



A Study on Growth of Procurement of Arecanut by Different Marketing Agencies for the Benefit of the Farmers

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The arecanut palm (*Areca catechu L.*) is a significant commercial and business crop of India. It plays an important role in the political, social and cultural functions and the economic life of people in our country. From an area of 12.26 lakh hectares of land, the total arecanut production at the global level was 17.96 lakh tonnes in 2019–20. In India, arecanut crop has been cultivated from time immemorial with traditional cultivation techniques and one of the biggest traditional areca-growing countries in the world level. Arecanut is a major and commercial plantation crop cultivated in peninsular and Eastern India. The detailed information needed for the study was gathered from secondary sources. For the study two marketing societies/developmental agencies were selected i.e RAMCOS and TUMCOS. The secondary data was collected from the marketing agencies regarding membership of societies and procurement of arecanut from 2007-08 to 2021-22. In order to arrive at the meaningful results the Descriptive statistics and compound annual growth rate were employed. The compound annual growth rate for number of members of the TUMCOS societies

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shows positive trend 10.68 per cent. The compound annual growth rate of procurement of arecanut exhibited a growth of 7.14 per cent. The compound annual growth rate for number of members of RAMCOS growth rate was 5.98 per cent. The negative growth rate in procurement of arecanut by the RAMCOS agency (-3.91%). The society is successful in gaining attention of arecanut growers towards the society by providing various schemes like credit facilities to the members, providing agricultural inputs and insurance to the farmers. RAMCOS and TUMCOS is providing fair price for areca nut. The marketing societies are a reputed areca nut marketing society working in Shivamogga and Davanagere district as a role model for other co-operative societies.

Keywords: Marketing agencies; TUMCOS; RAMCOS; facilities; compound annual growth rate.

1. INTRODUCTION

Arecanut is a significant agricultural commodity in many parts of the world. It is primarily grown in India, Bangladesh, China, Indonesia, Sri Lanka, and some of the particular Islands. India is the world's top producer of arecanut. Arecanut farming in India is primarily limited to the states of Karnataka, Kerala and Assam. Although arecanut consumption is widespread throughout the nation.

The states which predominately grown arecanut in India are Karnataka, Kerala Meghalaya, Tripura, Andhra Pradesh, Assam, Andaman and Nicobar Islands, Maharashtra, Goa, Tamil Nadu, Mizoram, West Bengal and Pondicherry. Karnataka and Kerala states have the significant share which together accounts more than 80 per cent of both in area and production of the arecanut in the country. With respect to the area under arecanut across different states, Karnataka ranks first with a 5,00,522 hectares with production of 10,81,840 tonnes followed Kerala with an area of 96,921 hectares with production of 92,755 tonnes, Assam with an area of 67,021 hectares with production of 50,040 tonnes, Meghalaya with an area of 17,951 hectares with production 24,467 tonnes and West Bengal with an area of 11,890 hectares with production of 23,857 tonnes of arecanut produce during the year 2019-20 (DASD, Calicut, 2021).

In Karnataka state, there are different types of arecanut are being produced viz., chaali, chogaru, saraku, rasi and bette. Among different types of arecanut, the chali alone contributes for more than 40 per cent of the total arecanut production and which is confined mainly to Dakshina Kannada, parts of Uttara Kannada and Chikkamagaluru districts (Karnataka at glance 2019-20). Further, the Saraku/Rashi type of arecanut accounts for about 60 per cent of the arecanut production and its growing confined to

Shivamogga, Davanagere, Chikkamagaluru, Tumakuru, parts of Chitradurga district and other main districts of Karnataka.

Arecanut marketing is the systematic performance of areca business activities related to processing, assembling, grading, storing, packing, value adding, standardizing, branding, transporting, financing, selling and distributing in order to reach the areca produce from the point of producing farmers to the point of ultimate consumers. In the process of areca marketing production being the starting point of marketing it provides proper base, shape and color to the marketing arrangement.

The co-operative societies were more contributing in the study area. Tota Utpannagala Marata Sahakara Sangha Niyamith popularly known as TUMCOS is one of the leading arecanut growers society in Karnataka established in the year 1984. Its registered office at Channagiri Davanagere district, expanded its area of operation to four districts Davanagere, Chitradurga, Chikkamagaluru and Shivamogga. TUMCOS having eight branches and its functioning in Channagiri, Santebennur, Tavarekere, Sagarapete, Holalkere, Tarikere, Arahatalalu-Kaimara and Honnali. In 1984 with a membership base of 113 & paid share capital of 0.53 lakh rupees and now it has 14,397 members with a total paid up share capital of 1,113.69 lakh rupees.

