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Supply Chain Analysis of Fresh Guava (A Case Study)

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ABSTRACT:
The present study was focused on supply chain analysis of fresh guava in order to evaluate existing marketing supply chains (SC_1: Producer - Consumer, SC_2: Producer - Retailer - Consumer, SC_3: Producer - Commission agent - Retailer - Consumer, SC_4: Producer - Commission agent - Wholesaler - Retailer - Consumer) for two variety (allahabad safeda and apple guava) of guava. The gross marketing price, net marketing price and net profit of the producer were significantly higher for marketing supply chain SC_1, followed by SC_2, SC_3 and SC_4 of fresh guava. The consumer price for fresh guava was significantly lower in marketing supply chain SC_1 as compared with SC_2, SC_3 and SC_4. The total marketing cost, total marketing loss and total net marketing margin were significantly higher in marketing supply chain SC_4, followed by SC_3, SC_2 and SC_1 for fresh guava. The multiple regression results revealed that commission charges for marketing of guava was the most important factor influencing the total marketing cost. The marketing efficiency and producer's share in consumer price were significantly higher in marketing supply chain SC_1, followed by SC_2, SC_3 and SC_4. The overall results revealed that net profit of producer, marketing efficiency and producer share in consumer price decreases considerably with the increased in number of intermediaries in marketing supply chain, whereas total marketing cost, total marketing loss and total marketing margin increases considerably with increased in number of intermediaries in marketing supply chain.

Keywords: *Supply chain, Marketing cost, Marketing loss, Marketing efficiency, Consumer price*

INTRODUCTION

India is the second largest producer of fruits in the world. India's production of fruits stands at 64 million tones, making up for around 12% of fruits production of world (National Horticultural Board, Government of India, 2010). Uttar Pradesh in India is one of the largest and densely populated state, located in the northwestern part of the country. The diverse and suitable agro-climate and agro-ecological situation has enormous potential for fruit production in the state. The present share of Uttar Pradesh in total horticultural production of the country is approximately 26%. Uttar Pradesh ranks 3rd in fruit production among all states. The important fruits grown in the state are mango, guava, aonla, papaya, banana, lychee, jackfruit, ber and citrus (State Horticulture Mission, Uttar Pradesh, 2011). The majority of farmers in Uttar Pradesh are either marginal or small-scale. The State Government of Uttar Pradesh has brought forward various schemes and policies in order to facilitate the production and marketing of horticultural crops. However, even after measures taken by the state government, the economic condition of majority of the marginal and small-scale farmers has not improved significantly due to poor unevolved marketing systems, large numbers of

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intermediaries in supply chain, poor logistics and storage facilities, lack of food processing industries, inconsistency and high fluctuation in price, etc. In the present scenario, the farmer is most exploited due to lack of proper marketing supply chain system and linkage between farmer to potential market (Berdegue et al., 2008; Cavatassi et al., 2009).

In spite of availability of wide range of fruits, the horticulture sector in India is facing several constraints. The marketing of fresh fruits is major constraint which leads to a considerable amount of post-harvest losses during transportation and marketing. The marketing efficiency of fresh fruits in India has been of great concern in recent years. Poor infrastructure and lack of linkages between producer and intermediaries in the supply chain are major constraints affecting marketing efficiency of fresh fruits in India. Substantial amount of wastage, deterioration in quality, mismatch in supply and demand and fluctuation in price also affects the marketing efficiency of fresh fruits. Due to high perishability, seasonality, product bulkiness and fluctuation in supply and demand, the marketing system of fresh produce is highly complex in nature (Anil and Arora 1999; Gupta and Rathore, 1999; Begum and Raha 2002; Singh and Chauhan 2004; Bala 2006; Lu 2006; Mathi and Pandey 2008; Rupali and Gyan 2010; Barakade et al., 2011).

