CHAPTER 1.

Introduction to Study.

Title of Thesis- Agricultural Marketing Reforms in Maharashtra- Study of the vegetable supply chain in Pune District.

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1.1. **Introduction:**

‘Everything else can wait, but not Agriculture’, said Pandit Jawaharlal Nehru in his speech at IARI in 1948. Professor M S Swaminathan points out that he said this in the context of the Bengal Famine of 1942-43 and the acute food scarcity prevailing in the country in 1947. Even in the 21st century, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction. Three of every four poor people in developing countries live in rural areas—2.1 billion living on less than $2 a day and 880 million on less than $1 a day—and most depend on agriculture for their livelihoods. Therefore agricultural growth is imperative for eradicating poverty in the developing world and particularly in India. Global development experience, especially from the BRIC countries, reveals that one percentage point growth in agriculture is at least two to three times more effective in reducing poverty than the same magnitude of growth emanating from non-agriculture sector (Planning Commission, 2008).

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This entails that policy makers should focus their efforts on the agricultural sector and ensure that reforms are implemented in the right degree and spirit. There is still a core truth in Theodore Schultz’ Nobel Prize lecture: “Most of the world's poor people earn their living from agriculture, so if we knew the economics of agriculture, we would know much of the economics of being poor.”

Agriculture sector in general and agricultural marketing in particular, need to be addressed with immediate policy measures and reforms at the central and state levels in India. The aim of reforms is to provide farmers assured and remunerative markets as observed by Prof. Swaminathan in his report on National Commission on Farmers 2007. The urgency of agricultural reforms is highlighted by the farmer suicides that have only increased in the last five years. Farmer leader Mr. Raju Shetti of the Swabhimani Shetkari Sanghatna says, “The start of the farm land crisis is the failure of the farmer to realise competitive pricing for his produce. With input costs going up, the cost of the output should commensurate that. Once this is assured, the farmer will be able to take care of adverse climate also”. Access to markets is the other point which Mr. Shetti highlights. Farmers in India are in dire straits and need urgent attention.

Agriculture is a State subject according to entry 14 in list II (State list) of the Seventh schedule of the Constitution of India. The enlargement of entry 33 in the Concurrent list through Constitution (3rd Amendment Act) 1954 includes; trade, commerce, production, supply and distribution of foodstuffs including edible oils and oilseeds in the Concurrent list. This enabled the center to enact the State Agricultural Produce Marketing (Development and Regulation) Act, 2003 or the Model Agricultural Produce Marketing Committee (APMC) Act in 2003, to guide agriculture in a more liberalized economic environment. The Directive Principles of State Policy in Constitution of India emphasize the need for public investment in Agriculture. The agricultural sector is troubled by numerous issues like uncertainty of climate, inadequate irrigation, lack of insurance, lack of finance, weak agricultural marketing infrastructure etc.

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3 Planning Commission, Faster, sustainable and more inclusive growth- an approach to the 12th Five Year Plan (2012-17), October 2011, New Delhi, Govt of India. pg 7 retrieved from http://planningcommission.gov.in/plans/planrel/12appdrft/appraoch_12plan.pdf


Agricultural marketing is the weak link in Indian agriculture. Unorganized retailers form the bulk of this sector with 96-97% of business managed by them. Organised retailers have a miniscule share of 3-4% in the sector even after 15 years from the announcement of reforms in India. The Agricultural Marketing sector is afflicted with maladies, like the over regulated system of Market Committees, the long chain of Intermediaries and State neglect of public investment in market infrastructure. This results in poor remuneration to farmers and inefficient market functioning. To remedy this state of affairs in agricultural marketing the Central and Maharashtra state governments have introduced various reform measures in the sector. This study is an attempt to examine the agricultural marketing reforms undertaken in India, especially in the state of Maharashtra. The study also attempts to examine the changing nature of the vegetable supply chain against the background of reforms and implementation of the reforms through specific policy measures.

The study is set in Pune district as the district is known for its vegetable production as well as for the progressive nature of farmers across the district. The study brings forth the legal framework of agricultural marketing and the changes made therein both at the Centre and by Maharashtra. Reform measures are undertaken with a view to increase productivity in the sector towards the benefit of all stakeholders of the given sector. In case of agricultural marketing sector, these reform measures have influenced the supply chain in agricultural produce. There is a change in the nature of the supply chain and its processes. Fewer intermediaries, use of modern technology, rationalized market charges and new modes of marketing are all the result of reform measures taken by the government. The changes in the supply chain are expected to tackle the constraints of the established systems of marketing and yield better returns to farmers along with efficient delivery of produce to consumers at reasonable prices. These reforms are also expected to enable the integration of the agricultural marketing sector into the globalized economy. The study is an attempt to evaluate whether the reforms and subsequent policy measures are truly transforming the agricultural marketing sector with a positive impact on the stakeholders of this sector.

