Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
June 2024 5(6), 3767–3772

A STUDY ON ISSUES AND FUTURE PROSPECTS IN MANGO FARMING AND MARKETING IN KRISHNAGIRI DISTRICT

R. Venkatesh Kumar [1], Dr. A. Subanginidevi [2]

[1] Research Scholar, Department of Management Studies, Sri Vidya Mandir Arts and Science, College, Uthangarai, India - 636 902
[2] Research Supervisor, Department of Management Studies, Sri Vidya Mandir Arts and Science, College, Uthangarai, India - 636 902

DOI
10.29121/shodhkosh.v5.i6.2024.6542

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

India is a nation of farmers, and more than two thirds of Indians depend on agriculture for their livelihood. The foundation of the Indian economy is agriculture, and without the expansion of this sector, no plan for economic growth can be successful. India's economy is well recognised for being heavily dependent on the agricultural sector, and the country's climatic conditions are ideal for the cultivation of mangoes. Mango farming is one of the key components of our nation's horticultural industry. Mango farmers typically have lower socioeconomic statuses than the general population and struggle with issues like underemployment, a lack of financial resources, and the use of middlemen. Since mango growing is a seasonal activity, it is clear that they have been jobless for roughly six months out of the year. Even while India contributes significantly to the growth and production of fruit, it still has significant obstacles that are keeping it from reaching new heights, such as the fertiliser issue and a lack of knowledge about contemporary irrigation techniques. To inspire the farming community in the future, these difficulties must be deliberately addressed. Encouragement of research in this field is a very positive development because it will encourage young people and the next generation to use their brains to find solutions to the issues and the government to put those solutions into action. With middlemen involved, farmers are said to find it extremely difficult to market their own agricultural products (Krishnagiri District). The three main marketing situations are rivals, a lack of local markets, and inappropriate. Steps in the marketing cycle include making the product, sorting it, delivering it, setting a price, communicating with customers, and finally, receiving the product. Agricultural marketing encompasses not only the production of goods and commodities but also their transportation to and from the customer. Research for this project makes use of both primary and secondary sources. The study used a sample size of 603 mango producers to gather primary data. According to the study's findings, farmers need education and training in packing, processing, and preservation as well as financial and marketing support and forward and backward linkages. Farmers needed businesspeople to market their mangoes, cold storage, and better mango production and storage methods.

Keywords: Issues, Prospects, Production, Marketing, Mango

1. INTRODUCTION

Over half of India's GDP is generated by agriculture, making it the most significant economic sector in the nation. The world is aware of India's capacity to produce a wide range of goods. One of India's economic high points has been the sale of agricultural goods. Fruit production is crucial to ensuring the global population's national food security. They typically taste great and are packed with vitamins and minerals that can complement cereal-based diets. Fruits can be sources of foreign income and serve as a source of raw materials for regional industries. Additionally, the growth of the fruit business will open up job prospects, especially for farming communities.

India produces the most mangoes worldwide, accounting for almost 46% of the total generation. Both adults and children like the mango, which has been hailed as a superior fruit since antiquity. Mango is the oldest fruit introduced to

India from the Far East, giving it a special place among all other fruits. However, this was and still is the best fruit in our nation. Mango trees are an integral element of rural life in India. Additionally, it is the only fruit that is utilised in a variety of ways from the beginning stages of development all the way through maturity and ripening.

India's mango farmers face a plethora of challenges, including: a lack of land holdings, the inaccessibility of valuable seedlings or saplings, a significant post-harvest loss due to structural deficiencies, broker risk, pests and critters such as the rough bug, leaf container, and organic product fly; diseases such as contortion, anthracnose, black mark, and so on. Farmers who grow mangoes want to sell them either right away or wait for a higher price. Natural catastrophes such as unexpected and unwelcome overwhelming precipitation fall, flood, and tempest also interfere with the development of the mango, greatly affecting the interests of the mango growers.

Manufacturing products and distributing them to consumers are both parts of the agriculture marketing process. A number of steps comprise the marketing cycle, including manufacturing, grading, transportation, pricing, information transmission between the producing region and the market, and finished items. One of the main reasons why agricultural development goals are failing is because of this. Problems with marketing information systems, lack of government assistance for rural areas, agricultural commodity price fluctuations due to the seasons, and a lack of rural cooperative work Inputs are hard to come by, storage space is limited, and retail outlets are few, all of which affect farmers. There is no value added by marketing and production. There is a lack of transportation options for exporting produce, and cooperatives do not have storage facilities or warehousing for rural areas. Another industry restriction is the absence of technical knowledge about the management of perishable goods.