The area of operation of the society covers arecanut growers of 4 districts. With the success of market interventions, the society moved on to promote growers to adopt the most appropriate technologies in production, primary processing at producer level, bagging and storage. The society has been promoting e-auctioning of areca by utilizing Agriculture Produce Market Committee (APMC) electronic platform. The grower members are getting a fair market prices also timely payment for their produce.

Areca nut marketing agencies which are operated in the Davanagere, Chaiikkamagaluru and Shivamogga districts of Karnataka. TUMCOS 14,397 farmers were the members of the society, of which actively working members were 11,005. The total quantity of areca nut that is procured by the TUMCOS was 2,06,035.57 quintals. The amount of loan disbursed by the agency was 264.68 crore rupees. As of now 8000 farmers have availed the loan by paying an interest rate of 10 per cent. The numbers of health insurance that have claimed were 985 of which 98 farmers have availed the health insurance. There were a total of 8 branches of TUMCOS in the study area. (TUMCOS year report, Channagiri,2022).

The RAMCOS (Raitara Areca nut marketing Co-operative society) is established in Bhadravathi taluka of Shivamogga districts. It's having 3 branches located at Bhadravathi taluka. As of 2022, 3,578 farmers had enrolled with the RAMCOS, of which 3,145 were actively employed by the organisation. The amount of the loan that was disbursed was 0.57 crores, and a total of 7,134.05 quintals of areca nut were purchased, the total 2,452 farmers have taken loan from the society at 10 per cent. There were 600 health insurance claims and 48 farmers actually used their coverage. There were 3 branches in the study region. The presents paper attempts to analyse the role and procumbent of areca nut marketing agencies in study area [1-5].

1.1 Objectives of the Study

1. To know the roles and facilities provided by the marketing agencies
2. To study trends in procurement of areca nut from the marketing agencies

2. MATERIALS AND METHODS

Karnataka was chosen for the study in order to meet the study's specific objectives. The state has the highest area and production of areca nut. The detailed information needed for the study was gathered from secondary sources. For the study two marketing societies/developmental agencies were selected i.e RAMCOS and TUMCOS. The secondary data was collected from the marketing agencies regarding membership of societies and procurement of areca nut from 2007-08 to 2021-22. The information was obtained during the year 2022. In order to arrive at the meaningful results the descriptive statistics and compound annual growth rate were employed.

2.1 Compound Annual Growth Rate Analysis

For computing compound annual growth rates of procurement of areca nut the exponential function of the following form was used:

$$Y = a b^t e^u \dots \quad (1)$$

Where,

Y = Dependent variable (quantity of areca nut procured/ number of members)

a = Intercept term

b = Regression coefficient

('a' and 'b' are the parameters to be estimated)

t = time period

e^u = Error term

The equation (1) was transformed into log linear form and written as;

$$\log Y = \log a + t \log b + Ut \quad (2)$$

Equation (2) was estimated by using Ordinary Least Squares (OLS) technique.

Compound growth rate (g) was then computed

$$g = (b - 1) \times 100 \quad (3)$$

Where,

g = Compound growth rate in per cent per annum

b = Antilog of log b

The standard error of the growth rate was estimated and tested for its significance with 't' test statistic.

2.2 The Facilities Provided to Farmers by Marketing Societies

The society provides agricultural inputs such as seeds, planting material, fertilizers, herbicides, drip irrigation equipments and other agricultural accessories. It has set up a semi automated areca grading and packing unit to give the benefit of value addition to members and has also created adequate storage facilities, enabling it to undertake large scale pledge loan operations.

The TUMCOS has been started with service motto and provides various facilities to the members which are given below:

1. Medical facilities are offered to members by TUMCOS: TUMCOS is providing medical facilities to its members and they need to register with societies to avail this service. Medical facilities such as eye camp, health checkup, etc
2. Members will get death fund services from the society to carry out cremations.
3. Accident insurance is provided to both employees and members of the organization.
4. Members of society have access to storage space where they can keep goods like arecanut and black pepper
5. The society offers lending services to its members, including pledge loan and processing loan [6-10]

shows positive trend 10.68 per cent. The compound annual growth rate of procurement of arecanut exhibited a growth of 7.14 per cent. In the year 2008-09, the quantity of arecanut was procured 78,290.45 quintals which had valued ₹ 8,197.68 lakhs raised to the procurement of 2,06,035.57 quintals which valued at ₹ . 94,496.09 lakhs in the year 2021-22. The average quantity procured during the study period was 1,39,638.30 quintals with a value of ₹ 39,799.16 lakhs. The compound annual growth rate with respect to value registered to be 20.28 per cent per annum. The compound annual growth rate for the quantity procured and value expressed the positive growth rate indicating the TUMCOS was running under commercial and cost effective manner by aiding the members of the agency in the Davanagere district. With respect to compound annual growth rate of membership the growth rate 10.68 per cent. The significance of membership of the society shows that expansion branches and goodwill of the society.

