

Green Vegetables Price Mechanism in Ranchi Market

Shakil Anwar Siddique¹ Gautam Rudra¹ Dr. Briendra Gwoswami²

¹St. Xavier's College, Ranchi

²ICFAI Universities, Jharkhand

Corresponding Author: Shakil Anwar Siddique

Abstract: India is the 4th largest producer of green vegetables after china, there are about 125 cr. People depend on the green vegetables as their food stuffs. That's why this sector recognizes extreme importance not only as a marketing but socially and politically also. In the previous year we have noticed different political turmoil and socialization regarding the price issue of the green vegetables. This is very much volatile and there are several factors which determine the price sensitivity of the green vegetables. Due to the absence of large scale storage system almost 1/3rd of the green vegetables are wasted and through away beyond human food stuffs. This is the most important factor in the price mechanism system. After that we can mention that proper production system are not applied as per the soil condition and other accessories condition so definitely the production are not matched in according to their estimated capacity.

But the line organizational functional systems are there having three strategic points which are:

- a. Producer
- b. Marketer
- c. End consumer

It is very much came into observation that producer are not realize their perfect profiting condition and their compile to hand over their production to the vested interested marketing group who has the key capacity to mechanize the pricing system or we can say that this marketer group has the ultimate power in deicing the various pricing system of the products. So it is very much a middle man dependant system. On the other hand the consumers are compiled to buy different vegetables products as per their market price.

But as per the present economic system there are certain hope arises with the action of the government. Govt. is now planning to support this system with exchange commodity with forward system, scientific support as well as developing chain cold stores not only for potato or onion but for all vegetables. We hope that after 2025 the scenario will be chained with the price mechanism mgt of these product and a fair pricing formulae with these products.

Keywords: Vegetables, Price sensitivity, Supply Chain Management, Price Mechanism, Production.

Date of Submission: 24-05-2018

Date of acceptance: 08-06-2018

I. Introduction

The present study is aimed on marketing of green vegetables and its price mechanism in the market has been undertaken in Ranchi to examine marketing efficiency and pricing mechanism. Marketing of perishable commodities is very important both in terms of price realization to the farmer - producer and prices within the reach of consumers. The marketing efficiency reflects the share of consumer rupee by the farmer (producer) to a greater extent possible especially in the case of agricultural commodities which are perishable in their nature. The price escalation both at the producer level and consumer level is common phenomenon as it depends upon the number of players involved in marketing of the produce to make it available with the consumers in most appropriate way.

In marketing of the market efficiency in the case of producer-Retailer-consumer is 90% followed by the producer-wholesaler-Retailer-consumer and in the channel Producer-middleman-wholesaler-consumer 75%. The information indicates that more intermediaries in supply chain systems market efficiency is also vice-versa. The study reveals the Price spread of various selected perishable crops and ways to integrate the price level between producers and consumers for marketing efficiency pattern of each commodity and possibilities for the increasing the marketing efficiency of the selected commodities. The price spread of vegetables with respect to various marketing channels has indicated that the producers' share has an inverse relationship with the number of intermediaries.

The net price received by the producers is relatively higher in the channels in which the produce is directly sold to the consumers or retailers.

The agriculture marketing system of perishables in the country plays a distinct and dominant role by virtue of the nature of perishability that warrants due importance to vegetables. Indian horticulture sector is

constrained by low productivity, high cost of production, huge post-harvest losses, inefficient supply chain and poor market intelligence. The vegetable production in India has touched a new height in recent years, placing it as the second largest producer of vegetables in the world, next only to China (Kumar et al., 2005; Kumaret al., 2004). The growing population and the improving economic status in the country have increased vegetables consumption, both across regions and income groups (Kumar and Mathur, 1996; Kumar, 1998). Their demand is expected to grow further.