1.2. Agricultural marketing and supply chain perspective:

As observed by Ashok Gulati (2002), the time has come to open commodity markets and dismantle restrictive legislations for efficient marketing and resolving starvation issues in India. In response to the changes in trading environment during 1990s, the Union government
brought a series of reforms in quick succession, beginning from 2002. These included the Removal of (Licensing Requirements, Stock Limits and Movement Restrictions) on Specified Foodstuffs Order, 2002 and 2003. As per this order, wheat, paddy/rice, coarse grains, sugar, edible oilseeds and edible oils, pulses, gur, wheat products and hydrogenated vegetable oil or vanaspati were removed from the list of Essential Commodities Act (1955) and thereafter, a permit or licence was not required for their trading, storage and movement. Further, the prohibition on futures trading in agricultural commodities was removed in 2003. The old supply chain for agricultural products: Farmer – consolidator/aggregator – commission agent – trader – wholesaler – retailer – consumer. This agricultural supply chain suffers from considerable inefficiency. Abridging the supply chain is the key factor that is driving the consolidation of retail business worldwide. The new supply chain is smaller: farmer-wholesaler – retailer – consumer. The wholesaler and retailer may be the same agency. There now exist numerous supply chains in agricultural markets. The traditional chain operates through regulated markets whilst the modern chain is the result of direct marketing practices. Vegetable supply chain has become shorter than the traditional supply chain. Farmers are selling directly to organised retailers, processing firms or even directly to consumers. Intermediaries in the traditional chain such as traders, aggregators and commission agents are practically eliminated from modern supply chains. Nature of these supply chains is unorganized and organised. In traditional chains both farmers and retailers are unorganized. While in modern chains farmers organize themselves into farmers’ cooperatives and big businesses have entered into organised food retailing. Some organised retail outlets are, Safal of NDDB, Food World, Star Bazaar, Reliance Fresh, Food Bazar etc. Both these formats, traditional and modern coexist but the share of modern supply chain is very limited. Traditional supply chain still accounts for a significant proportion of the markets.

The Uruguay round of negotiations of WTO settled on reforms in Agriculture which were included in the Agreement for Agriculture. Under the reforms programme, members have converted their non-tariff measures to equivalent bound tariff rate quotas and tariffs are being reduced. Contingency protection is provided through special safeguards and transparency works through notifications. There is a switch from a situation where myriad of non-tariff measures impeded agricultural trade flows to a regime of bound tariff only protection plus reduction commitments. The key aspects of this fundamental change have been to stimulate investment, production and trade in agriculture. On the lines of WTO policy, the Indian government’s Model APMC Act and the amendment to Essential Commodities Act are
expected to create more access for farmers to markets within and outside their own state. The policy of reforms in agricultural marketing will ultimately make sure that markets function efficiently to optimize use of scarce resources in Agriculture. The e-National Agricultural Market project is an effort to link state markets to national market and finally to international markets. Government policy has to consider the incidence of fiscal measures such as taxes, freight rates and transportation in policy making for agricultural markets. In order to promote private sector participation, the Indian government has allowed 100 per cent foreign direct investment (FDI) in several segments of the agriculture sector. These include fertilisers, agricultural machinery, horticulture, development of seeds, animal husbandry, pisciculture and fruits and vegetables cultivation. Drawing these private sector investments will greatly benefit majority of Indian farmers engaged in small-scale businesses and struggling to obtain profitability. We can use these investments to propagate agricultural R&D, develop technologies for energy saving, and protect the environment, which could help increase yield. Since the approval of 100 per cent FDI, the agricultural services sector witnessed foreign investments of US$ 1.5 billion over 2000–2012. As per a report by IBEF on retail sector in 2016, by 2018, the Indian retail sector is likely to grow at a CAGR of 13 per cent to reach US$ 950 billion.6

1.3. Rationale of study:

Land resources of India are 2.4% of the world’s geographical area supporting 16% of the world population. Growth in GVA in Agriculture & Allied Sectors in 2016-17 was 4.9% p.a. Share of Agriculture & Allied Sectors in total GVA in 2016-17 at current prices was 17.32% and GVA is around of 23.82 lakh crore INR.7 The small and marginal land holdings (less than 2.0 ha) account for 72 percent of land holdings. GCF in Agriculture & Allied Sectors as percentage of GVA by public sector is a dismal 2.8%.8 This explains the lack of production and marketing infrastructure in the economy. There are 2,477 principal regulated markets based on geography (the APMCs), and 4,843 submarket yards are regulated by the respective APMCs.9 Horticulture is the most dynamic sub group within agriculture today. Horticultural crops are short duration crops and multi cropping patterns can be utilized to increase incomes for farmers. Horticulture

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7 Economic Survey of India 2016-17, Vol 1, chapter 7, Agriculture and Food Management pg 165.
8 Op cit pg 167
9 Op cit pg 177
crops are considered in academic literature as ‘high value’ crops. This is on account of the higher yields from these crops as well as the higher income elasticity of demand for these crops.

The Economic Survey of India, 2016-17 observes that, on the production and productivity front, the horticulture sector outperformed conventional food crops between 2004-05 and 2014-15. During 2015-16 the production of horticulture crops was about 286.2 million tonnes from an area of 24.47 million hectares. Amongst the horticulture crops, vegetables constitute more than 50 per cent of total horticulture production. The production of vegetables has increased from 58,532 thousand tonnes to 1,69,064 thousand tonnes since 1991-92 to 2015-16. Per capita availability of vegetables in India is 357 gm/ person/day, which is helping in fighting malnutrition. The vegetable and fruit segments of the horticulture sector can be key drivers of agricultural growth and can be further developed by appropriate investments in harvesting, low cost storage facilities and processing technologies along with development of marketing infrastructure. The key challenge that the horticulture sector faces in India are post-harvest losses, availability of quality planting material and lack of market access for horticultural produce of small farmers. The combined wastage (harvest and post-harvest) for horticulture crops between 5 to 15 per cent in the case of fruits and vegetables is very high.\(^\text{10}\)

In horticulture, vegetable crops have been identified as the most remunerative crops for replacing subsistence farming in rain-fed, dry land, hills, arid and coastal agro ecosystems. Being short duration crops with lesser capital requirement, vegetables are also best suited for crop rotation (G.Kumar, 2014)\(^\text{11}\). While the area under horticulture crops grew by about 2.7 per cent per annum, productivity increased by 37 per cent between 2004-05 and 2014-15. As a result, India has maintained its second rank in the global production of fruits and vegetables, next only to China\(^\text{12}\). West Bengal, Uttar Pradesh and Bihar have the highest production of vegetables. There is also large proportion of poverty in these very states. This implies that horticultural production is not as remunerative as cash crops and other food crops grown in other regions. The Minimum Support Price offered to other crops is missing in vegetables.

