Mapping the Small Onion Value Chain in Tamil Nadu, India

Abstract

Onion is an important crop at domestic and international level and growers faced problems in both production and marketing.Value chain analysis isessential to trace the series of activities and actors across small onion value chain and analyse their role and performance. The first step in value chain analysis is to map various actors and their roles. This study was undertaken to map the existing value chain in small onion in Perambalurdistrict. Mapping the value chain practices will help us to understand the existing practices in small onion cultivation in Tamil Nadu.Inputs used in the production such as seedlings, fertilizer, plant protection chemicals were provided to the farmers; the farmer produced the onion and sold to the intermediaries in the value chain. Intermediaries like local traders, commission agents, retailers procured onion from the farmers and transferred to the end consumers.

Key Words: Small Onion, Value Chain, Mapping, Tamil Nadu

1. Introduction

India is the world's largest producer of many fresh fruits and vegetables with a large and diverse agricultural sector. India is the second largest producer of vegetables next to China. Among the horticultural commodities, onion, tomato and mushroom are reported to be highly export competitive(Dastagiri, 2017).

Onion is one of the important vegetable crops grown in India and it is called as “Queen of Kitchen”. In recent years, onions have become one of India's high-value crops with the quickest rate of growth. After the potato, the onion is the most produced vegetable, at 22 million tonnes. Fluctuations in production have been slight, particularly after 2002–03 (Saxena and Chand 2017). India produces both common and small onion *viz.*, Common onion (*Allium cepa* L. var. *cepa*), bulbs are large, normally single and plants reproduce through seeds. Multiplier onion or potato onion (Allium cepa var. aggregatum) – producing small bulbs borne in clusters and generally propagated through small bulbs. Mainly used for seasoning curries.

Onion is cultivated almost all over the country. The major onion growing states are Gujarat, Bihar, Haryana, Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh. However, Andhra Pradesh, Karnataka and Tamil Nadu are the three major multiplier onion (small onion) producing states in India (National Horticultural Board Statistics, 2022-23).

Small onion constitutes more than three fourth of the state's total onion production.Perambalur district in Tamil Nadu has the highest share (9555 ha) of area in small onion production(Seasonal and Crop Report, Govt. of Tamil Nadu 2020-21).The major onion markets are located at Ottanchathiram, Dindigul, Perambalur and Thiruchirapalli in Tamil Nadu. Seasonal Indices for arrivals of small onion are high in the month of March, May and January for Oddanchatram, Paravai and Coimbatore Market respectively (Tamil Selvi et al., .In this background, the study has been undertaken to map the value chain practices in fresh small onion across different actors.

2. Review of literature

Porter (1985) used the term "value chain" to describe a series of value-adding activities. This series consists of primary activities, related directly to manufacture, sales and distribution, and secondary activities which support primary activities, such as planning, finance, R&D and human resources.According to **Kaplinsky** and **Morris (2001)** Value Chain Analysis can be used to identify potential sources for a company's economic advantage in its industry. The analysis helped in separating a firm into its major activities in order to understand the behavior of costs, the associated value added, and the existing and potential sources of differentiation. **Barkade*et al.*, (2011)** studied the Economics of Onion Cultivation and its Marketing pattern in Satara district of Maharashtra. They reported that marketintermediaries accrued higher margin by incurring less cost and services whereas the major share of consumers rupees was pocketed by the middlemen.**Deepak Shah (2017)** assessed the relationship of prices of onion at the farm level as well as at wholesale, retail and export level with a view to understand price mechanism involved in the marketing of onion. He identified that the producer's share in consumer's rupee for onion varied from 49 percent to 52 percent in domestic market for various varieties, and this share in export channel varied from 30 percent to 35 percent

3. Methodology

3.1 Study area

Onion crop is grown extensively in all the districts of Tamil Nadu. Multistage sampling procedure was adopted for the selection of the study area.Perambalur district stood first in area (9555 ha) followed by Namakkal(5694 ha), Thoothukudi (5388) and Thiruchirapalli (5377 ha), districts during the year 2020-21. Hence, Perambalur district was selected based on the highest area under small onion cultivation.In the second step, based on the same criteria the top two blocks in Perambalur district viz.,Alathur, and Perambalur were selected.From each block, five panchayat villages were selected; nine onion cultivation farmers randomly were surveyed from each selected village for the study. Totally ninety farmers cultivating small onion,15 local traders, 30 commission agents, 30 wholesalers and 30 retailersinPerambalur district were selected for the study.

3.2 Data

The primary data collection was carried out through personal interview method using well-structured and pre-tested interview schedules. Two separate interview schedules were prepared for collecting the details from farmers and market intermediaries.

3.3 Value chain analysis

The chain of activities of the small onionhas been mapped by following the porter theory. Core process of small onion value chain, actors in small onion value chain were also mapped. Value chain relationship and linkages were also analyzed.

