A STUDY ON PRODUCERS' SATISFACTION ON DIFFERENT MARKETING CHANNELS FOR MAJOR VEGETABLES IN ODDANCHATRAM TALUK OF DINDIGUL DISTRICT

By

N.KUMARASAMY, B.Sc. (Ag.)

I.D.No. 06-608-014

DEPARTMENT OF AGRICULTURAL AND RURAL MANAGEMENT CENTRE FOR AGRICULTURAL AND RURAL DEVELOPMENT STUDIES

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COIMBATORE-641 003

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Thesis submitted in part fulfillment of the requirements for the degree of

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CERTIFICATE

This is to certify that the thesis entitled **"A STUDY ON PRODUCERS' SATISFACTION ON DIFFERENT MARKETING CHANNELS FOR MAJOR VEGETABLES IN ODDANCHATRAM TALUK OF DINDIGUL DISTRICT"** submitted in part fulfillment of the requirements for the degree of **MASTER OF BUSINESS ADMINISTRATION** to the Tamil Nadu Agricultural University, Coimbatore is a record of bonafide research work carried out by **Mr. KUMARASAMY.N** under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles and that work has not been published in part or full in any scientific or popular journal or magazine.

Place: Coimbatore
Date:

(Dr. N. RAVEENDARAN)
Chairman

Approved by

Chairman : Dr.N.RAVEENDARAN

Members : Dr.K.MAHENDRAN

: Dr.T.R.SHANMUGAM

ACKNOWLEDGEMENT

I am grateful to express heartfelt deep sense of gratitude, indebtedness and sincere thanks to my chairman ***Dr.N.RAVEENDARAN****, Professor, Domestic Export Market Intelligence Cell, Tamil Nadu Agricultural University, Coimbatore, for his impeccable guidance, cordial treatment, steadfast inspiration and constant encouragement bestowed on me throughout the progress of my Post graduation programme.*

With deep respect and esteem regards, I owe my indebtedness and sincere thanks to ***Dr.K.MAHENDRAN****, Associate Professor, Department of Agricultural Rural and Management, and* ***Dr.T.R.SHANMUGAM****, Professor, Department of Agricultural and Economics, the members of the advisory committee for their timely help, support and inspiring guidance.*

My deepest sense of gratitude to ***Dr.C.KARTHIKEYAN,*** *Associate Professor* ***Miss.MOGHANA LAVANYA****, Assistant Professor and* ***Dr.A.ROHINI,*** *Associate Professor for their constant moral support and understanding.*

I extend my heartfelt thanks and obeisance to ***Dr. VENKATESA PALANISAMY,*** *Associate Professor,* ***Mrs.HEMALATHA****, Assistant Professor, all the faculty members and all non teaching staffs of Department of ARM, TNAU for their care and help provided for me for the two years of my degree program.*

I would like to express my sincere thanks to ***Dr. C.SEKHAR****, Professor and Head, Department of Agricultural Rural Management, Tamil Nadu Agricultural University, Coimbatore.*

I am grateful to ***Spencer's Retail Limited, Bangalore****, for sponsoring me this project.*

I deem it a great pleasure to ***Mr. V.B. ASHOK KUMAR****, National Head, F and V,* ***Mr.BIJUPANIKAR****, National Head, for their valuable guidance, generous help and support during my study period.*

Personally I am grateful to all my classmates for their support for my study.

I am in dearth of words to express my gratitude and indebtedness to my ***Parents and Sisters*** *for their everlasting love, affection showered on me which encouraged in achieving my aspiration successfully.*

(KUMARASAMY.N)

ABSTRACT

A STUDY ON PRODUCERS' SATISFACTION ON DIFFERENT MARKETING CHANNELS FOR MAJOR VEGETABLES IN ODDANCHATRAM TALUK OF DINDIGUL DISTRICT

Name of the student : **KUMARASAMY.N**

I.D.No : 06-608-014

Name of the chairman : **Dr.N.RAVEENDARAN, Ph.D.**
Professor,
Agricultural and Rural Management,
Department of Agricultural and Economics,
Tamil Nadu Agricultural University,
Coimbatore – 641003

2008

The study was undertaken for spencers retail Ltd to estimate the producers' satisfaction on different marketing channels for major vegetables in Oddanchatram taluk of Dindigul district.

The specific objectives of the study are:

i. to analyze the marketing decision behaviour of farmers with regard to vegetables;

ii. to estimate the marketing cost and margins of different intermediaries in vegetable marketing;

iii. to arrive at the marketing efficiency of different channels; and

iv. to develop suitable strategies for efficient marketing of selected vegetable

Oddanchatram in Dindigul district of Tamil Nadu forms the study area. It is purposively selected since the company proposed to study the producers' satisfaction on different marketing channels of bhendi, brinjal, tomato, onion and and chillies marketed from Oddanchatram. Ten villages were selected by simple random sampling

method namely Ambiligai, Devathur, Kappalpatti, Kaveriyammapatti, Athikombai, Kathaiyerumbu, Muthunayakkampatti, Moolachatharam, Vadakadu and Atthappagoundan pudur. From the each village, ten farmers were selected thus, altogether a sample of 100 farmers were selected. To trace the market practices, marketing channels, role of intermediaries and price spread, 10 commission agents, 10 wholesalers, and 10 retailers were selected by simple random sampling method from the Oddanchatram taluk of Dindigal district.

The interview schedule for the farmers covered aspects such as general characteristics, post harvest operation etc, details on marketing of bhendi, brinjal, tomato, onion and chillies problems in marketing of the vegetables etc., In the interview schedule for wholesalers, retailers and commission agents, their mode of operation, areas to which produce was distributed, marketing practices and for of bhendi, brinjal, tomato, onion and chillies.

In the study, majority of the sample farmers belonged to the age group of 46 to 55 years who constituted 35.00 per cent of them. Majority of the farmers had secondary level of education (37 per cent). Majority of the farmers belonged to the category of 6-10 ac farms accounted for 40.00 per cent. Agriculture was the primary occupation for majority of sample farmers (74 per cent). Majority of the farm families belonged to the income category of Rs 0.51 to 1.00 lakh (39.00 per cent). 40 percent of the farmers had an experience of less than 15 years. Tomato as a single vegetable crop was cultivated by 13 percent of the farmers. About half of the sample farmers (42.00 per cent) have grown vegetables in the month of June -July. Majority of the farms had open well irrigation (40.00 per cent). Majority of the sample wholesalers belonged to the age group of 31- 45 years (50.00 per cent) Majority of the wholesalers had secondary level education (40.00%) and retailers (50.00 percent) Majority of the sample wholesalers had 16-30 years experience in vegetable trade.

There were two marketing channels in Oddanchatram block. The Channels are:

Channel I : Farmer – Commission agent – Wholesaler - Retailer – Consumer

Channel II : Farmer – Commission agent - Retailer – Consumer

Nearly 70 percent of the farmers sold vegetables through commission agents who arranged sale on behalf of the farmers. In price spread analysis, since the farmer sells his

produce through commission agents in the both the channels, the marketing cost incurred by the farmers of these crops were same for both the channels. The marketing cost of onion for the farmers was higher than the other vegetables**.** It is significant that wholesalers were involved only in channel-1 and marketing cost incurred by the wholesaler was high in tomato and onion. The cost of transport was higher in case of tomato while handling loss was found to be more in onion.

In channel-1 wholesalers played a major role and grading was undertaken by them. In channel-2, grading was done by retailers due to the absence of wholesale traders. Costs of other activities remained to be one and the same in both the channels. Handling loss was found to be high in all the vegetables and it was maximum in tomato and onion followed by chillies. It was minimum in brinjal. In the case of channel 2, wholesalers were eliminated and retailers' purchased produce directly from commission agents. So here grading was done by retailers itself. So marketing cost incurred by the retailers was higher in Channel 2. In channel-1 he had a reduced margin comparing channel-2 due to the presence of wholesaler in channel-1. In channel-1 the value addition of bhendi was highest with Rs 8.24 followed by channel-2 with Rs 7.56, which accounted for 41.40 per cent and 39.33 per cent of consumers' price respectively. Since wholesalers were absent in channel-2, and the retailers were getting produce from farmers through commission agents, they obtained a higher margin. The channel-1 the value addition of brinjal was highest of Rs 6.40 followed by channel-2 with Rs 5.66. In channel-1 the value addition of onion was the highest with Rs 10.85 while it was Rs 8.34 in channel-2, The value addition of tomato was Rs 7.55 and 4.62 per kg while it moved from producer to consumer in channel-1 and 2 respectively. In case of green chillies value addition was 53.80 percent and 46.11 percent of the consumers' price in channel-1 and 2 respectively. Among the 2 channels studied, channel 2 was found to be the most efficient channel with the (marketing efficiency) lowest Acharya and Agarwal Index, highest Shepherd's Index where commission agents sold produce directly to retailers by absence of wholesalers. Channel-1 was the inefficient one where commission agents sold through wholesalers.

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CHAPTER I

INTRODUCTION

The interaction and interrelationship between vegetable production and marketing have acquired new dimensions, posing new challenges to management of vegetable production and organization of marketing support system for it. If the distribution network channel is not efficient to distribute the produce-in case of vegetables-very quickly, production aspect will loose its significance. Marketing of fresh vegetables create special problems owing to their perishable nature and lack of cold storage facilities. The supply of most vegetables is seasonal and their production is concentrated in few pockets in favoured situation of soil and climatic conditions. Because of long distances that are often separated from producing areas from that of consuming centers, a considerable proportion of vegetables deteriorate in transit, the extent of spoilage being sometimes noticed as high as 40 percent. It might be due to defective method of picking, packing, handling and inefficient way of transportation. An efficient marketing system becomes very important in case of fresh vegetables which consumers have to buy on a day to day basis. The marketing costs and margins of the wholesalers and retailers dealing with vegetables are generally higher than those traders dealing with other agricultural commodities. Hence, it is high time to study the market organization and various market functionaries involved in marketing of vegetables.

