

AN ANALYSIS ON VEGETABLES MARKETING OF ODISHA- A CASE STUDY IN ANGUL DISTRICT

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ABSTRACT

In India production of vegetables being highly seasonal with extreme perish ability causes several problems in production, as well as in marketing. India is the world's largest producer of many vegetables. Whereas Odisha ranked fourth in terms of production of vegetables. Angul district in Odisha, which plays an important role for the vegetable growers and also for the consumers that the farmers could be benefited and the consumers could fetch fresh vegetables in proper price. vegetables will play an important role by contributing adequate vitamins, carbohydrates, minerals, fibres etc but it is a known fact that horticulture sector in India is constrained by low crop productivity, limited irrigation facilities and underdeveloped infrastructure support like cold storages, markets, roads, transportation facilities etc. There are heavy post-harvest and handling losses, resulting in low productivity per unit area and high cost of production. Analysis shows, there is an inverse relation between the farm size of the respondents and their overall problems of marketing vegetables in farmers' market. This study was done in Angul district of Odisha, India. The total sample size of farmer 152, middlemen 35 and the consumer is 52 respondents have been selected from that region. Chi-square analysis was used to test the hypotheses. There was significant relationship ($p \leq 0.05$) among respondent's age, educational background, landholding for vegetable farming, social aspects, benefits, and awareness of vegetable farming. This research is mainly focuses on the village level data of Angul district of Odisha. It focuses on the problems of farmers relating to marketing of vegetables as well as distribution and warehousing issues of the village farmers. It also focuses on the middle men and customer satisfaction towards the vegetable marketing in-term of quality and price.

KEYWORDS: Vegetable Marketing, Vegetable Production, Farmers, Middlemen, Customer, Market Efficiency, Channel Performance,

INTRODUCTION

Agriculture sector plays an important role for the survival of the rural people. The importance of agriculture in the socio-economic fabric of India can be realised from the fact that the livelihood of majority of the country's population depends on agriculture. The agriculture sector contributes only about 18 per cent of the total Gross Domestic Product (GDP). The 2011 Census estimates that 83.3 crore people, about 69 percent of the country's total population of 125 crore, continue to live in rural India. Vegetables produced in India is marketed mostly either through regulated APMC (Agricultural produce market committee) markets or totally unregulated local and vegetable markets. Marketing through these traditional channels is characterized by very little attention to grading, sorting and storage with weak regulation, poor handling during loading, unloading and transport resulting in loss of 30-40 percent of the total production. Supply chains for vegetables tend to be multi layered, which has implications on the farmers' share in the final consumer price and the quality of produce due to multiple handling. In contrast to fragmented supply chains in traditional market, supply chains developed by organized retail chains are supposed to be well coordinated. Hence vegetable marketing is a measure to assured and remunerative marketing opportunities hold the key to agriculture, the backbone of the economy, dictates the livelihood system of farmers and millions of people. As discussing the distribution management we can't ignore the medium through which we transport the product producer to end-user. In vegetable distribution system transportation plays a very important role in the distribution management. Without proper transportation the goods can't be delivered to the customer in a right time and in a right quality. [1-26]

The present study "An Analysis on Vegetables Marketing of Odisha-A Case Study In Angul District" analyzes the dynamics of marketing practices of selected vegetables in the district of Angul. It is one of the vegetables producing districts of the state Odisha, fertile soil and irrigation facility. But still improper infrastructure, poor marketing practices, no storage facility are the hindrances for the vegetable growers to gain quality return of their investment. The analysis tries to identify the issues related to vegetable business and suggest measures to improve the system by optimizing the marketing efficiency of vegetables in the district of Angul, India. The Food Agricultural Organization of the United Nations (FAO) in its report has predicted that the India's population will overtake China's population by 2030. In that scenario, where millions of people are malnourished and below poverty line, there is need for improving quality of life through food and nutritional security. The challenge thus, demands for adjustment of the structure of the agricultural system to resonate with internal stipulation

