

Contribution of APMC's in agricultural marketing- A study on farmer Perspective in Tumkur District

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Abstract:

Since agriculture plays such a significant role in our society, agricultural marketing is a popular topic among academics and administrators alike. Indian advertisers have yet to reap the benefits of a favourable business environment, a well-developed financial sector, and a strong network of higher educational institutions in the country. Farm product marketability is determined by the decision to produce a marketable farm product, and agricultural marketing as a method encompasses all aspects of a system's sales structure. Poor warehouse conditions, a scarcity of demand knowledge, the dominance of middlemen, and a lack of transportation and connectivity are all factors that contribute to bottlenecks in the agricultural marketing system. Due to the rapid advancement of technology, agrarian challenges are becoming increasingly significant. Despite reforms, Indian agriculture remains vulnerable, not only to natural disasters, but also to a lack of institutional power and resilience on the part of the government. Farmer-to-farmer marketing in India is unquestionably growing and expanding, but not everywhere or for all farmers. In light of current projections, the emerging scenario appears to be catastrophic for the region. With the current state of the country, a Second Green Revolution is expected to clear up any messes and keep the country on the right track. The government intends to launch the Second Green Revolution, which will take place between 2020 and 2025.

Improved cooperative marketing, the development of managed markets, and the ranking of products, as well as improved transportation and warehousing, are all necessary for the improvement of the marketing system. In this regard, the Agricultural Produce Marketing Committee (APMC) is extremely important in the promotion of agricultural marketing and marketing research. There are only nine APMC in the Tumkuru district of Karnataka where the study is being conducted. The study's primary objectives were to determine farmers' expectations of the APMC's performance as well as to identify issues related to the APMC's operation and functioning. Using an interview schedule, the researchers

gather the responses of the participants' opinions, which were analysed using the SPSS Ver 22 and AMOS Ver 25 software packages. In order to validate the functions of APMCs in terms of Farmer satisfaction, SEM analysis was performed. The results of the study indicate that some of the functions are not contributing to farmer satisfaction and require immediate action by the government to improve these functions.

Keywords: Agricultural Marketing, Functions of APMC, Farmer satisfaction

Introduction

Growth in the agricultural economy is required for economic development in developed countries. Agriculture has changed dramatically around the world, and particularly in India, in recent years, as a result of technological advancements that have resulted in farm mechanisation, extensive and widespread use of chemical fertilisers, and specialisation of agricultural production. Despite the fact that this is a positive aspect of growth, it has resulted in lower labour demand, a significant increase in production costs, and, of course, depletion of topsoil, contamination of ground water, decline of family farming, neglect of farm labour and their living and working conditions, reduction of cultivable land due to urbanisation and industrialization, and rampant pollution are all consequences of this trend. The economic and social disintegration of rural families has also been exacerbated as a result of this. The increasing agricultural production in India is the most pressing issue on the national agenda. Physical, material, institutional, technological, and agrarian influences all play a role in this situation. It goes without saying that marketing is extremely important in this field. Marketing can help to reduce the costs of marketing services by eliminating the need for middlemen and ensuring that the difference between purchase and sale rates is as small as possible. Because agriculturists are encouraged to increase their investment and productivity, marketing agricultural products is regarded as an integral part of the agricultural industry.

As a result, there is a growing recognition that simply producing a crop or animal commodity is not enough; it must also be made available for consumption. Especially since the Green Revolution of the 1960s, the government has taken a keen interest in the development of marketing and trade infrastructure. An extensive network of agricultural cooperatives exists in India at the local, district, state, and national levels to assist with agricultural marketing. In India, the government is now heavily involved in the marketing of agricultural products. Agriculture price policy, the establishment of Controlled Markets, the procurement of goods by the government through the Food Corporation of India, and other aspects of rural marketing are all examples of rural marketing. A well-functioning marketing mechanism is essential for a country's economic development. Marketing, in addition to meeting the needs of consumers, has proven to be an effective tool in increasing the profits of individual producers of all kinds. The government's policies, programmes, and actions are primarily focused on three areas in order to develop and modernise the marketing system for rural areas: institutionalising agricultural marketing by facilitating the formation of cooperative marketing societies; regulating markets for various agricultural products in order to minimise or eliminate unfair trade practises; and diversion.