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\(^{10}\) Op cit 179


\(^{12}\) State of Indian Agriculture Report 2015-16, pg.11.
Further markets function inefficiently leading to poor price discovery for horticultural crops in general and vegetables in particular.

The National Commission on Agriculture (XII report 1976) defines agricultural marketing as: ‘Agricultural marketing is a process which starts with a decision to produce a saleable farm commodity and it involves all aspects of the market structure both functional and institutional based on technical and economic considerations and includes pre and post-harvest operations like assembling, storage, transportation and distribution.’ (Gandhi and Namboodiri 2009) state that agricultural marketing occupies a fairly low place in agricultural development policies in developing countries. There has been concern in recent years regarding the efficiency of marketing of fruits and vegetables, and that this is leading to high and fluctuating consumer prices and only a small share of the consumer rupee reaching the farmers. Marketing of horticultural crops is complex especially because of perishability, seasonality and bulkiness.  

Indian Agricultural Marketing sector has emerged through the centuries, influenced by socio-cultural factors as well as the imperialistic policies of the British Government. Regulation of markets was initiated by the British government on the recommendation of the Royal Commission for Agriculture in 1928. Gradually many Indian states adopted market regulation for agricultural produce. Since the 1950s Agricultural Produce Market Committees (APMCs) have been operating these markets across the country. India adopted the Constitution in 1950. Under this Constitution, Agriculture is a State subject. But vide Amendment 3, the interstate trade and commerce in agricultural produce was brought into the Concurrent list. The government of India adopted the Model APMC Act in the year 2003. The Act would help to liberalise the agricultural marketing sector and increase private and foreign participation in the sector. The state governments were expected to follow suit and amend their respective state laws to adapt to the Model APMC Act. Reforms under the new Act are being undertaken to remove lacunae from the system. The state of Maharashtra has also adopted the Model APMC Act in 2005 and is undertaking numerous reforms to remove the limitations of the agricultural marketing sector. A deep understanding of the sector will help to formulate and implement

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policies and ensure that the benefits of these policies reach the largest number of people in the agricultural sector.

‘A supply chain has been described as a system whose constituent parts include material suppliers, production facilities, distribution services and customers linked together via the feed-forward flow of materials and the feedback flow of information’.15 The agricultural supply chain is a complex network of enterprises of varying sizes and activities. It includes the farmers (producers), aggregators at village level, commission agents (Kutcha Arhatiya), traders, buyers/wholesalers/exporters (Pakka Arhatiya), processors, marketing organisations including agricultural produce marketing committees, where commodities’ buying-selling process is carried out through open auction process, agriculture marketing co-operatives viz. NAFED, MSAMB etc. and distributors (wholesalers, retailers etc.). ‘The agribusiness sector is becoming an interconnected system with a large variety of complex relationships, reflected in the market place by the formation of Agricultural Supply Chain Networks (ASCNs) via alliances, horizontal and vertical cooperation, forward and backward integration in the supply chain and continuous innovation’16. Both the formats, traditional and modern coexist but the share of modern supply chain is very limited. Traditional supply chain still accounts for a significant proportion of the markets. The present supply chain in F&V sector that connects the farmers to both the organized, as well as the unorganized retail, is still in a very pathetic state and highly inefficient with several intermediaries and manual handling. The result is lots of wastage, as much as nearly 30% and also less remuneration for the farmers (Viswanadham, 2007)17.

The model APMC Act 2003 facilitated the establishment of direct marketing channels, farmers’ cooperatives, contract farming and entry of big business retail into the agricultural supply chain. In many states farmers markets were set up like Rythu Bazars in Andhra Pradesh, HOPCOMs in Karnataka, Apni Mandis in Punjab and Shetkari Bazars in Maharashtra. An amendment to the Companies Act (1956) in the year 2004, triggered the formation of a number of producer companies to sell agricultural produce. The study comes against the background

of the claims of corporate India about the positive impact that corporate initiatives have had on the farm sector e.g. the e-choupal initiative of ITC Ltd and the TATA Kisan Sansars to name a few. Nilgiris, established in 1905 as a dairy farm near Ootacamund in South India could perhaps be the first organised supermarket in India. Though Spencers has been part of Indian retail landscape since 1863, it began selling groceries only in 1920. Safal, established in 1988 by the National Dairy Development Board (NDDB), was the first organised retailing venture for fruit and vegetables in North India mainly Delhi. Establishment and expansion of the “Food World” outlets by the RPG Group starting with the first outlet in Chennai in 1996 led to enhanced corporate interest in food retailing. Many large corporates like Reliance Ltd, Tata, Mahindra and Mahindra Ltd, Birla Company etc. entered the agricultural marketing space in the 2000s. But initiatives of the private sector like the Reliance Fresh Outlets or Spencer’s retail chain faced resistance from the small retailers and agents. With the approvals for foreign direct investment in multibrand retailing much larger corporations like Walmart, Carrefour, Metro etc are all set to enter the retailing space in India including food retailing. Recent reports in the media detailing the protests against the entry of big business firms in retailing agricultural products, suggest that there is a real possibility of adverse consequences such as loss of livelihoods of millions of intermediaries and creation of monopolies in agricultural marketing. This has raised public interest and concern in this subject and there are important policy implications.

There is also a growing debate regarding the restrictiveness and relevance of the APMC Act. Prima facie the APMC act seems to have encouraged monopolies of intermediaries resulting in distortion in price discovery of agricultural produce. A collusion between traders, commission agents and APMC officials is not unheard of. This adversely affects the interests of farmers who are forced to remain in the system due to lack of alternatives. Therefore the study aims at understanding the context of the changes in the agricultural supply chain and the long run implications of the changes. It is an attempt to provide an understanding of the changes in the supply chain from the point of view of the farmers and retailers. The study may reveal certain new aspects regarding supply chains. These aspects may be considered in policy matters related to the retail sector in India.