Supply chain management is a wide business process encompassing planning, implementing and controlling the operations of the supply chain which aims at providing the consumers with desirable goods and commodities. Supply chain management includes movement and storage of raw materials, inventory and finished goods from producers to consumers. Supply chain management can be explained as the flow of plans, materials and services from the supplier to the consumer including the close cooperation between the various entities in supply chain. An efficient supply chain management contributes to improve efficiency in production, value additions, storage, transportation and marketing which in turn maximize the profitability of the chain partners and minimize the cost for consumers. The existing supply chains of fresh fruits in India is still traditional, resulting in high marketing cost and marketing loss, lower marketing efficiency and producer's share in consumer price as well as high consumer price (Chauhan et al., 1998; Ladaniya et al., 2005; Pawar and Pawar 2005; Talathi et al., 2005; Zulfiqar et al., 2005; Murthy et al., 2007; Gangwar et al., 2007; Sidhu et al., 2010; Emam 2011; Pandey et al., 2011).

India is the leading producer of guava with approximately 40% of guava production in the world. Guava is the fourth most important fruit in India which occupies approximately 6.5% of the area under fruit cultivation. Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh, Andhra Pradesh and Gujarat are the major guava producing states in India. Uttar Pradesh is the 3rd highest guava producing state after Maharashtra and Bihar (Indian Horticulture Database, Ministry of Agriculture, Government of India, 2011). Allahabad and Kaushambi districts of Uttar Pradesh are well known for producing best quality of guava fruit in India. Apart from several guava varieties, allahabad safeda and apple guava are the best quality of guava varieties which are well known in India.

In spite of the impressive economic growth and government initiatives for agricultural development, there is no significant improvement in the overall socio-economic conditions of marginal and small farmers in Uttar Pradesh. This is due to the fact that the marginal and small farmers are not well integrated to the existing marketing supply chain systems. In the present scenario, the major benefits of high value domestic and export markets are drawn by intermediaries, processors and marketers. In spite of economic importance of production and marketing of guava in Allahabad district, no information is available on major constraints and opportunities to improve the existing marketing supply chains. Therefore, the objective of the study was to analyze existing marketing supply chains of fresh guava in relation to marketing cost, marketing loss, producer net profit, marketing margin, producer share in consumer price and marketing efficiency as well as consumer purchase price in order to identify major constraints and opportunities to develop efficient marketing system.

RESEARCH METHOD

The marketing supply chains of fresh guava consist of various intermediaries such as

commission agents, wholesalers and retailers who move the fresh produce from producer to consumer. The four marketing supply chains (SC_1, SC_2, SC_3 and SC_4) were analyzed in the present study because these are commonly used supply chains for guava in Allahabad district, India (figure 1).

The primary data for evaluation of four marketing supply chains of fresh guava in relation to transportation, packaging and marketing costs, spoilage during transportation and marketing, loading, unloading and commission charges, cleaning, washing and grading charges, sale price, problems faced and expectations of producers, commission agents, wholesalers, retailers and consumers were collected by using well structured questionnaires. During the survey ten producers, ten commission agents, ten wholesalers, ten retailers and twenty consumers for each marketing supply chain and for each variety of guava (allahabad safeda and apple guava) were interviewed and data were collected.

The producer net market price (NMP_P), net profit of Producer (NP_P), net marketing margin of wholesaler (NMM_W), net marketing margin of retailer (NMM_r), total net marketing margin (TNMM), total marketing cost (TMC), total marketing loss (TML), marketing efficiency (ME as estimated by Shepherd 1965 - Model 1, Murthy et al. 2007 - Model 2 and Acharya and Agarwal 2011 - Model 3) and producer share in consumer price (PSCP) for four marketing supply chains of fresh guava were estimated by the following methods:

