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Effect of Demographic Variables on Marketing of Cotton in Three Districts of Telangana – A Comparative Study

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Abstract

The present study attempts to identify and compare the influence of demographic variables on cotton marketing problems farmers face in three districts of Telangana state, India. The study is based on primary and secondary data collected from three districts. The primary data pertinent to the agricultural years 2021-22 is collected from the cotton-growing farmers chosen from selected manuals of three districts. Secondary data was collected from the Telangana State Agricultural Marketing Board, CCI, and Telangana State Agricultural Department. Data is processed using descriptive analytical tools and techniques. It is concluded that most of the respondents are literate (81.8%), whereas 18.2% are illiterate. Farmers from the Warangal district are mostly literate, followed by Adilabad and Mahabubnagar districts. Cotton growers have completed their secondary schooling (31.6%), followed by primary education (26.9%) and intermediated (16.2%). Most of the respondents are aged between 36 - 45 years (36%) and 46-55 years (25.6%), and 42 (9.3 %) farmers are aged below 25 years, and 14% of the farmers fall above 55 years (14.4) still showing interest for cultivation of cash crops. Most respondents preferred commercial banks as an institutional source of finance ranked first, followed by regional rural banks and primary cooperative credit societies. Most respondents preferred village traders as the non-institutional source of finance, followed by money lenders, trading companies, commission agents, friends, and relatives.

***Key words*:** Cotton marketing, Cultivars, Demographic, Marketing problems, Credit sources

Cotton has been an important commercial crop in India for the ages, known as white gold. India was the country that introduced plant fibres, i.e., cotton, to the world. The cotton textile industry has played a key role in cotton marketing throughout history by upholding the Indian culture and heritage. With the advancement of science and technology and liberalization in the world economies, India has emerged as a key player in world cotton marketing. Against 118.56 lakh ha in 2021-22, India has ranked first place in the acreage of world cotton, estimated at 127.39 lakh, which accounts for 36% of the world area of 333 lakh hectares during 2021-22. The productivity of the cotton crop is about 510 kg/ha, ranked 38th at the international level [1]. India achieved a significant improvement by introducing genetically modified (GM) cotton crop, technically known as Bt cotton, because of which the crop yields were improved from 301 kg/ha during the year 2002-03 to 510 kg/ha in 2021-22 by marking the yield rise by 73%. Cotton varieties or hybrids with long-staple cotton are mostly cultivated in India and amount to half of the country's total cotton production. The major contributing states of cotton are Maharashtra (42.29 lakh ha), Gujarat (25.49 lakh ha), Telangana (20.23 lakh ha), Karnataka (8.21 lakh ha) and Rajasthan (6.83 lakh ha). Majorly, the cotton crop is grown under rainfed conditions (67%) and under irrigated (33%) [2].

Telangana state in India, cotton is cultivated during the year 2022-23 in an area of 50.00 lakh acres, against 46.68 acres during 2021-22, and the production of 58.54 lakh bales against 48.98 lakh bales in 2021-22, and major contributing districts are Nalgonda (6.54 lakh acres), Adilabad (3.87 lakh acres), Sangareddy (3.61 lakh acres), Nagarkurnool (3.52 lakh acres) and Asifabad (2.97 lakh acres), Vanakalam (kharif) 2023-24 report, PJTSAU, Hyderabad. The three districts under study are selected from different geographical and agro-climatic zones, i.e., Adilabad (North Telangana Zone), Warangal (Central Telangana Zone) and Mahabubnagar (Southern Telangana Zone). The low levels of cotton productivity accompanied by vagaries of monsoons, attacks of pests and diseases, and abiotic stresses are making cotton farming more fragile, reducing crop production and decreasing the quality of the raw cotton. Furthermore, finally, making the farmers' land debts year by

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year, even poking them to commit suicide. This research study was conducted to analyze and identify the reasons directly responsible for fetching lower prices in the markets in Telangana's three districts.

MATERIALS AND METHODS

The size of the respondents from each district 150 spread across three districts (each district 33.3%) in Telangana, India. This study used a saturated sample to obtain optimal data through interviews involving 450 respondents. The data was collected through a prescribed questionnaire through a face-to-face interview method. The secondary information has been collected directly on the Web from different Websites of the firms that come under study and physically visiting the CCIs and agricultural market yards.