The marketing channels used by mango growers to promote and sell their produce vary according to their resources, target market, and market linkages. In this context, "transactions" can mean anything from sales made directly between producers and consumers to sales made via intermediaries like wholesalers and retailers or even producers' cooperatives. As a first step in the sales process, pre-harvest contractors may work with commission agents or wholesalers to market the crops to stores and end users. In dealings with wholesalers and retailers, other farmers may take up the role of their own commission agents or forwarders. Additionally, some farmers sell their goods to wholesalers and retailers via state-run organisations like HPMC. Merchants involved in value addition may sell straight to processing units, who supply customers. The producer-forwarding agent-commission agent-wholesaler-retailer-consumer chain is the most important of the eight channels in mango marketing since it is the most commonly used and affects the price realisation for farmers.

2. OBJECTIVES OF THE STUDY

- To find out the importance of mango fruit in developing country like India
- To study the trends in area, production and productivity of mango in Krishnagiri district
- To analyse the various problems of mango growers in production and marketing of mangoes in Krishnagiri district.
- To study the future prospects of mango in Krishnagiri district in terms of production and productivity
- To recommend measures to improve the marketing of mangoes in Krishnagiri district

3. LITERATURE REVIEW

Dr V. Sriman Narayanan and V.Saminathan (2017) India's national fruit, the mango, is grown commercially in tropical areas like south India. Mango farming is increasing revenue while also enhancing Tamil Nadu's and India's overall standard of living. The conclusion reached is that the country's domestic and foreign income can be enhanced by providing mango growers with additional services such as transportation, cold storage, and finance options. These services will increase the yield, production, and marketing of mangos.

V. Palanivel et al., (2015) research conducted in the Krishnagiri region of Tamil Nadu. There are a lot of obstacles that mango growers face when it comes to growing and selling the fruit. The specialised region mostly experiences problems with its irrigation system, its pest management system, its storage, and the impact of agents and middlemen. The study's primary recommendations centre on improving local administration, creating an appropriate system for storing and preserving food, and conducting research among farmers to establish a marketing strategy that works.

A Vadivelu and B R Kiran (2013) claims to India has made technological strides, but they have not yet reached the most fundamental levels. The only places you can find it are in major cities. Nonetheless, problems with low literacy rates, predatory lenders, and unscrupulous agency heads persist in rural regions. There are a lot of loopholes that farmers have to work around before they can get a fair payment for their work.

CSA [2009] a report that listed water scarcity or unpredictable rainfall as the primary production restrictions, followed by pest issues. Post-harvest losses and a lack of awareness of recommended production techniques (such as nutrition, pruning, pest control, etc.) were also cited as the main issues facing the growers.

Ashok Gulati, et al, (2014) concentrated on possible solutions to problems encountered during mango development. Mangoes have an extremely limited lifespan since they mature swiftly in the summer and become unusable shortly. 30–35% of mangos, according on the gauge, are lost throughout the reap and post-collect stages. Careful attention from harvesting to marketing can cut down on losses and ensure that consumers get higher-quality organic products, which in turn helps farmers make a profit.

Purushottam Bung (2015) Based on his research, the main problems that mango farmers face are: not having access to the best varieties of mangoes for cooking; not having a solid framework to work within; not having the growing network work together; and lastly, not having everything from the homestead entrance all coordinated due to the ineffectiveness of various administrative divisions, nodal bodies, and foundations.

Deepak Shah (2017) Added to that, give mango development difficulties some thought. He discovered the growth and marketing of mangoes, the price of the plantation's foundation, labour, and support, various advertising methods used, the distribution system, mango preparation, and the various difficulties considered by the mango business partners.

The mushy stone fruit mango (Mangifera indica) is a member of the Mangifera genus, which includes a large number of tropical fruiting trees in the flowering plant family Anacardiaceous. An exotic fruit with its roots in southern Asia, the mango is now a global phenomenon and a staple crop in tropical regions. Cultivated in most tropical and subtropical climates free of frost, the mango (Mangifera indica) is grown in over 85 nations across the globe. More than 3.69 million hectares are used for mango production globally. By the year 2009, the world's total mango production will be over 35 million tonnes. [Seid Hussen and Zeru Yimer (2013)].

MOFPI (Service of Sustenance Handling Enterprises) Report, (1999), found that with 67.28 mmt of vegetables produced, India ranks second globally, while 41.5 mmt of organic items are produced by the country. Coconut, green peas, bananas, mangoes, potatoes, tomatoes, and onions were the mainstays of the national diet. Only 2% of the natural products and vegetables produced at this time are being cooked. With 4589 organic product/vegetable preparation facilities, the established limit of leafy food processing firms was increased to 21 lakh tonnes in 1999. Between 1998 and 1999, airfares totalled Rs. 678 crores.