Though, retailers are positioned as final intermediaries in marketing of vegetables, they play a major role in providing fresh vegetables to the end consumers. Realizing the vast scope available in the retail marketing, many Indian corporates such as RPG group (Spencers), Reliance Industries ltd, ITC, Pantaloon and Aditya Birla group etc., have entered in retailing of fresh vegetables.

Increase in awareness for the quality produce and the need for the choice of the varities in the produce both arising from increasing purchasing power of the consumers also paved the way for entry of corporate giants in the retail marketing of fresh vegetables.

Retailing is expected to go through tremendous changes in India in this millennium. As the retail revolution in India gathers momentum, the changes will throw up a win-win situation for all the participants in the process viz., producers, suppliers, retailers and consumers.

Table 1.1Growth of Retail Outlets in India (in millions)

S.No.	Number of Retail Outlets			
	Year	Urban	Rural	Total
1	1978	0.58	1.76	2.34
2	1984	0.75	2.02	2.77
3	1990	0.94	2.42	3.36
4	1996	1.8	3.33	5.13
5	2005	13.4	7.2	20.6

(Source: Images-KSA Consumer Outlook Study, 2005)

In a period of twelve years (1984-96), the number of retail outlets has almost doubled from 2.77 million to 5.13 million and the growth has been very rapid in rural areas compared to the urban areas (Table 1.1).

According to Confederation of the Indian Industries (CII), the organized retail industry in India is expected to have a market size of at Rs. 1000 billion by 2010 at the rate of 25 to 30% growth every year. The current size of the organized retail

market according to various estimates is about Rs. 350 billion. (Images-KSA Consumer Outlook Study, 2005)

In organised retailing vegetables occupy an important place. It could be noted that area and production of vegetables are increasing over years in India and the details could be seen in Table 1.2.

Table 1.2. Overall Area and production of Vegetables in India

(Area – m.ha)

(Production – m.t)

Particulars	**2003-'04**		**2004-'05**		**2005-'06**	
	Area	**Production**	**Area**	**Production**	**Area**	**Production**
Vegetables	5.9	84.8	6.1	91.2	6.3	99.4

(Source – National Horticulture Board, 2005)

In this context, Spencers Retail India Ltd (RPG Group) has come up with establishment of consolidation centers and has planned to provide farm management services to the farmers. Under this, they want to provide all technical advice besides farm equipment. It will help them to get credit and acquire quality produce. To make this more effective the firm should acquire a good understanding of supply chain of vegetables. A study of supply chain identifies the consumers' requirements of produce and while working backwards it helps the farmers to grow the specified crops, varieties etc., such that he is able to harvest and sell the market driven produce.

Problem focus

The marketing section of Spencer's Ltd procures vegetables from Hoskote market of Bangalore. So far they are spending more amounts on procurement and logistics. In order to minimize such expenses the firm is planning to make Oddanchatram as one of the main procuring centre. In that case it is necessary to

study the marketing behaviour of farmers besides analyzing the different marketing channels for major vegetables like bhendi, brinjal, tomato, onion and chillies.

In this context, the present study was undertaken with an overall objective of knowing producers' satisfaction on different market channels for major vegetables viz., bhendi, brinjal, tomato, onion and chillies etc., being marketed at Oddanchatram market of Tamil Nadu.

Objectives of the study

The overall objective of the study is to find out **producers' satisfaction on different marketing channels for major vegetables in Oddanchatram taluk of Dindigul district.**

The specific objective of the study area are:

i. to analyze the marketing decision behaviour of farmers with regard to vegetables;
ii. to estimate the marketing cost and margins of different intermediaries in vegetable marketing;
iii. to arrive at the marketing efficiency of different channels; and
iv. to develop suitable strategies for efficient marketing of selected vegetables.

Scope of the study

The study will help the case firm to analyze the different marketing channels in terms of cost, margin and profit which will be useful to fix the price of vegetables at a price lower than the middlemen for consumers and a higher price for producers, so that the case firm can get more contact farmers for supplying vegetables and also get more consumers.

Limitation of the study

The study is based on the primary data collected from the sample respondents by survey method. As none of the farmer maintained proper farm records, they had to furnish the information from their memory and hence the collected data were subjected to recall bias. The information collected from the market intermediaries was also based on their memories. However, every effort was taken to minimize the bias by including questions that facilitated cross checking. Since the study was limited to a particular area, the utility of the findings are also limited for general applications. Hence, the findings of the study may be considered appropriate for similar situation prevailing else where but extra care should be taken while making generalizations.

Organization of the thesis

The thesis has been presented under the following chapters.

Chapter I : Introduction: problem focus, objectives, scope and limitations of the study are presented.

Chapter II : Concepts and Review: The concepts used in the study and brief reviews of past studies are given.

Chapter III : Design of the study: The research design and the analytical techniques used are discussed.

Chapter IV : Description of the study area: The agro climatic features of the study area and brief review about the case firm are presented.

Chapter V : Results and Discussion: The findings of the analysis are presented and discussed.

Chapter VI : Summary and Conclusion: A summary of the results of the study is presented to draw inferences and to make policy suggestions.

CHAPTER II

CONCEPTS AND REVIEW

Review of concepts and past studies related to the present study will give a holistic picture and better understanding of the selected research problem in a proper perspective. Hence in this chapter, the relevant concepts reviewed are presented.

1. Supply chain
2. Market
3. Marketing
4. Agricultural marketing
5. Retailing
6. Commission agent
7. Wholesaler
8. Retailer
9. Marketing channel
10. Marketing cost
11. Marketing margin
12. Price spread
13. Marketing efficiency

SUPPLY CHAIN

Christopher (1993) reported that supply chain is an intricate network of suppliers, distributors and customers who share carefully managed information about demand, decisions and performance, and who recognize that success for one part of the supply chain means success for all.

Chandra (1994) reported "Don't think of it as a chain. Think of it as an intricate network of suppliers, distributors and customers who share information. Your business's success depends on it."

According to **Handfield** (1999) supply chain management is the combination of art and science that goes into improving the way your company finds the raw components it needs to make a product or service, manufactures that product or service and delivers it to customers.

According to **Kotler** (2000) supply chain management starts earlier than physical distribution: attempts to procure the right inputs (raw materials, components, and capital equipment), convert them efficiently into finished products; and dispatch them to the final destinations.

According to **Raghuram** (2000) supply chain management (SCM) is managing the flow of goods, services and information between suppliers, manufacturers, wholesalers, distributors, stores, consumers and end users.

In the present study supply chain is defined as the complete network or links involved right from farm to the consumers for the produce.

MARKET

The word market is derived from Latin word "marcatus" which referred merchandise (or) place where business is conducted.

Bressler and **King** (1980) defined market as an area of setting within which producers and consumers were in communication with one another, where supply and demand conditions operated, and title of goods were transferred.

Acharya and Agarwal (1987) referred market as a social institution which performs activities and provides facilities for exchanging commodities between buyers and sellers.

Mike Moffatt (2001) defined market as any place where the sellers of a particular good or service can meet with the buyers of that goods and service where there is a potential for a transaction to take place. The buyers must have something they can offer in exchange for there to be a potential transaction.

Kotler (2005) stated that market consists of the entire potential consumers sharing a particular need or want that might be willing to and able to engage in exchange to satisfy that need or want.

Later Kotler (2007) referred market as the sellers end goods, services and communication (ads, direct mail) to the market; in return they receive money and information (attitudes, sales data).

In the present study market is considered as an area where exchange of commodities take place with some negotiation in price.

MARKETING

Patel and Prabharan (1980) reported that the focus of all the marketing activities is to satisfy the consumers. A thorough understanding of consumer awareness and preference is essential in the modern marketing. This helps in identifying different market segments. Further, this will also help a firm to a more active role in anticipating consumer needs and wants in shaping their desires and aspirations and solving many of the consumers' day to day problems in purchase.

Thomas (1984) defined marketing as the total function of bringing the goods and services from the producer in usable and finished state to the ultimate customer.

Subrahmanyam *et al*., (1985) defined marketing as the process of anticipating and creating consumers' needs and wants and of organizing all the resources of the company to satisfy them.

Peter and Donelly (1986) defined marketing as the process of planning and executing conception, pricing, promotion and distribution of ideas, goods and services to create the exchanges that would satisfy the individuals and organizational objectives.

Basotia (2001) defined marketing as a recent branch of management activity which dealt with making goods and services available to the consumer in such a way that it satisfied his requirements in the best possible manner.

According to **Rajoo** (2002) marketing is considered as all the activities involved in creating demand and exchanging the produce by satisfying needs and wants of the consumers.

Kotler (2004) defined marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others. He defined marketing management as the art and science of choosing target markets and getting, keeping and growing customers through creating, delivering, and communicating superior customer value.

In the present study marketing is considered as the performance of all business activities that direct the flow of produce from the farmer to the consumers**.**

AGRICULTURAL MARKETING

Irwin (1962) remarked that agricultural marketing would include all the services, intangible and physical, rendered between farmers and ultimate consumers. The functions would include

i) Pricing plus financing and risking

ii) Providing products to consumer in place, form and time, and

iii) Physical functions that would include mainly transporting, processing, storing and grading of farm products.

Khols (1967) defined agricultural marketing as the performance of all business activities involved in the follow of goods and services from the point of production till they are in the hands of the ultimate consumer.

According to **Spinks** (1972) marketing of agricultural commodities included all operations in the movement of food and raw materials from farm to final consumers and also included aspects of organization of raw materials, supply to processing industries, marketing of processed products and assessment of demand.

