An evaluation of market channel/supply chain of pomegranate in Ahmednagar district of Maharashtra

Sujit Sudam Mohalkar, Dr. Umrao Shivaji Bondar and Rajesh Vasantrao Shrote

Abstract

Horticulture is better way of economic development. India stands second after china in production of fruit crops. Maharashtra stood first in production of pomegranate. Maharashtra shares 70 % production to total production of pomegranate in India. Pomegranate fruit crop produced in drought prone area of Maharashtra include Solapur, Sangali, Pune, Ahmednagar, Nashik, Dhule and some part of Osmanabad districts. In Ahmednagar districts mostly Karjat, Jamkhed, Shrigonda, Rahuri, Sangamner, Rahata and Ahmednagar tehsils were prominent in pomegranate production. Market is last and an important step in pomegranate cultivation. So market chain in pomegranate is very complicated. purpose of study market chain in Ahmednagar because centrally located district for Mumbai, Hyderabad, Solapur, and Surat market on transport and prices arriving from this market. The present study related with market chain, relation between growers rates and market chain or channel rate. For present study random sampling design methodology is apply for selection of villages, growers and data evaluation has been made on distance between growers and consumers. For good returns chain must smaller. There are certain market chain between growers and consumers i.e. pre- and post harvest contractors. Every market chain gets its own benefit hence rate of fruit is increased. It has been survey and on study seen that when growers get Rs.40/Kg rate then its selling price for consumer is Rs.100/kg, it seen that growers get Rs.45 and market chain gets Rs.60. For getting good returns for growers must have market awareness to sell is fruits in smaller chain or growers could reach directly to consumers to avoid market chain.

Keywords: market channel, supply chain, pre-harvest contractor, commission agent, wholesaler, aggregator

Introduction

Horticulture is better way of economic development. India stands first in production of pomegranate fruit crops. Maharashtra stood first in production of pomegranate. Maharashtra shares 70 % production to total production of pomegranate in India. Pomegranate (Punica granatum) is mostly growing in drought prone area over India and also in Maharashtra for its rich source of vit. B-5 Pantothenic acid, vit. K, minerals like calcium, copper, potassium, manganese and also beneficial for daibeties patient. Pomegranate belongs to family lythraceae. Commercially Bhagwa, Super Bhagwa, Ganesh cultivars growing in India as well as Maharashtra for its increasing demand. Pomegranate fruit crop produced in drought prone area of Maharashtra include Solapur, Sangali, Pune, Ahmednagar, Nashik, Dhule and some part of Osmanabad districts. In Ahmednagar districts mostly Karjat, Jamkhed, Shrigonda, Rahuri, Sangamner, Rahata and Ahmednagar tahasils were prominent in pomegranate production. Therefore pomegranate cultivation is large in Sangamner and Rahuri as comparison to other drought prone tehsils of Ahmednagar districts. Now cropping pattern and improved technology adopted by farmers in study region and its beneficial for changing economy in drought prone area. Hence area under pomegranate cultivation is increased in drought prone region of Ahmednagar district.

Objectives
1. To study pomegranate fruit market chain in study area.
2. To study relation between pomegranate fruit growers rates and market chain in study area.

Assumption
- As per market chain is considered, lower rates to growers and higher rates to consumers due to bigger length of market chain.
- The ratio between length of market chain and growers market rate is positive.
**Methodology**

The economical evaluation of present study based on data collected from various offices as well as through personal interviewed in field survey and discussions with related growers and agency. Interview of growers was only authentic source to work out of economical evaluation of market chain. For present study Random sampling design is applied for selection of villages and sample growers and data evaluation has been done. Out of total 4% villages and pomegranate growers having highest area under pomegranate sole fruit crop tahsils were selected for field survey and personal interviewed of growers. On basis of land holding under sole pomegranate fruit crop growers were selected as sample growers, 60% have small holding growers, 30% medium and 10% have large holding growers. The data evaluation done with statistical techniques and other information present in Table. Result of present study by evaluation is summarized in form of recommendation and conclusion.

