

Marketing of geographical indications (GIs) banana in Dindigul district of Tamil Nadu

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ABSTRACT

With Intellectual Property Rights (IPRs) increasingly influencing trades both at the domestic, national and international level; harnessing trade benefits depends on the degree of protection enjoyed by the owners of the IPRs. Geographical Indications (GI) is one of the six Trade-Related Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO) that seeks to provide comprehensive and effective protection to goods registered as GI goods. The GI tag attached to products acts as a signaling device that helps producers to differentiate their products from competing products in the market and enables them to build reputation and goodwill around their products, which allows them to fetch a premium price. On this background, the present study was undertaken to analyze the marketing of GI banana in the Dindigul district of Tamil Nadu. The results showed that Channel-I (Producer-Commission agents-Wholesaler-Retailer-Consumer), Channel-II (Producer- Commission agents-Wholesaler-Consumer), Channel-III(Producer-Commission agent-Consumer). The channel I was most favoured channel in the study area as maximum (nearly 50%) quantity was passed through this channel. The producer's share in consumer's rupee was maximum in channel III (65.84%), followed by channel II (55.50%) and channel I (47.18%). The total marketing cost was maximum in channel I (11.24%) and minimum in channel III (7.20%). It was also revealed that the marketing efficiency was higher in Channel-I followed by Channel-II and Channel- III.

KEY WORDS : Geographical indications, Marketing, Banana

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With Intellectual Property Rights (IPRs) increasingly influencing trades at the domestic, national and international level; harnessing trade benefits depend on the degree of protection enjoyed by the owners of the IPRs. Geographical Indications (GI) is one of the six Trade-Related Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO) that seeks to provide comprehensive and effective protection to goods registered as GI goods. Geographical Indication (GI) is defined as any indication that identifies a good as originating from a particular place, where a given quality, reputation or other

characteristics of the good are essentially attributable to its geographical origin.

Huge information gaps (information asymmetry) exists in the markets today that lead to typical market information problems in the form of adverse selection and moral hazard (Akerlof, 1970). Information asymmetry impacts negatively on the market: the quality of total supply drops, higher-quality products are driven out of the market and some consumers are no longer able to satisfy their preferences (OECD, 2000). Producers maintaining the quality of their products are exposed to unfair competition from producers who sell lower quality products at the same price. Consumers usually do not have perfect access to information regarding the prices of goods, and even less so to the quality of the goods (Nelson, 1970).

The GI tag attached to products acts as a signaling device that helps producers to differentiate their products

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from competing products in the market and enables them to build reputation and goodwill around their products, which allows them to fetch a premium price. Besides, since most of these GI goods or potential GI goods have their origin in rural areas, the increased sales of these goods as a result of protection under the GI Act has the potential to lead to enhanced income to the producers' communities and hence to rural development. On this background, the present study was undertaken to analyze the marketing of GI banana in the Dindigul district of Tamil Nadu with the following specific objectives :

- To assess the channels involved in marketing of GI banana; and
- To estimate the marketing efficiency of various channels.

METHODOLOGY

Selection of GI products :

At present 24 products were registered under GI in Tamil Nadu; out of which only five products were under agriculture category. Five products are Sirumalai hill banana, Virupakshi hill banana, Ethamozhi tall coconut Madurai malli and Nilgiris orthodox logo. Several issues have to be considered while attempting to assess the marketing of GI agricultural commodities on its producers. Firstly, the choice of a GI good is crucial since assessment on the basis of a particular GI good may not be considered for generalization for the whole range of GI goods because of their diversity in scale and scope. This diversity can arise from many sources. For example, some goods like Sirumalai and Virupakshi hill bananas established their own markets due to their specific quality and taste. Two criteria such as recognition of place of origin in the domestic markets and significant market potential were considered for selection of representative GI goods namely, Sirumalai and Virupakshi hill bananas.

Sampling procedure :

Sample survey - producers :

Area under GI banana was considered only the criterion for selection of study region. Dindigul and Ottanchatram blocks of Dindigul district were selected for Sirumalai and Virupakshi banana, respectively. From each block, villages were listed alphabetically and three villages in each block were chosen by simple random sampling method. From each village, 30 farmers growing hill bananas were selected randomly. In total 180 sample households were chosen for conduct of survey.

Sample survey – market functionaries :

The intermediaries namely, commission agents, wholesalers and retailers were selected at the rate of five from each category making the total sample size to 15.