3. RESULTS AND DISCUSSION

Table 1 and Fig. 1 shows that trend in procurement of arecanut by TUMCOS for the period from 2007-08 to 2021-22. The compound annual growth rate for number of members

Table 1. Trends in procurement of arecanut and growth of member in TUMCOS (2007-08 to 2021-22)

Year	No. of Members	Quantity (q)	Value (Lakh ₹)
2007-08	3742	78290.45	8,197.68
2008-09	4134	94139.09	8,781.41
2009-10	4430	97110.27	12,077.20
2010-11	4892	96382.05	14,122.66
2011-12	5250	115690.97	15,763.55
2012-13	5611	110893.75	15,344.11
2013-14	6457	121760.86	23,416.57
2014-15	7110	124868.17	45,445.17
2015-16	8202	146373.85	42,445.59
2016-17	9249	154953.23	42,570.22
2017-18	10389	175142.66	66,477.62
2018-19	11151	186706.60	62,879.55
2019-20	12611	176945.41	62,321.16
2020-21	13663	209281.65	82,648.86
2021-22	14,397	206035.57	94,496.09
Mean	8085.87	139638.30	39,799.16
CAGR	10.68**	7.14**	20.28

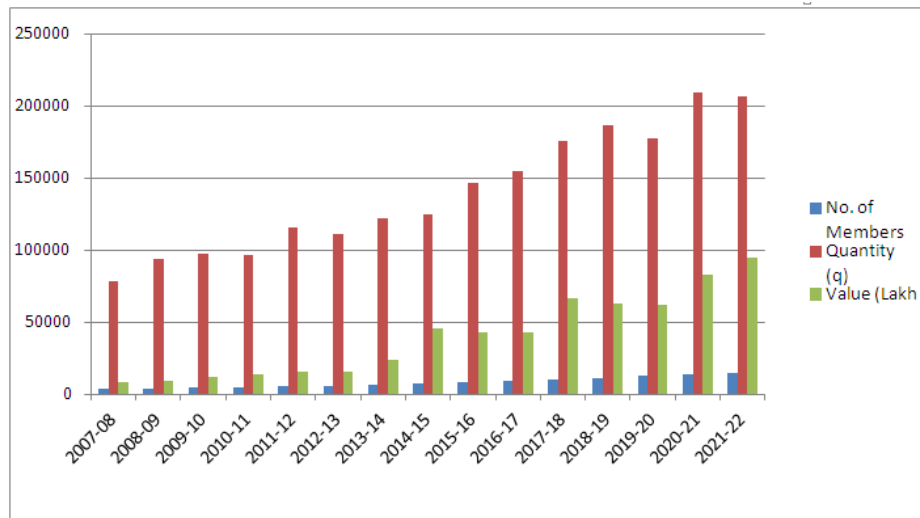


Fig. 1. Procurement of arecanut and growth of members in TUMCOS societies (2007-08 to 2021-22)

Table 2. Trends in procurement of arecanut and growth of member in RAMCOS (2007-08 to 2021-22)

Year	No. of Members	Quantity (q)	Value (lakh ₹.)
2007-08	1603	12438.40	1,300.50
2008-09	1772	13021.77	1,201.34
2009-10	1849	15648.35	1,941.98
2010-11	2137	12669.57	1,840.33
2011-12	2292	19007.06	2,575.50
2012-13	2395	12150.88	1,667.85
2013-14	2660	14375.54	2,763.36
2014-15	2798	8782.05	3,329.98
2015-16	2928	12360.87	3,644.68
2016-17	3114	15340.41	4,181.47
2017-18	3234	8113.40	3,153.72
2018-19	3348	12822.68	4,923.05
2019-20	3409	10450.58	3,728.89
2020-21	3522	7805.35	3,092.97
2021-22	3578	7134.05	3,142.00
Mean	2709.27	12141.40	2,832.51
CAGR	5.98**	-3.91**	8.09**