Singh (1984) remarked that agricultural marketing involved a series of operations, processes and agencies in the movement of food and raw materials from the farms to final consumers and the effect of such operations on produces and middlemen. These included buying, assembling, processing, packing, transporting, sorting, financing, risk bearing and selling.

Sivakumar (1996) referred agricultural marketing as one which included all business activities that would help in the flow of agricultural commodities from the point of initial production until it reaches the exporters in the desired form, at the desired place and time.

Acharya and Agarwal (2005) Agricultural marketing is the study of all the activities, agencies and policies involved in the procurement of farm inputs by the farmers and the movement of agricultural products from the farms to the consumers.

In the present study agricultural marketing is defined as all activities that facilitate flow of agricultural produce from farm to ultimate consumer.

RETAILING

Bolen (1982) referred retailing is the summation of all activities which result in the offering for sale of goods/ or services to the individuals and / or organizations for the purposes of ultimate consumption.

Lucas (1997) defined retailing as all activities involved in the marketing of goods and services directly to the consumers for their personal, family or household use.

Varshney (2000) explained retailing as the final connection in the marketing channel that brings goods from manufacturers to consumers. In other words, retailing is the combination of activities involved in selling or renting consumer goods and services directly to ultimate consumers for their personal or household use.

In this study, retailing is referred to as the selling produce to the final consumers in required quantity and quality.

RETAILER

According to **Vetriselvam** (1978) a retailer is one of the intermediaries either private or cooperative, buying from wholesaler or producers directly and selling the same to the ultimate user.

Kotler (2004) defined retailer as a business enterprise whose sales volume primarily came from retailing, which included all activities involved in selling goods or services directly to final consumers for their personal non business use.

Weitz (2007) referred retailing as a set of business activities that adds value to the products and services sold to consumers for their personal or family use.

In the present study, retailer is defined as an intermediary who purchased the produce from the vendor and wholesaler and sold it to the consumers at the best price, which included a marketing margin for him.

COMMISSION AGENT

Johl and **Kapur** (1981) defined commission agent as a middleman who usually exercised physical control and who negotiate the sale of goods he handled.

Selvaraj (1987) referred to commission agent as one who did not have the title of goods but merely negotiated price for the sale of goods that he handles.

In the present study, commission agent is defined as a person who organises sale of the produce of the farmers to the wholesaler or any other trader on a specified commission charges.

WHOLESALER

Vachhajahi (1976) explained that wholesaler might be an institutional agency or private organization. They might be one or more in a given area. They distributed principal products through a number of retailers and in some cases, they did retailing by themselves.

Kotler (2004) defined the wholesaler as one who carried all the activities involved in selling goods or services to those who purchased for resale or business use.

Weitz (2007) referred wholesaler as a merchant establishment operated by a concern that is primarily engaged in buying, taking title to, usually storing, and physically handling goods in large quantities, and reselling the goods (usually in smaller quantities) to retailers or to industrial or business users.

In the present study, wholesaler is defined as an intermediary who purchased the produce from farmers or village merchant and sold it to the retailer.

MARKETING CHANNEL

Khols and **Uhl** (1980) defined marketing channel as a path over which a commodity would pass as it moved from the farmers to the hands of consumes.

According to **Cundiff** and **Still** (1985) marketing channel would indicate the path traced in direct or indirect transfer of title to a product as it moved from a producer to ultimate consumer or industrial user.

Bercowitz *et al.*, (1989) described marketing channel as group of individuals and firms involved in the process of making a product or service available for use by consumers or industrial users.

Saini and **Bhathi** (1995) referred marketing channel as the sequence of agencies through which a commodity would pass during the process of marketing.

Bell (1966) defined marketing channel as the structure of inter company organization units and extra company agents and dealers, wholesale and retail, through which a commodity or a service would be marketed.

According to **Riaz** (2002) marketing channel is defined as a path traced in the movement of a good from the primary producer to ultimate consumer

Kotler (2007) remarked that marketing channel could be viewed as a set of interdependent organization involved in the process of making product or service available for use or service consumptions.

In the present study marketing channel is defined as a path traced in the movement of fruits and vegetables from the primary producer to ultimate consumer.

MARKETING COST

Jain (1971) defined marketing cost as the actual expenses incurred in bringing goods and services from the producers to the consumers by the intermediaries.

Dhull and **Gangwar** (1975) defined marketing cost as the actual costs incurred by each agency involved in the marketing channel for performing their

functions. This included transportation, loading and unloading, weighing, cleaning, market fee, commission, sales tax, processing cost and wastage.

Acharya and **Agarwal** (1987) defined marketing cost as the cost involved in moving the produce from the point of production to the point of consumption i.e., the cost of performing the various marketing functions and of operating various agencies.

According to **Sivakumar** (1996) marketing cost would include all those expenditure incurred by the farmers and all intermediaries in bringing out the produce from the farm gate to the exporters. It included commission charges, transport, storage cost, loading, unloading, and weighing and establishment charges.

Ramalinga Rajoo (2002) defined marketing cost as the actual expenses incurred by farmers and other agencies such as pre harvest contractors, wholesalers, secondary wholesalers, retailers for performing their functions in the movement of produce from the farmers to the final consumers.

In the present study, marketing cost is defined as the actual expenses incurred by farmers and other agencies such as local trader, wholesalers and retailers for performing their functions in the movement of fruits and vegetables from the Oddanchatram market to the final consumer.

MARKETING MARGIN

Khols and **Uhl** (1980) defined marketing margin as the difference between the amount consumers paid for the final products and the amount producer received and all the marketing costs.

Tomilyao and **Adekany** (1982) opined that marketing margin would usually refer to net margin, which was the difference between price spread and marketing cost.

Ramamoorthy and **Naidu** (1992) argued that marketing margin represented the income to the marketing agencies who might themselves paid for labour and equipment and a relatively small proportions as a reward for management's expertise and risk bearing.

According to **Saraswat** and **Vaidya** (1995) the marketing margin would include all the costs of picking, assembling, grading, packing, transport, processing, storage, wholesaling and retailing.

According to **Kerur** *et al.*, (1998) marketing margins would measure the gap between the net price received by the cultivator and the price paid by the consumer.

In the present study, marketing margin is defined as the profit earned by each agency in the marketing of fruits and vegetables.

PRICE SPREAD

According to **Singh and Balishter** (1981) the price spread referred to the difference between the prices received by the producer for an equivalent quantity of farm products. This spread or margin included all types of costs of moving the produce from the point of production to the place of consumption.

Acharya and **Agarwal** (1994) defined price spread as the gross margin of marketing in the marketing of farm commodities and would be measured as absolute or percentage differences in the price paid by the consumer and the price received by the farmers.

Sharma and **Tewari** (1995) described price spread in relation to the agricultural commodities as the difference between the price paid by the ultimate consumer and price received by the grower for an equivalent amount of farm produce. This spread would consist of marketing cost and marketing margin of intermediaries.

According to **Bhatia** (1996) price spread of a commodity would be the magnitude of difference between the price received by the primary producer and the price paid by the ultimate consumer.

According to **Venkataramana and Gowda** (1996) price spread is one of the important measures of market efficiency which would indicate the share of the producer in the consumer's rupee. It would also indicate the shares of various market intermediaries in the consumer's rupee for the services rendered by them in channeling the commodity from the producer to the consumer.

According to **Kumar** *et al.,* (1997) the price spread would refer to the differences between the price paid by the consumer and the price received by the producer per unit of a commodity.

Maheswarappa *et al.,* (1998) described price spread as the difference between the price paid by ultimate consumer and price received by the grower for an equivalent amount of farm produce.

According to **Ramalinga Rajoo** (2002) price spread is defined as the difference between price paid by the consumer and net price received by the producer.

In the present study, price spread is defined as the difference between price paid by the consumer and net price received by the producer.

MARKETING EFFICIENCY

Shepherd (1962) evaluated marketing efficiency as the ratio of total costs to the total value of the products marketed expressed in percentage. The higher the ratio, the higher would be the efficiency and vice-versa.

According to **Joshi and Sharma** (1979) economic efficiency of market would be measured by minimization of price spread. The larger the net price spread, the greater would be the inefficiency in the marketing system and vice – versa.

Khols and Uhl (1980) defined marketing efficiency as the ratio of market output (satisfaction) to the marketing input (cost of resources). An increase in this ratio would represent improved efficiency and vice-versa. A reduction in the cost for the same level of satisfaction or an increase in satisfaction at a given cost would result in an improvement of efficiency.

Ramamoorthy (1982) opined that marketing efficiency must be determined by the marketing margin received by the each intermediary and their proportion to the consumer's price.

Jaya Anand (1991) in her study defined marketing efficiency as the maximization of consumers satisfaction with least cost incurred in providing the satisfaction.

In the present study effectiveness of market to perform various functions is reckoned as marketing efficiency.

Review of Past Studies

Arshad (1983) evaluated the efficiency of coconut marketing system in Malaysia and observed that the efficiency suffered from various inefficiencies in the form of imperfection that existed in market structure, practices and performances. Farm level constraints and lack of marketing facilities had resulted in low quality produces which in turn induced the middlemen to indulge in unethical trading practices.

Srivastava (1984) in his study on price spread showed that the retailers' share had have increased with an increase in consumer's price, whereas the producer share decreased with an increase in the consumer's price. He concluded that the benefit derived from an increase in the consumer price did not go to the producers. Instead it is absorbed by the retailer.

Nadwadkar (1991) in his analysis on marketing efficiency and price spread, reported that the marketing cost incurred are grading charges, packing charges, packing materials, transport, weighing, commission and miscellaneous expenses. They regarded higher proportion of intermediaries' profits as the indicators of inefficiency of the marketing system.

