



## A Study of Cotton Growing Farmers Perception towards Agriculture Marketing in Maharashtra State

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### Abstract

*The aim of this research to examine the cotton production & marketing problems in the Maharashtra. This research also aims to find out the barriers and factors affecting cotton production & marketing. The particular references for study have been taken from Agriculture Produce Marketing Committee, Maharashtra State Cooperative cotton federation, Ltd. Privet cotton ginning factories & Cotton Corporation of India. The research design employed in the study is descriptive type. The data for the last 10 years, i.e., from 2006 to 2016, has been collected for the research, and its previous time data had been used if required. The required data has been procured through different primary and secondary data observation methods. The benefits of this research focus on the practices and solutions for cotton production and the issues related to marketing. It highlights the benefits and challenges of ground levels problem-related price, storage, interstate & other state sales of cotton & by-products of cotton.*

*Keywords: APMC, Agriculture, Cotton, GDP, National Agricultural Market*

### Introduction

Maharashtra State is having the largest cotton growing area in the country accounting for nearly one-third of the national cotton area (39.87 lakh hectares). Since there are vast tract of shallow soils with poor fertility and also the precarious and uneven distribution of rainfall over a larger area, the cotton production is only around 6-10 q/ha, though certain eco niches are having higher productivity (20-30 q/ha) throughout the State. The recurrent droughts and early termination of monsoon rains during September in the Maharashtra region call for strong water harvest programmes and farm ponds. It is observed that there is a vast potential for water harvest in the undulating terrain of Maharashtra. The total rainfall in cotton-growing districts of Maharashtra is from 700 to 1000 mm and it should not be difficult to augment rain water through Farm ponds and Mini reservoirs. The irrigated cotton in Maharashtra is having high yield potential (30-40 q/ha). But as compare to another state like Panjab the productivity of Maharashtra state is very low and the area under cultivation is very large. Area and productivity-wise data are given below. The textile industry is one of the largest and most important sectors in the Indian economy in terms of output, foreign exchange earnings and employment.

The share of the Indian textile industry is very high in the textile industry of the world. It contributes approximately 14% to India's industrial production, 4% to the GDP and 17% to the country's export earnings. More prominently, it is responsible for 20 % of the manufacturing value addition. Lately, it has been bringing home one-third of India's total export earnings. It provides direct employment to over 35 million people and it generates the second largest employment after the agricultural sector. This industry is expected to grow to US \$ 110 billion by 2015 from its present value of US \$ 70 billion. Indian textile and apparel



industry is taking a new course by entering the Chinese market. Most of the top global apparel retailers, such as JC Penny, Nautica, Dockers and Target, have their sourcing network in India. Indian textiles and apparel exports, which is worth US \$ 22 billion is expected to register a four-fold increase to touch the US \$ 90 to 100 billion in the next 25 years. Cotton is the most famous textile material associated with the Indian Subcontinent. Cotton is soft and comfortable. It absorbs perspiration. It has good colour retention. It is a good printing material. The export of fast dyed cotton cloth to Europe revolutionized the garment and furnishing fashions, agricultural practices and the textile manufacturing industries of the seventeenth and eighteenth centuries. In addition to the textile industry, cotton is used in fishnets, coffee filters, tents and bookbinding. The first Chinese paper was made of cotton fiber, as is the modern US dollar bill and federal stationery. Before economic liberalization in 1991, the Indian cotton industry was in a miserable situation. The economic liberalization of the Indian economy in 1991 gave the much-needed thrust to the Indian cotton textile industry.

#### **Importance of Cotton Industry in Indian Economy: -**

Cotton is the backbone of the textile industry, which consumes 70% of the country's total fiber production. This industry provides one of the most basic needs of people and holds importance, maintaining sustained growth for improving quality of life. Today the world uses more cotton than any other fiber and cotton is a leading cash crop. Being a major contributor to the GDP, employment to rural areas and the less privileged, and as a major contributor to industrial production and export, the cotton textile industry has a bigger say in the future growth of the Indian economy. Several challenges stand in the way of Indian firms before they can own a larger share of the global market. Managing such a complex supply chain requires economies of scale and economies of scope with proper coordination through excellent managerial practices, technology, long term planning and facilitating policies.