$$NMP_P = GMP_P - [MC_P + PL_P \times GMP_P] \quad \dots (1)$$

$$NP\_P = GMP\_P - (CP + MC\_P + PL\_P \times GMP\_P) \quad \dots (2)$$

$$NMM_W = SP_W - PP_W - (MC_W + PL_W \times PP_W) \quad \dots (3)$$

$$NMM_r = SP_r - PP_r - (MC_r + PL_r \times PP_r) \quad \dots (4)$$

$$TNMM = NMM_W + NMM_r \quad \dots (5)$$

$$TMC = MC_P + MC_W + MC_r \quad \dots (6)$$

$$TML = (PL_P \times GMP_P) + (PL_W \times PP_W) + (PL_r \times PP_r) \quad \dots (7)$$

$$\text{Model 1}: ME = \frac{C_P}{TMC} - 1 \quad \dots (8)$$

$$\text{Model 2}: ME = \frac{NMP_p}{TNMM + TMC + TML} \quad \dots (9)$$

$$\text{Model 3}: ME = \frac{NMP_p}{TNMM + TMC} \quad \dots (10)$$

$$PSCP = \frac{NMP_p}{C_p} \times 100 \quad \dots (11)$$

Where,

NMP_p= Net market price received by producer (Rs/kg); GMP_p= Gross market price received by the producer (Rs/kg); MC_p = Marketing cost of producer for transportation, packaging, loading and unloading and commission (Rs/kg); PL_p = Physical loss of fresh guava by producer during transportation and marketing (kg/kg); NP_p = Net profit of producer (Rs/kg), CP = Cost of production (Rs/kg); NMM_w = Net marketing margin of wholesaler (Rs/Kg); SP_w = Wholesaler sale price (Rs/kg); PP_w = Purchase price of the wholesaler (Rs/kg); MC_w = Marketing cost of wholesaler for transportation, packaging, loading and unloading, commission, rent, electricity and labor etc (Rs/kg); PL_w = Physical loss of fresh guava by wholesaler during transportation and marketing (kg / kg); NMM_r = Net marketing margin of retailer (Rs/Kg); SP_r = Retailer sale price (Rs/kg); PP_r = Purchase price of retailer (Rs/kg); MC_r = Marketing cost of retailer for transportation, packaging, loading and unloading and commission, rent, electricity and labor etc. (Rs/kg); PL_r = Physical loss of fresh guava by retailer during transportation and marketing (Kg / kg); TNMM = Total net marketing margin (Rs/kg); TMC = Total marketing Cost (Rs/kg); TML = Total marketing loss of fresh guava (Rs/kg) ; ME = Marketing efficiency; Cp = Consumer price (Rs/kg) and PSCP = Producer share in consumer price (%).

The descriptive statistics, analysis of variance, post hoc tests for multiple comparisons of means and multiple regression were used to analyze the data. The analysis was performed with SPSS version 20.