The high post-harvest losses, including those in transportation and marketing result in lower per-capita availability of vegetables (Gajanana and Sudha, 2004). Local markets for vegetables are thin and trading in distant markets is non-remunerative due to higher transportation costs (Kumaret al. 2004). The prices of vegetables fluctuate frequently and often fall drastically during harvesting, hampering efforts of growers. In view of this, there has been a concern regarding the efficiency of marketing of vegetables and improving producer share in consumer rupee.

It is very much came into observation that producer are not realize their perfect profiting condition and their compile to hand over their production to the vested interested marketing group who has the key capacity to mechanize the pricing system or we can say that this marketer group has the ultimate power in deicing the various pricing system of the products. So it is very much a middle man dependant system in the green vegetables. On the other hand the consumers are compiled to buy different vegetables products as per their market price. They does not have the ultimate power in the pricing decision making system of green vegetables, because the competitive system are the control of the market so more over an uncompetitive prices are reveal with this types of products and it is against the consumer interest.

But as per the present economic system there are certain hope arises with the action of the government. Government is now planning to support this system with exchange commodity with forward system, scientific support as well as developing chain cold stores not only for potato or onion but for all vegetables.

II. Objectives

1. To analyze the marketing efficiency and farmer's share in consumer rupee in various supply chains
2. Major factors and issues which causes as a trigger factor in price sensitivity mechanism of green vegetables
3. To suggest suitable strategies to enhance the marketing efficiency for vegetables

III. Literature review

Efforts to develop the agricultural sector in developing countries are now taking place against the background of major structural change in the world agricultural industry. In many developed countries, agricultural production is changing from an industry dominated by family-based, small-scale farms or firms to one of larger firms that are more tightly aligned across the production and distribution value chain (Boehlje, 2000). In addition, the trend of market-orientated reforms, following multilateral trade liberalization and especially structural adjustment

programmes in developing countries, has led to the increased integration of world markets (Reardon & Barrett, 2000). As per the observation of research conducted by (P. K. Suri and Sushil 2006) Collaborations among companies are common in the business world but rarely observed among government organizations for agricultural development.

Reaching the end of the period of 11thfive Years Plan (2007-2012), the support and available infrastructural facilities are in the process of expansion and very soon the 12th Five Years Plan (2012-2017) will come up and expecting some positive support to agriculture to work on the road map of the agricultural growth (Alam, G. and Verma, D,2007). (Naresh Singla et al. 2011) says that to improve small producer's livelihoods, linking primary producers with global and national markets through fresh food retail chains is seen as one of the emerging agricultural marketing practices in India. (Shawn Cole and Barrett Kirwan 2009) represent the attempt at exploring the individual, temporal, and regional determinants of participation in agricultural risk management.

(S.H. Baba et al. 2010) have suggested that the coverage of technology mission should be expanded to other niche areas of vegetable cultivation. (Kathryn A. Onken and John C. Bernard 2010) views that with the demand in local labeling programs such as the National Buy Fresh Buy local promotion appearing in increasing numbers, consumers will be seeing many messages about local and fresh produced vegetables. The study has also highlighted the needed effective measures to reduce marketing losses at various stages. Demand for stronger vertical coordination in the food system is discussed by (ROBERT J 2010) as a mean of satisfying increasingly diverse consumer preferences are changing the landscape facing food supply chain participants. (Giancarlo Moschini, Luisa Menapace and Daniel Pick 2008) discusses that the economics of geographical indications (GIs) is assessed within a vertical product differentiation framework that is consistent with the competitive structure of agriculture. (Mighell and Jones 1963) explain that the term includes all the ways of harmonizing the vertical stages of production and marketing. The market-price system, vertical integration,

contracting, and cooperation singly or in combination are some of the alternative means of coordination.” Within this succinct definition is the notion that vertical coordination encompasses a continuum of possibilities, from open market spot transactions at the one end, through to full vertical integration at the other and including strategic alliances, joint ventures, contracting, etc. The idea generated by (Rachael E. Goodhue 2010), Contracting and other forms of vertical coordination are important parts of the supply chains for many agricultural products. Ramesh Chand has a great contribution academically to provide the solution for a varied range of problems in agriculture sector, and throws light on the future of agriculture and expectation to the industry till 2020. To improve small producer’s livelihoods (Rakesh Singh and H.P Singh 2009) has developed many models. The fresh food retail chains are investing from farm to fork to buy fruits and vegetables directly from farmers and sell them to retail buyers.