The study area includes the district of Angul. The Angul district is purposively selected because of production of the different vegetables. In Angul district, farm economy is characterized by existence of large number of marginal and small categories farmers, sound agricultural productivity and extremely low level of investment in agriculture. On the other hand, soil fertility, good rainfall and suitable weather for producing vegetables are favorable for agricultural diversification in this region. Farmers' perceptions of accepting new innovations at farms are very encouraging. In the first stage four blocks of the district were selected having the maximum acreage under the vegetable namely Chendipada, Angul, Banarpal & Athamalik. At the next stage 8 villages were selected from each of the selected blocks where the potentiality of the selected vegetable production exists namely Bhagilakata and Brahmanibil of Chendipada block, Karatapata and Pokatanga of Angul block, Talmul and Tubey of Banarpal block,

Nuaghar and Nuagaon of Athamalik block. The number of respondent vegetable growers was 152. Respondents selected from each of four blocks, specifically from the block having the maximum acreage under the vegetable. Eight villages from eight gram-panchayat. Six important vegetables commonly grown in the selected blocks have been opted for the present study. The vegetables selected are porbal, ladyfinger, brinjal, cauliflower, bittergourd, cucumber. In addition to vegetable growers, 35 middlemen including wholesalers cum commission agents and 52 customers were contacted from each of the blocks under the study. Total three set of questionnaire was designed name Farmer (sample-1), Consumer (sample2), Middlemen (sample-3). This questionnaire was designed to gather information on marketing cost, marketing margin, buying-selling pattern and issues in vegetable business. Another questionnaire was designed to find out customers satisfaction pattern in quality, availability and pricing of vegetables in different village haats, daily markets in the town and other market place.

OBJECTIVES OF THE STUDY

Research on vegetable marketing concerned with farmers and middle men with emphasis on the customer issue, pricing, channel management practice of vegetables in the villages of Angul. The following research questions are addressed in the research:

1. What are the channel management practices of vegetables of Angul district of Odisha?
2. What are the key issues faced by the farmers while selling their vegetables?
3. How do farmers set their price of vegetables?
4. What are the important factors responsible for holistic marketing of vegetables?
5. What are the roles of middle men for effective distribution of vegetables?

The overall objective of the study is to understand and analyze the dynamics of marketing practices of vegetables in Angul district. The specific objectives are:

1. To access the channel performance of vegetable market.
2. To find out difference issues like quality and pricing of vegetables.
3. To analyse the process of selling and effectiveness.
4. To study the status of vegetable production and marketing.

SIGNIFICANCE OF THE STUDY

The findings of the study are being expected to provide valuable information to the farmers, policy makers, Government, Development Organizations for making policies and development initiatives on Vegetable Marketing.

REVIEW OF LITERATURE

Druker, 1954 [6], the primary objective of all business is to fulfil and satisfy the needs and wants of the society. Marketing is, therefore, a basic function of all business enterprise. The marketing concept holds that the key to achieving organizational goals consists in determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than competitors.

Kotler, 1999 [11], under marketing concept, the emphasis is on selling satisfaction and not merely on the selling a product. The objective of marketing is not the maximization of profitable sales volume, but profits through the satisfaction of customers.

Aparna & Hanumanthaiah, 2013[1], found in their research that the net price received by the farmer in supermarket channel was more compared to traditional channel. The total marketing cost incurred by growers was more in traditional channels than supermarket channel. The producers' share in consumers' rupee is higher for supermarket channel than traditional market channel. Again, another author stated same thing as above that the organized retailer usually gives higher price and make faster payment to farmer than traditional retailer.

Rajkumar & Jacob, 2010 [20], organized retailers buying centre are closer to the firm-location which reduce the transportation charge for farmer and also in organized retail loading and unloading charge also bear by retailer. This shows that organized retailing is more beneficial for farmer and more efficient than the traditional market channel

Karim & Biswas, 2016 [8], there is problem in traditional marketing channel, by considering the study of the market intermediaries are categorized in to three groups 1) value added, 2) non value added, 3) necessarily value added activity. About 64% of activities are non-value activity because of redundant in nature of non-value added activity which leads to price rises up to double of producer margin.

Pramanik & Prakash, 2010 [16], producer and consumer are not getting proper justice due to the inadequate access of the market information and underdeveloped infrastructure. Another author got the similar result that the farmers share on consumer's rupees is low due to unreasonably high price fixed by middlemen which discourage farmers to increasing their marketable surplus.