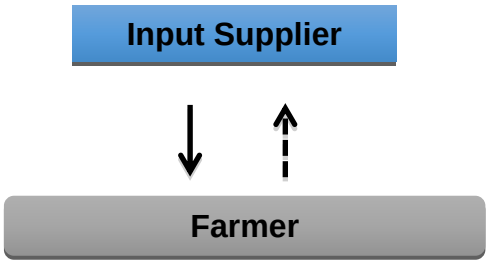
4. Results and Discussion

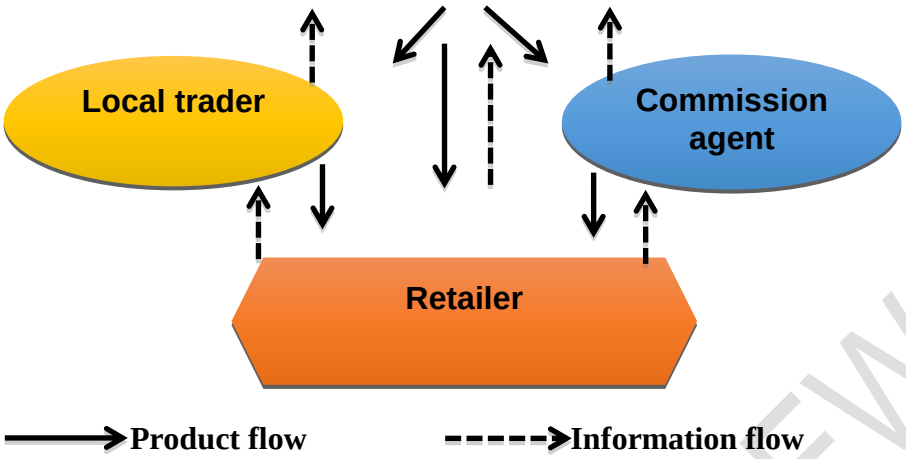
4.1 Mapping the Value Chain

The value chains of the small onion value chain in Perambalurdistrictwas mapped and the same was depicted in the Figure1.It includes farmers, local traders, commission agents, wholesalers and retailers. Commission agents are intermediaries who entered the chain to link farmers with Wholesalers or retailers.

The Figure 1 illustrates the key stakeholders in the value chains of the small onion value chain in Perambalur district

Figure 1 Small onion value chain in Perambalur district





Inputs used in the production such as seedlings, fertilizer, plant protection chemicals were provided by the input suppliers to the farmers; the farmer cultivated the onion and sold to the intermediaries in the value chain. Intermediaries like local traders, commission agents, retailers procured onion from the farmers and transferred to the end consumers.

Commission agents and wholesalers procured the product from local traders. The village trader played a very important role in aggregating the produce from village to the market. Information flows regarding the quality and quantity requirement of the produce was facilitated by wholesaler/ retailer through local traders to farmers.

4.2 Mapping the core process of small onion value chain

The core processes of a value chain distinguished the main occupation of the actors involved in the value chain. In this study the value chain for fresh small onion has been traced out and the same has been given in Figure 2.

Figure 2 Core processes in small onion value chain in Perambalur District

In agricultural value chain apart from the core process several other actors such as small level farmers and laborers were involved in many other processes like grading, transportation etc., It is observed that their part in the value chain were meager and they have less access to overall process.