Certain measures have been taken in order to improve the marketing structure along these three lines, including the promotion of cooperative marketing, the creation of controlled markets, and the ranking, storage, and warehousing of products and services. In this regard, the Agricultural Produce Marketing Committee (APMC) is extremely important in the promotion of agricultural marketing products.

APMC in Karnataka – Schemes

On May 16, 2020, the Karnataka Agricultural Produce Marketing (Regulation and Development) (Amendment) Ordinance, 2020 was enacted. 4 The Karnataka Agricultural Produce Marketing (Regulation and Development) Act, 1966, is amended. It modifies the Act in the following ways:

- Places designated for marketing: It is an offence under the Act to purchase or sell notified agricultural produce in places other than the designated market yards or sub-yards. This does not apply in certain circumstances, such as a trader's retail sale or a direct purchase from a farmer. The Ordinance repeals this offence and allows for the purchase and sale of goods in locations other than designated market yards or sub-yards.
- APMCs will regulate the marketing of notified agricultural produce in market yards, market sub-yards, and sub-market yards, according to the Ordinance.

Table 1- APMC Karnataka Government Scheme

Raitha Sanjivini Yojane	The Karnataka State Agricultural Marketing Board is launching the "Raitha Sanjeevini" Accidental Insurance Scheme for the benefit of all Karnataka farmers. If a farmer or his family members between the ages of 15 and 80 die while conducting agricultural operations or selling agricultural and horticultural crops in market yards, etc., a reward of Rs.75,000 is offered. When a farmer is injured in an accident, he is entitled to Rs.15,000 in compensation, depending on the severity of the injuries. The farmer will not be charged a fee to participate in the programme.
Yojane admana sala	<p>Since 1994-95, this system has been in use in 132 State markets. In exchange for a guarantee of their agricultural produce, farmers could be given loans up to Rs.2,00,000-00, or 60% of the value of their agricultural produce. From the date of the produce pledge, the advance period cannot exceed 180 days. No interest will be paid for the first 90 days after the date of disbursement of the advance; thereafter, interest will be charged.</p> <p>The market committee will take the necessary precautions to protect the pledged produce from fire, fraud, and other threats, as well as plan for periodic fumigation at its expense.</p> <p>The market committee may also accept ware house receipts issued to a produce seller by the Karnataka State Ware Housing Corporation or Central Ware Housing Corporation, or such other co-operative societies as the Director of Agricultural Marketing may notify from time to time, and provide a short-term advance based on the promise of such receipt.</p>
Floor Price system	The Floor Price System was created to help farmers avoid panic buying. The government would establish a Minimum Support Price and make procurement provisions for it. For this reason, a Revolving Fund has been established. The state's business committees contribute 0.5 percent of the market fee earned each month. The KSAMB will be in charge of the fund. The programme is the world's first of its kind,

	and several states have expressed strong interest in putting it in place for the benefit of farmers.
Janashree Vima Yojane	The Janashree Insurance Scheme is being implemented by the Karnataka State Agricultural Marketing Board for the benefit of 12,980 hamals, cartsmen, and weighmen employed in 145 APMCs. Any 'Shramik' who wishes to engage in the scheme shall pay a premium of Rs.60 per year. The Board makes an annual contribution of Rs.40 on behalf of each 'Shramik.' The Government of India provides LIC with Rs.100 per person enrolled under the Social Security Scheme. Since October 1, 2000, the Scheme has been in use. If an individual dies naturally, he is entitled to Rs.30,000 in compensation under this arrangement. If the death was caused by an injury, the compensation payable is Rs. 75,000. In addition, the Government of India provides a scholarship to two students in a family of the insurer who are in 9th to 12th grade and receive Rs.600/- every fifth.
Hamals Housing Scheme	<p>The Rajiv Gandhi Rural Housing Corporations have expressed an interest in constructing homes for approved hamals working in Karnataka's APMCs. Up to 5000 hamals have been given access to this service. So far, 808 working hamals have been identified as beneficiaries. The total cost of the house is Rs.40,000/-. The state government provides a RS.10,000 subsidy to each house. So far, a total of Rs.80.80 lakhs has been disbursed. A donation of Rs.5,000 is expected from the licenced hamal. The remaining Rs.25,000 will be approved by the Rajiv Gandhi Rural Housing Corporation. This balance must be repaid in 15 years at a cost of Rs.297 per month by the licenced hamal. The project has received funding and is currently being implemented.</p> <p>The equipment and programmes available to the department, as well as the process for obtaining them.</p> <p>Drinking water, water, godowns, rural godowns, gramina samparka rasthe, lane, street lights, community toilets, action channel, closed platform, drying platform, sanitarries, electronic weighing scale, sheep and goat pens, ticker board, s.m.s., daily prices, plasma tv, rates board, rates board, rates board, rates board, rates board, rates board, rates board, rates board, rates board, rates board e-tender, e-trading, online trading, e-tender, e-trading, online trading, e-tender, e-trading, online trading</p>
New Online trading Project	<p>Karnataka's government has launched a new online trading project. Karnataka's government acts as a market platform. Both APMC market yards have switched to a new online trading system that is gradually improving online trading.</p>

