. In 2005, the DFI and RPG separated and split stores between them (Reardon & Minten, 2011).

Table 3: Major Hypermarkets for F&Vs in India during 2017

Particular	India	Karnataka
Reliance Fresh ^a	65	4
More ^a	20	12
Spencer's ^b	37	1
Metro ^c	23	6
Walmart ^d	21	0
Hyper City ^e	20	4
SPAR ^f	17	4
Star Bazaar ^g	4	4
Total	122	35

Sources: a): Author's primary survey (2017)

(b c d e f g) details were collected from the companies' websites. For details, seeⁱⁱⁱ

Third, Subhiksha entered into MFR chain in 1996 as Subhiksha Trading Services. Initially, with a capital of Rs 5 crore, Subhiksha entered the retail business. It began from Thiruvannamiyur in Chennai. Initially, it was operating around 10 stores in 1997. Thereafter, it made its presence felt with 49 branches across different parts of Chennai by 2000. Subhiksha adopted the strategy of a cooperative retail chain like Safal and targeted middle-income customers with medium quality of products. They focused on daily need products that included FMCG, staples, F&Vs, mobile phones and medicines. However, by 2009, Subhiksha became a minor chain and most of their shops had to be closed due to a tremendous loss and debt burden (*Business Standard*, Sept 19, 2015).

Second Phase of Private Modern Retail Development

The emergence of supermarkets in India is one of the important features that mark the process of liberalisation in the Indian food market. During 2002-03, there was a remarkable change in the MFR chains. The size of the stores of supermarkets, as well as their expansion in different states, were notable. What seems to have caused the sudden take off of supermarkets in the second phase needs some explanation. Reardon *et al* (2003) and Reardon & Minten (2011) argued that both demand side and supply side factors contributed to the diffusion of supermarkets in India during recent years.

Expansion of supermarkets

It can be easily observed from Table 5 that many domestic and international players entered into retail but the growth in supermarkets seems to be driven by domestic investors. In the recent past, there has been a good number of changes in FDI policy in the Indian retail sector. The total number of supermarket outlets has increased from 1,391 in 2007 to 3,259 in 2017. Subhiksha, HOPCOMS and More were in the top ranked chains in 2003 in India, however, RF tops the ranking, More stood at second position and Safal in the third position in term of the number of supermarket outlets in 2017. Due to the wrong strategy of expansion, Subhiksha ended in debt and almost closed a maximum of stores (*Business Standard*, 2015).

Table 4: Change in FDI Policy by Indian Government

1997:	FDI in cash and carry (wholesale) with 100% rights allowed under the government approval route.
2006:	Up to 51 per cent investment in a single-brand retail outlet permitted.
2011:	100% FDI in single brand retail permitted.
2012:	51 % FDI in Multi Brand permitted.
2017:	Proposed 100% FDI in multi-brand retail but with condition of procurement from domestic sources

Most of the domestic modern retail outlets started having joint ventures with other international companies mainly for utilising their international experience, expertise and technical capability. In India, Spencer's is the first supermarket group which had a joint venture agreement with Hong-Kong based Dairy Farm International in 1995 which ended in 2006. The deal was mainly done to launch a chain of large distribution infrastructure, essentially meant to serve the small retailer, but due to some differences in expansion plans, the deal was cancelled. At that time, Spencer's was having 68

supermarkets, mostly in south India. Food World entered India through joint ventures with Spencer's. In 2007, Food World had 31 stores which increased to 70 stores in 2017.

Star Bazaar entered into retail in 1998 as Trent brand under the Tata group umbrella. It has a conservative expansion strategy; hence the number of supermarket stores has increased from 3 in 2007 to 24 in 2017. Star Bazaar supermarket entered into joint ventures with UK's Tesco in 2013 for expanding more stores in southern and western regions of India. They target medium customers and have a presence in 38 cities. The deal between these two groups has helped the company to reduce its losses in 2015-16 (*Mint*, 2016).

During 2000, the NF established and started operating in fresh F&Vs from Bangalore. The company was established for the export of F&Vs but over a period of time, they started selling in India and mostly in Bangalore. They target only rich customers and offer organic products. They were operating 13 stores in 2003 and have increased to 24 stores. As of now, the company exports 50 per cent of its products and the remaining 50 per cent are sold in Bangalore. The reasons why it has shifted its export target and started selling in Bangalore include increasing pressure to maintain quality products that are free of chemical and fertiliser residues from importing countries and the rising importance of organic products in Bangalore.

During 2001, the K Raheja group established Hyper City stores in Mumbai (MUM). They operate mostly in first-tier cities of India (Table 5). The Future group started operating in 2001 from Kolkata, Bangalore and Hyderabad. Further, Future group started with a hypermarket called Big Bazaar and concentrated on fast-moving goods. During 2007, the Bharat group had a tie-up with American Walmart and specialised in logistics, brand development and retail-led technology services (Future Group, 2017). The Walmart was operating at wholesale and back-end segments due to limitation by the Indian government not to permit more than 51 per cent FDI in multi-retail. Why did they split? Walmart had a strategy to operate at large scale with first tier cities because the small stores format was yet to prove it self in India, whereas the Bharat group wanted to expand the small stores format (Kala & Malviya, 2011). The Future group has a presence in more than 234 cities.