Shyam Prakash Singh (2018) Considered the reasons for the increase in the area under mango cultivation and identified the likelihood that mango growers will switch from occasional to yearly development. The climate or climatic condition was also distinguished as potentially one of the more balanced reasons for the increase in the area under mango cultivation, along with budgetary assistance from the government in the form of endowment, the availability of key information sources like planting materials, and an appropriate water system.

4. RESEARCH METHODOLOGY

To finalise the sample for in-depth analysis in the current study, a multistage stratified random sampling procedure was employed. On the basis of acreage and mango output, the initial stage involved choosing the Krishnagiri district of the Tamilnadu state. With a margin of error of 0.035% and a 95% confidence level, a sample size of 641 was determined. For the conceptual and analytical purposes of the study, both primary and secondary data were utilised.

5. ANALYSIS AND INTERPRETATION

5.1. PROBLEMS OF MANGO PRODUCTION AND MARKETING

Table 1

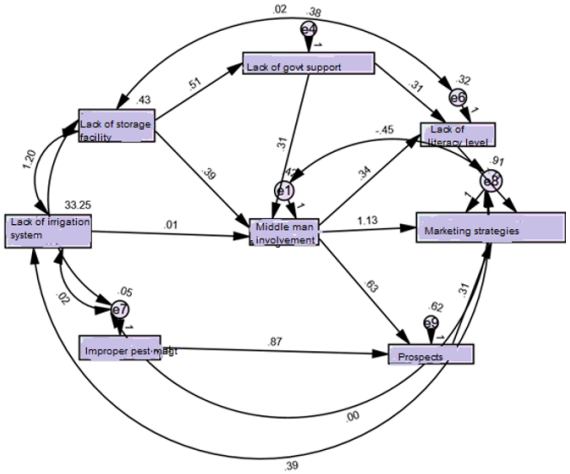
	Lack of govt support	Lack of storage facility	Improper pest management	Lack of irrigation system	Middleman involvement	Lack of literacy level
Lack of Govt. support	1	.651**	.711**	.572**	.621*	.764**
		.000	.000	.000	.014	.000
		641	641	641	641	641
Lack of storage facility		1	.547**	.438**	.622**	.517**
			.000	.000	.000	.000
			641	641	641	641
Improper pest management			1	.489**	.650**	.704**
				.000	.000	.000
				641	641	641
Lack of irrigation system				1	.750**	.665**
					.000	.000
					641	641
Middleman involvement					1	.650**
						.000
						641
Lack of literacy level						1

The Pearson Correlation measurements for each variable are shown in the correlation matrix. The linear relationship between two variables can be assessed using Pearson's r statistic, which takes values between -1 and 1. A value of +1 indicates a strong positive correlation, while 0 indicates no correlation at all. Two variables are found to have a statistically significant correlation under significant (2-tailed test), where p 0.05. The Pearson Correlation coefficient was calculated using 641, which is the number of samples utilized in the calculation.

The problems with mango production and marketing have a positive Pearson correlation coefficient (r value), which indicates a strong positive relationship between these factors. At the 0.05 threshold of significance, the majority of the correlation variable is significant. These factors are well correlated and there is a positive link between them.

6. MAIN CONCEPT MODEL

Figure 1



6.1. RESULTS OF MODEL FIT INDICES IS INDICATED FOR MAIN CONCEPT MODEL

Table 2

Model -1	CMIN	DF	GFI	AGFI	CFI	NFI	RMSEA
Default model	3.782	10	0.973	0.902	0.959	0.950	0.061

It is possible to investigate whether a model is validated if its fitting parameters are determined to be satisfactory using model fit indices. The values of six absolute fit indices are displayed in the results of several goodness of fit indices: The Chi-square (CMIN/DF) value is 3.782 (value 3 indicates an acceptable fit), the Goodness of Fit Index (GFI) is 0.973 (value 0.95 indicates an excellent fit), The Normative Fit Index (NFI) stands at 0.950, the Adjusted Goodness of Fit Index (AGFI) at 0.902 (where 1 indicates a perfect fit), and the Comparative Fit Index (CFI) at 0.959 (where values near to 1 indicate extremely good fit). The values of the indices GFI, CFI, NFI, and RMSEA were seen to fall within the necessary bounds for SEM analysis. As a result, the suggested study's structural model is statistically significant along all of its routes with a p-value lower than 0.05, and it is validated that the available data significantly found the proposed structural model to be an excellent fit.