#### **The Current Situation of Cotton in Maharashtra: -**

Within India, this report focuses on cotton farmers in Maharashtra, as they face several challenges:

- 1. Cotton farming is liable for risks:** Some of the major risks facing cotton farmers are droughts, pests (in particular the pink bollworm, which has led to severe crop losses in recent years) and price volatility. Crop insurance is used by only 54% of farmers.
- 2. Cotton revenue is low:** As discussed above, Maharashtra has the lowest cotton yields among India's core cotton-growing states. This is pushed by the fact that most of Maharashtra's cotton farmers are predominantly rain fed putting them at more risk of crop losses due to droughts. Furthermore, landholdings in Maharashtra are small and fragmented at an average size of 1.44 hectares. Cotton farmers are also unorganized, making them price takers in their value chain.
- 3. Cotton cultivation is expensive:** Farmers are overly reliant on expensive hybrid seeds, chemical fertilizers and chemical pesticides. At the same time, the cost of agricultural labour is increasing due to labour migration to cities. Within Maharashtra, cotton is mainly grown in 15 districts in the Central and Eastern regions. Strong intra-state differences between farmer situations exist; with yields varying from 1.6 quintals of lint per hectare in Beed to 4.7 in Amravati (data referenced is an average of the cotton seasons from 2012 to 2016). The average yield in Maharashtra lay at 3.5 quintals of lint per hectare.

#### **Review of Literature**

**Tokarick (2003)** found out that multilateral trade liberalization in all agricultural markets (including cotton) is expected to induce a 2.8 per cent increase in the world prices of cotton, with 0.8 per cent from the removal of market price support and 2.00 per cent coming from the removal of production subsidies.



**Mariga (2004)** He noted that the development of marketing services, extension and training, seed production and access to inputs was fundamental in improving cotton production especially in the smallholder sector of Zimbabwe. **Jayne et al (1994)** used a profit function to econometrically estimate determinants of agricultural production in the country. The study indicated the importance of state marketing infrastructure and increased credit availability in stimulating crop production.

### **Needs and Importance of the Study**

Textile Industry has a significant presence in the Indian economy. Apart from providing one of the necessities of life, the textile industry also plays a pivotal role through its contribution to industrial output, employment generation and the export earnings of the country. It contributes about 14% to industrial production, 4% to the GDP and 11% to the country's export earnings. The textile sector is the second largest provider of employment after agriculture. The Indian textiles industry is extremely varied, with the hand-spun and hand-woven sector at one end of the spectrum, and the capital intensive, sophisticated mill sector at the other. The decentralized power looms/ hosiery and knitting sector forms the largest section of the Textiles Sector. The close linkage of the Industry to agriculture and the ancient culture, and traditions of the country make the Indian textiles sector unique in comparison with the textiles industry of other countries. In 2011-12, Maharashtra state has 190 Cotton /Man-Made Fibre Textile (Non-SSI) Mills which is only 9.71 % in comparisons to India. There are only 0.02% (27) small scale spinning mills, out of 1336 in India. In the same year number of Handlooms is 0.24% (5,718) out of India. However, Maharashtra has 30 % land under cotton cultivation with produce 20 % raw cotton in comparison to India. Besides this, there are 2.87 lakhs (55.19%) of power loom units in the state out of 5.20 lakhs in India. The textile industry of Maharashtra is consolidating with the power loom sector.

The majority of power looms are located in three power loom clusters which are Bhiwandi (Thane district), Malegaon (Nashik district) and Ichalkaranji (Kolhapur district). Central Maharashtra, and North-Maharashtra are the main cotton-producing areas in the state. The majority of cotton mills whether it is private or cooperative are located in a part of western Maharashtra like Kolhapur, Solapur, Sangali etc. Handlooms are in Solapur, Nagpur, Bhandara and Nashik district which is negligible in comparison with India.

### **Statement of the problem**

Agriculture is the backbone of India. Cotton is a leading and traditional agricultural product in India. On the other hand, in India, the middlemen enjoy the cream at the cost of disability, illiteracy etc., of the poor Indian farmers. A small part of the price paid by buyers reaches the farmers while the middlemen suck the big part. Farmers are handicapped mainly in securing a fair and reasonable price for their produce. The reasons are many-low productivity due to improper implementation of all government agriculture-related programme lack of regulated markets, ungraded produce, no Agmark, inadequate storage and warehousing facility, etc. At present, the conditions have been greatly improved. Today, agriculture being modernized, leads to manifold productions. The role of marketing is fast changing. Also, the government exports policy, program and facilities provided for cotton grower farmer is not adequate, and the available facilities not reaching root level..

### **Objective of the study: -**

The study is carried with the following specific objectives:-

1. To know the current status of APMC and its reforms in agriculture marketing
2. To study trends of cotton cultivation in Maharashtra state.
3. To analyze the productivity and marketing of cotton in the Maharashtra state.