Further, Metro, a German company, entered in India in 2003 and it was the first company in India to develop the cash and carry format^{iv} in Bangalore. During 2017, Metro cash and carry had 23 operational wholesale centres of which six were in Bangalore, three in Hyderabad, two each in Mumbai and Delhi and another 10 in different districts. The registered business customers visit a cash and carry outlet, select the quantity of purchase and carry them back with themselves instead of placing orders with multiple vendors. Further during 2006, RF established their first store in Hyderabad. The number of RF stores have increased from 22 in 2007 to 597 in 2017 and 65 hypermarket operates in India.

Strategies of Modern Retailers

Based on our primary survey and literature, we have tried to capture their expansion plan and strategies which are presented in Figure 1. A few important observations can be made from tables 5 and 6.

Early Diversification Format

Many players started opening hypermarkets in first-tier cities in Mid 2000s to provide an international shopping experience to customers with affordability, assured quality and choice of products and services. Reardon & Minten (2011) have shown that the hypermarket segment in total private retail (food and non-food) increased from 33 in 2003 to 52 per cent in 2009-10 of all sales over the decade; department stores dropped from 15 to 12 per cent and the share of small format stores decreased from 51 to 37 percent. Further, we tried to capture those players who emphasised more on hypermarket expansion. We observed that Hyper City, Metro, Walmart, SPAR, Big Bazaar, Reliance Smart, and Mega More companies have given higher emphasis to the expansion of the hypermarket format in KA and that is almost similar in the case of all India as well. Further, we also observed that Nilgiri's, HOPCOMS, Safal, Spencer's and Food World gave a higher importance to location. Their strategy is to expand their format on a small scale which can be located in or near residential high streets.

Early Penetration into Second and Third Tier Cities

We observed that many players have started expanding their small store format into second and third tier cities. RF and More are the two major supermarket chains that have expanded their small shop aggressively into small cities. They have established new stores not only to capture middle class customers but also to control the real estate prices in future. India's retail has taken the same path of format diversification, but has taken less than a decade to move into the small retail format as compared to the developing countries (Reardon & Minten,2011). Figure1 shows that RF, More, Spencers, Star Bazaar, Big Bazaar, ITC Choupal, Easy Day and More have targeted second and third tier cities to expand their shops.

Difference in Quality and Customer Income Target

While comparing the supermarkets with traditional shops, we have observed that supermarkets offer better quality of F&Vs. Further, while comparing within the supermarket category, we have observed that Nilgiri's, NF, Hypercity and Walmart offer organic and high quality products whereas the remaining chains have targeted medium quality F&Vs. For measuring quality standards, visual inspections were the major parameters used in a majority of supermarket chains. We observed that a majority of the supermarket chains have targeted middle-income groups. We found that Nilgiri's, NF, Hypercity, Metro and Walmart were the modern retail chains who targeted rich customers.

Marketing and Online Delivery

Supermarket chains in India are increasingly shifting toward the use of modern logistics and wholesale companies (and direct sourcing from farmers and manufacturers) and away from sourcing from traditional and general-line wholesalers (Deshpande, 2008). This is especially true for fresh F&Vs, processed, refrigerated semi-processed products. Most importantly, a large number of supermarkets are following a general trend that has been seen in other developed and developing countries (Reardon *et al*, 2003). We have also observed that most of the supermarkets have started directly purchasing from the farmers to avoid the middlemen and generate higher profits. A few supermarket chains provide

inputs support to the farmers to improve the quality of F&Vs. For capturing the rich customers, a few supermarket channels have started online purchase services (Figure 1).

Two decades back, supermarkets were viewed by policymakers as the place where only rich customers can shop. But over a period of time, the supermarkets are no longer just niche players for rich consumers in the capital cities of different states. The rapid rise of supermarkets in the past five to ten years has transformed agrifood markets at different rates and depths across regions and countries. It can be easily observed from Figure 1 that most of the MFRC have mostly targeted middle class customers for capturing the higher demand. However, a few segments have just been targeting rich customers and with high quality standards.

