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Research Article

Contribution Of APMC's In AgriculturalMarketing- A Study On Arecanut FarmerPerspective In Malenadu Region

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ABSTRACT

Arecanut farmers in Malenadu region face marketing challenges such as limited market access, fluctuating prices, and lack of proper storage facilities. Due to the remote location ofthe Malenadu region, Arecanut farmers often struggle to reach wider markets, resulting in limited opportunities to sell their produce. Additionally, the prices of Arecanut can be highlyvolatile, making it difficult for farmers to predict their income. Moreover, the absence of adequate storage facilities leads to post-harvest losses, further affecting the profitability of the farmers. The government established APMC's (Agricultural Produce Market Committees)to regulate and streamline the agricultural market system in the country. These committees were set up to ensure fair trade practices and protect the interests of both farmers and consumers. By providing a platform for farmers to sell their produce at competitive prices and ensuring transparency in transactions, APMC's have played a crucial role in stabilizing agricultural markets and promoting economic growth in the agricultural sector. The study's primary objectives were to determine farmers' expectations from the APMC's performance aswell as to identify issues related to the APMC's operation and functioning. 50 Farmers from Uttara Kannada district, specifically the Sirsi, siddapura and Yellapura region were chosen on convenience sampling basis. Using a well-structured questionnaire in regional laguage, 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 such as market accessibility; auction system and storagefacilities are not contributing to farmer satisfaction and require immediate action by the government to improve these functions.

INTRODUCTION

Agricultural marketing is an urgent concern for academics and administrators alike because agriculture is so important to our civilization. The advantages of a conducive corporate climate, a robust financial sector, and a well-established network of higher educational institutions in India have not yet been fully realized by Indian advertising. The marketability of farm products is contingent upon the strategic choice to cultivate a marketable agricultural product, whereas agricultural marketing, as a comprehensive approach, incorporates all facets of a system's sales framework. Bottlenecks in the agricultural marketing system can be attributed to several causes, including substandard warehousing conditions, limited demand knowledge, the prevalence of intermediaries, and inadequate transportation and connection. The significance of agricultural difficulties is growing due to the fast growth of technology. Notwithstanding the implementation of reforms, Indian agriculture continues to be susceptible, not only to natural calamities, but also to a deficiency of institutional

authority and adaptability on the government's behalf. The phenomenon of farmer- to-farmer marketing in India is undeniably seeing growth and expansion, however not universally or universally applicable to all farmers. Based on the prevailing forecasts, it is evident that the impending situation holds significant disastrous implications for the region. Given the present condition of the nation, it is anticipated that a Second Green Revolution will rectify any issues and ensure the country remains on the correct trajectory. The government has announced its plans to initiate the Second Green Revolution, a transformative initiative scheduled to occur from 2020 to 2025.

In order to enhance the marketing system, it is important to implement enhanced cooperative marketing strategies, foster the growth of controlled markets, establish product rankings, and optimize transportation and storage processes. The significance of the Agricultural Produce Marketing Committee (APMC) in advancing agricultural marketing and marketing research cannot be overstated. The attainment of economic growth in industrialized nations necessitates the expansion of the agricultural economy. The agricultural sector in India has seen significant transformations in recent years due to technical breakthroughs. These improvements have led to the mechanization of farms, the widespread use of chemical fertilizers, and the specialization of agricultural output.

Although growth has brought about positive outcomes, it has also led to a decrease in labor demand, a substantial rise in production costs, and various negative consequences such as topsoil depletion, groundwater contamination, decline in family farming, neglect of farm labor and their living and working conditions, reduction of cultivable land due to urbanization and industrialization, and widespread pollution. This has further intensified the economic and social breakdown of rural households. India's escalating agricultural productivity is the foremost concern on the country's national agenda. This position is influenced by several factors, including physical, material, institutional, technical, and agricultural impacts. Undoubtedly, marketing holds immense significance in this domain. Marketing may contribute to cost reduction in marketing services by removing intermediaries and minimizing the disparity between purchase and sale prices. The marketing of agricultural goods is considered an essential component of the agricultural business due to the encouragement for agriculturists to enhance their investment and production.