Measurement

The data collected from farmers was analyzed statistically, and various variables were compared between three districts, viz., Warangal, Adilabad and Mahabubnagar, through a Chi-square test and interpreted for appropriate conclusions [3]. The investigator applied descriptive statistics analysis [4], percentile analysis [5], cross-tabulation analysis [6], and the Chi-Square test to analyze [7], the demographic variables/characteristics of the primary data. Further, the cross-tabulations are measured to the demographic factors of the respondents (cotton farmers) and their perceptions towards the Cotton marketing system in their respective districts. The collected data was further analyzed through various computer software: SPSS and MS Excel.

Objective of the study

- To study the role of cotton in Indian Agriculture in general and TS in particular.

- To study the demographic variables and identify the problems in cotton marketing by the cotton farmers in three districts of Telangana.

Null hypothesis

There is no relationship between demographic variables and source of finance and method of selling characteristics of cotton farmers.

Empirical hypothesis

There is a positive relationship between demographic variables and source of finance and method of selling characteristics of cotton farmers.

The null hypothesis was rejected, and the original proposition that "There is a significant relationship between demographic variables and source of finance and method of selling characteristics of cotton farmers was accepted.

RESULTS AND DISCUSSION

The data analysis from (Table 1) revealed the percentage of literacy farmers in the three districts of Warangal, Adilabad and Mahabubnagar of Telangana state. The primary data indicates that most of the respondents (cotton-growing farmers) are literate (81.8%), whereas 18.2% are illiterate. Among the three districts selected for study, farmers from the Warangal district are mostly literate, followed by Adilabad and Mahabubnagar districts. Whereas the number of illiterate farmers cultivating cotton crops is higher in Mahabubnagar district, followed by Adilabad and Warangal district.

Table 1 Demographic facts – The literacy (%) of cotton farmers in Warangal, Adilabad and Mahabubnagar districts of Telangana

S. No.	Variable	Frequency			Frequency total	Per cent
		Warangal	Adilabad	Mahabubnagar		
1	Illiterate	14	33	35	82	18.2
2	Literate	136	117	115	356	81.8
	Total	150	150	150	450	100

Table 2 Demographic facts – The educational qualifications of the cotton farmers in three districts of Warangal, Adilabad and Mahabubnagar of Telangana state

S. No.	Variable	Frequency			Frequency total	Per cent
		Warangal	Adilabad	Mahabubnagar		
1	Illiterate	14	33	35	82	18.2
2	Primary	42	40	39	121	26.9
3	SSC	53	45	44	142	31.6
4	Intermediate	29	23	21	73	16.2
5	Graduation	12	9	11	32	7.1
	Total	150	150	150	450	100

A respondent's education can be measured as the years he or she spent obtaining formal education. Education is one of the most commanding tools for progressing knowledge, wisdom and other required skills in life [8]. The data analysis from (Table 2) indicates the level of educational qualifications (%) of farmers in three districts of Telangana state. The primary data indicates that most of the respondents completed their secondary school (31.6%), followed by primary education (26.9%) and intermediated (16.2%), and the percentage of the illiterates is about 18.2%. The data also depicts that many farmers have dropped their primary and secondary school education; only 32 (7.1%) farmers studied for graduation and chose agriculture as a profession for their source of income. Among the three districts selected for study, farmers from Warangal district have more graduates, followed by Mahabubnagar district. It is also revealed that Warangal district farmers had a very low illiteracy rate compared to the two other two districts. Most of the farmers of these two districts dropped their education at primary and secondary school level only. Comprehensively, it is observed that among the respondents, a maximum number of farmers have a middle level of school education, and the results are in association with previous researchers [9]. Education acts as the substratum and facilitates the systematic of external evidence in the given condition [10]. Education also positively changes an individual's behaviour [11]. During the present survey, it was noted that educated farmers were more capable of cultivating their cotton crops successfully and utilizing obtainable resources more

judiciously than illiterate farmers. It is evident that education increases exposure to sources of information and increases marketing awareness, thereby fetching more prices. The previous studies [12] observed that age, education, etc., typically play a significant role in farmers' decision-making. The modern mode of production requires the formal education which may not be necessary for traditional agriculture. Unless that minimum basic education is attained, formal education does not influence productivity. Thus, this indicates that farmer education affects farm productivity significantly under modern technology, and it has a strong threshold effect on farm productivity.