1.4. Significance of Study:
The study is very relevant in this time period as there was a historic and unprecedented agitation of farmers in Maharashtra (June 2017). Farmers in the state had declared a strike for their
numerous demands such as implementation of the Swaminathan Commission report, better prices for their produce, lower power tariffs and farm loan waiver. In the last five years there have been numerous reforms undertaken both at the central and state government levels. These reforms have changed the way of doing agricultural business. The Model APMC Act enacted both by the government of India and the government of Maharashtra was a revolutionary piece of legislation with far reaching impact. In the present study the researcher has attempted to analyse the impact of these reforms on farmers, market intermediaries and the sector at large. There is a growing debate regarding the restrictiveness and relevance of the APMC Act. Prima facie the APMC act seems to have encouraged monopolies of intermediaries resulting in distortion in price discovery of agricultural produce. This adversely affects the interests of farmers who are forced to remain in the system due to lack of alternatives. Therefore the study aims at understanding the context of this change in the agricultural supply chain and the long run implications of the changes. It is an attempt to provide an understanding of the changes in the supply chain from the point of view of the farmers and retailers.

The major focus of the study was to understand the relevance of regulated markets in the state today as well as to bring out the impact of emerging modes of marketing on stakeholders in the agricultural marketing sector of Maharashtra. The study will highlight the need for coexistence of competitive systems of agricultural marketing, with the presence of both public and private sectors, towards the integration of the sector in a globalized economy. The study is relevant in the context of the continuing reforms and the transformation of the agricultural marketing sector in Maharashtra. The impact of these reform measures are as yet to unfold completely. The corporate sector is willing to set up and scale up organised retailing, while the traders and commission agents are agitating against the dilution of the ambit of APMC Act. Vegetable farmers are protesting for minimum support prices while local unorganized retailers are losing livelihoods. In this scenario, the study will deepen the understanding of stakeholders’ perspectives and may yield some direction for policy making in future. The study may reveal certain new aspects regarding supply chains. These aspects may be considered in policy matters related to the retail sector in India.

1.5. Statement of research problem:
P S Vijayshankar, Mekhala Krishnamurthy, 2012, have edited some papers which state that a new generation of theoretically-grounded empirical research is urgently needed to make sense of these rapidly changing agricultural markets and their linkages. The present study is an effort
at bridging this gap partially by identifying the emerging modes of marketing and their potential impact on the stakeholders’ in agricultural marketing sector of Maharashtra. During the last few years, Fruits & Vegetables contributed substantially to food inflation on account of increasing per capita incomes driving demand and wastage of F&Vs creating supply shortages. The studies conducted by Directorate of Marketing and Inspection (DMI) reveal that Costs and Margins account for 30 to 35 per cent of consumer’s price in foodgrains, 45 to 55 per cent in fruit and vegetables and 12 to 36 per cent in oilseed crops. In fruits and vegetables, the mark ups by the intermediaries touch about 60% of the costs while the same is reportedly about 6 to 8% in the USA. High-mark up means low returns to the farmers as a percentage of the retail price and secondly the consumers pay a higher price. Krishnamurthy (2012) writes of critics who find that “instead of protecting the interest of primary producers, mandis have thrived under a politicized and restrictive regulatory framework, strengthening mercantile control and collusion, while leaving both farmers and consumers worse off on either end of a fragmented and inefficient supply chain”. Marketing of horticultural crops is complex especially because of perishability, seasonality and bulkiness.

Results of one study indicate that in Ahmedabad the direct contact between commission agents and farmers is very low. For vegetables this is 50 percent and for fruits only 31 percent. Further, in the system of transaction, secret bidding and simple transaction dominate and open auction is relatively rare. The agricultural supply chain in India has undergone significant changes since the new State Agricultural Produce Marketing (Development and Regulation) Act was passed in 2003. A number of new modes of agricultural marketing have emerged viz. direct marketing, organized big business retail, agricultural producer companies etc. Farmers, Market Intermediaries like traders, commission agents, wholesalers etc., market functionaries and retailers both organised and unorganized are the stakeholders in agricultural marketing sector. Reforms will have short term and long term effects on these stakeholders. These effects may be adverse or positive. All stakeholders will not be uniformly affected by the reform measures.

The Report of the Working Group for XIIth Five Year Plan on agricultural marketing sector, made some very pertinent observations regarding the state of Indian agricultural marketing: Producers in rainfed regions already suffer from a serious technological and productivity gap compared to better endowed areas. Their condition is likely to deteriorate further and their isolation from the new emerging markets is almost a foregone conclusion. Hence the urgent need for solutions that mark a break from the past and significantly improve the terms of
smallholder access to the market. It is clear from the available data and market behavior that small producers, especially if they happen to be women, dalits, tribals and landless labour, dalits and tribals, are among the most disadvantaged in the current economic scenario. However, it also a fact that the present trends offer a tremendous opportunity to link small and disadvantaged producer groups to market opportunities to enhance incomes and return on labour and investments.

Farmers now have a choice between traditional and modern methods of selling their produce. But farmers’ exploitation continues, as APMC operated markets are inefficient, organised retailers also depend largely on APMC markets to buy their produce and modern modes of marketing have some limitations. It is observed in the advanced economies, where organized retail accounts for significant proportion of agri-business, there has been an adverse effect on farmers and local unorganized retailers. As observed by one farmer, ‘agricultural markets are traders’ markets. Traders set the rules, determine prices and make the markets’. When Reliance Fresh started opening stores to sell fresh agricultural produce in 2006, the pace and scale of its operations agitated the market middlemen and local retailers. There were widespread protests which resulted in Reliance withdrawing from the markets partially. Recently traders have been protesting the entry of Walmart into food retailing through Flipkart. On the other hand, liberalization of the sector encourages organised retailing and food processing sector to grow at a fast pace.