Narayanan (1991) in his study indentified two marketing channels for cut flowers produced in Bangalore. The price spread in marketing of cut-flowers through one channel revealed that producer received a maximum of 59.26 per cent in tuberose and a minimum of 40.0 per cent in rose as their share of consumer's rupee. In second channel, the share of producers ranged from 16.76 per cent in roses to 31.28 percent in tuberose.

Renuka *et al.*,(1991) revealed that nearly 62 percent of respondents sold their output immediately after harvest, due to lack of storage facilities to meet present consumption. She found that the major problems in marketing of agricultural produce were lack of infrastructure facilities in market yard, poor grading and standardization of products, unhelpful attitudes of commission agents and purchasers, marketing authorities' maladjustments, etc. Due to illiteracy among farmers, they are unable to maintain and follow crop accounts and marketing regulations.

Bagde et *al.,* (1996) in his study on Dynamics of marketing of selected fruits in Nagpur, used Shepherd's formula in working out the marketing efficiency. He identified two marketing channels, one in which producer, pre-harvest contractor, commission agent and retailer were involved, and in the other, producer, commission agent and retailer were involved. He found that producer's share in consumers' rupee was just 39.34 percent in the case of apples, whereas retailer gets 41.06 percent of the share. He found that marketing efficiency was more for seedless grapes compared to apples and mangoes in Nagpur.

Devaraja (2000) in his study on channels and price spread in fruits and vegetables marketing in Mysore district, Karnataka identified five channels of marketing of horticultural produce. He found that commission charges dominated the marketing cost upto an extent of 65 percent followed by transportation cost. He also found that pre-harvest contractors prevail in fruit marketing and urgent steps are needed to stop this practice by improving the market conditions.

Ramalinga Rajoo (2002) analysed the price spread in supply chain of sapota from Chitradurga district of Karnataka. He has used Acharya and Agarwal's formula and Calkin's index to evaluate the efficiency of marketing channel. He has concluded that the marketing efficiency was very high in the case where the farmers sold their produce directly to the Rallis Kisan Kendra**.**

CHAPTER III

DESIGN OF THE STUDY

The research design is one of the most important aspect which decides the success of any research. It would help the researcher to draw meaningful and logical inferences. The procedure followed in the selection of the study area, sampling, selection of the respondents, collection of data and the various tools of analysis used are presented in this chapter.

Selection of the study area

The present study was conducted to analyse the market practices followed in Oddanchatram wholesale vegetable market. Hence the study area for the research work Oddanchatram block of Dindigul district was purposively selected. List of villages with area and production of vegetables was collected from the office of Assistant Director of Agriculture. From this list ten villages were selected by simple random sampling method. The selected villages are Ambiligai, Devathur, Kappalpatti, Kaveriyammapatti, Athikombai, Kathaiyerumbu, Muthunayakkampatti, Moolachatharam, Vadakadu and Atthappagoundan pudur.

Selection of farmers

From each selected village, ten farmers who cultivated vegetables during 2006-07 were selected by simple random sampling. Thus, altogether a sample of 100 farmers spread over ten villages were selected.

Selection of Wholesalers and Retailers

In Oddanchatram wholesale vegetable market there are more than 100 wholesalers and 80 Retailers. Among them ten wholesalers, ten retailers besides 10 commission agents were selected at random to study marketing behaviour and the price spread. Thus, the study contained a total sample of 100 farmers, ten wholesalers, ten retailers and ten commission agents.

Data collection

The primary data required for the study were collected through personal interview method with the help of a comprehensive pre-tested interview schedule. Three separate interview schedules were prepared for the farmers, wholesalers and retailers. The interview schedule for the farmers covered aspects such as general characteristics, post harvest operation like cleaning, grading, packaging practices, transportation etc,besides the details on marketing of onion, chillies, tomato, bhendi and brinjal problems in marketing of the vegetables etc., In the interview schedule for wholesalers and retailers, their mode of operation, areas to which produce was distributed, marketing practices for onion, chillies, tomato, bhendi and brinjal etc., were collected. Through the interview schedule for retailers their mode of operation, the system of transport, problem in transportation of vegetables etc., were collected. Information about cost incurred and profit realized by different market functionaries were also collected to estimate the price spread. Secondary data for the study was collected from the offices of the Assistant Director of Agriculture in Oddanchatram and Assistant Director of Horticulture in Dindigul. The data collected were tabulated, processed and subjected to statistical analysis to draw meaningful conclusions.

Study period

The reference year for the study was the agricultural year 2007 and the collection of data from the sample respondents was taken up during the month of March 2008.

Tools of analysis

1. Percentage analysis

Percentage analysis was used to study the general characteristics like age, education, annual income, occupation, experience, cropping pattern, source of irrigation and size of holding of farmers.

2. Price spread analysis

Price spread in general, is referred to as the difference between price paid by the consumer and the price received by the growers/farmers for an equivalent unit of the commodity.

Price spread analysis estimated the share of different market functionaries in the consumer's rupee and this would facilitate the understanding of the relative efficiencies, otherwise existing in alternative channels of marketing. Concurrent margin method was used to analyze the price spread since concurrent margin is one, which takes into account the prevailing prices at successive stages of marketing at a given point of time. The analysis involved computation of different marketing costs and profit margin at each stage and their expression as a percentage to the consumer's rupee. Various costs incurred in the marketing process were considered for each of the identified channels and price spread was worked out. The profit margin for each market functionaries in the market channel was computed by subtracting the price paid and the marketing cost incurred by the intermediary from the price received by the intermediary on the sale of the commodity. Thus marketing costs and marketing margins were distinguished and the price spread was worked out.

3. Estimation of Marketing Efficiency

Marketing efficiency is the degree of market performance. The movement of goods from producers to the ultimate consumers at the lowest possible cost consistent with the provision of services desired by the consumer is termed as efficient marketing. The various measures used to measure the marketing efficiency are detailed hereunder.

(i) Acharya and Agarwal's formula

They compared relative efficiency of different marketing channels. In the present study, Acharya and Agarwal's index was used to compare relative efficiency of different markets by using the following formula

$$E = (O / I)* 100$$

E = Marketing efficiency expressed in percentage

O = Value added to output in marketing system

I = Inputs used in the marketing process

Higher the percentage, higher would be the marketing efficiency and vice versa.

ii) Shepherd's Formula

Shepherd suggested that the ratio of total value of goods marketed to the marketing cost could be used as a measure of marketing efficiency. The higher the ratio, higher would be the efficiency and vice versa.

This can be expressed in the following form.

$$ME = [(V/I) - 1] \times 100$$

ME = Index of Marketing Efficiency

V = Value of goods sold

I = Total marketing cost

4. Garrett's Ranking Technique

This technique was used to rank the problems faced by the farmers in vegetable cultivation and marketing as well as grade preference of dealers. In the Garrett's scoring technique, the respondents were asked to rank the problems in order of importance and these ranks were converted into percent position by using the formula.

$$\text{Per cent position} = \frac{100\,(R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = Rank given to the i^{th} attribute by the j^{th} individual

N_j = Number of attributes ranked by the j^{th} individual

By referring to the Garrett's table, the percent positions estimated were converted into scores. Thus for each problem, the scores of the various respondents were added and the mean value was estimated. The mean thus obtained for each of the problems were arranged in a descending order. The problem with the highest mean value was considered as the most important one and the others followed in order.

CHAPTER - IV

DESCRIPTION OF THE STUDY AREA

The results of any study could be better interpreted when the background information on the agricultural sector of the study area is available. In this chapter, a bird's eye view of the study area is being presented.

LOCATION

Oddanchatram is located between 10°28'48" of Northern latitude and 77°45'0" of Eastern longitude. This block is located in central part of Dindigul district and the district is located in Central part of Tamil Nadu and is bounded in the North by Karur district, in South by Madurai district, in the west by Coimbatore district and in the East by Trichy district.

TOPOGRAPHY

Oddanchatram block of Dindigul district is a plain and foot hill of Kodaikanal block and river Naukangi is flowing through Oddanchatram block.

CLIMATE AND RAINFALL

Average annual rainfall of the Block is 839.15 mm. Rainfall received during North east monsoon is the maximum (462.5mm) followed by winter rainfall (175.4) and South west monsoon (168.7) and summer rainfall (157.55mm)

Average annual temperature is 28.5 Celsius. Summer is very hot with temperature soaring upto 37.5°C, in April and May and is very cool with a low temperature of 19.5°C in November and December.