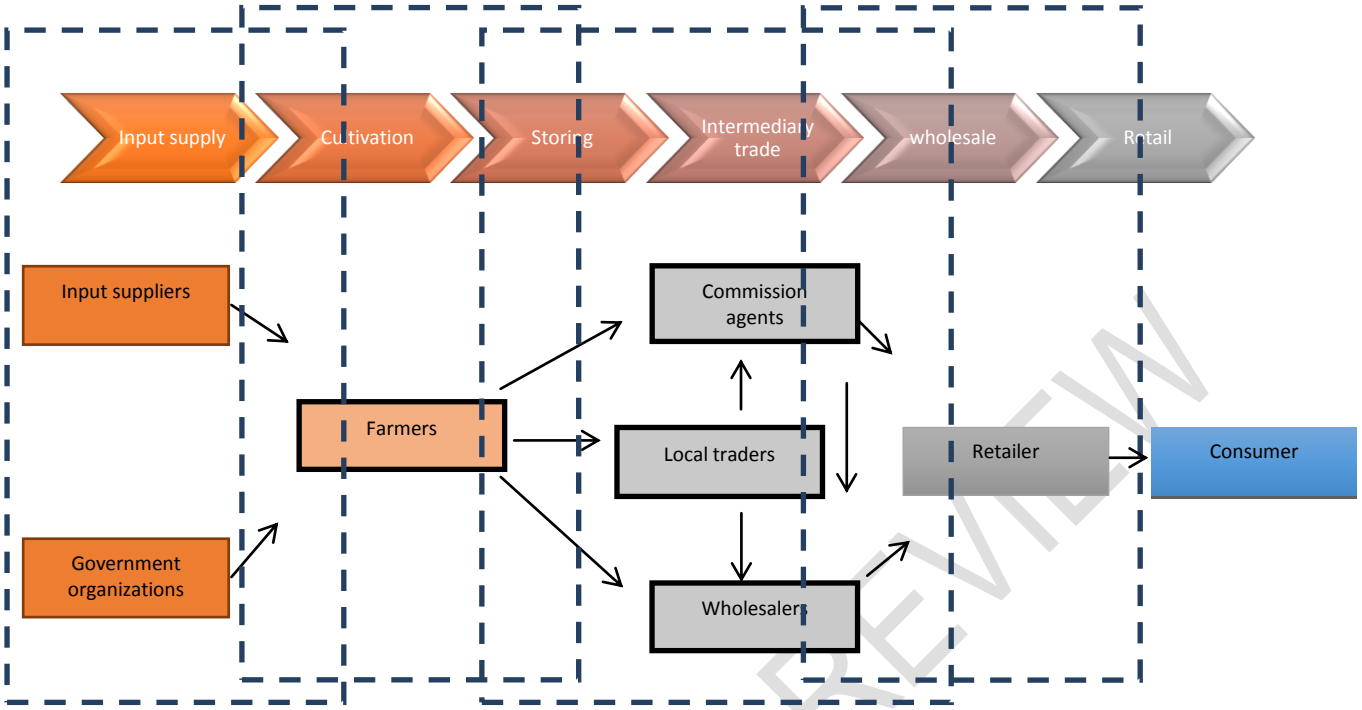
4.3 Mapping of actors in small onion value chain

In many agricultural value chains, especially small and weaker market does not have pure specialization. One actor will take several different roles in the chain.

In small onion value chain, the functions of many wholesalers and commission agents are same and they are also involved in the retailing of the produce. Mapping is to trace out main occupation of actors. In this study mapping was done by identifying the main functions of the actors and presented in Figure 3.

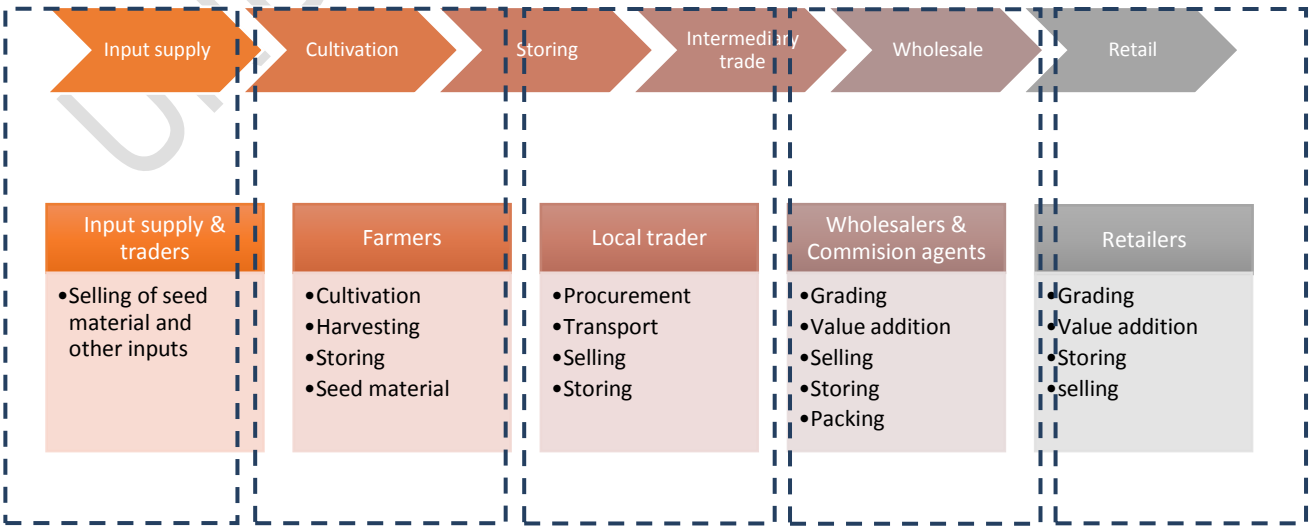
The figure 3 shows the movement of onion and the role of actors in the small onion value chain. The core map can be further subdivided into specific activities that are undertaken by different actors. This would help to find out the gaps, overlapping activities, potential for upgrading activities in the value chain.