The study proposes to examine the extent of change in nature of agricultural marketing. The entry of big business retail firms in this sector will have considerable impact on the existing players’ viz. farmers, agents, traders and small retailers in the agricultural supply chain. This study proposes to analyse two possible impacts: firstly, whether the participation of big business in the supply chain will remove the limitations of the traditional supply chains and secondly, the direction and extent to which modern modes of marketing of agricultural products will influence farmers and unorganized retailers. The study will also make an effort to analyze the relevance of the APMC legislation, effect of reforms announced by the state of Maharashtra and adaptation to reforms by stakeholders in the agricultural marketing sector.

1.6. Scope of the study:
The present study is an analysis of agricultural marketing reforms both at the Center and in Maharashtra. The study focuses on the Model APMC Act enacted by the government of India
in 2003 and subsequently adopted by state of Maharashtra in 2005. This Act tries to bring reforms in Agricultural marketing sector to integrate the sector into the globalized economy and to increase the pace of the lagging agricultural sector in general. Since 2007, it has resulted in contract farming and direct marketing arrangements, public private partnerships and farmers’ associations. These reforms will have an impact on the long established regulated markets, market intermediaries and functionaries as well as farmers. The study aims at understanding the changing nature of the supply chain due to changing legal framework of agricultural marketing sector. The study also analyses how the reforms have an impact on the stakeholders like farmers, intermediaries, APMCs and retailers.

Maharashtra is one of the leading states which adopted the Model APMC Act in 2005 and has reformed its agricultural marketing sector considerably. State of Maharashtra has been selected by Niti Ayog as the most farmer friendly. Niti Ayog announced the Agricultural Marketing and Farmer Friendly Reforms Index in November 2016, on which Maharashtra got a score of 81.7 followed by Gujarat. The geographical scope of the study is Pune district in Maharashtra with some inputs from the Mumbai APMC market. In Maharashtra, total agricultural area of 20 million hectares is distributed among more than 12 million farm holdings in the state.\textsuperscript{18} The State Government, taking advantage of various schemes of Central Government, has made substantial progress in developing infrastructure for agricultural marketing in the state in partnership with the private sector agencies particularly in Pune District. Pune with more than 1 million hectare area under cultivation makes vital contribution to the agriculture sector of the State\textsuperscript{19}. Maharashtra is the one of the largest vegetable producing states in India. Within Maharashtra the Pune district is a forerunner in changes in vegetable supply chain and general reforms in agricultural markets. Farmers from Pune district have been growing vegetables traditionally. Recently they have also started new initiatives to farm exotic vegetables to cater to the changing demand from households and commercial food retailers. This move is expected to increase incomes for farmers and to assure continued markets for vegetables based on new demand.


\textsuperscript{19}Research Report 2010-11, Public Private Partnership In Agril. Marketing – A Case Of Pune District, Maharashtra, National Institute Of Agricultural Marketing (NIAM) Jaipur Rajasthan Pp 33
Two of the largest APMCs in the country are in Maharashtra, viz; Vashi APMC, Mumbai and Gultekdi market yard, Pune. Besides permitting direct marketing arrangements and contract farming the state has also delisted Fruits and Vegetables from the ambit of APMC markets. Numerous licenses have been issued to firms for setting up private market yards. The enactment of model act was followed by many regulatory changes. Organised retailers such as Foodworld, Star Bazaar, Hypercity, Reliance Fresh, More stores, Food Bazaar, DMart etc have been operating across all major cities of the state since early 2000s and there have been no significant protests as was seen in other states.

This study focuses on the Pune district and the vegetable supply chain. Most of the farmers producing vegetables are small and marginal farmers. They are the ones who are exploited in the traditional supply chains as well as regulated markets. Therefore they are most in need of effective reforms in the marketing system, to increase their incomes. Pune district farmers are progressive and have adopted some modern methods of marketing. The western part of the district, particularly, Sahyadri range is well known for medicinal & aromatic plants. Vegetable pockets are well developed surrounding the tahsils of the Pune district especially in Junnar, Mulashi, Baramati, Saswad and Indapur areas. The Pune market is situated at Gultekdi in Bibwewadi in Pune district. It is the fourth largest market in India, in terms of revenue. The total no. of functionaries in the market are 7421. The time period of reforms considered by the researcher here is 10 years from 2006-2016. The model APMC Act enacted in 2005 initiated the reforms in this sector in Maharashtra and since then the government has announced small and big policy decisions which have had an impact on the sector. From the survey it is observed that reforms have been generating changes in the markets but at a painfully slow pace. Private investment which was expected to flow through direct marketing, contract farming, organised retail and private market yards is very limited. Licenses have been issued but the actual operations have not begun or the scale of operation is miniscule.