Table 3 Demographic facts - The age of cotton farmers in Warangal, Adilabad and Mahabubnagar districts of Telangana

S. No.	Variable	Frequency			Frequency total	Per cent
		Warangal	Adilabad	Mahabubnagar		
1	Below 25	12	14	16	42	9.3
2	26-35 years	23	24	19	66	14.7
3	36-45 years	65	45	52	162	36.0
4	46-55 years	36	39	40	115	25.6
5	Above 55 years	14	28	23	65	14.4
	Total	150	150	150	450	100

Data in (Table 3) shows the age of the farmers who responded to the three districts. Most were between 36 and 45 years (36%) and 46 to 55 years (25.6%). Only 42 (9.3%) farmers are below 25 years old, and 14% of the farmers above 55 years (14.4) still show interest in cultivating cash crops. It is also revealed that the number of farmers showing interest in agricultural farming is higher in the Mahabubnagar district, followed by the Adilabad and Warangal districts. Whereas farmers remaining in cultivation after attaining 55 years of age are more in Adilabad district followed by Mahabubnagar and Warangal districts, depicts the unavailability of alternate sources of income for their livelihoods. These results follow [13-15], who inferred that a higher proportion of cotton cultivators fall in the middle-age group. The result discloses that ineptitude decreases with the increase in cotton grower's age. The age and education variables result align with [16]. [17] observed that the older the farmer, the higher their technical efficiency in adopting agricultural technologies as well as marketing skills of the farmers. The results follow [18], who observed that variables like age, education, extension participation and extension contact are highly significantly associated with knowledge.

Table 4 Institutional sources of finance to the cotton cultivating farmers of three districts of Telangana.
(Whom do you generally approach and prefer for the needs of your agricultural credit?)

Institutional sources	Warangal			Adilabad			Mahabubnagar			Over all		
	Total	Mean	Rank	Total	Mean	Rank	Total	Mean	Rank	Total	Mean	Rank
Commercial banks	1568	10.453	1	506	3.373	2	246	1.64	3	1634	3.63	1
Regional rural banks	1384	9.226	3	245	1.633	3	503	3.353	2	1562	3.47	2
Primary cooperative credit society	1548	10.32	2	544	3.626	1	547	3.646	1	736	1.63	3
Others	1128	7.52	4	205	1.366	4	204	1.36	4	641	1.42	4

Table 5 Non-Institutional sources of finance to the cotton cultivating farmers of three districts of Telangana

Non-institutional sources	Warangal			Adilabad			Mahabubnagar			Over all		
	Total	Mean	Rank	Total	Mean	Rank	Total	Mean	Rank	Total	Mean	Rank
Friends and relatives	181	1.206	4	504	3.36	2	270	1.8	3	544	1.21	4
Money lenders	506	3.373	2	546	3.64	1	504	3.36	2	1514	3.36	2
Trading companies and commission agents	269	1.793	3	267	1.78	3	180	1.2	4	806	1.79	3
Village traders	544	3.626	1	183	1.22	4	546	3.64	1	1636	3.63	1

It is observed from (Table 4) that the majority of the respondents prefer to approach commercial banks as an institutional source of finance for cultivating the cotton crop, ranked first, followed by regional rural banks and primary cooperative credit societies. The farmers from the Warangal district preferred commercial banks as their first choice, followed by primary cooperative credit society and regional rural banks. The Adilabad district farmers preferred primary cooperative credit societies as a first choice for getting crop credit, followed by commercial banks and regional rural banks. Mahabubnagar district farmers preferred commercial banks for obtaining crop loans, followed by regional rural banks and primary cooperative credit societies. Farmers from three districts gave last preference to other sources of getting money. The data in Table 5.0 revealed that the farmers of Warangal and Mahabubnagar districts preferred village traders as their first choice, followed by money lenders. Warangal farmers preferred trading companies and commission agents, followed by friends and and relatives and their third and fourth choice of interest. At the same time, Mahabubnagar district farmers preferred friends and relatives, trading companies, and commission agents as their fifth and sixth choices. The Adilabad district farmers preferred money lenders as a first choice for crop credit, followed by friends and relatives, trading companies commission agents and village traders. Mahabubnagar district farmers preferred commercial banks for obtaining crop loans, followed by regional rural banks and primary cooperative credit societies. Farmers from three districts gave last preference to other sources of getting money. The results align with [19], who opined that the institutional credit system enhances the

probability of getting better prices. It is also observed that most farmers prefer non-institutional means of getting agricultural credit loans to institutional loans because the latter consists of many time-consuming procedures. Moreover, there is a credit limit in the case of institutional credit loans, whereas there is no limit in the non-institutional sources of credit.