Review of Literature

Research from India has found that improvements in retail facilities increase the rate of trading at the market (Gandhi, 2006). Improvements in transportation infrastructure have also been linked to shifts in

cropping patterns and increases in agricultural production.. The primary concern in a developing scenario must shift from food security to economic growth and diversification, rather than the other way around. Because of a scarcity of food processing and storage facilities during the peak selling season, according to this (Ramkishen, 2004), the grower is denied the opportunity to charge a reasonable price for his produce during the lean season, while the buyer is forced to pay more during the peak selling season. It is the expansion of products within the sector itself, as well as the agricultural production that allows other sectors to expand through sales of goods on both the domestic and international markets, that constitutes agriculture's contribution to a nation's growth (Pathak, 2009). The findings of a study conducted by Karahocagil and Ozudogru (2011) on Turkish agricultural development cooperatives revealed that member farmers and traders were pleased with the cooperatives because the cooperatives assist them by disseminating knowledge on a variety of topics such as cultivation, input collection, marketing, and processing. It has been suggested (Ifeyani-Obi, 2008) that increasing the promotion of agroproducts is an indirect way of increasing or encouraging further farm chemical output. Therefore, it is proposed that agro-industries employ advertising practises in order to increase sales and, as a result, improve demand for farm products. In order to provide an effective and efficient sales promotion, the respondents' recommendations on how to improve sales promotion should also be implemented in the process of performing sales promotion, according to the results of the survey. It is necessary for farmers to make educated decisions about the timing of planting and harvesting, as well as where to sell their produce and whether or not to store it. A better understanding of the data can enable traders to profitably transfer goods from one market into another while also making decisions about the feasibility of storing goods in cases where it is theoretically possible (Amrutha, 2009). The agricultural sector in every country, according to (Vaswani and colleagues, 2003), undergoes a period of growth known as the 'commoditization to commercialization' phase. It is normal for agricultural transformation to commercialization to occur, regardless of how cost-effectively the production mechanism performs at the commoditization level. External factors, such as agricultural policy structure, sector imperfections, overall standards of living for the majority population, and so on, may influence this process. According to Dev et al. (2010), food supply is a necessary condition for food security to be achieved. India is fairly self-sufficient in cereals, but it is deficient in pulses and oil seeds, which are both important food crops. As a result of shifting consumption patterns, there has been an increase in demand for fruits, vegetables, dairy products, beef, poultry, and fishery products.

Objectives of the study

- To explore the functions of the APMC as well as the farmers' perceptions of the organisation.
- To study the impact of Agricultural Produce on farmer satisfaction with regard to the operation of APMCs.

Research Methodology

The study makes use of both primary and secondary data sources; the primary data sources are used to analyse the opinions of the farmers, and the secondary data sources are used to obtain information on the various functions performed by the APMCs.

Tumkur district is divided into three agricultural zones: zone 4 (Central dry zone), zone 5 (Eastern dry zone), and zone 6 (Western dry zone). Zone 4 (Central dry zone) is the driest of the three agricultural zones (Southern dry zone). Zone 4 is comprised of the taluks of Chikkanayakanahali, Tiptur, Koratagere, Sira, Madhugiri, and Pavagada.. The taluks of Gubbi and Tumkur are located in Zone 5, while the taluks of Kunigal and Turuvekere are located in Zone 6. The district receives an average of 593.0 mm of rainfall per year. It is customary for the South West monsoon to begin in the first week of June and to peak in September.