1.7. Conceptual Framework of the Study:
The agriculture sector is entangled in regulation and is a legacy of the era of socialism. While progress has been made in the last two years, producers in many states are still required by the Agricultural Produce Marketing Act to sell only to specified middlemen in authorized markets (mandis). And when this system nonetheless generates price increases deemed to be excessive, the Essential Commodities Act is invoked to impose stock limits and controls on trade that are typically procyclical, thereby exacerbating the problem.
As observed in the Economic Survey of India 2015-16, market segmentation is a crucial issue faced by this sector. Market segmentation reduces overall welfare because it prevents gains through competition, efficient resource allocation, specialization in subsectors and fewer intermediaries. The causes of market segmentation are many – differences in remoteness and connectivity (rural roads), local market power of intermediaries, degree of private sector competition, propensity of regional exposure to shocks, local storage capacity, mandi infrastructure and farmers access to them, storage life of the crop and crop specific processing cost. Market segmentation results in large differences in producer and consumer prices. Price dispersion for prices received by farmers is measured as the ratio between the highest (P95) and the lowest (P5) price of the crop in a country, i.e. if this ratio were to be equal to one, it would imply that there is no price dispersion, and that there is one common market. It appears that the perishability of a product is an important factor driving the wedges. The analysis (for 2014) finds higher markups in perishables such as onions than in cereals and pulses. Segmentation also creates a “wedge” at various points in the supply chain from the farm-gate to the final consumer in India. All Agricultural sector reforms, especially marketing reforms should aim at reducing this market segmentation.

The utility of APMC acts in a neo liberal trade regime is questionable. APMC yards have seen instances where traders have come to control the markets making them restrictive. Price discovery is non-transparent and often unfavourable to farmers. There is wide diversity in the operations of APMCs across states. Neo-liberal policies of the governments both at the center and state level have resulted in new models of marketing like direct marketing through Rythu Bazars in Andhra Pradesh, or public private partnerships like Safal Mandis in Karnataka, or technology based initiatives like e-choupals of ITC ltd. in Madhya Pradesh, or farmers’ cooperatives and producer companies in Maharashtra. These models are collaborative in nature and can trigger significant increase in investment in agriculture leading to productivity gains. S.Sivakumar of ITC agribusiness says that APMC yards should continue to exist as an auction mechanism and compete with alternate marketing channels like direct marketing or contract farming.

In the current series (Base year 2011-12), from 2011-12 to 2016-17, the GSVA of ‘Agriculture & Allied Activities’ sector has average share of 11.8 per cent in the total GSVA and is growing
at an average annual rate of 1.7 percent\textsuperscript{20}. The agriculture sector employed 51% of the state’s population, followed by the services. Allocations for Agriculture have increased by 8% and for the Department of Urban Development by 51.2% in 2016-17.\textsuperscript{21} Budgetary allocations to agricultural sector have been very poor both at the Center and the state levels. This discrepancy in the support to the sectors is causing a lag in the growth of agricultural sector which in turn affects the rest of the economy adversely. The NITI Aayog has proposed various reforms in India's agriculture sector, including liberal contract farming, direct purchase from farmers by private players, direct sale by farmers to consumers, and single trader license, among other measures, in order to double rural income in the next five years. Resource allocation should be balanced in favour of agricultural sector. Public investment should play a crucial role in creating infrastructure in the sector which will further invite private participation. Additionally, public private partnerships (PPPs) might be required to play a complementary role in linking small farmers with High Value Added markets.

Indian retail market is divided into “Organised Retail Market” which is valued at $60 billion which is only 9 per cent of the total sector and “Unorganised Retail Market constitutes the rest 91 per cent of the sector. Government of India has allowed 100 per cent Foreign Direct Investment (FDI) in online retail of goods and services through the automatic route, thereby providing clarity on the existing businesses of e-commerce companies operating in India. CARE expects the retail industry to register a growth rate of about 12-14% over the next 4 years and reach about USD 1,150 billion by 2020\textsuperscript{22}. The Indian food and grocery market is the world’s sixth largest, with retail contributing 70 per cent of the sales. Online retail is estimated to reach US$ 70 billion by 2020 from US$ 3 billion in 2014.\textsuperscript{23} ITC Agribusiness, Mahindra Shubhlabh, Tata Kisan Sansars etc are agribusinesses established by big corporate houses to participate in the Agricultural Sector. While, Reliance Fresh, Star Bazaar, Hypercity, Big Bazaar, DMart etc are organised retail chains started to participate in the fast growing retail industry. Food processing industry contributed 8.39 per cent of Gross Value Added in Agriculture sector in 2016-17. Online food retailing is emerging as a technology based mode of marketing. Some major players in this segment are Bigbasket.com, Grofers.com, Local

\textsuperscript{20}Economic Survey of Maharashtra 2016-17 pg 22.
\textsuperscript{21} Retrieved from http://www.prsindia.org/parliamenttrack/state-budgets/maharashtra-budget-analysis-16-17-4233/
\textsuperscript{22}Madan Sabnavis, 2017,Indian Retail Industry - Structure & Prospects, CARE Ratings,June 2017, pg 3.
\textsuperscript{23} Overview of retail Industry report-IBEF may 2017.
banaya.com, Ninjacart.com etc. These firms are operating in B-2-C and B-2-B formats with the aid of foreign investment by partner firms. These are major developments in the sector which should prompt farmers to adopt modern modes of marketing and come into the mainstream growth of the economy. The study aims at understanding the impact of Reforms on the stakeholders in agricultural marketing sector.

1.8. Objectives of the study:
The study takes into consideration the impact of agricultural marketing reforms on stakeholders in the agricultural marketing sector of the economy. These stakeholders are: farmers, commission agents, traders/wholesalers, organised retailers and local retailers. Broad objective of the study was to highlight the limitations of existing marketing systems and understand impact of liberalization on agricultural marketing sector and its stakeholders.

The specific objectives of the study are:

1. **To study the changes in legal framework of agricultural marketing in Maharashtra** - the legal changes in 2005 and subsequent reform measures introduced in the state of Maharashtra are examined. This helps us understand the government policy regarding agricultural marketing sector.

2. **To study the agricultural supply chain in vegetables and identify the limitations in existing chains** - there are numerous limitations to the existing systems. Reform measures announced by the government have transformed the agricultural marketing sector. New modes of marketing like direct marketing, farmers’ markets and online marketing have emerged.