However, fresh food retail chains are largely found working with only large farmers and exclude small farmers for various reasons (Mangala, K.P. and Chengappa, P.G, 2008).(Klaus Abbink et al. 2011) say that strategic interaction between public and private actors is increasingly recognized as an important determinant of agricultural market performance in Africa and elsewhere. (Lars-Erik Gaddei 2004) concludes that the new conditions have affected the atmosphere in distribution channels encouraging more cooperative relationships.

Berck and Perloff found the gap that retail chain procure only a limited proportion of the grower’s crop without any firm commitment and, more so, on a day-to-day basis. It has made no genuine provision for any agri-input or other services and does not have any formal contract arrangements with the farmers. The produce not accepted by the RC has to be disposed off by the farmers elsewhere. (Michael G. Jacobides 2005), found that gains from intra firm specialization set off a process of intra organizational partitioning, which simplifies coordination along parts of the value chain. Barnett and Mahul reviewed the research on market structure and performance, vertical coordination arrangements, and institutions for producer collective action has brought a good insight about contributions to empirical modeling of agricultural price determination and marketing margins are also evaluated, as are innovations in research on spatial market relationships and the role of storage. Research conducted by

(Douglas E. Hughes et al. 2012) contributes that propositions linking the levers to market-based capabilities are offered to shape new research opportunities in the domain of the marketing and sales interface. The research done on bargaining power of retailers by (Ganesh Iyer and J. Miguel Villas-Boas 2003) concludes that an increase in the relative power of the retailer in the channel reduces double marginalization and promotes channel coordination. Balagtas and Holt’s discussion has contributed to understand market information systems and the functioning of market-based mechanisms for agricultural risk management, including futures, options, and insurance. Though the progress over the decades have been a remarkable journey Gulati explains the demand for stronger vertical coordination in the food system as a means of satisfying increasingly diverse consumer preferences are changing the landscape facing food supply chain participants. The consolidation trend in the marketing sector seems inexorable, implying that noncompetitive behavior and its effects will remain high on the research agenda. (Nicholas Roberts and Varun Grover 2012) talks that Customer agility captures the extent to which a firm is able to sense and respond quickly to customer-based opportunities for innovation and competitive action. Joseph and Soundrarajan has provided the empirical price analysis research and concluded that it will face new data challenges in an environment where fewer and fewer transactions are being conducted in open markets, but this creates research opportunities as we seek answers to how different vertical coordination forms coexist and interact with one another. Paying close attention to the time-series properties of commodity market variables will continue to be important, irrespective of whether a structural or nonstructural modeling approach is being used. Study conducted by Birthal and Joshi to know the extent of investment made in promotion of marketing infrastructure in the country and find out whether private investment induces public investment or vice versa. The study by (M S Jairath and Gaurav Jairath 2009) indicates that on an average on each rupee invested by public sector, private sector invests Rs. 1.20. The analysis indicates that there is a very strong complementarity between private and public investment. The study suggests that in order to give further fillip to investment in agricultural marketing infrastructure.

IV. Methodology

The present study was taken up in Ranchi districts of Jharkhand. In view of highest volume of production of the selected vegetables in this district and due to large scale marketing activity taking place in relation to these vegetables in Ranchi district and in its adjoining areas as they are endowed with relatively highest areas under respective vegetable. The Vegetables included for the present study were Cauliflower, Tomato, Cabbage, Brinjal, and Local Beans. The study is based on both secondary and primary data. The secondary data pertaining to the area and production of vegetables, etc. were collected from various published and unpublished records of the Birsa Agriculture University, Government of Jharkhand. The primary information regarding cropping system and marketing of selected vegetables was collected from the farmers

drawn from five villages such as Mohanpur, Thakurgaon, Patratu, Choria, Pipar Toli etc. of the district of Ranchi using the multistage stratified random sampling technique.