Table 5: Strategy of Different Companies for Expanding F&Vs Business in India

Details	Owned by	Entered into retailing	Tie-up with local/international – companies	Hypermarket format	Supermarkets format	Strategy/ Coverage
1. Nilgiri's	Part of future consumer limited group	Established in Ootacamund in south India in 1905. Entered into retailing in 1936 in Bangalore in dairy and bakery products, and in 1945 expanded into food products	In 2008, Actis acquired 51% share (UK-based private equity investment) In 2014, FCE acquired 98% from Actis and other promoters	NA	1,600-1,800 sq ft	Run and operated by enterprising local franchise owners More emphasis on labelling and packed F&Vs sale Targeted rich customers
2. Hopcoms	Cooperative society	First, the Bangalore Grape Growers' Marketing and Processing Co-operative Society was established in 1959. In 1965, the company started handling all F&Vs; hence renamed as HOPCOMS.	NA	NA	500 to 2000 sq ft	To ensure remunerative prices to producers of horticultural crops Lower and middle income consumer target Major emphasis on medium quality of the product
3. Safal	National Dairy Development Board (NDDB) Cooperative Society	Started in 1974 from Delhi	-	-	-	Safal procures F&Vs from 15 states through 110 associations having a total of 10,000 farmers as members Major emphasis given for F&Vs sale and value added products including fruit juices, ketchup, pickles, jams, frozen peas and tomato puree Targets middle & poor income group
4. Spencer's	A division of RPG Limited (RP Sanjiv Goenka Group, West Bengal)	1996 from south India	1995 joint venture with Hong Kong based Dairy Farm International (49% share) which was terminated in 2006. Continued with the same brand name. 2009 tie-up with Woolworths plc, UK, for retailing internationally acclaimed toy brand Chad Valley and Ladybird.	22,000 sq ft	10,000-12,000 sq ft	Duck and the ducking model; by having two-or-three value segment stores to leverage on economies of scale at back-end value chain Focus more on rich customers Targets dairy and processed food products
5. Food World	Dairy Farm International (DFI) Group	1996 as division of Spencer & Co 2006 separated and started under Food World brand	51% owned by a private consortium of Indian investment banking interests and 49% by Dairy Farm International from Hong Kong	NA	3000-5000 sq ft size	Major focus on middle income group from south India
6. Subhiksha	R Subramanian	Started in 1997 at Chennai	Started as joint venture with ICICI Bank with 23 % share in 2001 and 10 % share of Azim Premji in 2003	NA	1000-1200 sq fit	Shifted focus from supermarket to hypermarket The same discounted prices on all items Focus on middle class customers and offer around 10 per cent of discount

Details	Owned by	Entered into retailing	Tie-up with local/international – companies	Hypermarket format	Super markets format	Strategy/ Coverage
7.Star Bazaar	Tata group	Began in 1998 as Trent brand under Tata group umbrella	Partnered with UK's TESCO in 2013. Signed an agreement of 50:50 joint venture for supermarket outlets for utilising its retail expertise and technical capability.	50,000 sq. ft	5000 sq ft	As a conservative expansion strategy Targets consumers in socio economic class B and C Major focus on medium quality F&Vs Entered into hypermarket in 2004
8. NF	Namdhari Seeds group	Started in 2000 in Bangalore	NA	NA	2000-5000 sq ft	Retailing of F&Vs their core strength Mainly developed for export of organic F&Vs products Contract farming with the farmers to produce better quality output
9.Hyper City	K. Raheja Corp. group	Entered in 2001	NA	70,000-80,000 sq ft	Now planning to open 40,000-45,000 sq ft	Store will cater to the large base of urban-tech knowledge cosmopolitan customers World class shopping experience Focus is on metro and tier I cities
10. Big Bazaar	Future group	Started in 2001 from Kolkata and after 22 days entered to Bangalore and Hyderabad	In 2009 partnered with Hong Kong-based Li & Fung Group to strengthen its supply chain and logistics network across the country. Tie-up with Bharat group for converting Easyday into Big Bazaar store and KB's Fair Price into Easyday in 2015.	40,000-45,000 sq ft		Starting store in developing areas to take early advantage before the real estate value boom. Wide customer segment, more important for young customers and time saving working professionals.
11.Food Bazaar	Future group	In 2002 the supermarket chain was launched			6,000-20,000 sq ft	Concentrated more on fast-moving consumer goods, ready-to-eat peeled and cut products Core focus on middle class customers
12. Metro	German wholesale retailer Metro Cash & Carry	Entered India during 2003 in Bangalore	NA	NA	NA	B2B model Aims to provide its customers added value while preserving precious natural resources Large scale operations to cut down costs
13.ITC Choupal Fresh	ITC group of companies	1990 formed to export high value agri-commodities. Entered into rural retailing through Choupal sagar 2004-05 & 2006-07 in urban area through Choupal fresh	NA	NA	2500 sq ft	Focus on F&Vs unlike other stores More than 75 % area in store kept for F&Vs
14. RF & Smart	A division of Reliance Industries Ltd	Entered in 2006 from Hyderabad	NA	Reliance Smart: 8,000 to 30,000 sq.	RF: 3,000-4,000 sq ft	Offers most items below MRP round the year Discounts differ across categories Strategy to capture middle income customers in 2 nd and 3 rd tier cities
15.Easyday	Bharat Group	Entered in 2007	Bharat group tie-up with American Walmart in 2007 for back-end operations but in 2012 the two companies split. Tie-up with Future group for converting Easyday into Big Bazaar store and KB's Fair Price into Easyday in 2015 Integration with Bharat Group in 2015	36,000 sq ft	2,500 sqft to 5,000 sq ft	Up to 10% discount on MRP Targeted daily use products Closer to the customers' homes and a higher throughput adds to the company's scale and efficiency

Details	Owned by	Entered into retailing	Tie-up with local/international – companies	Hypermarket format	Super markets format	Strategy/ Coverage
16. More	Aditya Birla Retail Ltd (ABRL)	2007 with the acquisition of a south-based supermarket chain	NA	Less than 30,000 sq ft	More: 2,500 sq ft	Offers value, convenience and trust to the customers Rich as well as medium income customers
17. Walmart	WalMart India Private Ltd	Opened first store in May 2009	Bharat group tie up with Walmart in 2007 for back-end operations but in 2012 the two companies split.	100,000 sq ft in size	NA	Company's global reach was used to implement efficiencies in bulk-handling logistics and bid down suppliers' prices B2B e-commerce platform
18. SPAR	Dutch food retailer Spar International	NA	A unit of Dubai-based Landmark Group, Max partnered with Spar International a few years ago but ended the tie-up in 2012 after opening 13 stores Max Hypermarket has signed up once again with Dutch food retailer Spar in 2014	50,000 sq ft	NA	Being the world's largest food store chain Providing high food safety and quality