3. **To evaluate farmers’ preferences regarding the intermediaries** - farmers now have a choice between traditional and modern modes of marketing. Their choice of intermediaries to sell their produce will determine the transition of agricultural marketing sector.

4. **To analyse the process of price discovery** - Price dispersion is very significant in traditional agricultural markets. It is yet unclear if profit oriented organised retailers will improve farmers’ remuneration for agricultural produce.

5. **To examine the impact of changes in agricultural supply chain on intermediaries in agricultural markets** - the Supply Chain is shorter in the new modes of marketing. This will impact the business and livelihoods of current intermediaries like wholesalers, commission agents, traders etc.

6. **To suggest suitable policy recommendations.**
1.9. Research Methodology:

**Population:** The population elements for the study were the six stakeholders; farmers, commission agents, wholesalers, APMC officials, organised retailers and local retailers dealing in vegetables both traditional and exotic, in Pune district.

**Sampling Unit:** The researcher has limited the study to main APMC market yards of Pune and Mumbai along with the Shetkari bazaars of Hadapsar and Manjri in Pune district. Stratified sampling method was used to select the stakeholders. Random sampling was then used to select approximately 10 percent stakeholders in each group. Further Vegetable farmers’ sample was obtained across Pune district. They were selected randomly from groups of farmers receiving training on direct marketing techniques and others who were selling their produce at the market yards of Pune APMC at Gultekdi, Hadapsar and Manjri.

**Sample size:** The number of farmers selling their produce in these markets averages 2000 each day therefore the sample size is 291. Six officials from both Pune and Mumbai APMCs were interviewed. There are about 6 different organised retailers selling vegetables in Pune city. These are Hypercity, Big Bazaar, Star bazaar, Reliance Fresh, More and DMart. Five of these stores’ managers were interviewed. 20 Commission agents and 15 wholesalers in Pune APMC were interviewed and finally 28 local retailers near the APMC and organised retail stores were interviewed.

**Table 1.1: Table of stakeholders from whom data was collected.**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>291</td>
</tr>
<tr>
<td>APMC officials</td>
<td>06</td>
</tr>
<tr>
<td>Wholesalers</td>
<td>15</td>
</tr>
<tr>
<td>Organised retailers</td>
<td>05</td>
</tr>
<tr>
<td>Commission agents</td>
<td>20</td>
</tr>
<tr>
<td>Local retailers</td>
<td>28</td>
</tr>
</tbody>
</table>

**Method of Data Collection:** The researcher has used personal contact, questionnaires and interview methods to collect primary data. Secondary data is from official government reports and websites as well as reports by corporate and research institutions.
**Tool of Data Collection:** Researcher has developed 5 semi-structured questionnaires comprising close-ended as well as open-ended questions for the purpose of data collection. These questionnaires were answered by six stakeholder groups viz; farmers, APMC officials, commission agents, wholesalers, organised retailers and local retailers. Besides the researcher interviewed stakeholders in informal settings and in their offices.

The researcher also interviewed the manager of Abhinav Farmers’ Club, Mr. Dyaneshwar Bodke. This is an association of progressive farmers willing to experiment with newer varieties of vegetables as per market demand as well those willing to use modern methods of marketing. Farmers from Nasik and Junnar are now coming to Mumbai city on a regular basis to sell vegetables directly to consumers. The researcher interviewed two such farmers with a mobile mini tempo converted into a vegetable stall selling directly to consumers in a residential area of the city. Responses of all these respondents are analysed.

**Sources of Data:** Two types of data are collected. Major source of information was primary data. The primary data was collected from all six stakeholders i.e. farmers, commission agents, wholesalers, APMC officials, organised retailers and local retailers working at APMCs Pune and Mumbai. Questionnaire for primary data tries to understand the farmers’ perspectives on time period of reforms, new intermediaries in the market, new modes of marketing, preferred modes of marketing of farmers, shortcomings of APMC markets and benefits of organized retailing of vegetables. The farmers were also interviewed regarding their disappointment with the current system and the need for new systems and liberalization of agricultural markets.

To understand and explore the research problem, to build the theoretical framework, various secondary data sources were used. This includes research journals, magazines, books, websites, research report, newspapers etc. The study used secondary data sources like the Market Information Network of the Department of Agriculture (AGMARKNET), Ministry of Statistics and Programme Implementation (MOSPI) website, Government of Maharashtra Statistical Handbook, websites of Department of Agriculture of government of Maharashtra, Economic Survey of India and Maharashtra of various years, websites of the concerned corporate firms and reports of NABARD, PWC and CII, IBEF and McKinsey & Co.

**Data Analysis and Presentation:** Data analysis began with preliminary check of all questionnaires for its completeness. The researcher examined the filled up questionnaire, detected errors, omitted half-filled and unqualified questionnaires and corrected errors wherever possible. Then numerical codes were assigned to represent a specific response to a specific question. After this, the data were tabulated, i.e. arranged in a logical manner in
columns and rows for further analysis. Cross tabulation of data was done to get a deeper understanding of the impact of demographic profile of the sample and their responses. Appropriate statistical tools were applied according to the objectives of the study. This includes Frequency Distribution, Cross-Tabulation, Mean, Standard Deviation and Pearson’s Chi Square Test. Mean, median and mode analysis helped to support the interpretations of the frequency tables. Pearson Chi Square test was used to analyse the relation between categorical variables. The data was analysed using Statistical Package for Social Sciences version 21.0 and MS-Excel. The data is presented in neat diagrams, charts and graphs where required.

1.10. Chapter scheme:

The dissertation for the thesis will consist of seven chapters:

**Chapter 1: Introduction to the Study:** includes the introduction of the topic, rationale of study, the related concepts, legal framework and socio economic background for the study. It also includes the research methodology of the study.