## Hypothesis

As per the research study plan, the hypothesis framed are as follows:-

**H0<sub>1</sub>**: There is no significance association between farmers annual income from cotton cultivation and satisfaction level by taking cotton crop production

## Research Methodology: -

This study has being descriptive types of research adopted by researcher. The following different aspects of methodology were adopted for the research study.

## Research design:

The researcher has used the survey strategy for the thesis. The survey strategy is usually associated with the deductive approach. It is a popular and common strategy in business and management research and is most frequently used to answer who, what, where, how much and how many questions. It, therefore, tends to be used for exploratory and descriptive research. Surveys are popular as they allow the collection of a large amount of data from a sizeable population in a highly economical way. Often obtained by using a questionnaire administered to a sample, these data are standardized, allowing easy comparison. Also, the survey strategy is perceived as authoritative by people in general and is both comparatively easy to explain and to understand.

## Sample Size and Justification

The selection of farmers for the case study must be carefully selected from cotton cultivars farmers (large scale cotton cultivars and small scale cotton cultivars). Different cases selected for the research study to get maximum data. The sample farmers had been selected from all regions Maharashtra state and data had been collected using the survey method.

## Stratified random sampling method

Stratified random sampling is a method of sampling that involves the division of a population into smaller sub-groups known as strata. Out 36 districts in Maharashtra researcher had selected 10%, which was 3.6 (approx 4 districts) four districts, each district had selected from North Maharashtra, Marathwada, Vidarbha and Western Maharashtra. The districts had selected for the study were Dhule, Jalna, Ahmednagar and Yavatmal etc. The actual sample population is usually a subset of the overall population, along with inferential state are usually to generalize in the sample towards the population. A new sample dimension associated with 400 respondents had been useful for the survey of Cotton growing Farmers. The particular sample dimensions ended up being determined using Yamane's made easier formula adjusted for proportion to identify sample dimensions with the review.

## APMC Reforms in Agriculture Marketing

Based on a Model Act circulated by the central government, almost all major states enacted APMC legislation. The regulation was introduced to overcome the problems faced in traditional marketing system by ensuring mechanism for proper sale of produce, weighment, grading and standardization, market information, market charges in proportion to the services provided, prompt payment without any un-authorized deduction etc. The market regulation brought its impact in terms of providing higher prices and better returns to farmers reduction of market charges and providing amenities at the time of sale of the product to the farmer in the vicinity

The 2014 budget recognized the need for setting up a National Agricultural Market (NAM). Conceptually NAM would interlink various markets within the state and the 37 country by creating a unified market through online trading platform, both, at State and National level and promotes uniformity, streamlining of procedures across the integrated markets, removes information asymmetry between buyers and sellers and promotes real time

price discovery based on actual demand and supply, promotes transparency in auction process, and access to a nationwide market for the farmer, with prices commensurate with quality of his produce and online payment and availability of better quality produce and at more reasonable prices to the consumer. National Agricultural Market (eNAM) is a single pan India electronic platform for (i) Efficient and transparent price discovery; (ii) Gateway for all licensing; (iii) Facilitating intra state and interstate movement of commodities; (iv) Payment gateway and (v) All market operations. As on 31 July 2017, around 455 APMCs in 13 States are connected through eNAM.

## Results and Discussion

### Annual Income from Cotton Cultivation

It reveals in the table 1 annual income from cotton cultivation of respondents. it was noticed that the 23.25 per cent of cotton growing farmers annual income from cotton cultivation was Rs. 1 lakh to 2 lakh; 22.25 per cent of cotton growing farmers annual income from cotton cultivation was Rs. 3 lakh to 4 lakh.

**Table 1 - Annual Income from Cotton Cultivation**

Annual Income	District wise Number of Respondents				Total
	Dhule	Jalna	Ahmednagar	Yavatmal	
below Rs. 50,000	8 (8.00)	2 (2.00)	9 (9.00)	6 (6.00)	25 (6.25)
Rs. 50,000 – 1 Lakhs	13 (13.00)	17 (17.00)	11 (11.00)	15 (15.00)	56 (14.00)
Rs.1 – 2 Lakhs	26 (26.00)	24 (24.00)	25 (25.00)	18 (18.00)	93 (23.25)
Rs.2 – 3 lakhs	16 (16.00)	18 (18.00)	17 (17.00)	19 (19.00)	70 (17.50)
Rs. 3 – 4 lakhs	23 (23.00)	19 (19.00)	22 (22.00)	25 (25.00)	89 (22.25)
Rs. 4 – 5 lakhs	8 (8.00)	17 (17.00)	10 (10.00)	9 (9.00)	44 (11.00)
above Rs. 5 Lakhs	6 (6.00)	3 (03.00)	6 (06.00)	8 (08.00)	23 (5.75)
Total	100 (100.00)	100 (100.00)	100 (100.00)	100 (100.00)	400 (100.00)