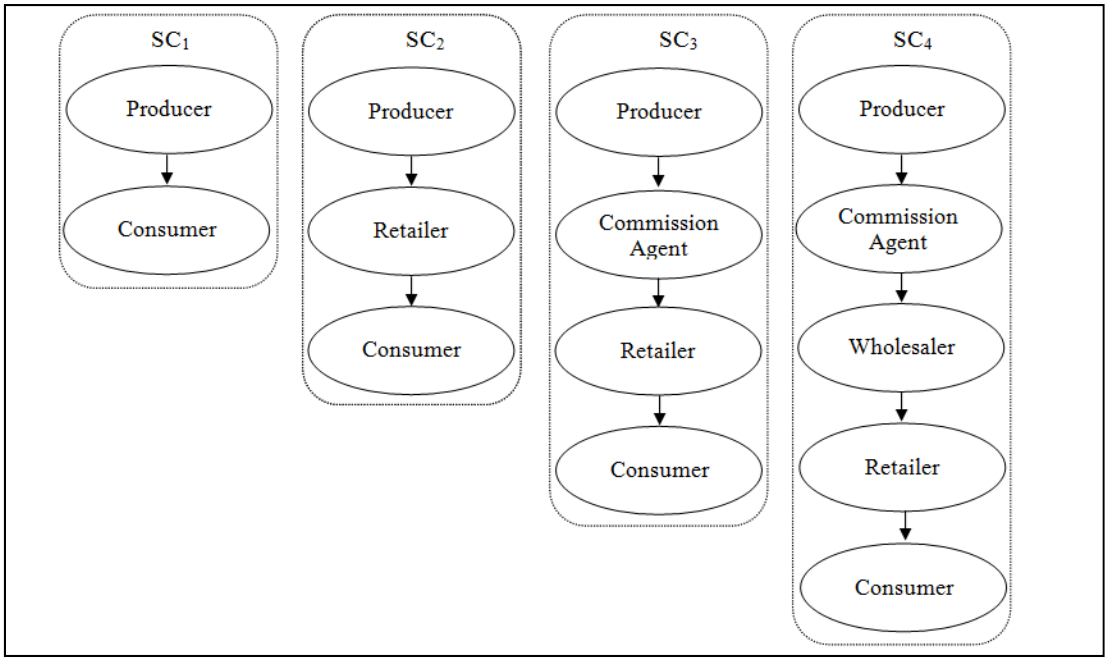

Figure 1: Marketing Supply Chains (SC_1, SC_2, SC_3 and SC_4) of fresh guava in Allahabad district, India

RESULTS AND DISCUSSION

The gross marketing price of producer, net marketing price of producer and net profit of producer were significantly higher in marketing supply chain SC_1 (Producer-Consumer), followed by SC_2 (Producer - Retailer-Consumer), SC_3 (Producer - Commission agent –Retailer - Consumer) and SC_4 (Producer-Commission agent – Wholesaler – Retailer-Consumer). The consumer price in marketing supply chain SC_1 was significantly lower (Rs.15.40/kg) as compared to marketing supply chains SC_2, SC_3 and SC_4 (table 1). Furthermore, no significant difference in consumer price between marketing supply chains SC_2, SC_3 and SC_4 was found (Rs.19.30/kg to Rs.19.60/kg). The results revealed that gross marketing price of producer, net marketing price of producer and net profit of producer for fresh guava (allahabad safeda) decreased considerably as the number of intermediaries increased in marketing supply chains. The results further revealed that the consumer price of guava (allahabad safeda) increased considerably as the number of intermediaries increased in marketing supply chains (table 1). Similar trends for gross marketing price of producer, net marketing price of producer, net profit of producer and consumer price in different marketing supply chains were found for apple guava (table 2). However, the gross marketing price of producer, net marketing price of producer, net profit of producer were considerably higher for apple guava as compared with allahabad safeda (tables 1 and 2). This is due to fact that the marketable yield of allahabad safeda was much higher, as compared with apple guava, but the quality, taste and appearance were much superior for apple guava as compared with allahabad safeda. The consumer price for apple guava (29.50 to 34.60 Rs./kg) was much higher as compared with allahabad safeda (15.40 to 19.60 Rs. / kg) mainly due to quality and appearance (tables 1 and 2). The net return of apple guava has been reported slightly higher than allahabad safeda (Hena and Soni, 2013).

Table 1: Marketing supply chain analysis for fresh guava (allahabad safeda)

Marketing supply chains	Gross marketing price of producer (GMP_P) Rs/kg	Net marketing price of producer (NMP_P) Rs/kg	Net profit of producer (NP_P) Rs/kg	Consumer price (C_P) Rs/kg
SC_1	15.40[a]	14.54[a]	10.72[a]	15.40[a]
SC_2	13.40[b]	12.35[b]	8.47[b]	19.30[b]
SC_3	11.65[c]	9.71[c]	5.83[c]	19.50[b]
SC_4	8.97[d]	7.14[d]	3.26[d]	19.60[b]

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$)

Table 2: Marketing supply chain analysis for fresh guava (apple guava)