**Trading chain in Pomegranate**

Various channels included in pomegranate supply chain are mentioned below.

**Pre harvest contractors**

At the last stage of fruit maturity or ripening local contractors called as pre harvest contractors are comes at growers orchard farm for seeing quality and negotiate for trade and rates of fruit. After oral negotiation between pre harvest contractors and fruit growers about rate and payment giving immediately after weight and in some cases some growers borrowing some money from this pre harvest contractors at time when he required. They had good faith on each other and maintain good will. Contractor make maximum profit compared to growers. Some growers choose to sell fruits in different market. About 11.3% growers sold their fruits to pre harvest contractors with mutually suitable terms and conditions. The pre-harvest contractor always give 4 to 12 Rs. Per kg low rates than present market rates.

**Village level aggregator**

Around 12to 16% of produce from orchards is sold through village level aggregator due to small holding area under sole fruit crop or economical problem or transport cost. The fruits are small in size at time of harvesting of fruits by pre harvest contractors, hence not plucked by pre harvest contractors. These fruits plucked by farmers and sold through village level aggregator in APMC Market Ahmednagar, Sangamner, Rahuri and Nashik. The major farmers, pre harvest contractor, village level aggregator, wholesalers, commission agent and Retailer involved in trading chain of pomegranate.

**Private traders**

Private traders survey total area with coordination of local people. At the time of high pomegranate fruit production growers communicate with private traders. Private traders are representative of national or state level market. National and state level markets mainly located in capital of state or high population cities like Delhi, Mumbai, Chennai, Bhopal, Hyderabad, Kolakatta, Kanpur, Pune, Ahmedabad, Surat etc. are showing region or state. Some pomegranate growers are employed of these private traders call pomegranate pilots. Pomegranate pilots helps in all ways to private traders on monthly wage or quantity basis. The growers negotiate with offering price and decide trade with traders, the availability of fruit quantity and current price in local market and destination of market is determining important factor for price. That type of marketing is popular in present study area. About 32.23% growers sold their fruit to private traders. This is a type marketing is called as on farm sale of pomegranate. In this type marketing harvesting, gathering, grading, sorting, packing and transportation done by private traders. Amount of yield is paid immediately harvesting on same day to growers in the form of cash or check but in due to some trend by traders with growers no become more cautious both.

**Commission agent**

Commission agent locally called as Dalal or Agents. The growers sell their fruit through it consists detail of their commission charges rate varies from 4 to 12% at various market. They play well role in open auction system and its considered superior than other system. There are some unity in all fruit agents who decide the price by mutual understanding to open auction, so they don’t offer good price for fruits. Some commission agent perform role of wholesaler and therefore obtained more profit in trade of pomegranate.

**Wholesalers**

There are two type of wholesalers i.e. local wholesalers and national wholesalers. Local wholesalers are perform main role of in purchasing fruit from commission agent and directly from growers in market and then supplied fruit to local retailer and distributor who also involved in supply fruits to district or state place. National wholesalers are involved in distribution of fruits in national or international level market. There are only small wholesalers who works under national wholesalers.

**Retailer to directly consumer**

Retailer is last component in trading chain in pomegranate. Retailer is small traders having own stall and direct dealing with wholesalers. Retailer purchase in small quantity fruits and sell out during day to day. Retailers spread in all towns, cities and market also. Sometimes they purchase fruits directly from growers at time growers and retailers also get maximum benefits. Therefore retailer takes maximum profit in pomegranate trade.