(Source: Field Survey - 2018-19)

Note: The figures in parentheses indicate percentage to column total

17.50 per cent of cotton growing farmers annual income from cotton cultivation was Rs. 2 lakh to 3 lakh; 14.00 per cent of cotton growing farmers annual income from cotton cultivation was Rs. 50000 to 1 lakh; 11.00 per cent of cotton growing farmers annual income from cotton cultivation was Rs. 4 lakh to 5 lakh; 6.25 per cent of cotton growing farmers annual income from cotton cultivation was below Rs. 50000 and 5.75 per cent of cotton growing farmers annual income from cotton cultivation was more than Rs. 5 lakh. It was conclude that the majority of respondent's annual income from cotton cultivation was between Rs. 1 lakh to 2 lakh in the study area.

**Table 2 - Farmers Satisfaction by taking Cotton Crop Production**

Response	District wise Number of Respondents				Total
	Dhule	Jalna	Ahmednagar	Yavatmal	
Yes	67 (67.00)	77 (77.00)	58 (58.00)	64 (64.00)	266 (66.50)
No	33 (33.00)	23 (23.00)	42 (42.00)	36 (36.00)	134 33.50
Total	100 (100.00)	100 (100.00)	100 (100.00)	100 (100.00)	400 (100.00)

(Source: Field Survey – 2016-17)

Note: The figures in parentheses indicate percentage to column total

It was analyzed from table 2 that out 400 respondents (266) 66.50 per cent of cotton growing farmers (respondents) were satisfied with taking cotton crop production and (134) 33.50 per cent of cotton growing farmers (respondents) were unsatisfied with taking cotton crop production. It was conclude that majority 2/3 of respondents were satisfied with taking cotton crop production

**Place of Sale Cotton Production**

It was noted from table 3 that the cotton growing farmers sold their cotton production to the various marketing agencies; those are Wholesale private traders, Ginning and Pressing industries, Middleman or agents, Maharashtra state cooperative marketing federation and other.

**Table 3 - Place of Sale Cotton Production**

Place of Sale	District wise Number of Respondents				Total
	Dhule	Jalna	Ahmednagar	Yavatmal	
Wholesale Private Traders	11 (2.75)	14 (3.50)	17 (4.25)	13 (3.25)	55 (13.75)
Ginning & Pressing Factories	46 (11.50)	49 (12.25)	56 (14.00)	62 (15.50)	213 (53.25)
Middleman or Agents	18 (4.50)	16 (4.00)	19 (4.75)	21 (5.25)	74 (18.5)
Maharashtra State Co-op Marketing Federation Ltd	48 (12.00)	54 (13.5)	65 (16.25)	69 (17.25)	236 (59.00)
Other Merchant	13 (3.25)	14 (3.50)	22 (5.50)	16 (4.00)	65 (16.25)
Total	400 (100.00)				

(Source: Field Survey - 2016-17)

Note: The figures in parentheses indicate percentage to column total

It was pinpointed that out 400 respondents (236) 59.00% of farmers sold their cotton production to Maharashtra state cooperative marketing federation Ltd; followed by (213) 53.25% of farmers sold their cotton production to ginning and pressing industries; (74) 18.5% of farmers sold to middleman or agents; (65) 16.25% of farmers sold to other merchant and

(55) 13.75% of farmers sold to wholesale private traders. It was found that the Most of cotton growing farmers of study area sold their cotton production to Maharashtra state cooperative marketing federation Ltd.

**Prefers to Sale of Cotton Production**

It was noticed table 4 that the respondents opinions about prefers to sale of cotton production were collected on the basis of five point scale with numerical weight viz., Very high (1), High (0.5), Medium (0), Less (-0.5) and Very less (-1). To give the ranks to the farmers prefer to sale of cotton production on the basis of parameters, weighted average mean was computed.

