

## Original Research Article

# Marketing efficiency of cocoon in Salem district of Tamil Nadu

### ABSTRACT

**Aims:** The aim of this study is to assess the marketing efficiency of cocoon within the study area and to examine marketing challenges, subsequently proposing effective strategies to address these constraints.

**Study design:** Exploratory research design

**Place and Duration of Study:** The research was carried out in the Salem district. During the month of July 2022, primary data was collected from a random sample of respondents.

**Methodology:** The study conducted in Salem district which examines cocoon production costs, returns, efficiency and marketing challenges. Data is collected from blocks including Omalur, Mecheri, Attur, and Edappadi, involves 140 sample respondents comprising 112 farmers and 28 dealers. Personal interviews is taken to gather primary data, Acharya's technique is employed to calculate marketing efficiency and Garrett's ranking method is used to assesses marketing constraints.

**Results:** This study identifies that Acharya's marketing channel shows a nil net marketing margin, yet boasts 95.61% efficiency. Farmers receive a net price of Rs 395.86, obtained by deducting marketing costs from the ultimate consumer price. Constraints faced by Salem's cocoon growers include high transportation costs, price fluctuations in cocoon market, and trader scarcity.

**Conclusion:** This study insist to maintain the minimum standard price for cocoon to mitigate price fluctuations, enhancing transportation infrastructure for bulk transport, and ensuring prompt and consistent payments. The successful implementation of these strategies holds the potential to facilitate the cocoon industry's progress and resilience in the face of constraints.

*Keywords: Sericulture, mulberry, cocoon, marketing efficiency, constraints.*

## 1. INTRODUCTION

Sericulture is an ancient method of raising silkworms for silk production. It is derived from the Greek term 'sericos,' referring to silk, and the English word 'culture,' which pertains to the act of raising or nurturing (Gaikwad 2023). The process includes growing mulberry plants to yield leaves, raising silkworms to transform those leaves into cocoons, unwinding the cocoons to extract silk yarn, and then weaving the yarn into fabrics. (Hadimani 2019). It is essential for producing and distributing silk, which is utilized extensively across numerous industries globally. It has a long history in China and other Asian nations. Major silk-producing countries include Iran, Thailand, China, India, Brazil, Japan, and Brazil. India holds a prominent global position and stands as the second-largest silk producer worldwide, followed by China (Anil Kumar 2019).

Sericulture, which is crucial to the textile, fashion, and medicinal industries, depends on careful attention to temperature and humidity. Sericulture is a rural-oriented agricultural industry with a worldwide presence. Notably, the Sericulture Sector is characterized by its rural essence and serves as an environmentally and economically sustainable activity, specifically benefiting the impoverished, small-scale farmers, agricultural labourers, and women (Ravi G 2014).

This industry includes raising mulberry plants, growing silkworms, and processing silk material. It has considerable economic and social significance, creating jobs and promoting sustainable development. Women are frequently taking an active role in the manufacture of silk, supporting gender equality. Around 30,000 farmers in Tamil Nadu are engaged in sericulture operations, growing mulberries on 41,624 acres of land over 31 districts and employing more than 1.5 lakh people. (Source: [www.tnsericulture.gov.in](http://www.tnsericulture.gov.in)). Therefore the current study aimed to find out the marketing efficiency and the constraints faced by sericulture farmers during marketing of cocoon.

### 1.1 Theoretical Framework

The marketing efficiency involves facilitating the movement of products from producers to consumers with minimal expenses, all the while ensuring that consumers' desired services are fulfilled. In this present investigation, the Acharya's method was employed to assess the marketing effectiveness of different cocoon market distribution channels.

The following formula was used to calculate the efficiency of market channels.

$$ME = FP \div (MC + MM)$$

Where:

- ME represents the marketing efficiency,
- FP represents the net price received by farmers,
- MC represents the total marketing cost.
- MM represents the total marketing margin.

The mulberry growers and cocoon rearers were questioned to know the problem faced by them during marketing of cocoon by simple ranking technique. They quantified the rankings using the Garrett Ranking Technique.

The following formula was used to calculate the efficiency of market channels.

$$\text{Position} = 100 (R_{ij} - 0.05 / N_j)$$

Where:

- $R_{ij}$  represents rank is given for  $i$ th item assigned by  $j$ th individual,
- $N_j$  represents the number of items is ranked by  $j$ th individual,

## 2. METHODOLOGY

This study is carried out in India's silk-producing district, namely Salem district of Tamil Nadu. The data is collected based on the total cost and the returns from cocoon production and the problems faced in cocoon marketing. The data is collected from the Salem district's selected blocks, namely Omalur, Mecheri, Attur, and Edappadi. Among the four blocks, Mecheri rank first in area under mulberry cultivation were selected. Accordingly, other blocks are selected for the detailed study. This includes 140 sample respondents comprising 112 farmers and 28 dealers. The data is collected and tabulated for percentage analysis. The primary data is collected through personal interviews with sericulture farmers to analyze the marketing efficiency in cocoon. Garrett's ranking technique is used to analyze the constraints faced by the farmers in marketing of the cocoon.