Consequently, there is an increasing acknowledgment that the mere production of a crop or animal item is insufficient; it is imperative to ensure its accessibility for consumption. The government has shown a significant interest in the development of marketing and trade infrastructure, particularly in the context of the Green Revolution that occurred in the 1960s. India has a comprehensive network of agricultural cooperatives operating at various levels, including municipal, district, state, and national, with the primary objective of facilitating agricultural commercialization. The Indian government has been significantly engaged in the promotion and distribution of agricultural commodities. Rural marketing encompasses several strategies such as agriculture pricing strategy, the implementation of Controlled Markets, government purchase of products through the Food Corporation of India, and other related elements. The establishment of an efficient marketing system is vital for the advancement of a nation's economic growth.

Marketing, apart from satisfying customer demands, has demonstrated its efficacy in enhancing the earnings of individual producers across several industries. The primary focus of the government's policies, programs, and actions is to enhance and modernize the marketing system in rural areas. This is achieved through three key areas: the establishment of cooperative marketing societies to institutionalize agricultural marketing, the regulation of markets for various agricultural products to mitigate or eradicate unfair trade practices, and the implementation of diversion strategies.

Several strategies have been implemented to enhance the marketing framework in three key areas: the facilitation of cooperative marketing, the establishment of regulated marketplaces, and the organization of product and service ranking, storage, and warehousing. The significance of the Agricultural Produce Marketing Committee (APMC) in the promotion of agricultural marketing goods cannot be overstated.

APMC in Karnataka – Schemes

The agriculture produce marketing (regulation and development) (amendment) ordinance, 2020 of Karnataka was passed into law on May 16, 2020. 4 With these amendments, the Karnataka Agricultural Produce Marketing (Regulation and Development) Act, 1966 is refined. It makes the following changes to the Act**:**

- **Designated marketing areas:** Buying or selling notified agricultural products outside of the designated market yards or sub-yards is a crime under the Act. In other cases, as when buying directly from a farmer or a dealer, this rule does not apply.
- Market yards, market sub-yards, and sub-market yards shall be regulated by APMCs for the selling of notified agricultural output. The Ordinance permits for the buying and sale of commodities in areas other than authorized market yards or sub-yards.