Tools of analysis :

Price spread analysis :

Data were collected from the individual farmers and traders. The costs included transportation, weighing, loading and unloading, packing, storage, spoilage and other expenses incurred for marketing the produce. In the process of marketing of GI banana, the difference between price paid by the consumer and that received by the GI banana producer for an equivalent quantity of GI banana was defined as "Price spread". Profits of the various market functionaries involved in moving the produce from the initial point of production till it reached the ultimate consumer were recorded. In general, Sum-of-average gross margin method was used in the estimation of price spread.

Sum of average gross margin method :

The average gross margins of all the intermediaries were added to obtain the total marketing margin as well as the breakup of the consumer's rupee.

$$MT = \sum_{i=1}^N \frac{[(S_i - P_i)]}{Q_i}$$

where,

MT = Total marketing margin

S_i = Sale value of a product for i^{th} intermediary

P_i = Purchase value paid by the i^{th} intermediary

Q_i = Quantity of the product handled by the i^{th} intermediary

$i = 1, 2, 3 \dots N$ (Number of intermediaries involved in the supply chain)

Farmer's share in consumer rupee :

Further, the farmer's share in consumer rupee was calculated with the help of the following formula :

$$Fs = (Fp/Cp) \times 100$$

where,

Fs = Farmer's share in consumer rupee (percentage)

Fp = Farmer's price

Cp = consumer's price

Estimation of marketing efficiency :

For calculating marketing margins, both the Shepherd's formula, Acharya and Agarwal's method and the Calkin's Index were used, though it normally does not take into account the time that elapses between the purchase and sale of the produce. However, it becomes difficult to follow track of the commodity as it loses its identity in the movement. Marketing efficiency is the degree of market performance. The movement of GI banana from producers to the ultimate consumers at the lowest possible cost consistent with the provision of services desired by the consumer is termed as efficient marketing.

Shepherd's method :

Shepherd suggested that the ratio of total value of goods marketed to the marketing cost could be used as a measure of marketing efficiency. The higher the ratio, higher would be the efficiency and *vice versa*. This can be expressed in the following form :

$$ME = [(V/I) - 1]$$

where,

ME = Index of marketing efficiency

V = Value of goods sold

I = Total marketing cost

Acharya and Agarwal's method :

They compared relative efficiency of different markets by using the following formula:

$$E = (O/I)$$

where,

E = Marketing efficiency expressed in percentage.

O = Value added to output in marketing system.

I = Input used in the marketing process.

The lower the value higher would be the efficiency.

Calkin's index :

The Calkin's index of marketing efficiency was estimated using the following formula :

$$MEI < \frac{\text{Sum of profit or margin}}{\text{Sum of marketing cost}}$$

The lower the value of the index, higher would be the efficiency.

In the present study above three methods were adopted to estimate the marketing efficiency.

Table 1 : Price spread for market channel – I		(Rs./kg of GI banana)	
Sr. No.	Particulars of cost	Amount (Rs.)	Per cent
1.	Producer (Farmer)		
	Price received by the farmer	28.31	47.18
2.	Commission agents		
	Purchase price	28.31	47.18
	Loading charges	1.50	
	Transportation cost	1.25	
	Unloading charges	1.25	
	Weighing and watching charges	1.10	
	Miscellaneous charges	0.50	
	Marketing cost	1.10	1.83
	Marketing margin	3.30	5.50
	Sale price	38.31	
3.	Wholesaler		
	Purchase price	38.31	63.85
	Loading and unloading charges	0.50	
	Transportation cost	1.50	
	Miscellaneous charges	1.20	
	Marketing cost	2.15	3.58
	Marketing margin	3.10	5.16
Sale price	46.76	77.93	
4.	Retailer		
	Purchase price	46.76	77.93
	Loading and unloading charges	1.24	
	Transportation cost	1.50	
	Miscellaneous charges	1.50	
	Marketing cost	3.50	5.83
	Marketing margin	5.50	9.17
Sale price	60.0		
5.	Consumer		
	Purchase price	60.0	100.00

ANALYSIS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Marketing channels for GI banana :

The following marketing channels were identified through which the sample farmers marketed their produce.

Channel I: Producers → Commission agent → Wholesaler → Retailer → Consumer.

Channel II: Producers → Commission agent → Wholesalers → Consumers.

Channel III: Producers → Commission agent → Consumers.

Of these channels, the first channel was important for both the GI bananas since more than 50 per cent of farmers marketed their produce through regulated market and rest of them is marketed through commission agents. The channel two and three were followed in the case of Virupakshi hill banana because it was located in the foot hill of Palani. Most of the banana was procured for preparing Prasadam (panchamiritham) by Devastanam people. The channel two and three also met the requirements of local consumption such as marriage and other ceremonies of bulk orders.