Source: First author's primary survey (2017)

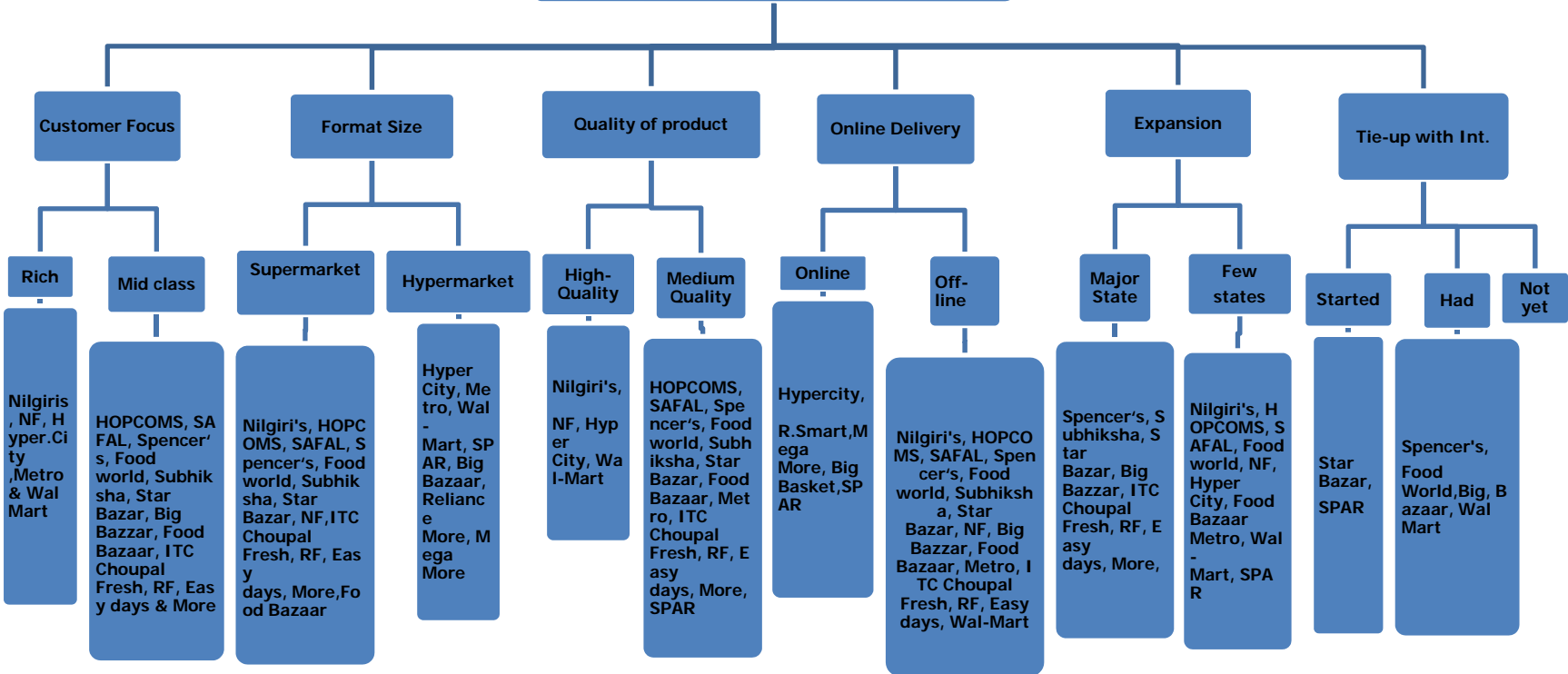
Table 6: Products Offered by Supermarkets and Hypermarkets in India

Details	Operating states	Cities	No of commodities sold	Quality of F&Vs	Sources of purchase	Home delivery and online services
Nilgiri's	KA and Tamil Nadu (TN), Andhra Pradesh (AP), Telangana and Kerala	Operating in 15 cities from south India	400 dairy, bakery and food products and 150 F&Vs	Very particular about packaging and quality of F&Vs; more emphasis on fruits	Selected farmers + vendors and APMC market	Home delivery is available but online shopping is not available
HOPCOMS	Mainly operate in Bangalore & a few districts of KA including Ramanagar, Mysore and Kolar	Major operations in 5 districts of KA	F&Vs 330 items	Medium quality of F&Vs purchase	Purchase from only member farmers During distress sale, HOPCOMS offers higher prices	Home delivery is not available. Every day, price information sent through SMS to members and registered customers
Safal	NA	Mainly operate in Delhi, Noida, Ghaziabad, Faridabad, Gurgaon and now in Bangalore	NA	Medium quality F&Vs purchase	Mainly from members and a few other cooperatives	Home and online delivery not available
Spencer's	TN, Telangana, Pondicherry, Haryana, UP, KA and West Bengal	45 cities in India	7,500 quality products	Organic products also kept	Mainly dependent on vendors	Only home delivery service is available
Food World	Major focus on south Indian states	MUM, Chennai, Hyderabad and Bangalore	NA	More emphasis on processed F&Vs items	Dependent on vendors and APMCs	Only home delivery service is available
Subhiksha	Delhi, UP, Punjab, Haryana, Gujarat, KA, AP, Maharashtra (MAH) and TN	In 110 cities and different format of stores	Not operating now Since the company was in severe debt, it has closed the operations	Medium quality of F&Vs	Selected farmers	Only home delivery was available
Star Bazaar	MUM, Chennai, Bangalore and Hyderabad but major operations in 8 cities	Spread to 38 cities	Around 120 F&Vs Provide more than 30,000 items	Medium quality of F&Vs	Selected farmers	Not available for F&Vs