**Table 1: Market Channel wise distribution of selected Growers**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Market Channel Chain</th>
<th>Category Of growers</th>
<th>% of Growers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Small</td>
<td>Medium</td>
</tr>
<tr>
<td>1</td>
<td>Producer-private traders-Wholesaler at National market-Retailer-Consumer</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Producer-Wholesaler at Tahsil market-Retailer-Consumer</td>
<td>34</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Producer-Wholesaler at District market-Retailer-Consumer</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>Producer-Pre-harvest contractor-Wholesaler at National market-Retailer-Consumer</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>Producer-Local commission agent-Wholesaler at National market-Retailer-Consumer</td>
<td>05</td>
<td>03</td>
</tr>
<tr>
<td>6</td>
<td>Producer-Wholesaler at District market-Retailer-Consumer</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>130</td>
<td>97</td>
</tr>
</tbody>
</table>

*Source*: computed from field survey data in year 2017 by researcher
Table 2: Price expansion of Pomegranate can be summarized (Rs./Kg) in Ahmednagar Districts.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particulars (Rs./Kg)</th>
<th>Farmer</th>
<th>Contractor</th>
<th>Wholesaler</th>
<th>Retailer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost of purchase price</td>
<td>36</td>
<td>45</td>
<td>62</td>
<td>76</td>
</tr>
<tr>
<td>2</td>
<td>Cost of Market, Transport, Wastage</td>
<td>2.4</td>
<td>11.8</td>
<td>8.3</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Selling Price</td>
<td>45</td>
<td>62</td>
<td>77</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Benefits</td>
<td>6.6</td>
<td>5.2</td>
<td>6.7</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: computed data in year 2017 by researcher

Value of chain of 1 kg pomegranate indicating different activities and cost increase a every step observed trade channel has been selected for price expansion of pomegranate i.e. farmer-pre-harvest contractor- commission agent-wholesaler at National level- wholesaler at District level - Retailer. The price expansion is indicating in Bhagwa and Super Bhagwa variety in medium grade fruits in Hasta bahar mostly. The transportation cost has been taken from Ahmednagar to Mumbai and Solapur. The cost retailing not includes the cost of shop, wages, rent etc.

As clear from above, farmers incur a cost of 6.6 kg maintains of pomegranate orchard. Around 4-6% (2.4) of produce, which may be cracked, rotten and damaged by pest is separate during sorting and grading on the farm. The average price obtained by farmer is around Rs.45/Kg and farmers net margin is Rs.36/ Kg.

As explained in view to contractors cost of grading, sorting, transportation and commission at APMC Market, which is around 25-30% (17 Rs.) due to wooden boxes packing in present days. The price obtained by Contractor in Mumbai and Solapur market is Rs.62/Kg and his net margin is Rs.5.2/Kg. Produces trade in APMC market with marketing cess @ 1% which brought by Wholesalers. Since commission Agent facilitates trade and also pays to contractor on behalf of wholesaler, he takes financial risk and charges of commission @ 8% from the contractor. The net margin obtained by Wholesaler and Retailer is Rs.6.7/Kg and Rs.15/Kg respectively. At retailer level mostly sold produce in weight basis but in some time sold on count basis.

Conclusion
- Small growers mostly sell their produce on farm or to private traders.
- Pre-harvest contractors and private traders take only top and semi top grade fruits.
- Large growers mostly sell their produce in district and National market.
- Cost of market channel is higher as compare to production cost and cost of market channel.
- Low benefits to growers for 6 month as compare to private traders, Wholesaler and Retailer within 5 to 15 days.
- Growers get low benefits due to lack of awareness of market intelligence or information.
- Market rates of pomegranate increases step by step till it reaches to consumers because about five intermediaries between growers and consumers.
- Price expansion from farmer to consumer is about 2.5 times.
- The retailer deals in small quantity and his shares in consumers rupee is high.

Recommendation
- Need to decreases in marketing chain /Supply channel.
- Motivation in growers in awareness about new market system like farmers to market and growers to consumer.
- growers should apply mobile apps for market information and intelligence.
- Government agencies spread new digital approach awareness in growers about market system.
- New regulation of Government grower to retailer system is must be applied
- New theme of Government producer to consumer system is must be applied for avoid shares of intermediaries in expansion of prices of produce.
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