Ruben, R., Boselie, D. & Lu, H., 2007 [21], beside direct market channel and the organised market channel the farmers can get more beneficial by making co-operation among the farmer. As they sale the product in bulk amount the transaction cost will minimize and farmers will be more beneficial which reflect on the study. Here they found that that Trade-offs between higher production cum-investment costs (i.e. fixed investments, variable production costs and economies of scale) with expected savings in transaction costs (governance and opportunistic behaviour) are registered that could hinder contractual delivery.

Pokhrel, 2010[19], as vegetable is highly perishable in nature market infrastructure and the information regarding the marketing of vegetable most important factors to know the efficiency of the vegetable marketing. Here an author stated that due to perishability nature of firms' product and lack of proper storage, firms have weaker price negotiation as compare to trader & High profit margin taken by the Trader due to the poor information of price margin as compare to the trader

Njaya, 2014[15], another author also stated the similar thing that farmers are facing losses due to the poor infrastructure for storage, transportation and marketing facilities for fruits and vegetables of farmers and Presence of informal middlemen are main cause of reduction of profit margin of farmers).

Kumar, 2012[10], in this case Kumar says that there is moderate level problems of marketing vegetables and fruits in farmers' market with reference to freight charges, lack of proper grading,

high carriage and other handling charges, exploitation of growers by market force, lack of proper quality control, long distance of market access, seasonal production, long marketing channel, delay payment, lack of cold storage place, advance sales agreement, inadequate post-harvest care, monopoly of middleman, bulkiness of products and low exports and there is low level problems of marketing vegetables and fruits in farmers' market with reference to irregular supply, primitive method of selling and price fixation, packing and loading problems, quality variation in production, packing of products. But they found that high level problems of marketing vegetables and fruits in farmers' market with reference to damage cost, intermediaries' exploitative practices, perishability of product, transportation cost and high storage cost. As stated above major problem are intermediaries' exploitative practices but still more than half of the fresh fruits and vegetables produced flows through the wholesalers.

Wongprawmas, R., Canavari, M., & Waisarayutt, C. 2015[26] Policy making is not only the main issue in the Indian context but main issue is to implementing the policy. Properly implementation of the policy can make the vegetable marketing more efficient. They conducted a study on "A multi stakeholder perspective on the adoption of good agricultural practices in the Thai fresh produce industry".

Kahlon and Tyagi, 1983,[9] Agriculture means activities aimed at the use of natural resources for human welfare, that means it includes all the primary activities of production. But, generally, it is used to mean production crops and livestock. Marketing refers to a series of activities involved in moving the goods or services from the producer to consumer. It includes all the activities involved in the creation of time, place, form and possession utility. According to Thomsen, the study of agricultural marketing comprises all the operations, and the agencies conducting them, involved in the movement of farm-produced foods, raw materials and their derivatives

Maoria and joshi, 1995, [14] In the marketing of agricultural commodities, the following market functionary's/marketing agencies are involved:

I-Producers: Most farmers or producers, perform one or more marketing functions. They sell the surplus either in the village or in the market. Some farmers, especially the large ones, assemble the produce of small farmers, transport it to the nearby market, sell it there and make a profit. This activity helps these farmers to supplement their incomes.

II-Middlemen: Middlemen are those individuals or business concerns which specialize in performing the various marketing functions and rendering such services as are involved in the marketing of goods.

III-Wholesalers: Wholesalers are those merchant middlemen who buy and sell food grains in large quantities. They may buy either directly from farmers or from other wholesalers.

IV-Retailers: Retailers buy goods from wholesalers and sell them to the consumers in small quantities. They are producers' personal representatives to consumers. Retailers are the closest to consumers in the marketing channel.

V-Itinerant Traders: Itinerant traders are petty merchants who move from village to village, and directly purchase the produce from the cultivators. They transport it to the nearby primary or secondary market and sell it there.

VI-Village Merchants: Village merchants have their small establishments in villages. They purchase the produce of those farmers who have either taken finance from them or those who are not able to go to the market. Village merchants also supply essential consumption goods to the farmers. They act as financiers of poor farmers. They often visit nearby markets and keep in touch with the prevailing prices.