7. RESULTS OF REGRESSION ANALYSIS

Table 3

Path Analysis	Estimate	Beta	T	Sig.	Hypothesis
Lack of govt support – lack of storage facility	.511	.047	10.944	0.001	Supported
middleman involvement - lack of storage facility	.393	.048	8.231	0.001	Supported
middleman involvement – Lack of irrigation system	.012	.006	1.957	0.050	Supported
middleman involvement - Lack of govt support	.313	.040	7.885	0.001	Supported
Lack of literacy level - Lack of govt support	.313	.047	6.663	0.001	Supported
Prospects – middleman involvement	.628	.050	12.512	0.001	Supported
Prospects – Improper pest management	.874	.169	5.170	0.001	Supported
Lack of literacy level - middleman involvement	.336	.042	8.007	0.001	Supported
Marketing strategies - Lack of literacy level	-.112	.056	4.992	0.046	Supported
Marketing strategies - Prospects	.311	.041	7.644	0.001	Supported
Marketing strategies - middleman involvement	1.132	.122	9.296	0.001	Supported

Figure 1 is a structural diagram of the analysis that details the standardised model that takes into account the challenges and opportunities associated with mango production and marketing, Lack of govt support – lack of storage facility (10.944), middleman involvement - lack of storage facility (8.231), middleman involvement – Lack of irrigation system (1.957), middleman involvement - Lack of govt support (7.885), Lack of literacy level - Lack of govt support (6.663), Prospects – middleman involvement (12.512), Prospects – Improper pest management (5.170), Lack of literacy level - middleman involvement (8.007), Marketing strategies - Lack of literacy level (4.992), Marketing strategies – Prospects(7.644)and Marketing strategies - middleman involvement (9.296)shows the relationship between problems and prospects of mango production and marketing .

8. RECOMMENDATIONS

1) When being shipped, mangoes need special care. Farmers need to be instructed on various preservation techniques.
2) Rather of relying on conventional techniques, storage facilities must be developed and made accessible at a fair cost to help farmers store their harvest.

3) Farmers must be prioritized by getting rid of brokers and intermediaries so they may keep all profits and reinvest them back into the economy.
4) Providing financial support and resources, such as cold chain storage facilities, to form and empower mango cooperatives.
5) Either a link to processors across the nation should be made, or a mango processing plant should be developed nearby.
6) The government and NGOs may try to educate farmers on the various types of land ownership.
7) Farmers should be informed about other farms' irrigation systems, such as sprinklers and drip irrigation, while also being given the chemical makeup of the soil and having it analyzed to help them make the most of their water supply.

In order to keep going without drowning in debt, farmers should be provided with natural fertilizers that are safe for the ecosystem and the health of both farmers and consumers at an acceptable rate.

9. CONCLUSION

Improper pest management, , middlemen, irrigation, and storage are the main issues in mango farming. The majority of these issues are caused by the farmers' ignorance and naiveté, and they can be resolved by implementing awareness-raising and training initiatives in the communities and locations where mango farming is practised. Not only that, but more study initiatives on this problem are required in order to bring it to the notice of academics who can offer practical, effective answers that can be adopted right away, preventing the financial and natural growth of the nation and its farmers from being stifled.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Dr V. Sriman Narayanan V.Saminathan- 2017 Production and Marketing Of Mango In Tamil Nadu

Vadivelu1 and B.R. Kiran-2013 Problems and prospects of agricultural marketing in India: an overview.

CSA (2009) Agricultural sample survey: report on area and production for major crops, statistical bulletin 427.Addis Ababa, Ethiopia

Palanivel. V, Manikanda Muthukumar. C and Gurusamy. M, "A Study on Cultivation and Marketing of Mangoes in Krisnagiri District", International Journal of Advanced Engineering and Recent Technology, ISSN (Online) : 2455 3522, Volume 2 Issue 1 2015, PP : 31 – 43.

Purushottam bhang (2013): Mango Cultivation Industry of India: Problems and Prospects, presented at Conference on Management and Information Systems ..., 2013 - elkjournals.com

Seid Hussen and Zeru Yimer (2013) Assessment of Production Potentials and Constraints of Mango (Mangifera indica) at Bati, Oromiya Zone, Ethiopia International Journal of Sciences: Basic and Applied Research (IJSBAR)

MOFPI Report (1999): 'Food Processing - Fact sheet', MOFPI reports, 1999; p. 01 – 03.

Deepak Shah (2017): 'Marketing pattern of grapes in Maharashtra – An appraisal', Indian Journal of agricultural Marketing; 14 (1), p 40 – 48.

Ashok Gulati, et al, (2014): 'Transforming Agri-food system: Role of organized retail in India', presented at the first annual conference of the Indian Society of Agri-Business Management on emerging trends in Agri-Business Management, Bangalore; 25 – 27 September, 2008.

Kumar, Adyant & Singh, Shyam & Jaiswal, Payal. (2017). Ultra-High Density Plantation of Mango – New Technology for Increasing the Income of the Farmers. Indian Farmer. 4. 368-375.