Marketing supply chains	Gross marketing price of producer (GMP_P) Rs/kg	Net marketing price of producer (NMP_P) Rs/kg	Net profit of producer (NP_P) Rs/kg	Consumer price (C_P) Rs/kg
SC_1	29.50[a]	28.25[a]	21.57[a]	29.50[a]
SC_2	25.25[b]	24.00[b]	17.12[b]	34.40[b]
SC_3	23.05[c]	19.87[c]	12.99[c]	34.10[b]
SC_4	18.53[d]	15.74[d]	8.86[d]	34.60[b]

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$)

The overall results for gross marketing price of producer, net marketing price of producer, net profit of producer and consumer price for two varieties of fresh guava (allahabad safeda and apple guava) in different marketing supply chains revealed that marketing supply chain SC_1 (Producer-Consumer) is the most efficient in terms of producer net profit and price paid by the consumer followed by SC_2 (Producer – Retailer-Consumer), SC_3 (Producer - Commission agent – Retailer - Consumer) and SC_4 (Producer - Commission agent – Wholesaler – Retailer - Consumer). The results clearly indicate that in order to increase the net profit of the producer and provide competitive price to consumer, it is necessary to reduce the number of the intermediaries in marketing supply chains for fresh guava by introducing single window marketing system / co-operative marketing supply chain in Allahabad district. Similar results were reported by Murthy et al. (2007), Sidhu et al. (2010) and Pandey et al. (2011).

The marketing cost was significantly low in marketing supply chain SC_1 (Producer - Consumer), followed by SC_2 (Producer - Retailer - Consumer), SC_3 (Producer - Commission agent - Retailer -Consumer) and SC_4 (Producer - Commission agent - Wholesaler - Retailer - Consumer). The results revealed that the marketing cost of fresh guava increased considerably as the number of intermediaries increased in marketing supply chain (table 3). This is due to fact that the cost of packaging, transportation, loading and unloading, commission charges, rent, electricity and labor charges increases considerably as the number of intermediaries increased in marketing supply chains (table 3). The total marketing loss of fresh guava (allahabad safeda) was significantly low in marketing supply chain SC_1, followed SC_2, SC_3 and SC_4. The results revealed that the marketing loss of fresh guava (allahabad safeda) increased considerably as the number of intermediaries increased in marketing supply chains (table 3). This is due to fact that the total marketing loss during packaging, transportation, loading and unloading and marketing increased considerably as the number of intermediaries increased in marketing supply chains. The total net marketing margin which includes the net

marketing margin of wholesaler and retailer was considerably higher in marketing supply chain SC_4 in which both wholesaler and retailer were involved in marketing of fresh guava (allahabad safeda). In marketing supply chains SC_2 and SC_3 in which commission agent and retailer were involved in marketing of fresh guava, the net marketing margin of retailer was approximately same (table 3). The similar trends as in case of allahabad safeda were also observed for apple guava in term of total marketing cost, total marketing loss and total net marketing margin (table 4).

The effect of packaging, transportation, loading and unloading, commission, rent, electricity and labor charges on marketing cost of fresh guava (allahabad safeda) in different marketing supply chains are presented in table 5. Packaging, transportation, loading and unloading, commission, rent, electricity and labor expenses significantly influenced the marketing costs of fresh guava (allahabad safeda). The standardized beta coefficient clearly revealed that commission charges (0.554) was the most dominant factor influencing the marketing costs of fresh guava, followed by transportation charges (0.241), rent, electricity and labor expenses (0.180), loading and unloading charges (0.099) and packaging costs (0.086). Therefore, it is important to minimize the commission, transportation, rent, electricity and labor expenses in order to reduce the total marketing costs. Similar trends as in the case of allahabad safeda were also observed for apple guava (table 6).