It is the primary cropping season in the district, and it begins in Kharif. Ragi and groundnut are the most important crops, accounting for approximately 70 percent of the cultivable soil. Ragi and groundnut are followed by paddy, maize, and red grame. In the regular Kharif cropping season, the total area under agricultural crops is 4.80 lakh hectares. Approximately 0.10 lakh hectares are protected during the month of Rabi, and approximately 0.15 lakh hectares are protected during the summer months. In terms of cereal production, the yield far exceeded the requirements of the district in question. Tumkur is short of pulses and oil seeds, which require 0.306 and 1.06 lakh tonnes, respectively, but has a surplus of wheat (3.87 lakh tonnes).

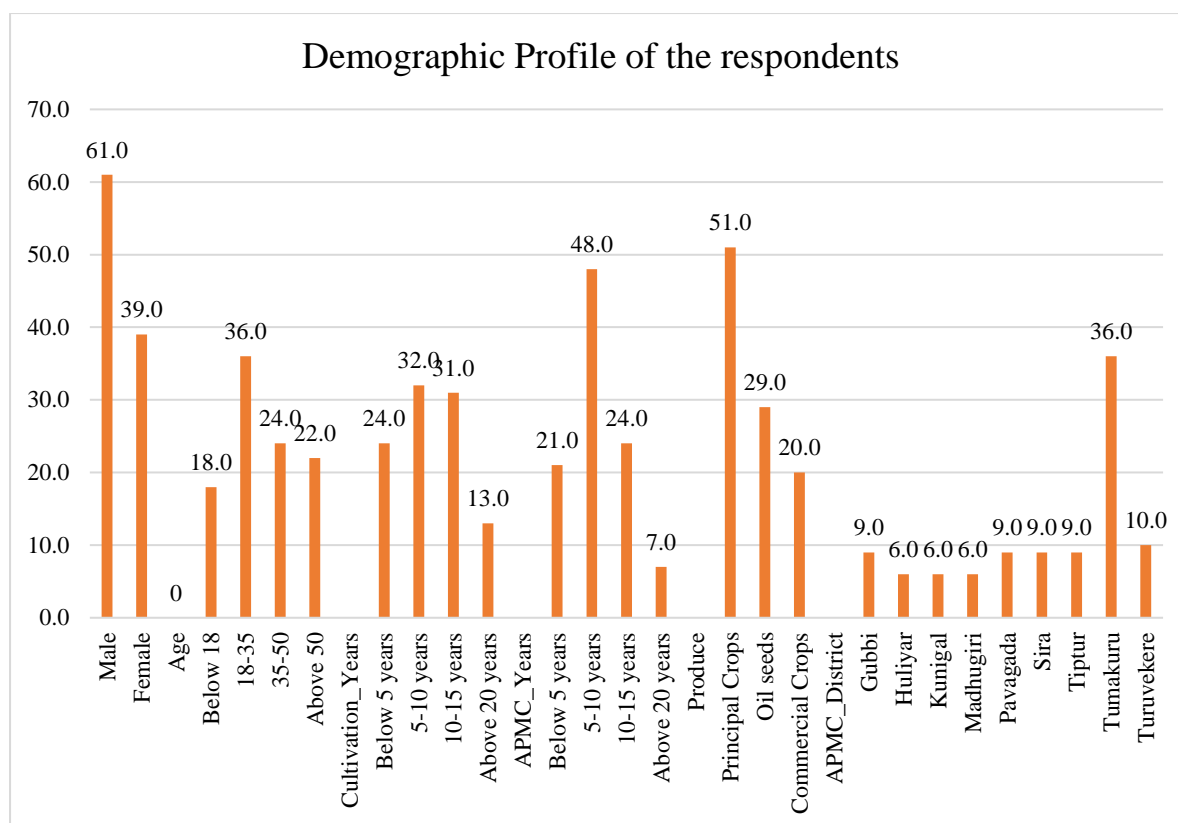
The information is gathered through the use of a help interview schedule.

APMS functions are evaluated using a likert scale of satisfaction with 1 being not at all satisfied and 5 being extremely satisfied. The interview schedule is divided into two sections: the first section is based on demographic questions, and the second section is based on APMS functions. According to the district profile for Tumkur, there are 496557 cultivators in the district in the year 2016-17. (Last census updated by the district) The study will take into account the inputs from approximately 100 farmers in the Tumkur district who grow principal crops, commercial crops, and oil seeds. The sample size is determined by applying the Cochran formula to a known population with 95 percent confidence and a 10 percent margin of error (Cochran formula) (Appendix-1). The convenience sampling method was used to select the sample, and the questionnaire was pre-tested with ten respondents, with the Cronbach alpha indicating that it was reliable. The study employs ANOVA techniques to investigate the differences in farmer opinions about APMCs based on the product that they grow, and SEM analysis is used to investigate the various functions of APMCs and their impact on Farmer satisfaction, among other things.