Table 2 and Fig. 2 shows that trends in procurement of arecanut and growth of membership in RAMCOS for the year 2007-08 to 2021-22. The compound annual growth rate for number of members growth of 5.98 per cent. As it is depicted from the table the negative growth rate in procurement of arecanut by the marketing agency. There was a decrease in procurement of arecanut with the tune of 3.91 per cent per annum, with respect to value the compound annual growth rate, there was increase of 8.09 per cent per annum. In the year 2007-08 a total of 12,438.40 quintals of arecanut which valued at ₹ 1,300.50 lakhs was procured which decreased to 7,134.05 quintals and valued at ₹ 3,142.00

lakhs in the year 2021-22. The average procurement of arecanut during the study period was 12,141.40 quintals with a value of ₹ 2,832.51 lakh rupees. The reason behind the decline in the procurement due to it was operating in Bhadravathi taluaka and only 3 branches and also growers selling to the other intermediaries like traders, wholesaler, pre-harvest contractors and also competition by the other agencies. As there was an increase in the value of the arecanut, the compound annual growth rate for the arecanut was procured expressed a positive growth rate during the study period. Because of the increasing or raising prices of the arecanut during the study period.

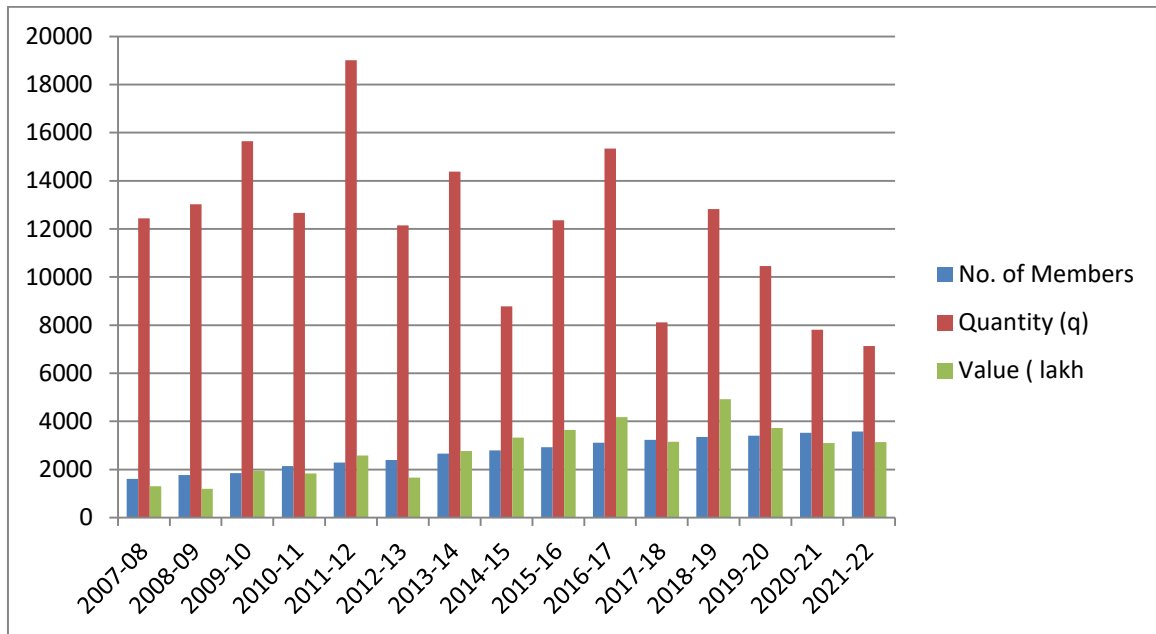


Fig. 2. Trends in procurement of arecanut and growth of members in RAMCOS societies (2007-08 to 2021-22)

4. CONCLUSION

The overall results exhibited marketing agencies are playing crucial role in enhancing the income of the members by providing appropriate and accurate guidance right from production till marketing of the arecanut. The social obligation is also taken care by the marketing societies apart from the production or marketing assistance to the farmers which exhibits a positive move towards the welfare of the members. The positive growth rate in procurement of the arecanut by both the marketing societies considered for the study reflects, the marketing agencies are paying the remunerative and competitive price on par with the market rate for its members. The farmers may be advised during social propaganda, training time that the usefulness in joining as the members in these marketing agency so that the farmers don't face the distress sale situation for their valuable produce.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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