Table 1- APMC Karnataka Government Scheme

RaithaSanjivini Yojane	For the benefit of all farmers in Karnataka, the "Raitha Sanjeevini" Accidental Insurance Scheme is being launched by the Karnataka State Agricultural Marketing Board. A prize of Rs.75,000 is granted in the event that a farmer or a member of their family dies between the ages of 15 and 80 while engaged in agricultural activities, selling horticulture and agricultural commodities in market yards, etc. Injured farmers are eligible for compensation of up to Rs.15,000, depending on the seriousness of their injuries. There will be no cost to the farmer for taking part in the initiative.
Yojane admana sala	This approach has been used in 132 State markets from 1994–1995.The maximum loan amount that farmers might get is Rs.2,00,000.00, which is 60% of the value of their agricultural production, in return for a guarantee of that produce. The advance term cannot go beyond 180 days from the date of the output promise. Interest will be levied after the first 90 days of the advance being disbursed; after that period, it will be paid in full.At its expense, the market committee shall prepare for periodic fumigation and take all necessary procedures to
	preserve the promised produce from fraud, fire, and other hazards.The market committee has the authority to grant a short-term advance to vendors who present warehousing receipts issued by the Karnataka State Ware Housing Corporation, Central Ware Housing Corporation, or any other co-operative society that the Director of Agricultural Marketing notifies periodically.
Floor Price system	The purpose of the Floor Price System is to mitigate the occurrence of panic purchasing among farmers. The establishment of a Minimum Support Price by the government, together with the implementation of procurement regulations, will be undertaken. A Revolving Fund has been established due to this rationale. The business committees of the state donate 0.5 percent of the monthly market fee generated. The KSAMB will assume responsibility for the fund. This initiative is the inaugural of its kind globally, and other states have demonstrated significant enthusiasm in implementing it for the advantage of farmers.
JanashreeVima Yojane	The Karnataka State Agricultural Marketing Board is now implementing the Janashree Insurance Scheme, which aims to provide benefits to a total of 12,980 hamals, cartsmen, and weighmen who are working in 145 APMCs. Any individual who chooses to participate in the plan must pay an annual premium of Rs.60. Each 'Shramik' is represented by the Board through a yearly donation of Rs.40. LIC is allocated a sum of Rs.100 every individual registered under the Social Security Scheme by the Government of India. The Scheme has been in operation since October 1, 2000. In the event of an individual's natural demise, they are eligible to receive a compensation of Rs.30,000 as per the terms of this agreement. In the event of an injury resulting in death, the amount of compensation to be paid is Rs. 75,000. Furthermore, the Government of India offers a scholarship to two kids within the insurer's family who are currently in the 9th to
	12th grade. These students are entitled to earn a sum of Rs.600/- every fifth year.
Hamals Housing Scheme	The Rajiv Gandhi Rural Housing Corporations have indicated their intention to undertake the construction of residential properties for authorized hamals employed in the APMCs of Karnataka. This service has been granted access to a maximum of 5000 hamals. To date, a total of 808 hamals engaged in employment have been identified as recipients. The overall expenditure for the house amounts to Rs.40,000/-. Each residence is eligible for a subsidy of RS.10,000 from the state government. A sum of Rs.80.80 lakhs has been disbursed thus far. The licensed hamal is anticipated to provide a gift of Rs.5,000. The Rajiv

	Gandhi Rural Housing Corporation will provide approval for the remaining amount of Rs.25,000. The outstanding amount must be settled within a period of 15 years, with a monthly fee of Rs.297, by the authorized hamal. The project has been granted financial support and is presently in the process of implementation. The tools and software at the department's disposal, along With how to get them. Various water sources, including drinking water, rural Water storage facilities, gramine samparka rasthe, community restrooms, street lighting, action channel, closed platform, drying platform, sanitaries, electronic scale for weighing livestock, sheep and goat pens, ticker board, s.m.s., daily rates, flat-screen plasma television board of rates, board of rates, board of rates, board of rates, board of rates, board of rates, board of rates, board of rates, etc. electronic tendering, electronic trading, online trading, electronic tendering, online trading
New Online trading Project	The government of Karnataka has just introduced a new Initiative for internet commerce. A market platform is provided by the Karnataka government. The new online trading system is making online trading better, and both APMC market yards have moved to it.

REVIEW OF LITERATURE

Improvements to retail amenities boost market trade rates, according to Indian research (Gandhi, 2006). Changes in farming practices and output have been associated with developments in transportation infrastructure. In a developing world, expanding and diversifying the economy should take precedence over ensuring food security. According to this (Ramkishen, 2004), during the peak selling season, there is a shortage of food processing and storage facilities, which means that growers can't charge a reasonable price for their produce during the lean season, and buyers have to pay more.