SOIL TYPE

Table 4.1 Soil type of Oddanchatram Block

Soil type	Rain fed area (Ha)	Irrigated area (Ha)	Total area (Ha)
Red soil	6050	7900	13950
Sandy Loam soil	3244	5111	8355
Total	9294	13011	22305

The district is predominantly covered by red soil and sandy loam soil. Sandy loam soil is well suited for cultivation of vegetables. The details about area under major soil types of Oddanchatram block are presented in Table 4.1

LAND USE PATTERN

The total geographical area of Oddanchatram block is 45,403 hectares of which net sown area accounted for 49.13 per cent of the total geographical area. The cropping intensity accounted for 160 per cent. The area under fallow was 9.12 per cent and cultivable wastes accounted for 0.9 per cent of the total geographical area. The area under put to non agricultural uses accounted for 12.26 per cent of the total geographical area. The details of land of use pattern are furnished in table 4.2

Table. 4.2 Land Utilization Pattern of Oddanchatram Block (2004-2005)

S.No.	Particulars	Area (ha)	Percentage
1.	Geographical area	45403	100.00
2.	Uncultivable and Barren lands	5734	12.63
3.	Land put into non-agricultural uses	5568	12.26
4.	Permanent pasture land	1427	3.14
5.	Cultivable wastes	403	0.90
6.	Current fallows	4140	9.12
7.	Plantations	980	2.16
8.	Other fallows	4846	10.67
9.	Net sown area	22305	49.13
10.	Gross cropped area	27065	59.61
11.	Cropping intensity	-	160.00

(Source: Department of Statistics, Oddanchatram, 2006)

Sources of Irrigation in the Study Area

The major sources of irrigation in Oddanchatram block is wells, which accounts for 95.03 per cent of the total irrigated area. Canals also contribute to the irrigation in the study area as detailed in Table4.3

Table.4.3 Sources of Irrigation in the Study Area

Irrigation source	Area (Ha)	Percentage to total
Bore well and Open well	18606	96.25
Tank	724	3.75
Total	19330	100.00

(Source: Department of Statistics, Oddanchatram, 2006)

Cropping Pattern

The cropping pattern prevailed in this particular block is given in the Table 4.4

Table.4.4 Area and Production of Principal Crops in Oddanchatram Block (2004-'05)

Principal Crops	Area (Ha)	Percentage
Paddy	1500	6.72
Ragi	400	1.79
Sorghum	5500	24.65
Cumbu	1000	4.48
Maize	4255	19.08
Cotton	1200	5.38
Sugarcane	300	1.34
Pulses	3500	15.69
Groundnut	1500	6.72
Gingelly	100	0.45
Sunflower	1100	4.93
Soyabeans	500	2.24
Castor	50	0.22
Vegetables	1400	6.27
Total	**22305**	**100.00**

(Source: Department of Statistics, Oddanchatram, 2006)

The cropping pattern of the block shows that it is dominated by millets which accounted for 35.35 percent of the total cropped area followed by pulses, paddy and cotton which accounted for 15.69, 6.72 and 5.38 per cent respectively. Vegetables constituted 6.27 percent of the total cropped area.

Infrastructural Facilities

There are six commercial banks altogether in Oddanchatram block which provided financial services. Apart from these there are three Co-operative Societies in the block. There are well equipped post office and telephone exchanges in the block for communication facilities. The block has a good network of roads. The block act as a junction for major cities through road.

Oddanchatram Vegetable Market

Oddanchatram Gandhi Market was established in the year 1975 in an area of 0.4 ha. Since, major vegetables are produced in surrounding areas it was selected as an ideal place. In this market 126 commission agents and 98 wholesalers are functioning who formed a Vegetable Traders' Association. The transaction of vegetables per day is approximately Rs 5 crores. Most of the vegetables are transported to Kerala (49 per cent) followed by Andhra Pradesh (25 per cent).

In Oddanchatram market wholesalers are procuring vegetables from the following places.

Table .4.5 Sources of Vegetables

Districts	Blocks
Dindigul	Oddanchatram, Toppampatti, Palani, Vedachanthur, Athur, Vathalagundu, Vadamadurai and Kodaikanal.
Erode	Moolanur, Vella kovil, Dharapuram and Kankeyam.
Coimbatore	Palladam, Thirupur and Udumalaipatai.
Theni	Theni, Kambam and Varusanadu.
Karur	Avarakuruitchi.

Green Chillies and Bellari onion arrive from states like Andhra Pradesh and Karnataka.

Transaction of Major Vegetables in Oddanchatram Market

Various vegetables are transacted in the Oddanchatram market regularly. The details on volume of major vegetables transacted in the market are furnished in Table4.6 During the year 2006 it was found that a large volume of small onion (38,400 mt) was traded throughout the year followed by Brinjal (29,400 mt) and Chillies (29,400 mt)

The value of major vegetables transacted in Oddanchatram market is presented in Table 4.7. Among the vegetables, value of the small onion was found to be high (1536 lakhs) followed by Chillies.

Table 4.6.Volume of Major Vegetables Transacted in Oddanchatram Market (Tonnes)

Sl. No.	Month	Tomato	Brinjal	Bhendi	Small Onion	Bellary Onion	Chillies
1.	January	1800	1500	2250	6000	1500	1800
2.	February	1800	1500	2250	1800	750	1800
3.	March	1800	1500	2250	1800	750	1800
4.	April	1200	900	2250	1800	750	1800
5.	May	1200	900	2250	1800	450	1800
6.	June	1200	900	1200	1800	450	3750
7.	July	1200	1800	1200	1800	450	3750
8.	August	1200	1800	1200	1800	450	3750
9.	September	4500	1800	1200	1800	1800	3750
10.	October	4500	1800	450	6000	1500	1800
11.	November	4500	1800	450	6000	1500	1800
12.	December	4500	1500	450	6000	1500	1800
	Total	**29400**	**17700**	**17400**	**38400**	**11850**	**29400**

(Source: Department of Statistics, Oddanchatram, 2006)

Table 4.7.Value of Major Vegetables Transacted in Oddanchatram Market (Rs in lakhs)

Sl. No.	Month	Tomato	Brinjal	Bhendi	Small Onion	Bellary Onion	Chillies
1.	January	54	**60**	**67.5**	240	60	90
2.	February	54	**60**	**67.5**	72	30	90
3.	March	54	**60**	**67.5**	72	30	90
4.	April	36	**36**	**67.5**	72	30	90
5.	May	36	**36**	**67.5**	72	18	90
6.	June	36	**36**	**36.0**	72	18	187.5
7.	July	36	**72**	**36.0**	72	18	187.5
8.	August	36	**72**	**36.0**	72	18	187.5
9.	September	135	**72**	**36.0**	72	72	187.5
10.	October	135	**72**	**13.5**	240	60	90
11.	November	135	**72**	**13.5**	240	60	90
12.	December	135	**60**	**13.5**	240	60	90
	Total	**882**	**708**	**522**	**1536**	**474**	**1470**

(Source: Department of Statistics, Oddanchatram, 2006)

CHAPTER V

RESULTS AND DISCUSSION

In the earlier chapters, a brief review of the past studies, relevant methodology adopted and the general description of the study area were presented. With that background, the data collected during the survey were tabulated and analysed in relation to each of the specific objectives of the study. The results of the study are discussed under following broad areas.

- General characteristics of sample respondents
- Marketing channels
- Marketing cost and marketing margin of intermediaries
- Price spread
- Comparative marketing efficiency of different channels

General Characteristics of Sample Respondents

Characteristics of Sample Farmers

Age Distribution

The sample farmers were classified into four categories, based on the age viz., less than 35 years, 36 to 45 years, 46 to 55 years and more than 55 years. The details are furnished in Table 5.1

Table 5.1 Age Distribution

Age Group (in years)	**Number of Farmers**
<35	14 (14.00)
36-45	25 (25.00)
46-55	35 (35.00)
>55	26 (26.00)
Total	**100 (100.00)**

(Figures with in the parentheses represent percentage to the total).

It could be observed that in the study area, majority of the sample farmers belonged to the age group of 46 to 55 years (35.00 per cent) followed by more than 55 years (26.00) and 36-45 years (25.00 per cent).

Educational Status of Sample Farmers

The details on the educational status of sample farmers are furnished in Table.5.2

Table 5.2 Educational Status of Sample Farmers

Educational Status	Number of Respondents and Percentage to Total
Primary	37
Secondary	23
Higher Secondary	26
Graduate	14
Total	100

In the study area, majority of the farmers had primary level of education (37.00 per cent), followed by farmers with higher secondary level (26.00 per cent) and secondary level (23.00 percent). Only 14.00 per cent of the respondents were found to be graduates. The level of education was found to higher among the vegetables growers since vegetable cultivation requires understanding of the package of practices and marketing procedures.

Land Holding Pattern

The land holdings were classified into three groups viz., upto 5 ac, and 6 to10 ac and above 10 ac. The details are presented in Table 5.3.

Table 5.3 Land Holding Pattern (Area in acres)

Area	Number of Respondents and Percentage to Total	Minimum	Maximum	Mean
Upto 5 acres	27	1.00	4.50	2.46
6-10 acres	40	6.00	10.00	7.85
Above 10 acres	33	11.00	17.00	14.51
Sample	100	1.00	17.00	8.59

In the study area, it could be observed that 6-10 ac farms accounted for 40.00 per cent of the sample while above 10 ac farms constituted 33.00 percent and upto 5 ac farms 27.00 percent.

Occupational Status

The details of occupational status of the sample farmers are presented in Table 5.4

Table 5.4 Occupational Status

Occupational Status	Number of Farmers
Primary	74 (74.00)
Secondary	26 (26.00)
Total	100 (100.00)

(Figures with in the parentheses represent percentage to the total).

It could be observed that for majority of the sample farmers, agriculture was the primary occupation (74.00 per cent) whereas for rest of the farmers (26.00 per cent), agriculture was a secondary occupation.

Annual Family Income

The details of annual family income of the sample farmers are presented in Table 5.5

Table 5.5Annual Family Income

('000' Rs.)

Income (000's)	Number of Respondents and Percentage to Total	Minimum	Maximum	Mean
<50	31	11	50	34
51 - 100	39	52	100	78
>100	30	120	150	133
Total	100	11	150	80.86

It could be observed from Table 5.5 that majority of the farm families belonged to the income category of Rs 0.50 to 1.00 lakh (39.00 per cent), followed by farmers with annual income less than Rs 0.50 lakh (31.00 per cent) and farmers with more than Rs 1.00 lakh (30.00 per cent).

Experience of the Sample Farmers in Cultivation

The details of experience of the sample farmers in vegetables cultivation are presented in the Table 5.6

Table 5.6 Experiences of the Sample Farmers

Experience (in years)	Number of Farmers and Percentage to Total
<15	40
16-30	21
31-45	24
>45	15
Total	100

In vegetables cultivation, 40 percent of the farmers had an experience of less than 15 years. At the same time nearly one fourth of the farmers had an experience of 30-45 years. Hence it could be concluded that selected farmers might be well aware of the various aspects regarding production and marketing of vegetables.