Results and Discussions

Demographic profile of the respondents

Chart – 1 Demographic Profile of the respondents



The demographic profile of the respondents reveals that the vast majority of farmers are males, according to the data (61 percent). Farmers participating in the study are of all ages, but the majority (36 percent) are between the ages of 18 and 35, indicating that they are in their prime years and able to take advantage of the latest government schemes and facilities. Farmers who have been working in agricultural cultivation for the last 5-10 years (32 percent) and 10-15 years (15 percent) are included in the study (31 percent). A majority of farmers (48 percent) have been using the services of the APMC for the last 5-10 years, and the majority of them produce principal crops (51 percent), which include cereals such as paddy, jawar, bajra, ragi, wheat, and maize, among other things. Pulses such as Tur, Horse Gram, Black Gram, Green Gram, Avare, Cowpea, Bengal Gram, and other pulses can be found in the grocery store. Ground nuts, sunflower seeds, safflower seeds, castor seeds, sesamum, Niger seed, soyabean, linseed, and other oilseeds are produced by 29 percent of the population.

Descriptive statistics – Functions of AMPC as perceived satisfaction of Farmers

Table 2- Descriptive statistics

<i>Descriptive Statistics</i>			
		Mean	Std. Deviation
APMC_FUNCTIONS_1	System for bidding	4.65	0.609
APMC_FUNCTIONS_2	price awareness system	4.67	0.57
APMC_FUNCTIONS_3	conflict handling system	2.65	1.431
APMC_FUNCTIONS_4	System of training	2.75	1.381
APMC_FUNCTIONS_5	System of weighing	4.38	0.736

APMC_FUNCTIONS_6	System of payment	4.63	0.544
APMC_FUNCTIONS_7	Charges for proper handling	4.34	0.685
APMC_FUNCTIONS_8	Proper market accessibility	4.54	0.61
APMC_FUNCTIONS_9	Availability of information	4.4	0.765
APMC_FUNCTIONS_10	Interpersonal relationships that are good	4.29	0.686
APMC_FUNCTIONS_11	Time spent on processing	2.8	1.414
APMC_FUNCTIONS_12	The amount of storage available decreases	2.92	1.509
APMC_FUNCTIONS_13	A suitable shed facility	2.86	1.457
APMC_FUNCTIONS_14	Refreshment and canteen	4.49	0.703
APMC_FUNCTIONS_15	Restrooms and washrooms are available	4.56	0.671
APMC_FUNCTIONS_16	Facilities for parking	4.63	0.58
APMC_FUNCTIONS_17	Notice and bulletin board	4.65	0.642
APMC_FUNCTIONS_18	Water supply that is safe to drink	4.78	0.504
	<i>Valid N (listwise)</i>		

The descriptive statistic results, particularly the mean scores, show that farmers are extremely satisfied with the operation of APMCs, with mean scores greater than 4.00 indicating that farmers are extremely satisfied, except in a few cases. Furthermore, the standard deviation is less than 1.00, indicating that there is little variation in the farmers' responses. The farmers are dissatisfied with the F 3 conflict resolution system, F 4 training system, F 11 processing time taken, F 12 storage go downs, and F 13 proper shed facility, all of which have mean scores below 3.00.

ANOVA Results

Alternate hypothesis: Agricultural products have a significant impact on the functioning of APMC, as perceived by farmers.