The contribution of agriculture to a nation's growth may be seen in the increase of products within the sector and in the way agricultural output enables other sectors to expand via sales of commodities on both local and international markets (Pathak, 2009). According to research on Turkish agricultural development cooperatives by Karahocagil and Ozudogru (2011), members of the cooperatives are happy with the organization because it helps them learn about many different aspects of farming, including input collection, processing, marketing, and cultivation. According to Ifeanyi-Obi (2008), one may argue that boosting the advertising of agroproducts is a roundabout approach of getting farmers to use more pesticides. To boost demand for agricultural products, it is suggested that agro-industries use promotional strategies to boost sales. The findings of the survey indicate that in order to deliver a sales promotion that is both effective and efficient, it is important to include the respondents' suggestions for improving the promotion into the actual process. Decisions on planting and harvesting times, as well as sales venues and storage options, must be made by farmers with due diligence. Traders may make more informed judgments on the viability of keeping products when it is theoretically feasible and more profitable to shift commodities across markets when they have a better grasp of the facts (Amrutha, 2009). 'Commoditization to commercialization' is a growth phase that every country's agriculture industry goes through (Vaswani and colleagues, 2003). No matter how well the production mechanism works at the commoditization level, the transition from agriculture to commercialization is inevitable. Agricultural policy framework, sectoral flaws, general population living standards, etc. are all examples of external elements that might impact this process. Achieving food security requires a sufficient food supply, say Dev et al. (2010). While India has enough grains to meet its own needs, it lacks two crucial food crops: pulses and oil seeds. Fruits, vegetables, dairy, cattle, poultry, and fish have all seen a rise in demand due to changes in eating habits.

Research Objectives

- To learn how the APMC helps out and how the farmers feel about it.
- Research the effect of Agricultural Produce on operators' perceptions of APMC satisfaction.

Research Methodology

The study draws on a combination of primary and secondary sources of information; the former is utilized to examine farmers' perspectives, while the latter provides details about the APMCs' many roles.
The southern Indian state of Karnataka includes the Malnadis. With a span of almost 100 kilometers, Malnad encompasses the Western Ghats' eastern and western sides. It falls inside the zone of very strong rainfall and is characterized by mountainous topography. With an annual rainfall ranging from 1000 to 3800 mm, the Malenadu area has high humidity. Known as Karnataka's Cherrapunji, the Shivamogga district town of Agumbe gets about 10,000 millimeters of rain annually, the most of any place in Karnataka.
The Malnad region is characterized by dispersed communities that lie in inaccessible places.Due to its unusual settlement patterns, small population, hilly terrain, thick forest, many rivulets, and other unique features, this part of the state presents unique development challenges. In accordance with the Malnad Area development Act, 1991, the Malnad Area Development Board was established with the goal of accelerating the area's development via the execution of essential development projects and activities. Initially, this region encompassed the following districts: Shivamogga, Hassan, Kodagu, Uttara Kannada, and Chikmagalur. The thirteen districts of the state that fall within the board's purview now include Chamarajnagar, Belgaum, Dharwar, Davangere, Haveri, Chikmagalur, Hassan, Shivamogga, Kodagu, Mysore, Uttarkannada, Udupi, and Mangalore.
The data is collected by use of a structured interview protocol. A satisfaction scale from 1 (very dissatisfied) to 5 (very satisfied) is used to assess APMS functionality. There are two parts to the interview schedule: one deals with general demographic inquiries, and the other with more specific APMS duties. The Cochran formula, when applied to a known population, yields a sample size with a 95% confidence level and a 10% margin of error. The sample was selected using the convenience sampling approach. The questionnaire was pre-tested with 10 respondents, and the results showed that it was reliable according to the Cronbach alpha. The study uses analysis of variance (ANOVA) methods to look at how farmers feel about APMCs differently depending on the crop they cultivate, and structural equation modeling (SEM) to look at how different APMC functions affect farmers' happiness.

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 15-20 years.

Descriptive statistics – Functions of AMPC as perceived satisfaction of Farmers

Table 2- Descriptive statistics

Descriptive Statistics			
		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
	Valid N (listwise)		

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

	Signi fican ce	*χ2 (Chi-square)*	*df (Degrees of Freedom)*	*Chi- square/df (χ2/df)*	*GFI (Goodness of Fit Index) >*	*RMSEA (Root Mean Square Error of Approximation)*
Model values	**0.00 1**	**815.59 2**	**134**	**2.08651**	**0.923**	**0.077**
Accepted value	**>0.0 5**			**< 3**	**0.9**	**< 0.08**

Model fit statistics is an area that includes a number of criteria aimed to assess the ways in which an existing statistical model can be effectively fit to the data from which it originates. The value of goodness of fit index should be above 0.800 to demonstrate a strong fit with the data. The current model has a goodness of fit index of 0.923 which demonstrate a very strong fit because it is considered an acceptable value. A χ 2 / df is 2.08651 which is below 3.000 demonstrating a good fit with the data. The Root Mean Residuals (RMR) should be below 0.050, the RSMEA should be below 0.080, and the statistics of current model are affirmed with the acceptable criteria.