Price spread for market channel - I :

Channel I: Producers → Commission agent → Wholesaler → Retailer → Consumer.

It could be seen from Table 1, the farmers had received Rs.28.31 per kg of GI banana which constituted 47.18 per cent to consumer's price. The marketing cost incurred by commission agent was Rs.1.10 per kg which constituted 1.83 per cent to consumer's price and marketing margin was Rs.3.30 per kg which constituted to 5.50 per cent to consumer's price.

The marketing cost of wholesaler was Rs.2.15 per kg which constituted 3.58 per cent to final price and his marketing margin was Rs.3.10, which constituted 5.16 per cent to consumer's price. The marketing cost of retailer was Rs.3.50 per kg which constituted 5.83 per cent to final price and his marketing margin was Rs.5.50, which constituted 9.17 per cent to consumer's price. Thus, the consumer's price was Rs.60 per kg of GI banana.

Price spread for market channel - II :

Channel II : Producers → Commission agent → Wholesalers → Consumers.

It could be seen from Table 2, that in channel-II the gross price received by the farmer was Rs.28.31 per kg of GI banana and it constituted about 55.50 per cent. The marketing cost incurred by commission agent was Rs.1.10 per kg which

Table 2 : Price spread for market channel - II		(Rs./kg of GI banana)	
Sr. No.	Particulars of cost	Amount (Rs.)	Per cent
1.	Producer (Farmers)		
	Price received by farmer	28.31	55.50
2.	Commission agents		
	Purchase price	28.31	55.50
	Loading charges	1.50	
	Transportation cost	1.25	
	Unloading charges	1.25	
	Weighing and watching charges	1.10	
	Miscellaneous charges	0.50	
	Marketing cost	1.10	2.15
	Marketing margin	3.30	6.47
	Sale price	38.31	75.11
2.	Wholesaler		
	Purchase price	38.31	75.11
	Loading and unloading charges	0.50	
	Transportation cost	1.50	
	Miscellaneous charges	1.20	
	Marketing cost	2.15	4.21
	Marketing margin	3.10	6.07
	Sale price	51.0	
3.	Consumer		
	Purchase price	51.0	100.00

constituted 2.15 per cent to consumer's price and marketing margin was Rs.3.30 per kg which constituted to 6.47 per cent to consumer's price. The marketing cost of wholesaler was Rs.2.15 per kg of GI banana and his contribution to consumer's price was 4.21 per cent. The marketing margin was Rs.3.10, per kg with 6.07 per cent to consumer's price. Finally the consumer's price was Rs.51.0 for a kg of GI banana which was considerably less than that of channel-I because the consumer purchase in large quantity. In sum, the marketing cost in the channel II was Rs.3.25 which was less than that of channel – I (Rs.6.75). This was because in channel-II since the consumer purchased the GI banana directly from the wholesaler eliminating the retailer.

Price spread for market channel - III :

Channel III : Producers → Commission Agent → Consumers.

It could be seen from Table 3, that in channel-III, the

gross price received by the farmer was Rs.28.31 per kg of GI banana and it constituted about 65.83 per cent of the consumer's price. The marketing cost of commission agents was Rs.3.10 per kg and his contribution to consumer's price was 7.20 per cent. The marketing margin was Rs.6.99, per kg with 16.25 per cent to consumer's price. Finally the consumer's price was Rs.43 for a kg of GI banana which was considerably less than that of Channel – I and II.

Marketing efficiency :

Marketing is said to be efficient if the total marketing margins are reduced for a given marketing cost. More specifically, the marketing margin per rupee of marketing cost of different channels has to be compared and the lowest value could be reckoned as the most effective. Accordingly the marketing efficiency of the two mentioned earlier channels were estimated for maize using the following three methods. More than one method was used to check the accuracy of the

Table 3 : Price spread for market channel- III

		(Rs./ kg of GI banana)	
Sr. No.	Particulars of cost	Amount Rs.	Per cent
1.	Producer (Farmers)		
	Price received by farmer	28.31	65.83
2.	Commission agents		
	Purchase price	28.31	65.83
	Loading charges	1.00	
	Transportation cost	1.25	
	Unloading charges	1.25	
	Weighing and watching charges	0.60	
	Miscellaneous charges	0.50	
	Marketing cost	3.10	7.20
	Marketing margin	6.99	16.25
	Sale price	43.00	
3.	Consumer		
	Purchase price	43.00	100.00