Marketing of Selected Vegetables in Ranchi

In marketing of vegetables which is perishable in nature supply chain plays a crucial role. In today's scenario Marketing of vegetables is challenging because of its perishabilities, seasonality, bulkiness, and consumption habits of the Indian consumers. The poor condition of farmers should approach toward contract farming, farmer producer organization etc to reduce the middleman in supply chain and gain maximum profit.

The major vegetables which are marketed are Cauliflower, Cabbage, Beans, Tomato, Ladyfinger, etc. The marketing of these vegetables in the Ranchi districts is not well organized. The major channels which play a vital role in marketing of these vegetables in Ranchi are:

- Sannat Product Ltd.
- Pandra Mandi
- Mother Diary Fruits & Vegetables Ltd.
- Daily Market Mandi
- Reliance Smart etc.

There are various small or medium channels which also do marketing of these major vegetables in an unorganized way. In Ranchi there are four to five major haats who deals with these vegetables and sometime the farmer itself come to these bazaars or haats for the trading without the help of any middleman or intermediaries to gain maximum margin.

Beside the major channel there are the some mahajans who also play an important role in the marketing of these major vegetables, they use to fix the price of the vegetables as per the last day market scenario.'

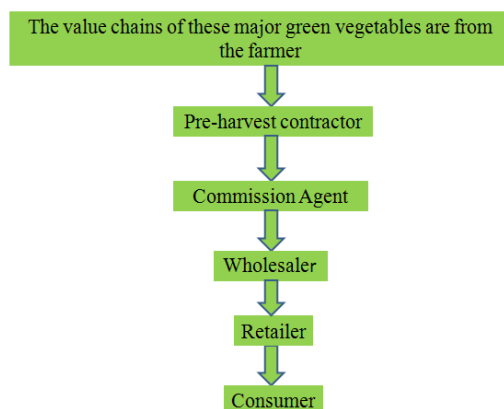


Fig. 1: various sources through which the marketing of vegetables is done.

Issues

Although the future of vegetable production in the country seems very bright with the adaptation of different techniques and measures, but the issues that hinder a smooth walk for the adaptation of these techniques and also in realizing the full potential of the vegetable sector of India, are listed below.

- Lack of professionalism and small land holding
- Falling water levels and lack of irrigation facilities
- Lack of market knowledge and marketing skills
- Expensive credit
- Poor infrastructure
- Controlled prices
- Many intermediaries who increase cost but do not add much value
- Laws that stifle private investment
- Inappropriate R&D- agriculture is a state subject, and most states have little funds to invest in vegetable R&D.

Major factors which causes as a trigger factor in price sensitivity mechanism of green vegetables

There are various trigger factors in price sensitivity mechanism of green vegetables which affects the price of these vegetables. Some of the major factors are listed below.

1. Environment
2. Lack of scientific production approach of the farmer

3. Lack of storage and inventory system
4. Mismanagement of Supply Chain Management
5. Miss accessibility of the market demand and supply in region wise condition
6. Technical and skilled manpower's are not available at every region
7. Vegetables are not treated as a cash crops by the farmers
8. Extreme unfriendly condition approach 1/3rd loss of the total production
9. Particular forwarding or auction market is not available in every region
10. Transparency in the middle man operational system is not there
11. Hoarding is also rampared with different political or power groups supports
12. Export orientation of the green vegetables are lacking
13. Infrastructural supportive systems are also not there with the production of green vegetables
14. Green gas production are high with the captive production system
15. Cross Jenom and cross breeding scientific research are not so much conducted in this research
16. Lack of subsidy support
17. Lack of administrative supporting mechanism from the government.