Hypothesis reject- At 2,97 degrees of freedom, all ANOVA F statistics are statistically insignificant because the value is higher than the perceived value (p=0.05)

SEM Results

Alternate Hypothesis – There is a significant Effect of each function of APMC on satisfaction of farmers

Table 3- Goodness of fit for Path analysis - Perception and Usage

	Significance	χ^2 (Chi-square)	df (Degrees of Freedom)	Chi-square/df (χ^2/df)	GFI (Goodness of Fit Index) >	RMSEA (Root Mean Square Error of Approximation)

Model values	0.001	815.59 2	134	6.08651	0.723	0.077
Accepted value	>0.05			< 3	0.9	< 0.08

The results of the above table indicate that the model is fit and results can be reliable to make interpretations

Table 4- Structural Equation Modelling – First order CFA results

Structural Equation Modelling – First order CFA results						
			Estimate	S.E	C.R	P
F_18	<---	FUNCTIONS_APMC	0.575	0.028	6.065	***
F_17	<---	FUNCTIONS_APMC	0.691	0.041	5.232	***
F_16	<---	FUNCTIONS_APMC	0.571	0.037	6.089	***
F_15	<---	FUNCTIONS_APMC	0.638	0.047	5.685	***
F_14	<---	FUNCTIONS_APMC	0.516	0.057	6.327	***
F_13	<---	FUNCTIONS_APMC	0.067	0.298	7.027	***
F_12	<---	FUNCTIONS_APMC	0.06	0.319	7.029	***
F_11	<---	FUNCTIONS_APMC	0	0.281	7.036	***
F_10	<---	FUNCTIONS_APMC	0.023	0.066	7.035	***
F_9	<---	FUNCTIONS_APMC	0.04	0.082	7.033	***
F_8	<---	FUNCTIONS_APMC	0.221	0.051	6.936	***
F_7	<---	FUNCTIONS_APMC	0.248	0.063	6.909	***
F_6	<---	FUNCTIONS_APMC	0.496	0.035	6.401	***
F_5	<---	FUNCTIONS_APMC	0.131	0.075	7.002	***
F_4	<---	FUNCTIONS_APMC	0.019	0.268	7.035	***
F_3	<---	FUNCTIONS_APMC	-0.004	0.288	7.036	***
F_2	<---	FUNCTIONS_APMC	0.375	0.041	6.718	***
F_1	<---	FUNCTIONS_APMC	0.248	0.05	6.909	***

The various functions listed above contribute to the satisfaction of the Framers, according to the first order confirmatory factor analysis. These functions do not contribute to farmer satisfaction in the cases of F 3, F 4, F 11, F 12, and F 13, and the government must take immediate action to improve them.

Conclusion

The three foundations of India's agricultural economy are said to be production, manufacturing, and marketing. In marketing policies, it is critical to shed some light on the peculiarities of agricultural produce. Highways, transportation, and storage infrastructure are all severely lacking in rural areas. Agricultural marketing is important for the sector's growth because it provides channels and resources for increased productivity. Subsistence farmers can also benefit from the marketing system. The government must make different business ownership models easier to enforce in order to accelerate investment in the region and allow private investment in owning, developing, and running markets. As a result, established government-regulated markets must be professionalised by promoting public-private partnerships to run them. An appropriate legal structure is also required to encourage direct

marketing and contract farming agreements as alternative marketing mechanisms. As a result, the agricultural sector requires a new model law.

Although the Tumkur APMC's performance is satisfactory, additional facilities are required to improve the APMC's performance. Farmers should be provided with adequate storage facilities, improved transportation, improved existing grading facilities, farmers should be provided with financial assistance through commercial banks, and farmers should be provided with accurate information. The state government must enact a single point market fee tax on the sale of notified agricultural goods in any market area. Tumkur APMC, it could be argued, is running smoothly and efficiently, assisting a large number of producers, merchants, commission officers, and other business people. This industry is well-known in the neighbouring states of Andhra Pradesh, Tamil Nadu, and Kerala.

Farmers in the Tumkur district sell a large portion of their agricultural produce through APMCs because they receive fair pricing, crop security, timely payment, employee advice, malpractice protection, a proper weighing system, and other important services. Farmers in Tumkur district responded positively to APMCs in the majority of cases. Farmers in the Tumkur district want more regular training and awareness programmes. They also desire a quicker turnaround time. Farmers want crops other than paddy to be prioritised alongside paddy. A fair minimum price for crops should be established, similar to the Minimum Support Price system, so that farmers receive at least the fair minimum price for their crops. APMCs in the Tumkur district can research APMCs in other states and incorporate services and modern amenities based on their findings.

The government should review its policies and regulations in order to strengthen the marketing network. Agriculture in India requires further development because it is still the primary source of income for the majority of the population. As a public forum for eliminating agricultural trade malpractices and assisting farmers and traders in the region, these government agencies require more government support in order to attract and protect the interests of both sellers and buyers in the market.

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