Table 6 Cross-tabulation on selling cotton in the markets of the Warangal, Adilabad and Mahabubnagar districts

Demographic description		Sample	Direct Market	Pre agent	Retailers	Chi-Square
Districts	Warangal	150 -33.33%	80 -53.30%	30 -20.00%	40 (26.7%)	$\chi^2 = 48.735$
	Adilabad	150 -33.33%	50 -33.30%	80 -53.30%	20 (13.3%)	df = 4 ρ= 0.000
	Mahabubnagar	150 -33.33%	60 -40.00%	77 -51.30%	13 (8.7%)	
Educational qualifications	Illiterate	82 -18.22%	82 -100%	0	0	$\chi^2 = 358.43$
	Primary	121 -26.88%	64 -52.90%	48 -39.20%	9 -7.40%	df = 8 ρ= 0.000
	SSC	142 -31.55%	34 -23.90%	104 -73.20%	4 -2.80%	
	Inter	73 -16.22%	10 -13.70%	32 -43.80%	31 -42.50%	
	Graduation	32 -7.11%	0	3 -9.40%	29 -90.60%	
Age of the farmers	Below 25 years	42 -9.33%	40 -95.20%	0 0.00%	2 -4.80%	
	26-35 years	62 -13.77%	61 -92.40%	5 -7.60%	0 0.00%	$\chi^2 = 371.26$ df = 8
	36-45 years	162 -36%	89 -54.90%	73 -45.10%	0 0.00%	ρ= 0.000
	46-55 years	115 -25.55%	0 0.00%	88 -76.50%	27 -23.50%	
	56 and above years	65 -14.44%	0 0.00%	21 -32.30%	44 -67.70%	
	above 10 lakh	41 -9.11%	4 -9.80%	10 -24.40%	27 -65.90%	

From the above cross-tabulation (Table 6) shows the farmer's response on 'how the method of selling raw cotton in the markets' influences the demographic variables viz., districts, educational qualifications, age of the farmers, experience, investment and area of the land against direct marketing, pre-agent and retailer. [20] opined that cotton marketing depends on field-level production constraints. The quality and quantity of the raw cotton depend on the level of biotic and abiotic stresses. Moreover, the government breeding of new varieties that could serve the needs of the local farmers is emphasized. Integrated pest management is one of the major factors for producing quality kapas and can be done better through training by extension staff. A research study has been conducted to understand the transactions happening in a village commodity market in India. The study revealed two major anomalies in the transactions in the village markets. The first does not follow the law of one price, and the second is a trader-idiosyncratic effect, i.e., most of the cotton produce is sold to a low-price trader. The trader idiosyncrasy can be explained by trade-off motives in intertwined village markets. A trade-off motive leads to market incompetence that can result in unpredicted supply, opined by [21]. The cotton sector should be concerned about the market uncertainties and instabilities in prices that could influence the supply and demand curves of the market at the national and international levels to enhance the sustainability of cotton cultivation. The other issues affecting the cotton sectors include social and weather parameters, including carbon footprint, opined by Cotton UP (2018). Out of 150 (33.33%) respondents asked about the method of selling cotton in the agricultural markets from Warangal district, it was revealed that most of the farmers, 80 (53.33%), preferred selling their raw cotton through direct marketing. Another major number of farmers preferred selling their cotton to retailers, 40 (26.7%), followed by 30 (20.0 %) pre-agents. In Telangana, raw cotton production was sold through primary agricultural market committees, government marketing Channels (Agencies) and Private Marketing Channels (Agencies). Out of 150 (33.33%) respondents interviewed about the method of selling cotton in the agricultural markets from Adilabad district revealed that most of the farmers, i.e. 53.33 % of the respondents, showed interest in selling their cotton to pre-agents and 33.3% of the respondents have replied that they sell their cotton to direct marketing and rest of the 13.3% respondents showed interest to sell cotton to retailers. Out of 150 (33.33%) respondents questioned about the method of selling cotton in the agricultural markets from Mahabubnagar district revealed that most of the participants, 77 (51.3%), preferred to sell their raw cotton to pre-agents, and 60 (40%) of the farmers preferred to sell in the direct marketing followed by 13 (8.7%) selling raw cotton to retailers.