Strategies to enhance the marketing efficiency for vegetables

There are various measures in terms of strategies which help to enhance the marketing efficiencies for vegetables:

1. Properly coordination of distribution channels
2. Expand their market in different locations
3. Properly supervise the intermediaries
4. Proper vendor management
5. Properly utilize the inventories
6. Try to stable variation at different market

V. Conclusions

Marketing of vegetables is a complex phenomenon due to their perishable nature, seasonality and bulkiness. It is further compounded by the fact that farmers have small area under their cultivation and small marketable quantity. The production and post-harvest losses are higher and as such vegetables require a developed marketing system for their quick disposal. It has also been observed that as the number of intermediaries' increases, the producer's share in consumer's price decreases. The net price received by the producers is higher in the channel where they sell the produce directly to the consumers or retailers. The producers have been found to receive higher absolute net returns in tomato, followed by Cauliflower, cabbage, brinjal, and local bean in all the channels.

Suggestions

From the present study following suggestion is made for the development of this sector since it contributes a lot to the Indian economy.

- Farmers should avoid the pre-harvest contractors and local traders since the farmers realized the least price
- To prevent the post harvest loss there is need for training in post harvest handling of the vegetables to the farmers and intermediaries
- The government should train the farmer and provide some scientific production approach.
- The marketing board should increase the storage system and inventory system.
- The Jharkhand state agriculture marketing board hires some technical and skilled manpower at every region.
- The Jharkhand state agriculture marketing board should focus on the export orientation of green vegetables.
- Government should support the farmers with some subsidy
- Small-scale vegetable processing units need to be established at the farm and block levels.
- To improve the marketing efficiency, the growers should sell their produce product directly to the wholesaler or have tie up with the processor or retailer where-ever feasible
- The exporters can give a better price to the producers as the profit margin realized by them was the highest
- Institutional crop/marketing loan should be made available to farmer at a lower cost at the time when they require it most.
- Education facilities may be provided on priority basis in order to broaden their outward horizon.
- Farmers must have the knowledge on market information, for taking better sales decision.
- Avoiding market intermediaries particularly in the channels leading to retail fresh produce will not be feasible, avoiding market intermediaries such as Pre-Harvest Contractor and Local Trader depending upon

the volume of produce and nearness to markets will help to considerably increase the farmers' share in consumer's or user's rupee.

- Development of infrastructure, including roads and efficient transport facilities and strengthening of the cooperative marketing institutions for the vegetables may help in improving the efficiency of vegetable marketing in the state.

Reference

- [1]. Ahsan, S. M., A. A. G. Ali, and N. J. Kurian. 1982. Toward a Theory of Agricultural Insurance. *American Journal of Agricultural Economics* 64: 520–529.
- [2]. Alam, G. and Verma, D. (2007) Connecting Small-Scale Farmers with Dynamic Markets: A Case Study of a Successful Supply Chain in Uttarakhand. Centre for Sustainable Development, Dehradun.
- [3]. Aradhyula, S. V., and M. T. Holt. 1990. Price Risk in Supply Equations: An Application of ARCH Time-Series Models to the U.S. Broiler Market. *Southern Economic Journal* 57: 230– 242.
- [4]. Bean, L. H. 1929. The Farmers' Response to Price. *Journal of Farm Economics* 11: 368–385. Iyer
- [5]. Ganesh and Villas-Boas J. Miguel, A Bargaining Theory of Distribution Channels, *Journal of Marketing Research* Vol. XL, February 2003.
- [6]. Joseph, M., Soundrarajan, N., Gupta, M. and Sahu, S. (2008) Impact of Organised Retailing on the Unorganised Sector, Indian Council for Research on International Economic Relations, New Delhi.
- [7]. Yogesh, V. J. (2000). Information visibility and its effect on supply chain dynamics.
- [8]. Zheng, Q. (2008). Essentials for information coordination in supply chain systems. *Asian Social Science*, 4(10),55-59

IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with SI. No. 4481, Journal no. 46879.

Shakil Anwar Siddique "Green Vegetables Price Mechanism in Ranchi Market." *IOSR Journal of Business and Management (IOSR-JBM)* 20.6 (2018): 58-63.