Details	Operating states	Cities	No of commodities sold	Quality of F&Vs	Sources of purchase	Home delivery and online services
NF	Operate in KA, AP, Telangana, Harayana and Punjab	50 fresh F&Vs export and remaining 50 % sold mostly in Bangalore market	Priority for F&Vs only 40 organic F&Vs	Certified organic exporter and targets only rich customers	Contract farming (input+ output)	NA
HyperCity	MUM, Navi MUM, Thane, Delhi NCR, Hyderabad, Bangalore, Bhopal, Amritsar, Pune, Ahmedabad and Vadodara	NA	50,000 products	Good quality of F&Vs Targeted I tier cities & rich customers	NA	NA
Big Bazaar	Major stores in Bangalore and Hyderabad	In 234 cities	NA	Medium as well as good quality, higher diversification, cut F&Vs also kept in store	Selected farmers With technical support	Online + Delivery
Food Bazaar	NA	MUM, Pune, Bangalore and Delhi	50,000 products	More cut vegetables with quality packaging	Selected farmers with technical support	Delivery
Metro	Operating in 9 states Major operation in KA	13 cities	Large-scale	Very good quality of F&Vs for members only	Selected farmers	Not available
ITC Choupal Fresh	Operated only Pune, Hyderabad and Chandigarh	NA	Buys 19 different commodities from 220 districts across 21 states	Very good quality of F&Vs from own farmers	Own farmers with input and output contract	Delivery services available
RF & Smart	14 states	82 cities (60 rural towns)	Offers more than 9,500 food items	Major focus on middle income customers. Small proportion of high quality of F&Vs has been also kept for high income customers	Registred farmers+ with technical support+ small proportion of F&Vs also purchase from APMC market	Both formats have delivery services for F&Vs Reliance Smart has online purchase facility for F&Vs
Easyday	NCR, Punjab, Haryana, Uttar Pradesh and KA	117 cities	13,000 products	Targeted middle class customers; hence medium quality of F&Vs	NA	NA
More	AP, KA, TN, Kerala, Gujarat, and MAH Operating in 10 states	NA	8,517 products F&Vs: 179 Fruits: 59 Vegetables: 46 F&Vs cut: 15	Both Indian and international brands of superior quality are available here	Own farmers + vendors + APMC Market	Mega More: Online delivery
Walmart stores	9 states across India: Punjab, UP, AP, MP, MAH, KA, Chhattisgarh, Jammu & Kashmir and Rajasthan	19 cities	5,000 items in a cash & carry wholesale format	More focus on bulk and packed F&Vs	Farmers + APMC market	Available
SPAR	Bangalore, Chennai, Hyderabad and Delhi NCR	NA	30,000 products	Fresh local and imported F&Vs+ within 18 hr fresh F&Vs is available	Selected farmers+ vendors	Delivery only

Source: First author's primary survey (2017)

Figure 1: Strategies of Modern Retailers



Methods of Procurement

It can be easily observed from Tables 2 and 3 that during the last two decades, many international and domestic retailers have been setting up collection centres in the state of KA. Since the expansion happened recently, very little is known about changes in the methods of procurement by different MFRC. Hence, we make an attempt to explore the organisational and institutional changes in the food product procurement systems of supermarkets in the region with a main focus on F&Vs products. We identified two methods of procurement used by the existing MFRC; procurement at collection centres and procurement at farm fields. The method of procurement by different MFRC is presented in Table 7. It is observed that except Model III, all other MFRC procured F&Vs at collection centres. The main characteristics of procurement models are discussed in the following section.

The emergence of different methods of procurement systems by most of the players are the following: first, the MFRC in KA have shifted away from the dependence on traditional wholesale markets or APMCs for procurement of F&Vs. Second, different methods of procurement have emerged in the selected areas. Most of the MFRC have started procurement at collection centres (Model I & II companies) and the remaining MFRC have further taken on an extra step and started procuring directly from the farmers (Model III companies). We observed two important reasons for the changes in the methods of procurement: first, the supermarkets focus on reducing the overall costs of procurement with the help of centralisation and mass procurement. Another study has also observed a similar result from Latin America (Berdegue *et al*, 2005). Second, this strategy helps companies to procure quality products and maintain a hygienic environment and satisfy the increasing quality demand of consumers.