Crops Cultivated

The details of vegetables cultivated by sample farmers are presented in the Table 5.7

Table 5.7 Crops Cultivated

Crops	Number of Respondents and Percentage to Total
Onion	10
Brinjal	9
Tomato	13
Chillies	5
Bhendi	9
Onion,bhendi	11
Tomato, onion	4
Tomato,brinjal	12
Tomato,chillies	6
Onion,tomato,chillies,bhendi	5
Brinjal,chillies,bhendi	9
Onion,tomato,brinjal,chillies	7
Total	100

Tomato as a single vegetable crop was cultivated by 13 percent of the farmers. At the same time when farmers raised two or three vegetables per annum, tomato found a place in the list. Next in line comes onion as a single vegetable crop grown in the list of two or more vegetables grown. Thus tomato and onion was found to be the major vegetables grown followed by chillies.

Seasons for Planting of Vegetables

The details on sowing seasons of vegetables in the sample farms are presented in Table 5.8

Table 5.8 Seasons for Planting of Vegetables

Seasons	Number of Respondents and Percentage to Total
June-July	42
Jan-Feb	39
Both seasons	19
Total	100

From Table 5.8, it could be observed that nearly half of the sample farmers (42.00 per cent) have grown vegetables in the month of June -July while others (39.00 per cent) cultivated during month of Jan-Feb. Nearly one fifth of the sample farmers cultivated in both seasons. Thus the major season for sowing vegetables for farmers of Oddanchatram block was June - July.

Source of Irrigation

The quality and yield of vegetables depends on the source of water. Poor quality water results in lower yield and quality of vegetables. The details on the source of irrigation in the sample farms are presented in the Table 5.9

Table 5.9 Source of Irrigation

Source of irrigation	Number of Farms and Percentage to Total
Bore well	27
Open well	40
Both	33
Total	100

According to the respondent farmers, the quality of water was good in bore wells as well as in open wells in the study area. It could be observed that majority of the farms had open well irrigation (40.00 per cent) followed by farms with both type of wells (33.00 per cent). More than one fourth of the farmers had only bore wells for irrigation purpose.

General Characteristics of Sample Intermediaries

Age Group

Table 5.10 Age Group of Sample Intermediaries

Age (in years)	Wholesalers		Retailers	
	Number	Percentage	Number	Percentage
< 30	2	20.00	1	10.00
31-45	5	50.00	6	60.00
> 45	3	30.00	3	30.00
Total	10	100.00	10	100.00

The selected intermediaries were classified into three groups based on the age viz less than 30 years, 31 to 45 years and more than 45 years. It could be observed that in the study area, majority of the sample wholesalers belonged to the age group of 31- 45 years (50.00 per cent) followed by more than 45 years (30.00 per cent) and less than 30 years (20.00 per cent). Majority of the sample retailers belonged to the age group of 30- 45 years (50.00 per cent) followed by more than 45 years (30.00 per cent). and less than 30 years (20.00 per cent). Thus young traders occupied 10 to 20 percent in marketing of vegetables.

Educational Status

The details on the levels of education of sample Wholesalers and Retailer are furnished Table5.11

Table5.11 Educational Status

Educational Status	Wholesalers		Retailers	
	Number	Percentage	Number	Percentage
Primary	1	10.00	-	-
Secondary	4	40.00	5	50.00
Higher Secondary	3	30.00	3	30.00
Degree	2	20.00	2	20.00
Total	10	100.00	10	100.00

Majority of the wholesalers (40.00%) and retailers (50.00 percent) had secondary level education. 30.00 per cent in each group had higher secondary level education while 20 percent in both the groups had degree level education.

Experience of the Sample Intermediaries in Vegetable Trade

Table5.12 Experience of the Sample Intermediaries

Experience (Years)	Wholesalers		Retailers	
	Number	Percentage	Number	Percentage
<15	2	20.00	4	40.00
16-30	4	40.00	3	30.00
31-45	3	30.00	2	20.00
>45	1	10.00	1	10.00
Total	10	100	10	100

Majority of the sample wholesalers had 15-30years experience in vegetable trade. While 30 per cent had more than 31-45years experience. On the other hand majority (40.00%) of retailers had an experience of only less than 15 years in vegetable trade. In each group 10 percent of the traders had an experience of more than 45 years. Since majority of the wholesalers and retailers had more than 15 years of experience in the trade it could be concluded that they are well aware of the strategies in retaining their customers both backward and forward.

Reasons for Sale through Commission Agents

Table 5.13 Reasons for Sale through Commission Agents

Factors	Mean score	Rank
Loans taken	90.95	I
Arranged transport facility	89.65	II
Long term practice	84.78	III

Nearly 70 percent of the farmers sold vegetables through commission agents who arranged sale on behalf of the farmers, conducted auctions and paid the farmers' due after deducting the loan amount paid to the farmers by the commission agents. The reasons for selling through commission agents are furnished in Table5.13.

Thus the findings of the study revealed that disbursement of loan by commission agent was the major reason for sale through them followed by arranging transport facility. In Tamil Nadu, vegetables are not notified by Market Committees and as such the farmer has to sell through commission agent or directly to wholesalers.

Marketing Channels for Major Vegetables

The path traced by the major vegetables produced in Oddanchatram block was analysed and the marketing channels for major vegetables are given in Fig.1.The following channels were identified.

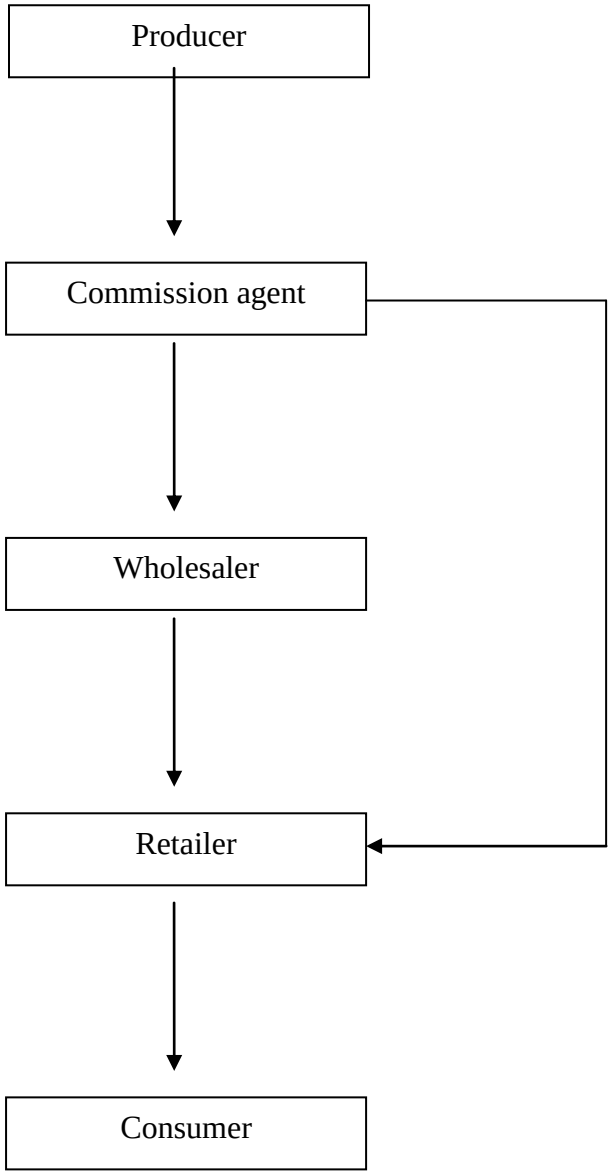

Figure.1. Marketing Channels for Major Vegetables

Figure.2. Different Marketing Channels for Major Vegetables in Oddanchatram

Channel-1

PRODUCER → COMMISSION AGENT → WHOLESALER → RETAILER → CONSUMER

Channel-2

PRODUCER → COMMISSION AGENT → RETAILER → CONSUMER

In marketing channel –1, the farmers sold their produce to the wholesalers through commission agents owning the mandies and in the marketing channel -2 farmers sold their produce to retailers through commission agents. Commission agents charged ten per cent of the value of the produce sold as commission charges from farmers. The commission agents made arrangements for sale of the produce on behalf of the farmer to the wholesalers or retailers without any possession of the produce. The produce was brought in different size gunny bags like, in case of onion 50 kg and 70 kg gunny bags, in case of brinjal 60kg gunny bag, in case of tomato 15kg plastic box and 30 kg wooden box, in case of chillies 50 kg and 70 kg gunny bags, in case of bhendi 45 kg and 55 kg gunny bags by the farmers to the market. Later it was inspected for cleanness and quality of the vegetables in the market yard. The prices were fixed on per KG basis.

Marketing Costs

Marketing Cost Incurred by Farmers

Various costs are involved in marketing of vegetables from the farmers' field to market. The details are furnished in the Table 5.14 that follows.

Table5.14 Marketing Cost Incurred by the Farmers

(Rs/kg)

Particulars	Bhendi	Brinjal	Onion	Tomato	Chillies
Packing	0.2	0.2	0.2	0.2	0.2
Loading	0.06	0.06	0.11	0.11	0.11
Transporting	0.13	0.09	0.2	0.15	0.2
Unloading	0.06	0.06	0.04	0.04	0.04
Commission charges (Varies with the price)	1.34	0.95	1.3	0.55	0.6
Total	**1.79**	**1.36**	**1.85**	**1.05**	**1.15**

Since the farmer sells his produce through commission agents in both the channels, the marketing cost incurred by the farmers of these crops were same for both the channels. The marketing cost of onion for the farmers was higher than the other vegetables. Nearly 50 to 80 percent of the marketing cost incurred by farmers was constituted by commission charges. Next in line was the cost of transport.