Table 3: Market chain analysis for guava (allahabad safeda)

Marketing supply chains	Total marketing cost (TMC), Rs/kg	Total marketing loss (TML), Rs/kg	Total net marketing margin (TNMM), Rs/kg
SC_1	0.52^a	0.34^a	0.00^a
SC_2	1.86^b	1.12^b	4.06^b
SC_3	3.50^c	1.58^c	4.41^c
SC_4	4.12^d	1.90^d	6.74^d

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$)

Table 4: Market chain analysis for guava (apple guava)

Marketing supply chains	Total marketing cost (TMC), Rs/kg	Total marketing loss (TML), Rs/kg	Total net marketing margin (TNMM), Rs/kg
SC_1	0.58^a	0.67^a	0.00^a
SC_2	2.02^b	2.04^b	6.34^b
SC_3	5.04^c	2.84^c	6.35^b
SC_4	5.60^d	3.88^d	9.38^c

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$).

Table 5: Multiple regression results to explain the effect of logistics on marketing cost of guava (allahabad safeda) in different marketing supply chains

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-0.001	0.013		-0.100	0.921
	Packaging	0.891	0.137	0.086	6.518	0.000
	Transportation	1.009	0.060	0.241	16.859	0.000
	Loading and Unloading	1.113	0.156	0.099	7.118	0.000
	Commission Charges	0.993	0.014	0.554	70.895	0.000
	Rent, Electricity and Labour	0.994	0.038	0.180	25.844	0.000

Dependent variable: Marketing cost

Table 6: Multiple regression results to explain the effect of logistics on marketing cost of guava (apple guava) in different marketing supply chains

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.015	0.010		-1.414	0.166
	Packaging	1.057	0.071	0.051	14.947	0.000
	Transportation	1.035	0.032	0.185	31.975	0.000
	Loading and Unloading	0.966	0.068	0.049	14.214	0.000
	Commission Charges	0.997	0.002	0.725	537.389	0.000
	Rent, Electricity and Labor	0.950	0.038	0.117	24.813	0.000

Dependent variable: Marketing cost

The overall results for total marketing cost, total marketing loss and total net marketing margin of fresh guava (allahabad safeda and apple guava) in different marketing supply chains revealed that the total marketing cost, total marketing loss and total net marketing margin increased considerably as the number of the intermediaries increased in marketing supply chains (tables 3 and 4). Therefore, single window system for procurement and distribution of fresh guava should be introduced in Allahabad district in order to improve the profit of the producer and competitive price to consumer. Furthermore, the cooperative supply chain system should be introduced in Allahabad district for marketing of fresh guava in order to minimize marketing cost, marketing loss and marketing margin. The commission and transportation charges are major factors influencing the marketing cost of fresh guava (tables 5 and 6). Therefore it is necessary to evolve strategies in order to reduce the commission and transportation expenses .Similar results were reported by Murthy et al. (2007), Sidhu et al. (2010) and Pandey et al. (2011) under wide range of marketing supply chains for horticultural crops.

The higher marketing efficiency of fresh guava (allahabad safeda) estimated by Shepherd, 1965 (Model 1), Murthy et al., 2007 (Model 2) and Acharya and Agrawal, 2011 (Model 3) were recorded for marketing supply chain SC_1 (Producer-Consumer), followed by SC_2 (Producer-Retailer-Consumer), SC_3 (Producer-Commission agent-Retailer-Consumer) and SC_4 (Producer - Commission agent – Wholesaler – Retailer - Consumer). The marketing efficiency

estimated by different methods decreased significantly as the number of intermediaries increased in marketing supply chains. This is due to the fact that the total marketing cost, total marketing loss and total net marketing margin increased considerably as the number of intermediaries increased in marketing supply chains. The producer share in consumer price for guava (allahabad safeda) was significantly higher in marketing supply chain SC_1 (94.40%), followed by SC_2 (64.02%), SC_3 (49.79%) and SC_4 (36.45%). The results revealed that the producer share in consumer price decreased significantly as the number of intermediaries increased in marketing supply chains. This is due to the fact that the net marketing price of producer, which plays an important role for producer share in consumer price, decreased considerably with the increase in total marketing cost, total marketing loss and total net marketing margin (table 7). The similar trends were also observed for apple guava (table 8).