Table 7: Methods of Procurement of Different MFRC

Model I	Farm to Fork Model	RF, TESCO, More, Leaf, Food World, Big Bazaar, Big Basket, Metro, More	✚ Procurement at collection centres	<ul style="list-style-type: none"> ✚ Farmers deliver product to collection centre once they get indent from the company ✚ No transportation facility is provided by the company
Model II	Cooperative Model	HOPCOMS and Safal	✚ Procurement at collection centres	<ul style="list-style-type: none"> ✚ Once members get indent from the collection centre managers, they sell their product to the company ✚ Even though HOPCOMS has established collection centres at Malur very few members supply F&V at Malur collection centre. They prefer to go to Bangalore head office because it is very difficult for farmers to deliver product before 3 pm at Malur collection centre
Model III	Contract Farming	NF, Global Green, and Indo-Spanish	✚ Procurement at farm fields	<ul style="list-style-type: none"> ✚ They procure chilly, Baby corn at farm gates

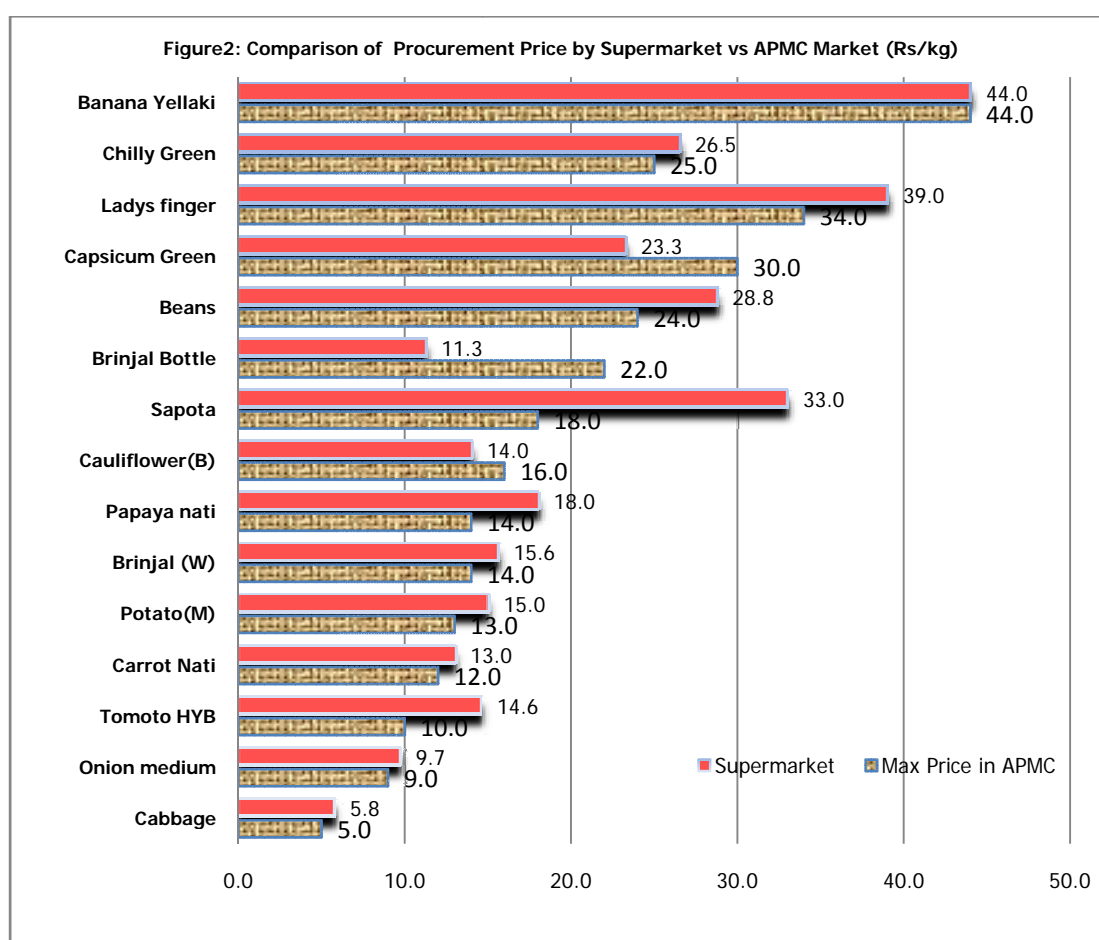
Source: Author's primary survey (2017)

Furthermore, it was noticed that none of the chains pay a price premium to farmers for producing better quality (except some of the players in Model III). However, most of the MFRC fix the price and then screen for minimum levels of quality. Most of the MFRC chains from Model I and Model II

lack standards of produce safety. Unless and until the MFRC provide the inputs, technical support and monitor the farmers' activity, it is difficult for them to maintain the food safety standards.

F&Vs Prices in Organised Food Retail Chains Versus Traditional Markets (APMC) in Karnataka

The variations in the procurement prices in different supermarkets and APMC markets for major F&Vs are given in Annexure Tables 1A and 2A and Figure 2. The purchasing price details were obtained from the farmers who supply their F&Vs to Big Basket, More, RF and Trent companies from Chikkaballapur and Malur collection centres. In the case of HOPCOMS, the details of procurement prices were obtained from the head office in Lalbagh and NF from Malur.