Acharya and Agrawal, 2006, [3], philosophy of the establishment regulated markets is the elimination of malpractices in the system). The specific objectives of regulated markets:

I- To prevent the exploitation of farmers by overcoming the handicaps in the marketing of their products;

II- To make the marketing system most effective and efficient so that farmers may get better prices for their produce and the goods are made available to consumers at reasonable prices;

III-To provide incentive prices to farmers for inducing them to increase the production both in quantitative and qualitative terms.

IV-To promote an orderly marketing of agricultural produce by improving the infrastructural facilities;

RESEARCH METHODOLOGY-

Study Area

Sampling Procedure- A multi-stage convenient sampling was used for this study. The total sample size of farmer 152, middlemen 35 and the consumer is 52 respondents have been selected from that region.

Research Type-The type of research design followed for the study will be exploratory research design.

Data Collection- This research is mainly based on quantitative pattern; hence the data was obtained by means of structured questionnaires. The data will be collected from farmers by doing field visit. Total three set of questionnaire was designed name Farmer (sample-1), Consumer (sample2), Middlemen (sample-3). Farmers' perceptions of accepting new innovations at farms are very encouraging. In the first stage four blocks of the district were selected having the maximum acreage under the vegetable namely Chendipada, Angul, Banarpal & Athamalik. At the next stage 8 villages were selected from each of the selected blocks where the potentiality of the selected vegetable production exists namely Bhagilakata and Brahmanibil of Chendipada block, Karatapata and Pokatanga of Angul block, Talmul and Tubey of Banarapal block, Nuaghar and Nuagaon of Athamalik block.

DISTRICT	BLOCK	VILLAGES	FARMER RESPONDEN TS	CONSUMER RESPONDAN TS (BLOCKS)	MIDDLEMEN RESPONDEN TS (BLOCKS)

ANGUL	CHENDIPADA	BHAGILAKATA BRAHMANIBIL	23 18	16	6
	ANGUL	KARATAPATA POKATANGA	13 17	14	10
	BANARPAL	TALMUL TUBEY	16 26	10	9
	ATHAMALIK	NUAGHAR NUAGAON	14 25	12	10
TOTAL	4 BLOCKS	8 VILLAGES	152	52	35

SOURCE: DATA COLLECTION THROUGH FIELD SURVEY

Data Analysis Tools- Percentage analysis and Chi-square test has been performed to get the findings. With the help of Microsoft Excel all the data has been analysed.

Hypotheses-

Based on objectives and different variables, the following null hypothesis were formulated and tested for significance."

H1: Age of the respondent does not affect his/her performance towards of farmer in vegetable marketing.

H2: Gender of the respondent does not affect his/her performance towards of farmer in vegetable marketing.

H3: Education of the respondent does not affect his/her performance towards of farmer in vegetable marketing.

H4: Landholding for vegetable farming of the respondent does not affect his/her her performance towards of farmer in vegetable marketing.

H5: Total asset of the respondent does not affect his/her performance towards of farmer in vegetable marketing.

H6: Difference issues like quality and pricing of vegetables do not affect respondent's performance towards of farmer in vegetable marketing.

H7: Benefits aspects do not affect respondent's performance towards of farmer in vegetable marketing.

H8: Production of vegetables according to customer demand does not performance towards of farmer in vegetable marketing.

Analysis and Discussion-

Descriptive analysis and factor analysis were done to present the findings. Chi-square analysis was used to test the hypotheses.

Demographic Characteristics-

Age

SL No.	Categories	Percentage
1	Young Age (18-35 yrs)	25
2	Middle Age (36-50 yrs)	54
3	Old Age (above 50 yrs)	21

Gender

SL NO.	Categories	Percentage
1	MALE	73
2	FEMALE	27

Landholding for vegetable farming

SL No.	Categories	Percentage
1	Small Farm Size(up to 2 hectare)	28
2	Medium Farm Size(up to 5 hectare)	55
3	Large Farm Size(Above 5 hectare)	17

Education

SL No.	Categories	Percentage
1	Illiterate	35
2	Up to primary	43
3	High school and above	22

Chi Square Test-

Chi square tests were run for 8 factors against the performance towards of farmer in vegetable marketing. Each of the respondents given a score based on his/her performance towards of farmer in vegetable marketing. Five-point Likert Scale has been used here (5- Completely agree, 4- Agree to a greater extend, 3- moderately agree, 2- little agree, 1- very little agree). In this way chi square tests were run for performance towards of farmer in vegetable marketing.