The overall results on marketing efficiency and producer share in consumer price clearly revealed that marketing supply chains SC_1 was the most efficient, followed by SC_2, SC_3 and SC_4. Therefore, in order to improve the marketing efficiency and producer's share in consumer price for fresh guava in Allahabad district, it is necessary to reduce intermediaries in the marketing supply chains as well as to reduce marketing cost and marketing loss by providing efficient facilities for transportation, packaging and storage. Similar results were reported for wide varieties of vegetables and fruits by Ladaniya et al. (2005), Gangwar et al. (2007), Eman (2011) and Pandey et al. (2011).

CONCLUSION

The most important issues in existing marketing supply chains for fresh guava in Allahabad district, India are high physical loss, low profit to producer, high marketing cost, low marketing efficiency and high consumer price. The study

Table 7: Marketing efficiency and producer share in consumer price for guava (allahabad safeda) in different marketing supply chains

Marketing supply chains	Marketing efficiency			Producer share in consumer price, %
	Model 1	Model 2	Model 3	
SC_1	28.58[a]	16.91[a]	27.93[a]	94.40[a]
SC_2	9.39[b]	1.76[b]	2.09[b]	64.02[b]
SC_3	4.57[c]	0.99[c]	1.18b[bc]	49.79[c]
SC_4	3.75[c]	0.57[c]	0.68[c]	36.45[d]

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$)

Table 8: Marketing efficiency and producer share in consumer price for guava (apple guava) in different marketing supply chains

Marketing supply chains	Marketing efficiency			Producer share in consumer price, %
	Model 1	Model 2	Model 3	
SC_1	50.96[a]	22.75[a]	49.76[a]	95.77[a]
SC_2	16.11[b]	2.31[b]	2.88[b]	69.77[b]
SC_3	5.76[c]	1.40[c]	1.75b[c]	58.27[c]
SC_4	5.18[c]	0.84[c]	1.05[c]	45.49[d]

Note: Values followed by same letter in superscript have no significant difference ($p < 0.05$)

analyzed four marketing supply chains for fresh guava in terms of net marketing price of producer, net profit of producer, marketing cost, marketing loss, marketing efficiency and producer share in consumer price to indentify the major constraints and opportunities in order to develop a conceptual framework and strategies for efficient marketing supply chain system for fresh guava. The gross marketing price, net marketing price and net profit of producer were significantly higher for marketing supply chains SC_1, followed by SC_2, SC_3 and SC_4 for fresh guava. The consumer price for fresh guava was significantly lower in marketing supply chain SC_1 as compared with SC_2, SC_3 and SC_4. The total marketing cost, total marketing loss and total net marketing margin of fresh guava was significantly higher for marketing supply chain SC_4 followed by SC_3, SC_2 and SC_1. The commission charges and transportation expenses were the most important factors influencing the marketing cost. The marketing efficiency and producer share in consumer price for fresh guava was significantly higher in marketing supply chain SC_1 followed by SC_2, SC_3 and SC_4. The overall results revealed that the net profit of the producer, marketing efficiency and producer's share in consumer price decreased significantly as well as total marketing cost, total marketing loss and total net marketing margin increased significantly with increased in the number of intermediaries in marketing supply chains.

In order to develop efficient and sustainable marketing system for fresh guava in Allahabad district, India, it is important to provide accurate market information regarding price and demand, proper storage, grading and packaging facilities, efficient transportation and logistics system, credit and insurance facilities, etc. to producer and intermediaries involved in marketing supply chains. Furthermore the producers, wholesalers and retailers should be provided necessary logistics and financial support to transport fresh guava to neighboring cities / states in order to control fluctuation in price and demand. The overall results of the study clearly revealed that the number of intermediaries in the marketing supply chains is the major cause for low net profit of the producers and high purchase price for the consumer. Therefore, it is important to evolve a single window marketing system such as cooperative marketing system for fresh guava in Allahabad district in order to improve the socio economic condition of small and marginal farmers and provide competitive price to the consumers.

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