Source: Author's primary survey (2017)

Statistics shown in the above figure reveal that supermarkets' procurement prices are quite high for F&Vs as compared to APMC markets. We made an attempt to compare the extent of variation in procurement prices of supermarkets with the APMC markets, which is presented in the last column of Annexure Table 1A. We found that supermarket procurement prices are higher than traditional markets for sapota (83.3 % higher), followed by tomato (46.0 %), papaya (28.6 %), beans (19.8 %), potato

(15.4 %), cabbage (15.0 %) and onion (7.8 %). However, for a few vegetables, the procurement prices are lower than the traditional market for brinjal (48.9 %), followed by capsicum (22.5 %), green chillies (26.4 %) and cauliflower (12.5 %). Based on the above discussion, one can argue that supermarket procurement prices are mostly higher than APMC prices for all the F&Vs crops. We may conclude that in the case of major F&Vs, modern retail is mostly at par with traditional markets (Figure 2). Interestingly, the procurement price offered to farmers in cooperatives is higher for most of the F&Vs as compared with private supermarket chains and APMC markets. Further, we have found that consumer share in farmer rupees is higher for HOPCOMS and supermarkets than traditional chains (Annexure Table 3A) which is influenced by having a higher consumer share in farmers' rupees in the case of HOPCOMS. Among 15 F&Vs, HOPCOMS purchase prices were higher for 6 F&Vs, followed by RF for 3 F&Vs, Big Basket for 2 F&Vs and NF for 1 F&V.

Comparing the sale prices in different supermarkets and traditional shops of major F&Vs in Bangalore, it is revealed from Annexure Table 3A that the consumer share in farmers' rupees was reported the lowest for the APMC market compared to MFRC as agents reported highest price for HOPCOMS. We found lower variation in the consumer share in the production rupees for MFRC as compared to the APMC market. It is clear from the above discussion that there is no doubt about the reduction of the number of intermediaries in the case of the MFRC. However, the worry is the extent of benefit occurring to the farmers, although the consumer clearly benefits much more from the reduction of players in the marketing chain.

Conclusion

In this paper, we tried to trace the current structure and expansion of supermarkets in Bangalore and to discern the strategies of retail chains and price spread in F&Vs. The supermarket revolution has progressed far and will continue to have a significant growth in future. We have noted that when the first phase of MFRC development started from south India in mid-1990s, it was middle class centred. The second phase, which began during mid-2000s, spread throughout India with focus on middle class and upper working class, as well as small cities and towns. The first phase was mainly driven by the domestic-foreign joint ventures, but the second phase was mostly driven by domestic capital. In the recent past, even though international players have entered into MFRC, the growth in supermarkets seems to be led by domestic investors.

We also found that a few players started opening hypermarkets in first-tier cities in the mid-2000s to provide an international shopping experience to their customers who belonged to the high income group with affordability, assured quality and with a major choice of products and services. We observed two important reasons for the changes in the methods of procurement: first, the supermarkets' focus on cutting down the overall costs of procurement with the help of centralisation and mass procurement. Second, to procure quality products and maintain a hygienic environment and satisfy the increasing quality demand from consumers.

We have also captured the differences in purchase prices of supermarkets vis TMCs. We found that supermarket procurement prices for farmers is higher than TMCs for most of the F&Vs. We observed that supermarket procurement prices are higher than traditional markets for sapota (83.3 %

higher), followed by tomato (46.0 %), papaya (28.6 %), beans (19.8 %), potato (15.4 %), cabbage (15.0 %) and onion (7.8 %). However, for a few vegetables, the procurement prices are lower than the traditional market for brinjal (48.9 %), followed by capsicum (22.5 %), green chillies (26.4 %) and cauliflower (12.5 %). MFRC is mostly on par with traditional markets. It is interesting to note that the prices offered to farmers in cooperatives are almost higher for most of the F&Vs as compared with supermarket chains and APMC markets. Further, we found that the consumer share in farmer rupees is higher for HOPCOMS and supermarkets than traditional chains.

Notes

- ⁱ It refers to all modern retail outlets, which include chain stores of different formats such as supermarkets, hypermarkets and convenience and neighbourhood stores.
- ⁱⁱ b) <http://brandstorelocator.getalldata.com/>; c) <http://www.spencersretail.com/store-list/>; d) <https://www.bigbazaar.com/store-locator/>; e) for 2007 data <http://www.futuregroup.in/pdf/jan07.pdf>; f) For 2007 year data from <http://www.fnbnews.com/Retailing/Safal-Daily-Fresh-inexpansion-mode>; g) For 2017 year data from <https://www.motherdairy.com/Brands/Safal/>; h) Business standard, September 19, 2015; i) Business Standard, November 21, 2017.
- ⁱⁱⁱ b) <http://www.spencersretail.com/store-list/>; c) <https://www.metro.co.in/products-world/fruit-vegetables/>; d) <http://www.wal-martindia.in/our-locations/>; e) (Malviya & Vyas, 2017); f) <https://sparindia.org.in/about-spar/our-stores/>; g) The Economics time. May 15,2017.
- ^{iv} Cash and Carry wholesale is mainly defined by its customer base and the unique business model.

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Annexures

Table 1A: Comparison of F&Vs procurement price of MRC in Bangalore (average prices based on 21 to 24 /01/2016)(Rs per kgs.)