The cross-tabulation between education and method of selling cotton in the agricultural market depicted the respondent's percentages of illiterates 82 (18.22%), primary 121 (26.88%), SSC 142 (31.55%), inter 73 (16.22%) and graduation 32 (7.11%). The results revealed that the farmers with an education qualification of secondary school, intermediated, and graduation preferred to sell their raw cotton to pre-agents 104 (73.2%), 32 (43.8%) and 3 (9.4%), respectively. Whereas farmers with primary and no education (illiterates) preferred to sell their raw kappas to 64 (52.9%) and 82 (100%) in direct

markets, indicating less marketing skills and poor levels of risk-bearing economic conditions. The illiterate farmers are not trying to sell their cotton to either pre-agents or retailers, where there is a chance of bargaining compared to direct markets.

Table 7 Showing the results of ANOVA for method of selling cotton values about three district farmers

Source of variation	Sum of squares	df	Mean square	F	Significance
Between groups	0.973	2	0.487	0.939	0.392 (NS)
Within groups	231.607	447	0.518		
Total	232.580	449			

The ANOVA table shows that the values between and within the groups recorded non-significant at 5 percent

Table 8 ANOVA for method of selling cotton

Source of variation	Sum of squares	df	Mean square	F	Significance
Between groups	115.240	4	28.810	109.260	0.000 (S*)
Within groups	117.340	445	0.264		
Total	232.580	449			

S* = significance at 0.01 level

From the ANOVA table, the values between groups and within the groups were observed to be significant at 0.05 level

Table 9 Showing least square difference (LSD) values regarding farmers' educational qualification

Method of selling cotton* Education	Illiterate	Primary	SSC	Intermediate	Graduation and above
Illiterate		0.54545*	0.78873*	1.28767*	1.90625*
Primary			0.24328*	0.74222*	1.36080*
SSC				0.49894*	1.11752*
Intermediate					0.61858*
Graduation and above					

*Significant at 0.01 level; **Significant at 0.05 level

It is observed from the LSD values that there is a significant difference at 0.05 level between the illiterate, primary groups, illiterate and SSC groups, illiterate and intermediate groups and illiterate and graduation and above groups. It is also observed that there is a significant (0.05) level difference between primary and SSC groups, primary and intermediate groups and also primary and graduation and above groups. There is a significant difference at 0.05 level between the SSC and intermediate groups, SSC and graduation and above groups, and between the intermediate and graduation and above groups [22].

The cross-tabulation between the age of the farmers and the method of selling raw cotton in the markets showed the respondent's percentages as follows; below 25 years 42 (9.33%), 26-35 years, 62 (13.77%), 36-45 years 162 (36%), 46-55 years (115 (25.55%) and 56 years above 65 (14.44%). The results revealed that most cotton-growing farmers across the age groups preferred to sell their raw cotton in the direct market only. The age group below 25 years 40 (95.2%), followed by 26-35 years age group 61 (92.4%) and the age group between 36-45 years farmers 89 (54.9%) preferred to sell their produce in the direct markets. Whereas most farmers aged 46-55 preferred to sell their cotton to pre-agents 88 (76.5%), followed by retailers 27 (23.5%). It is also observed that 45.1% of farmers aged 36-45 also preferred selling their cotton to pre-agents. A sizeable percentage of farmers, 23.5% between the age group of 55 and above and 46-55 years only, preferred to sell cotton to retailers, 67.7% and 23.5%, respectively [23].

Table 10 Showing the results of ANOVA values concerning the age of the farmers

Source of variation	Sum of squares	df	Mean square	F calculated	Level of Significance
Between groups	145.359	4	36.340	185.403	0.000 (S*)
Within groups	87.221	445	0.196		
Total	232.580	449			

S* = Significance at 0.01 level

From the ANOVA table, the values between groups and within the groups were observed to be significant at 0.05 level

Table 11 Showing least square difference (LSD) values concerning farmers' age

Method of selling cotton *Age	Below 25 years	26-35 years	36-45 years	46-55 years	56 and above years
Below 25 years		-.01948	0.35538*	1.13954*	1.58168*
26-35 years			.37486*	1.15903*	1.60117*
36-45 years				0.78417*	1.22631*
46-55 years					0.44214*
56 and above years					

* = Significant at 0.01 level; ** = Significant at 0.05 level

It is observed from the LSD values that there is no significant difference at 0.05 level between the below 25-year and 26-35-year groups. Whereas there is a significant difference between the groups below 25 years and 36-45 years, the groups below 25 years and 46-55 years and also groups below 25 years and 56 above. There is a significant difference between groups 36-45 years and 46-55 years and between groups 36-45 and 56 and above. Also, there is a significant difference between the groups 46-55 years and 56 and above [24].