Marketing Cost Incurred by Wholesaler

Wholesaler is the link between retailer and commission agent. He is involved in the marketing chain in the first channel.

Table 5.15 Marketing Cost Incurred by Wholesaler

(Rs /kg)

Particulars	**Channel I**				
	Bhendi	**Brinjal**	**Onion**	**Tomato**	**Chillies**
Grading	0.17	0.17	0.2	0.1	0.1
Loading and unloading	0.06	0.06	0.4	0.1	0.1
Transportation	0.75	0.75	0.25	1.12	1.0
Handling loss	0.24	0.17	1.01	0.55	0.12
Total	**1.22**	**1.15**	**1.86**	**1.87**	**1.32**

It is evident from Table5.15, that wholesalers were involved only in four activities, viz., grading, loading and unloading, transportation. The marketing cost incurred by the wholesaler was higherer in tomato and onion. The cost of transport was higher in case of tomato while handling loss was found to be more in onion.

Marketing Cost Incurred by Retailer

Retailers are the ultimate link in the marketing channel of any produce that reflects the consumers' choice and their preferences.

Table 5.16 Marketing Cost Incurred by Retailer, Channel I

(Rs. per Kg)

Particulars	**Channel I**				
	Bhendi	**Brinjal**	**Onion**	**Tomato**	**Chillies**
Grading	-	-	-	-	-
Transportation	0.4	0.4	0.25	0.25	0.25
Unloading	0.06	0.06	0.4	0.4	0.4
Handling Loss	0.48	0.34	1.01	1.32	0.78
Total	**0.94**	**0.8**	**1.66**	**1.97**	**1.43**

Table 5.17 Marketing Cost Incurred by Retailer, Channel -II

(Rs. per Kg)

Particulars	**Channel -II**				
	Bhendi	**Brinjal**	**Onion**	**Tomato**	**Chillies**
Grading	0.27	0.27	0.27	0.27	0.27
Transportation	0.4	0.4	0.25	0.25	0.25
Unloading	0.06	0.06	0.4	0.4	0.4
Handling Loss	0.48	0.34	1.01	1.07	0.78
Total	**1.21**	**1.07**	**1.93**	**1.99**	**1.70**

In channel-1 wholesalers play a major role and grading was undertaken by them. In channel-2, grading was done by retailers due to the absence of wholesale traders. Costs of other activities remained to be one and the same in both the channels. Handling loss was found to be high in all the vegetables and it was maximum in tomato and onion followed by chillies. It was minimum in brinjal.

Marketing Margins

Marketing margin refers to the profits earned by the intermediaries for their services rendered.

Table 5.18 Marketing Margin, Channel I

Particulars	Channel I				
	Bhendi	**Brinjal**	**Onion**	**Tomato**	**Chillies**
Wholesaler	0.83	1.00	2.04	1.46	0.48
Retailer	3.46	2.09	3.44	1.20	1.27

Table 5.19 Marketing Margin, Channel II

Particulars	Channel II				
	Bhendi	**Brinjal**	**Onion**	**Tomato**	**Chillies**
Retailer	4.56	3.23	4.56	1.58	1.30

It could be observed that retailer earned more margins than wholesalers in marketing of all the four vegetables. In channel-1 he had a reduced margin comparing channel-2 due to the presence of wholesaler in channel-1.

Price Spread in the Identified Marketing Channels for Major Vegetables

Price spread in general, is referred to as the difference between price paid by the consumer and the price received by the farmers for an equivalent quantity of the produce. This analysis involved computation of different marketing costs and profit margins at each stage and their expression as a percentage to the consumers' price. Various costs incurred in the marketing process were considered for each of the identified channels and price spread was worked out. The details are presented in Table 5.20 to 5.24.

Table 5.20. Price Spread for Bhendi Produced in Muthunayakkampatti Village (Oddanchatram Taluk) and Sold in Oddanchatram Market

Particulars	Channel I Price/kg		Channel II Price/kg	
	Price	**Percentage**	**Price**	**Percentage**
Net Price Received by the producer	**11.66**	58.59	**11.66**	60.66
Marketing Cost for the Producer				
Packing	0.2	1.00	0.2	1.04
Loading	0.06	0.30	0.06	0.31
Transporting	0.13	0.65	0.13	0.67
Unloading	0.06	0.30	0.06	0.31
Commission charges10%)	1.34	6.73	1.34	6.97
Sub Total	1.79	8.99	1.79	9.31
Selling Price of Producer	**13.45**	67.58	**13.45**	69.97
Purchase Price of Wholesaler	13.45	67.58	-	-
Marketing Cost of Wholesaler				
Grading	0.17	0.85	-	-
Loading & unloading	0.06	0.30	-	-
Transporting	0.75	3.76	-	-
Handling loss	0.24	1.20	-	-
Sub Total	1.22	6.13	-	-
Margin of Wholesaler	0.83	4.17	-	-
Selling Price of Wholesaler	15.50	77.88	-	-
Purchase Price of Retailer	15.50	77.88	13.45	69.97
Marketing Cost of Retailer				
Grading	-	-	0.27	1.40
Transporting	0.4	2.01	0.4	2.08
Unloading	0.06	0.30	0.06	0.31
Handling loss	0.48	2.41	0.48	2.49
Sub Total	0.94	4.72	1.21	6.29
Margin of Retailer	3.46	17.38	4.56	23.72
Selling Price of Retailer/ Consumer Price	**19.90**	100.00	**19.22**	100.00

Channel-1 involved producer/ farmers, commission agent, wholesalers and retailers. It could be observed from Table5.20 that gross price received by farmers was Rs.13.45 per kg and it is constituted 67.58 percent of the final price or consumer price. Wholesaler took a margin of Rs.0.83 and retailer took a margin of Rs.3.46 per kg, which accounted to 4.17 and 17.38 percent of the consumers' price respectively. The ultimate consumers' price was Rs.19.90 per kg.

In channel -2 farmers realized a gross price of Rs. 13.45 per kilogram, which accounts for 69.97 per cent of the consumers' price. Farmers incurred a marketing cost of Rs.1.79 per kg as in channel-1. Since the grading was done by retailers they incurred a marketing cost of Rs. 1.21 per kg and both took a margin of Rs. 4.56 per kg which accounted to 6.29 and 23.72 per cent of consumers' price respectively. This channel favours the retailers in getting additional margin unlike channel I. Ultimately consumers were getting the produce with a reduced price of Rs. 19.22 per kg in channel-2.

In other words in both the channels farmers received one and the same gross and net price. Hence by shortening the channel, retailer gained more and consumers to a lesser extent and farmers had no additional gains.

Table 5.21. Price Spread for Brinjal Produced in Athikombai Village (Oddanchatram Taluk) and Sold in Oddanchatram Market

Particulars	Channel I Price/kg		Channel II Price/kg	
	Price	**Percentage**	**Price**	**Percentage**
Net Price Received by the Producer	**8.20**	56.16	**8.20**	59.16
Marketing Cost for the Producer				
Packing	0.2	1.36	0.2	1.44
Loading	0.06	0.41	0.06	0.43
Transporting	0.09	0.61	0.09	0.64
Unloading	0.06	0.41	0.06	0.43
Commission charges10%)	0.95	6.50	0.95	6.85
Sub Total	1.36	9.31	1.36	9.81
Selling Price of Producer	**9.56**	65.47	**9.56**	68.97
Purchase Price of Wholesaler	9.56	65.47	-	-
Marketing Cost of Wholesaler			-	-
Grading	0.17	0.16	-	-
Loading & unloading	0.06	0.41	-	-
Transporting	0.75	5.13	-	-
Handling loss	0.17	0.16	-	-
Sub Total	1.15	7.87	-	-
Margin of Wholesaler	1.0	6.84	-	-
Selling Price of Wholesaler	**11.71**	80.20	-	-
Purchase Price of Retailer	11.71	80.20	9.56	68.97
Marketing Cost of Retailer				
Grading	-	-	0.27	1.94
Transporting	0.4	2.73	0.4	2.88
Unloading	0.06	0.41	0.06	0.43
Handling loss	0.34	2.32	0.34	2.45
Sub Total	0.80	5.47	1.07	7.72
Margin of Retailer	2.09	14.31	3.23	23.30
Selling Price of Retailer/ Consumer Price	**14.60**	100.00	**13.86**	100.00

It could be observed from Table5.21 that in channel-1 the gross price received by farmers was Rs 9.56 per kg of brinjal, which constituted 65.47 percent of the final price or consumer price. Wholesaler took a margin of Rs.1.00 and retailer took a margin of Rs.2.09 per kg, which accounted to 6.84 and 14.31 percent of the consumers' price respectively. The ultimate consumers' price was Rs.14.60 per kg.

In channel-2 farmers realized a gross price of Rs. 9.56 per kg, which accounts for 68.97 per cent of the consumers' price. Farmers incurred a marketing cost of Rs. 1.16 per kg of brinjal similar to channel-1, which accounted of 9.09 per cent of consumers' price.

In this channel there were no wholesalers. Since grading was done by the retailers they realized a higher marketing cost of (Rs1.07/kg) compared to channel-1. Which accounted for 7.72 percent of the consumers rupee. The margin obtained by the retailers was also higher (Rs3.23/kg) in this channel compared to channel-1. The consumers in this channel paid a lower price of Rs (13.86/kg) compared to channel-1.