Sl. No.	Item Name	HOPCOMS	Big Basket	More	NF	RF	Trent	APMC Binny mill			APMC Chikkaballapur			Highest Prices among all markets	Avg. % of supermarket prices with APMC
								Low	Max	Mid	Low	Max	Mid		
01	Banana Yelakki	41	46	45				10	44	27				Big Basket	0.0 %
02	Papaya nati	18						6	14	12				HOPCOMS	28.6 %
03	Beans	34	33	26			22	20	24	22	15	26	20	HOPCOMS	19.8 %
04	Brinjal (W)	18	12	15		19	14							RF	-
05	Brinjal Bottle	12		12		9	12	10	22	15				APMC	-48.9 %
06	Cabbage	8		4.5		4	6.5	3	5	4	0.8	1.2	1	HOPCOMS	15.0 %
07	Capsicum Green	26		24		21	22	25	30	28	15	19	17	APMC	-22.5 %
08	Carrot Nati	13						10	12	11	5	6	5.5	HOPCOMS	8.3 %
09	Cauliflower(B)	14						14	16	14				APMC	-12.5 %
10	Sapota	33						8	18	20				HOPCOMS	83.3 %
11	Chilies Green	24	29		30			20	28	25	15	25	25	NF	1.5 %
12	Lady's finger	39						26	34	30				HOPCOMS	14.7 %
13	Onion medium	8.25				11.15		8	9	8.5				RF	7.8 %
14	Potato(M)	15		14		16		11	13	12	9.5	11	10.75	RF	15.4 %
15	Tomato HYB	15	16	14		13	15	8	10	9	4	13	10	BB	46.0 %

Sources: Agmarknet.govt & Authors' primary survey (2017)

Table 2A: Major F&Vs Sale prices by MRC in Bangalore (average sale prices based on 22 to 25/01/2016) (Rs per Kgs.)

Sl. No.	Item Name	HOPCOMS	Big Basket	More	NF	Reliance Smart	Star Bazaar	Local Outlet
1	Apple Gala		221	209	250	219		200
2	Apple Fuji					115	99	
3	Banana Yelakki	55	62		60	62	60	60
4	Grapes B'lore blue	36	72					110
5	Orange Australia	136	140	199	150		169	
6	Orange Kinoww	40	42	39	50			70
7	Papaya nati	24	33	30	32	30	36	30
8	Beans	46	66		80	48	49	60
9	Brinjal (W)	24	34		54	35	35	30
10	Brinjal Bottle	18	23	25	44	18	25	
11	Cabbage	12	30	13	35		12	20
12	Capsicum Green	34	44	43	45	33	35	45
13	Carrot Nati	18	20	17		15	15	
14	Cauliflower(B)	19	25	17	27	15	17	30
15	Chikoo(Sapota)	44		89	80	65		70
16	Chillies Green	34	70	53	80	22*	79	
17	Lady's finger	52	56	59	56		59	55
18	Onion medium	12	16	15		14		
19	Potato(M)	21	15.5	23	28	23		30
20	Ridge Gourd		50			44		52
21	Tomato Local		16	18				
22	Tomato HYB	20	22	22	17	18	18	20

Sources: Agmarknet.govt & Authors' primary survey (2017)

**Table 3A: Consumers' share in farmers' rupees at different MRC (prices based on 22 to 25 /01/2016)
(In percent)**

Sl. No.	Item Name	HOPCOMS	Big Basket	More	NF	Reliance Smart	Trent	Local Outlet_APMC Prices
01	Banana Yelakki	74.5	74.2	-	-	-	-	45.0
02	Grapes B'lore blue	75.0	-	-	-	-	-	14.5
03	Orange Australia	77.9	-	-	-	-	-	-
04	Orange Kinoww	77.5	-	-	-	-	-	0.0
05	Papaya nati	75.0	-	-	-	-	-	40.0
06	Beans	73.9	50.0	-	-	0.0	44.9	36.7
07	Brinjal (W)	75.0	35.3	-	-	54.3	40.0	0.0
08	Brinjal Bottle	66.7	-	48.0	-	50.0	48.0	-
09	Cabbage	66.7	-	34.6	-	-	54.2	20.0
10	Capsicum Green	76.5	-	55.8	-	63.6	62.9	62.2
11	Carrot Nati	72.2	-	-	-	-	-	-
12	Cauliflower(B)	73.7	-	-	-	-	-	46.7
13	Chikoo(Sapota)	75.0	-	-	-	-	-	28.6
14	Chillies Green	70.6	41.4	-	66.6	-	-	-
15	Lady's finger	75.0	-	-	-	-	-	54.5
16	Onion medium	68.8	-	-	-	79.6	-	-
17	Potato(M)	71.4	-	60.9	-	69.6	-	40.0
18	Ridge Gourd	-	-	-	-	-	-	50.0
19	Tomato Local	-	-	-	-	-	-	-
20	Tomoto HYB	75.0	72.7	63.6	-	72.2	83.3	45.0

Sources: Agmarknet.govt & Authors' primary survey (2017)

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Dr V K R V Rao Road, Nagarabhavi P.O., Bangalore - 560 072, India

Phone: 0091-80-23215468, 23215519, 23215592; Fax: 0091-80-23217008

E-mail: reimeingam@isec.ac.in; Web: www.isec.ac.in