Table 4 : Estimation of marketing efficiency in various channels

		Rs./ kg of GI banana		
Sr. No.	Marketing efficiency	Channel I	Channel II	Channel III
1.	Shepherd method			
(i)	Value of goods sold	60.0	51.0	43.0
(ii)	Total marketing cost	6.75	3.25	3.10
	Marketing efficiency	7.89	14.69	12.87
2.	Acharya Agarwal's index			
(i)	Net price received by the farmers	28.31	28.31	28.31
(ii)	Marketing cost + Marketing margin	17.94	9.65	10.09
	Marketing efficiency	1.57	2.93	2.80
3.	Calkin's index			
(i)	Sum of profit or margin	11.19	6.40	6.99
(ii)	Marketing cost	6.75	3.25	3.10
	Marketing efficiency	2.66	2.97	3.25

efficiency. This marketing efficiency can be calculated by three methods namely, Shepherd method, Acharya and Agarwal’s method and Calkin’s index methods. The results of the above analysis are furnished in Table 4.

It could be inferred from the Table 4 that in the channel I viz., Farmer – Commission agents– Wholesaler – Retailer - Consumers was the most efficient channel for GI banana as this channel had the lowest Calkin index and low Acharya and Agarwal’s value.

Farmer’s share in consumer rupee :

The results presented in Table 5 showed that the farmer’s share in consumer rupee was relatively higher at 47.18 per cent in channel-I in selling of produce and 55.50 in channel – II and 65.84 in channel – III. The above analyses would conclusively show that the farmers by avoiding one intermediary could gain considerably (7 to 15 %) in terms of their share of the rupee paid by the end user or consumer even though in the ultimate analysis these shares were very low. If the farmers could sell to the wholesaler, directly they could gain by around two per cent and if they could sell directly to the retailer they could gain between over 14 per cent as revealed by the analysis of price spread.

Problems faced in GI banana cultivation by sample farmers :

The problems faced in GI banana cultivation by the sample farmers were ranked and the results presented in Table 6.

From Table 6 it could be inferred that the farmers expressed that the high labour cost was the most important problem (60.47%) followed by pest and disease attack (57.43%). The next important reason was the damages caused by the wild animals (55.27 %) such as bison and wild boar followed by the cost of plant protection chemicals (41.56 %) and deficit rainfall. This would automatically imply the need to be organized which is a mean to end of many problems as signified by the GI farmers to maintain the quality and food safety.

Problems faced in GI banana marketing by sample farmers :

The farmers were asked to rank the problems faced by them, in marketing and the results of the analysis are presented in Table 7.

The GI farmers expressed that transportation was the most important problem followed by presence of large number of intermediaries, price fluctuation and late payment by the channel members. Transportation in interior hill region from farm to loading area is done only with the help of animals such as horse. This involves the risky operation since only a small portion of the harvested can be transported at a time. Presence of more number of intermediaries leads to reduction in farmer’s price.

Conclusion :

In case of GI banana following three channels were patronized by the producers for marketing of their produce:

Table 8 : Farmers share in consumer rupee in different channels of GI banana (Rs./kg of GI banana)

Sr. No.	Particulars	Channel - I	Channel - II	Channel - III
1.	Farmer's price (Selling price)	28.31	28.31	28.31
2.	Consumer's price (Purchase price)	60.0	51.0	43.0
3.	Farmers share in consumer rupee	47.18	55.50	65.84

Table 6 : Problems faced in GI banana cultivation by sample farmers (n=180)

Sr. No.	Problems	GI banana Farmers	
		Score	Rank
1.	High labour cost	60.47	I
2.	Pest and disease attack	57.43	II
3.	Wild animals	55.27	III
4.	Cost of plant protection chemicals	41.56	IV
5.	Deficit rainfall	33.20	V

Table 10 : Problems faced in GI banana marketing by sample farmers (n=180)

Sr. No.	Problems	GI banana farmers	
		Score	Rank
1.	Transportation	59.47	I
2.	Intermediaries	55.53	II
3.	Late payment	52.67	III
4.	Price fluctuation	33.60	IV

Channel-I (Producer-Commission agents-Wholesaler-Retailer-Consumer), Channel-II (Producer- Commission agents-Wholesaler-Consumer), Channel-III (Producer-Commission agent-Consumer). The channel I was most favoured channel in the study area as maximum (nearly 50%) quantity was passed through this channel. The producer's share in consumer's rupee was maximum in channel III (65.84%), followed by channel II (55.50%) and channel I (47.18%). The total marketing cost was maximum in channel I (11.24%) and minimum in channel III (7.20%). It was also revealed that the marketing efficiency was higher in channel-I followed by channel-II and channel- III.

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