**Table 4 - Respondents Opinions about Prefers to sale of Cotton Production**

Prefers	Very high	High	Medium	Less	Very less	Total	WM	Rank
	1	0.5	0	-0.5	-1			
Offer Good Price	231 (57.75)	118 (29.5)	7 (1.75)	21 (5.25)	23 (5.75)	400 (100)	0.641	I
Easy to Transport	215 (53.75)	132 (33.00)	8 (2.00)	16 (4.00)	29 (7.25)	400 (100)	0.610	III
By taking the right weight	170 (42.5)	121 (30.25)	19 (4.75)	36 (9.00)	54 (13.5)	400 (100)	0.396	V
Properly check the quality of grade cotton	212 (53.00)	143 (35.75)	5 (1.25)	21 (5.25)	19 (4.75)	400 (100)	0.635	II
Immediate Payment	120 (30.00)	98 (24.5)	56 (14.00)	38 (9.50)	88 (22.00)	400 (100)	0.155	VII
To No Cheating	202 (50.50)	108 (27.00)	35 (8.75)	17 (4.25)	38 (9.50)	400 (100)	0.524	IV
The minimum cost of the sale process	120 (30.00)	134 (33.50)	21 (5.25)	29 (7.25)	96 (24.00)	400 (100)	0.191	VI

(Source: Field Survey - 2016-17)

Note: The figures in parentheses indicate percentage to column total

It was analysed from table 4 that the cotton growing farmers sold their cotton production to different marketing agencies depending on some specific reasons for choosing particular marketing agency. majority of respondents near about 64.00 per cent respondents opinion was that prefer to the buyer whose offer good price (I rank) its WAM is (0.641); Most of the respondents given their preference to the buyer whose Properly check the quality of grade cotton (Rank II); the respondents given third rank to that to the easy to transport (III rank); cotton growing farmers chose marketing agency based on the relations due to the reason of no cheating in their transaction. (IV rank); for the chose their marketing agency because of proper weight taken by present marketing agency (V Rank); prefer to the minimum cost of the sale process got (VI) and cotton growing farmers chose their marketing agency on the basis immediate payment for their cotton produce, (Rank VII); It was conclude that most of farmers chose their marketing agency for the reason of good prices offered for their cotton produce

**Hypotheses to be tested**

**H0<sub>1</sub>:** There is no significance association between farmers annual income from cotton cultivation and satisfaction level by taking cotton crop production

**Inference:** For the degrees of freedom (c-1) (r-1) = (2-1) (7-1) = (1) (6) = 6, at 5% of level of significance, the table value is **12.592**. Since the calculated value **10.333** is less than table



value, the null hypothesis is accepted. On this basis, it is concluded that there is no significance association between farmers annual income from cotton cultivation and satisfaction level by taking cotton crop production

### Conclusion

It observed that the majority of cotton growing farmers sold their cotton production to the Maharashtra state cooperative marketing federation within available of other various marketing agencies in the market those are wholesale private traders, ginning and pressing industries, middleman or agents etc. It was analysed that the cotton growing farmers sold their cotton production to different marketing agencies depending on some specific reasons for choosing particular marketing agency. Majority of respondents near about 64.00 per cent respondents opinion was that prefer to the buyer whose offer good price. Majority 2/3 of respondents were satisfied with taking cotton crop production and hypothesis tested result shown that there is no significance association between farmers annual income from cotton cultivation and satisfaction level by taking cotton crop production.

### References:

1. Singh, R. and Jaglan, R.S. (2005) Development and management of insecticide resistance in cotton whitefly and leafhopper- a review *Agric. Rev.*, 26: 229-234
2. Ramasundaram P., Vennila S., Phundan Singh, (2005)“Emerging Issues in Indian Cotton Cultivation”, *Financing Agriculture*, Vol. 37, No. 2, April-June 2005, P. 30
3. Jayne.T, Khatri.Y, Thirtle.C, Reardorn.T (1994) Determinants of Productivity Change Using a Profit Function: Smallholder Agriculture in Zimbabwe, *AJAE*, Vol 76.
4. FICCI Report. 2012. Cotton 2020 - Roadmap for Sustainable Production. Federation of Indian Chambers of Commerce and Industry (FICCI). New Delhi. February 01, 2012
5. Economic Survey of Maharashtra 2015-16, Directorate of Economics and Statistics, Planning Department, Government of Maharashtra, Mumbai
6. Kothari C.R. (2012), *Research Methodology; Methods and Techniques*, New Age International, New Delhi.
7. Gupta, S.P (1990)., “Statistical Methods”, Sultan Chand and Sons, New Delhi,

### Websites:

1. Current Cotton Scenario, <http://cotcorp.gov.in/>
2. cotton National Cotton Scenario, <http://cotcorp.gov.in/>