**Chapter 2: Review of Literature:** includes the review of literature on the topic. The review will highlight the recent studies if any, on the same topic; it will also include a study of some texts and journals pertaining to the topic. There is an overview of the reports of commissions and committees constituted in India to understand the agricultural sector in general and agricultural marketing in particular.

**Chapter 3: Agricultural Marketing Reforms in India:** includes a historical perspective of agricultural marketing in India and an overview of the agriculture and horticulture sectors and policies related to these sectors in India.

**Chapter 4: Agricultural Marketing in State of Maharashtra:** consists of policy changes and ensuing reforms undertaken with special emphasis on Maharashtra. It also includes the present situation in marketing sector in Maharashtra. The chapter further includes analysis of vegetable supply chain in Pune district.

**Chapter 5: Analysis of Stakeholders’ perspectives on Reforms in Agricultural Marketing:** This chapter consists of the comparative analysis of traditional and modern supply chains. It also includes analysis of qualitative data collected from stakeholders in the agricultural marketing sector in Maharashtra.

**Chapter 6: Analysis of the impact of Agricultural Marketing Reforms- Farmers’ Perspective:** this chapter includes the research methodology, data analysis and interpretations. It outlines the research work conducted including collection of primary data from farmers, processing, statistical analysis and interpretation of data.
Chapter 7: Findings, Discussions, Suggestions and Conclusion: displays the results of the research effort. It will include interpretation of data and implications of findings. This is the concluding chapter and includes discussions, conclusions and policy recommendations if any.

1.11. Expected contribution of the study:
The study will help to understand the nature of changes taking place in the agricultural marketing sector. The supply chain perspective is a relatively less analyzed angle to increasing efficiency and productivity of agricultural marketing. The study will help to highlight the advantages and disadvantages of organised retailing. There will be a better understanding of farmers and other stakeholders’ perceptions regarding the changes and in that sense it will reveal whether the reform measures are in the right direction. Some policy suggestions will be generated from the practical point of view.

1.12. Conclusion:
Shetkari Sanghatana’slate Shri Sharad Joshi laid down a Bharat progress plan. He proposed that those who want to do farming should be able to do it voluntarily and profitably, while those who want to leave should be able to exit profitably. The programme that he suggested was: ‘Restrictive laws should be repealed and agriculture markets be liberalized. Regulation in markets to be removed to allow for efficient price discovery, complete liberalization of investment in agricultural research, technology and agricultural markets.’ This plan indicates that farmers’ representatives are in favor of liberalization of the sector and do not want government intervention which becomes excessive and restrictive in nature.

Agriculture in India is still not a completely commercial activity. There is stagnation in this sector due to low productivity, arising from low investment due to low farm incomes which in turn is the result of low resource productivity and depressed yields in regulated markets. An effective breakthrough from this state of affairs towards an requires increasing initial capital investment. This is termed as ‘Big Push’ by Rosenstein Rodan; Critical Minimum Effort’ by Libenstein, ‘Bottle-neck Breaking’ by Ragnar Nurkse and ‘Linkage Effect’ by Hirschman. Public sector investment alone will not be able to generate this effect. Government of India enacted the Fiscal Responsibility and Budget Management Act in 2003. According to the Act fiscal deficit was to be curtailed for efficient growth of the economy. This entails reduced government intervention and public investment across sectors of the economy. Private
investments are the need of the day. Backward and forward linkages in agricultural marketing sector will require private investment. Reforms, thus ride on the participation of the private and foreign investors in this sector. High value perishable commodities like dairying, vegetables, fruits, poultry and meat require marketing infrastructure, to minimize post-harvest losses which are a third of the output, to realize a much better share in the of the price paid by the consumer which is below 15% in case of many horticultural products and to use innovative technologies. The recent decision to permit FDI in organized multi-brand retail and the policy requirement that at least 50% of total FDI be invested in back end infrastructure will be beneficial to farmers. This investment could go into market infrastructure, storage, warehousing, cold chains, processing etc.

The 12th Plan Working Group on Horticulture and Plantations is of the view that certain common standard operating procedure (SOP) for all markets, i.e. the modern and regulated markets under APMC Acts, must be introduced. The 12th Plan Approach Paper, the 12th plan itself is not in favour of removing perishables from the purview of the APMC Regulations. However, I do believe that there is a strong case for removing perishables from the purview of APMC regulations as the nature of the commodity requires speedy transaction in order to minimise wastage.

The recent legislative changes and policy measures introduced in Agricultural marketing sector stem from the similar suggestions offered in most of the national commission reports as well as the intentions’ announced by the government in the Economic Surveys and experts groups’ recommendations regarding measures to be taken in this sector. Greater market orientation for Indian Agriculture is attainable through interventions like dissemination of market information, promoting competition and transparency in agricultural produce markets and linkage with agro-processing sector. Secondly, the agribusiness firms will have to maximise synergy between three important sub-system of agriculture production system namely R&D, extension and markets. Further, several initiatives will have to be undertaken to restructure processes, enterprises and institutions including capacity building of personnel engaged in its promotion. Big retail in the West and elsewhere functions on a simple business model. Grow bigger and

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bigger till the market becomes an “oligopsony” — a situation where a small number of buyers exert power over a large number of sellers. The UK food retailing industry, for example, is now dominated by just four supermarket chains who together account for over two-thirds of retail food sales. Likewise, the top five chains in the US account for over 60 per cent of food sales. In India, promoting market-oriented agriculture production may create such oligopsonies and limit the variety of agricultural produce leading to restricted agricultural growth. There is a strong possibility of local retailers losing business and employment too. Hence, market oriented agriculture and liberalization of the food retailing sector should not be attempted at the cost of employment generation and food security particularly in the Indian context.

References:


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