Figure 3 Map of actors in small onion value chain



Breaking down the core process would help to analyze cost, revenue and margins. Specific activities of input suppliers, farmers, local trader, commission agents, wholesalers, retailers were identified. Hence the value chain was subdivided and the specific activities as presented in in Figure 4.

Figure 4 Specific activities undertaken by different actors in value chain

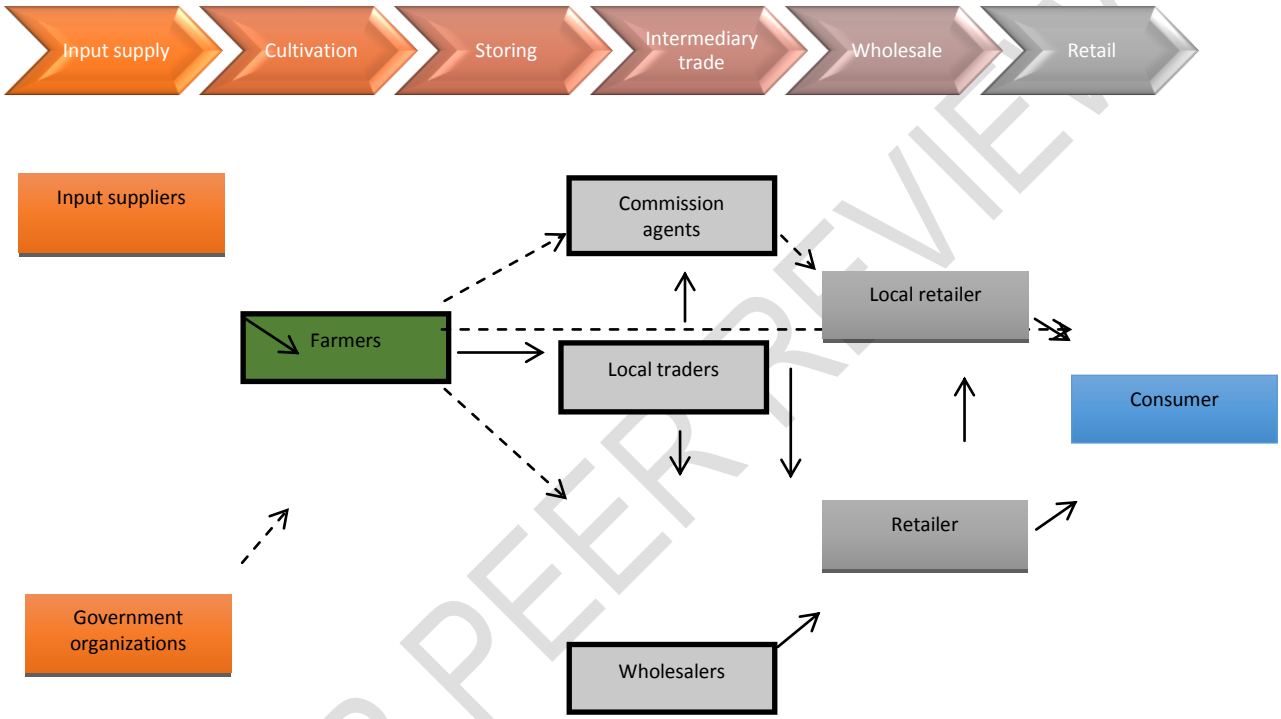


The Small onions produced in the Perambalur district were mainly supplied to the Tiruchirapalli, Ottanchattiram and Dindugul markets. Among these, large volume of Small onion was supplied to Thiruchirapalli market due to its accessibility to the study area.

4.4 Value chain relationship, linkages

The qualitative value chain analysis included the mapping of relationship and trust. Mapping of relationship and trust between actors in small onion is presented in Figure 5.

Figure 5. Map of relationships and trust between value chain actors



Persistent and strong relationship Spot market and weak relationship

Persistent relationship referred to permanent or long term showed market integrity, higher level of trust and their inter dependence.

5. Conclusion

Value chain was identified to understand the product flow and the information flow across the various stakeholders in the small onion value chain. Inputs used in the production such as seedlings, fertilizer, plant protection chemicals were provided to the farmers; the farmer produced the onion and sold to the intermediaries in the value chain. Intermediaries like local traders, commission agents, retailers procured onion from the farmers and transferred to the end consumers. Information flow for the product started from the consumers based on the demand for product in the market and from the retailers to the wholesalers and commission agents. Information flow regarding the demand and preference

of end consumer moved from the retailer to the other stakeholders. Commission agents and wholesalers procured the product from local traders. The village merchant played a very important role in aggregating the produce from village to the market. Information flows regarding the quality and quantity requirement of the produce was facilitated by wholesaler/ retailer through local traders to farmers. Core processes in the value chains were identified in the study area. The core processes were input supply, cultivation, storage, intermediary trade, wholesale, retail. The core processes were subdivided and the specific activities are analyzed.

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