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 farmers, according to the first order confirmatory factor analysis. These functions do not contribute to farmer satisfaction in the cases of conflict handling systems, systems of training, Time spent on processing, the amount of storage available decreases, and the government must take immediate action to improve it. The lack of contribution from these functions highlights areas where improvements are necessary to enhance the overall satisfaction of farmers. By addressing issues such as conflict resolution, training programs, processing time, and storage capacity, the government can work towards creating a more supportive environment for farmers. Taking immediate action to improve these aspects will not only benefit farmers but also contribute to the overall success and sustainability of the agricultural sector. Improving conflict resolution mechanisms will help farmers resolve disputes efficiently and prevent unnecessary delays in their operations. Implementing comprehensive training programs will equip farmers with the skills and knowledge needed to increase productivity and profitability. Enhancing processing time and storage capacity will ensure that farmers can efficiently bring their products to market and reduce the risk of spoilage. Overall, by addressing these key areas, the government can create a more conducive environment for farmers to thrive and contribute to the growth of the agricultural sector.

CONCLUSION

The three pillars of the agricultural economy in India are supposedly production, manufacture, and marketing. It is essential to explain the quirks of agricultural products in marketing policies. Rural communities suffer from an extreme deficiency in transportation, storage, and highway infrastructure. The expansion of the agricultural sector is dependent on the marketing of agricultural products and services, which offers avenues and means for greater output. Additionally, the marketing system can help subsistence farmers. To encourage private investment in owning, developing, and operating markets, as well as to speed up investment in the area, the government should make it simpler to enforce various corporate ownership structures. Therefore, it is necessary to encourage public-private collaborations in order to professionalize already-established markets that are controlled by the government. Alternative marketing strategies such as contract farming agreements and direct marketing need a suitable legal framework. There has to be a new model legislation for the agriculture industry.

Additional facilities are needed to increase the Malnadu regions APMC's performance, although it is sufficient now. Adequate storage facilities, better transportation, upgraded grading facilities, financial aid from commercial institutions, and correct information should all be made available to farmers. Any market area selling recognized agricultural items shall be subject to a one-point market charge levy imposed by the state government. One may say that Malnadu regions APMC is helping a lot of manufacturers, merchants, commission officers, and other businesspeople, and that it's operating efficiently. The neighboring states of Tamil Nadu, Kerala, and Andhra Pradesh are very familiar with this business.

Due to the many benefits that APMCs provide, including reasonable prices, crop protection, prompt payments, staff guidance, malpractice insurance, an accurate weighing system, and more, many farmers in the Malnadu regions region choose to sell a significant amount of their agricultural products through these organizations. Most APMCs were well-received by farmers in Malnadu regions district. Malnadu regions district farmers are calling for more consistent education and outreach initiatives. Additionally, they would want a faster response time. It is the wish of the farmers that other crops be given equal priority with rice. So that farmers may make a living, there should be a minimum price set for crops, comparable to the Minimum Support Price system. APMCs in the Malnadu regions area might learn from their counterparts in other states by studying their models and implementing their services and technological conveniences.

If the government is serious about bolstering the marketing network, it should examine its rules and laws. Because it continues to provide the bulk of the population's income, agriculture in India necessitates more improvement. More funding for these government institutions is necessary so that they may continue to serve as a public forum for eradicating agricultural trade malpractices and aiding regional traders and farmers.

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