## 3. RESULTS AND DISCUSSION

### 3.1 Findings Related with Marketing efficiency and Constraints

#### 3.1.1 Marketing efficiency of cocoon

**Comment [Mm1]:** It is better to describe the time and quality of the work in this section.

**Comment [Mm2]:** Analyzes and the use of references in the section are few and it is better to use related articles when rejecting or accepting the results obtained.

From the table 1, it could be observed that the research focused on cocoon marketing in a specific area, where only one channel was identified, known as Channel I: Producer-Wholesaler-cum-reeler. The marketing process begins at the producer level and ended at the wholesaler-cum-reeler level, involving reeling and value addition. Farmers sold their cocoons directly to these wholesalers, which eliminated price spread problems. The study found that the marketing efficiency achieved was 95.61 per cent.

**Table 1 Price spread of marketing channel of 1Kg of cocoon**

S.No	Particulars	Amount (Rs/Kg)
1	Producer's sales price	400
2	Marketing cost	4.14
3	Net price received by the producer	395.86
4	Consumer's price	395.86
5	Marketing margin	Nil
6	Price spread	Nil
7	Producer's share in consumer's rupee (percent)	98.96
8	Marketing efficiency	<b>95.61</b>

**Table 2 Marketing efficiency of Raw silk – Acharya's Marketing Efficiency**

S.No	Particulars	Marketing channel
I	Total marketing cost	4.14
II	Net marketing margin	Nil
III	Net price received by the farmers	395.86
	<b>Acharya's marketing efficiency (III / I+II)</b>	<b>95.61</b>

From the table 2, it is concluded that the data presents information about Acharya's marketing channel, which incurs a total cost of Rs 4.14, covering transportation, loading, commission, and other marketing-related expenses. The net marketing margin is Nil, indicating a break-even situation. After deducting the total marketing cost and net marketing margin, farmers receive Rs 395.86 as their net price. The marketing efficiency of Acharya's channel is 95.61%, reflecting the channel's operational efficiency.

### 3.1.2 Constraints in the marketing of silkworm cocoon

In the research area, the silk cocoon growers encountered marketing challenges that hinder their growth and profitability. This was made to study the constraints in the study area. These challenges were ranked using Garrett's ranking methodologies and the findings shown in Table 3 indicated that the majority of the respondent opined that market price fluctuation was the major constraint in marketing of cocoon as ranked first followed by lack of cocoon market, high transportation cost, lack of traders, and delayed payment.

**Table 3 Constraints in cocoon marketing**

S.No	Factors	Garrett score	Rank
1	Fluctuation in market price	65.93	I
2	Lack of availability of cocoon market	50.43	II
3	High transportation cost	48.29	III
4	Lack of traders	42.93	IV
5	Delayed payment	40.43	V

## 4. CONCLUSION

The present study concluded that the Acharya's marketing channel being analyzed has a break-even net marketing margin of Nil. Despite this, the marketing efficiency of the channel is relatively high at 95.61%, and the farmers receive a net price of Rs 395.86 after deducting marketing costs from the final consumer price. The constraints faced by the cocoon growers in the Salem district of Tamil Nadu were obtained. The major problems faced by the farmers are high transportation cost, price fluctuation in the market and lack of traders. By implementing the suggested measures, such as

fixing a minimum standard price for the cocoon to minimize the fluctuation in price, improving transportation infrastructure as bulk transportation and ensuring timely payments, the cocoon industry can overcome these constraints and achieve sustainable growth.

## REFERENCES

Anil Kumar, G.N., B.S. Reddy, S.B. Goudappa, G.M. Hiremath and Suresh S. Patil. (2019). Growth Performance of Silkworm Cocoon Production in Karnataka, India. *Int.J.Curr.Microbiol.App.Sci.* 8(11): 674-682.

Gaikwad, N. S., More, S. S., & Munde, T. B. (2023). Constraints perceived by farmers in adoption of sericulture technologies in Solapur district of Maharashtra.

Garret HE, Woodworth RS. (1969). *Statistics in psychology and Education*. Vakils, Feffer and Simons Pvt. Ltd. Bombay, 329.

Hadimani, D. K., Moulasab, I., & Ashok, J. (2019). Constraints faced and suggestions by farmers to overcome constraints in the adoption of improved sericulture production technologies of Bidar district of North Karnataka. *Journal of Pharmacognosy and Phytochemistry*, 8(2), 784-786.

Hatibaruah, D., Borah, D., & Saikia, N. (2021). Constraints perceived by farmers in adoption of sericulture production technologies in Jorhat District of Assam. *International Journal of Agricultural Science and Research*, 11(2), 175-182.

Munikrishnappa HM, Jagadisha K, Srinivasa G. (2002). Association of socio economic characters with knowledge and adoption of improved sericulture practices by sericulturists in Mysore district. *Indian J. Seric.*; 41(1):89-91

Ravi G. (2014) Sericulture- An ideal enterprise for sustainable income in Erode district of Tamil Nadu, Annamalai University, 332-350.

**Comment [Mm3]:** The sources used are quantitatively insufficient, but qualitatively the articles are mostly up-to-date.

UNDER PEER REVIEW