Chi-Square Test Result-

SL No	Variables	No of cases	Chi-square value	P value
1	Age	152	14.88	0.267
2	Gender	152	12.58	0.258
3	Education	152	16.65	0.040
4	Land Holding for Vegetable Farming	152	17.21	0.039
5	Total Asset	152	9.65	0.008
6	Quality and Price of vegetables	152	8.23	0.566

7	Benefits	152	9.65	0.008
8	Production	152	19.95	0.180

In the above table shows results of the test indicated that there was a significant relationship ($p < 0.05$) between respondents' educational background, landholding for vegetable farming, total asset, and benefits aspects performance towards of farmer in vegetable marketing. On the other hand, 4 variables i.e. age, gender, quality and price of vegetables, and production have no significant relationship ($p > 0.05$) with performance towards of the respondents. Thus, out of 8 variables 4 shows significant variance for the performance towards of farmer in vegetable marketing and 4 variables remain insignificant.

Null Hypotheses	Result level of probability (0.05 of)
H1: Age of the respondent does not affect his/her performance towards of farmer in vegetable marketing.	Accepted
H2: Gender of the respondent does not affect his/her performance towards of farmer in vegetable marketing.	Accepted
H3: Education of the respondent does not affect his/her performance towards of farmer in vegetable marketing.	Rejected
H4: Landholding for vegetable farming of the respondent does not affect his/her her performance towards of farmer in vegetable marketing.	Rejected
H5: Total asset of the respondent does not affect his/her performance towards of farmer in vegetable marketing	Rejected
H6: Difference issues like quality and pricing of vegetables do not affect respondent's performance towards of farmer in vegetable marketing.	Accepted
H7: Benefits aspects do not affect respondent's performance towards of farmer in vegetable marketing.	Rejected
H8: Production of vegetables according to customer demand does not performance towards of farmer in vegetable marketing.	Accepted

Findings-

The results of the present study revealed that most of the age and gender of person playing an important role in vegetable marketing. Male farmers are more efficient than female farmers in vegetable marketing. Most of the farmers belonged to middle age group. As regard the education, the farmers were found to have attained up to primary schooling. The investigation indicated that farmers possessed medium size farm. The findings of this study revealed positive perception of vegetable marketing with significant relationships between educational background, landholding for vegetable farming, total asset, and benefits. Other factors like age,

gender, issues like quality and pricing of vegetables and production of vegetables have no explanatory significance in vegetable marketing.

CONCLUSION

It may be observed from the study that marketing of vegetables in Angul districts of Odisha involves different marketing channels consisting of growers, assemblers, commission agent, wholesalers and retailers. The vegetable grower sell their product immediately after harvest due to the perishability of the product, lack of cold storage, poor economic condition of the farmers and other factors. The findings of this study revealed positive perception of vegetable marketing with significant relationships educational background, landholding for vegetable farming, total asset, and benefits. This shows that the farmer of Angul district will have aware about performance towards in vegetable marketing. The concern, however, is that recent studies in the same geopolitical zone describe vegetable marketing. This gap between knowledge can be bridged by understanding the system and government provisions like provision of credit facilities, training on technicalities to farmers. There is a need to restructure primary co-operative marketing societies particularly from the point of view of betterment of economic standards of growers which solely depends upon remunerative farm production. The institutional approach to create adequate market access to the farmers can be best realized by strengthening co-operative societies. There has been greater emphasis on large centralized whole sale markets leading to the neglect of grass root market institutions and functionaries. In the case of local marketing conditions, the producer share in consumers' rupees is comparable to the local vegetable marketing channels of Angul district of Odisha. The addition of the middleman in the Angul vegetable marketing channel leads to the reduction of the marketing efficiency of the channels. The concept of the vegetable marketing can be developed with a view of the benefit of both farmers as well as ultimate consumers, and it also plays an essential role in increasing farmers income, generate employment opportunities for the local peoples, and improve the livelihood of the farmers which leads to the development of Indian economy as a whole.

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