From the above, it is inferred that from the study that farmers from Warangal district are mostly literate, followed by Adilabad and Mahabubnagar districts. The majority of the respondents are literate, whereas 18.2% of the respondents are illiterate. Most cotton growers have completed their secondary schooling, followed by primary education and intermediate. The number of graduate students taking their profession in agriculture could be much higher when compared to intermediate and school dropout students. More cotton-growing farmers have SSC in the three districts of Warangal, Adilabad and Mahabubnagar, respectively, followed by primary education farmers. Most cotton cultivating respondents are 36-45 years old in all the districts under study, followed by 46-55 years. The farmers above 55 still show interest in cultivating cotton crops, accounting for 14%. The farmers below 25 are recorded less, indicating that youth are reluctant to take agriculture as a profession for their livelihood. The farmers above 55 are still interested in cultivating the crops as they needed help finding other sources to start a less drudgery life for their bred winning. Most respondents preferred commercial banks as an institutional source of finance ranked first, followed by regional rural banks and primary cooperative credit societies. Most respondents preferred village traders as the non-institutional source of finance, followed by money lenders, trading companies and commission agents and finally, friends and relatives. The cross-tabulation between the education of the farmer and the method of selling cotton in the agricultural markets depicted that the farmers with an education qualification of secondary school, intermediated, and graduation preferred to sell their raw cotton to pre-agents. Compared to farmers with primary and no education, they preferred to sell their raw kapas in direct markets, indicating less marketing skills and poor risk-bearing economic conditions. The illiterate farmers are neither trying to sell their cotton to pre-agents nor retailers, in which there is a chance of bargaining compared to direct markets. It is clearly understood that illiteracy plays a major role in deciding the correct markets and time to sell their raw kapas and fetch better prices in the market. The farmers with higher education only prefer retailers as their major source to sell their cotton compared to direct markets and pre-agents. The cross-tabulation between the age of the farmers and the method of selling raw cotton in the markets showed the respondent's percentages as follows: below 25 years, 9.33%, 26-35 years, 13.77%, 36-45 years, 36%, 46-55 years, 25.55% and 56 years above 14.44%. The results revealed that most cotton-growing farmers across the age groups preferred to sell their raw cotton in the direct market only. In the age group below 25 years, 95.2%, followed by the 26-35 age group, 92.4% and the age group between 36-45 years, farmers 54.9% preferred to sell their produce in the direct markets. Whereas most of the farmers in the age group of 46-55 preferred to sell their cotton to pre-agents 76.5% followed by retailers 23.5%. It is also observed that 45.1% of farmers aged 36-45 also preferred selling their cotton to pre-agents. A sizeable percentage of farmers, 23.5% between the age group of 55 and above and 46-55 years only, preferred to sell cotton to retailers, 67.7% and 23.5%, respectively. The age of the farmers is one of the factors that decide the place where to sell their raw cotton. Farmers' experience and age work together to select the place or person to whom they should sell their cotton. The middle and older farmers preferred to sell their produce to retailers only because of the good rapport built over time, especially in exchange for money in time and producing good quality cotton.

CONCLUSION

From the above study, the following conclusions may be drawn viz., cotton growing farmers of Warangal are mostly literates; most of them completed secondary schooling; most of the respondents are aged between 36-45 years; Most of the farmers preferred commercial banks commercial banks as an institutional source of finance; village traders were most preferred non-institutional source of finance; Most cotton farmers preferred to sell cotton in direct market. Although this study contributed to the theory and practical aspects of cotton marketing and its associated problems, it has a few precincts that should be studied further. This study is limited to three districts of Telangana state, India. It needs to be expanded to other districts, too, to get an understanding of the marketing situations in the entire state of Telangana. This study is purely about the marketing problems associated with cotton marketing farmers. It does not include the price differences among the markets and the quality aspects of the cotton. Thus, further studies can be conducted by considering the above points.

Disclosure of the statement

Authors declare that they do not have any competing financial, professional, or personal interests from other parties.

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