Table5.22 Price Spread for Onion Produced in Moolachatharam Village (Oddanchatram Taluk) and Sold in Oddanchatram Market

Particulars	Channel I Price/kg		Channel II Price/kg	
	Price	**Percentage**	**Price**	**Percentage**
Net Price Received by the Producer	**11.15**	50.68	**11.15**	57.20
Marketing Cost for the Producer				
Packing	0.2	0.90	0.2	1.02
Loading	0.11	0.50	0.11	0.56
Transporting	0.2	0.90	0.2	1.02
Unloading	0.04	0.18	0.04	0.20
Commission charges10%)	1.3	5.90	1.3	6.67
Sub Total	1.85	8.40	1.85	9.49
Selling Price of Producer	**13**	59.09	**13**	66.70
Purchase Price of Wholesaler	13	59.09	-	-
Marketing Cost of Wholesaler			-	-
Grading	0.2	0.90	-	-
Loading & unloading	0.4	1.81	-	-
Transporting	0.25	1.13	-	-
Handling loss	1.01	4.59	-	-
Sub Total	1.86	8.45	-	-
Margin of Wholesaler	2.04	9.27	-	-
Selling Price of Wholesaler	**16.90**	76.81	-	-
Purchase Price of Retailer	16.90	76.81	13	66.70
Marketing Cost of Retailer				
Grading	-		0.27	1.38
Transporting	0.25	1.13	0.25	1.28
Unloading	0.4	1.81	0.4	2.05
Handling loss	1.01	4.59	1.01	5.18
Sub Total	1.66	7.54	1.93	9.90
Margin of Retailer	3.44	15.63	4.56	23.39
Selling Price of Retailer/ Consumer Price	**22**	100.00	**19.49**	100.00

Similar to other two crops in both channel-1 and 2, farmers realized one and the same gross price and net price and incurred the same marketing cost. On the other hand consumers were benefitted to an extent of Rs 2.50/kg of onion in channel-2. As discussed already the margin of the retailer was higher than the wholesaler and it was maximum in channel-2.

Similar is the case in tomato and chillies. Due to shortening of channel, consumers were benefitted to an extent of nearly Rs 3/kg of tomato and Rs 1.50/kg of green chillies. The additional profit earned by retailer in channel-2 was Rs 0.38 /kg. Since the retail price was reduced to a greater extent in this channel. Thus as already indicated farmers did not gain any thing more due to absence of wholesalers in the channel.

Table5.23. Price Spread for Tomato Produced in Vadakadu Village (Oddanchatram Taluk) and Sold in Oddanchatram Market

Particulars	Channel I Price/kg		Channel II Price/kg	
	Price	**Percentage**	**Price**	**Percentage**
Net Price Received by the Producer	**4.45**	37.08	**4.45**	49.06
Marketing Cost for the Producer				
Packing	0.2	1.66	0.2	2.20
Loading	0.11	0.91	0.11	1.21
Transporting	0.15	1.25	0.15	1.65
Unloading	0.04	0.33	0.04	0.44
Commission charges10%)	0.55	4.58	0.55	6.06
Sub Total	1.05	8.75	1.05	11.57
Selling Price of Producer	**5.50**	45.83	**5.50**	60.63
Purchase Price of Wholesaler	5.50	45.83	-	-
Marketing Cost of Wholesaler			-	-
Grading	0.1	0.83	-	-
Loading & unloading	0.1	0.83	-	-
Transporting	1.12	9.33	-	-
Handling loss	0.55	4.58	-	-
Sub Total	1.87	15.58	-	-
Margin of Wholesaler	1.46	12.16	-	-
Selling Price of Wholesaler	**8.83**	73.58	-	-
Purchase Price of Retailer	8.83	73.58	5.50	60.63
Marketing Cost of Retailer				
Grading	-	-	0.27	2.97
Transporting	0.25	2.08	0.25	2.75
Unloading	0.4	3.33	0.4	4.41
Handling loss	1.32	11.0	1.07	11.79
Sub Total	1.97	16.41	1.99	21.94
Margin of Retailer	1.20	10	1.58	17.42
Selling Price of Retailer/Consumer Price	**12**	100.00	**9.07**	100.00

Table 5.2. Price Spread for Chillies produced in Atthappagoundan pudur Village (Oddanchatram Taluk) and Sold in Oddanchatram Market

Particulars	Channel I Price/kg		Channel II Price/kg	
	Price	**Percentage**	**Price**	**Percentage**
Net Price Received by the Producer	**4.85**	46.19	**4.85**	53.80
Marketing Cost of Producer				
Packing	0.2	1.90	0.2	2.22
Loading	0.11	1.04	0.11	1.22
Transporting	0.2	1.90	0.2	2.22
Unloading	0.04	0.38	0.04	0.44
Commission charges10%)	0.6	5.71	0.6	6.66
Sub Total	1.15	10.95	1.15	12.70
Selling Price of Producer	**6.0**	57.14	**6.0**	66.60
Purchase Price of Wholesaler	6.0	57.14	-	-
Marketing Cost of Wholesaler			-	-
Grading	0.1	0.95	-	-
Loading & unloading	0.1	0.95	-	-
Transporting	1.0	9.5	-	-
Handling loss	0.12	1.14	-	-
Sub Total	1.32	12.57	-	-
Margin of Wholesaler	0.48	4.57	-	-
Selling Price of Wholesaler	**7.80**	74.28	-	-
Purchase Price of Retailer	7.80	74.28	6.0	66.60
Marketing Cost of Retailer				
Grading	-	-	0.27	3.0
Transporting	0.25	2.38	0.25	2.77
Unloading	0.4	3.80	0.4	4.44
Handling loss	0.78	7.42	0.78	8.66
Sub Total	1.43	13.61	1.70	18.80
Margin of Retailer	1.27	12.09	1.30	14.40
Selling Price of Retailer/ Consumer Price	**10.50**	100.00	**9.0**	100.00

Value Addition of Bhendi in the Channels

The value added to Bhendi while it moved through the different channels of marketing is furnished in the Table5.25 Value added in the chain is the sum of aggregate marketing cost and marketing margin. It could be observed that in channel-1 the value added was maximum with Rs 8.24 followed by channel-2 with Rs. 7.56, which accounted for 41.40 per cent and 39.33 per cent of consumers' price respectively.

Table5.25 Value Addition of the Bhendi in the Channels (Rs/kg)

Particulars	Channel 1	Channel 2
Farmers realization	11.66	11.66
Marketing cost (1)	3.95	3.00
Marketing margin (2)	4.29	4.56
Value added in chain (1+2)	8.24	7.56
Consumer price	19.90	19.22

Since wholesalers were absent in channel II, and the retailers were getting produce from farmers through commission agent, they obtained a higher margin. The consumers also bought the produce with a lesser price compared to channel-1.

Value Addition of Brinjal in the Channels

The details on value addition to brinjal while it moved through the different intermediaries is furnished in Table5.26.

Table5.26 Value Addition of the Brinjal in the Channels (Rs/kg)

Particulars	Channel 1	Channel 2
Farmers realization	8.20	8.20
Marketing cost (1)	3.31	2.43
Marketing margin (2)	3.09	3.23
Value added in chain (1+2)	6.40	5.66
Consumer price	14.60	13.86

It could be observed that in channel-1 the value added was highest of Rs 6.40 followed by channel-2 with Rs 5.66, which accounted for 43.83 per cent and 40.83 per cent of consumers' price respectively.

Value Addition of onion in the Channels

The details on value addition to onion while it moved from farmers to consumer are furnished in Table 5.27.

Table5.27 Value Addition of Onion in the Channels (Rs/kg)

Particulars	Channel 1	Channel 2
Farmers realization	11.15	11.15
Marketing cost (1)	5.37	3.78
Marketing margin (2)	5.48	4.56
Value added in chain (1+2)	10.85	8.34
Consumer price	22.00	19.49

It could be observed that in channel-1 the value added was the maximum with Rs. 10.85 while it was Rs 8.34 in channel-2, which accounted for 49.31 per cent and 42.79 per cent of consumers' price respectively

Value Addition of Tomato in the Channels

Table 5.28. Value Addition of Tomato in the Channels (Rs/kg)

Particulars	Channel 1	Channel 2
Farmers realization	4.45	4.45
Marketing cost (1)	4.89	3.04
Marketing margin (2)	2.66	1.58
Value added in chain (1+2)	7.55	4.62
Consumer price	12.00	9.07

In case of tomato the value added was Rs 7.55 and 4.62 per kg while it moved from producer to consumer in channel-1 and 2 respectively. They constituted 62.91 percent and 50.93 percent of the consumers' price respectively in channel-1 and 2.

Value Addition of Chillies in the Channels

Table 5.29. Value Addition of Chillies in the Channels (Rs/kg)

Particulars	Channel 1	Channel 2
Farmers realization	4.85	4.85
Marketing cost (1)	3.90	2.85
Marketing margin (2)	1.75	1.30
Value added in chain (1+2)	5.65	4.15
Consumer price	10.50	9.00

In case of green chillies value addition was 53.80 percent and 46.11 percent of the consumers' price in channel-1 and 2 respectively. In absolute terms it was Rs 5.65 and Rs 4.15 percent kg of green chillies in the two channels in order.

Comparative Marketing Efficiency of Different Channels

The marketing efficiency of different channels were analyzed using various indices like Acharya and Agarwal Index and Shepherd's Index and the results are presented in Table 5.30

Acharya and Agarwal Index of Marketing Efficiency

Acharya and Agarwal Indices were used to analyze the comparative efficiency of the marketing chains. In this study the marketing efficiency for bhendi, brinjal, onion, tomato and chillies were analyzed using the marketing cost involved and the value added in the chain. The higher the index higher is the efficiency of the chain.

Table 5.30 Acharya and Agarwal Index of Marketing Efficiency

Particulars	Bhendi		Brinjal		Onion		Tomato		Chillies	
	Ch 1	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**
Marketing Cost (Rs/kg)	3.95	3.00	3.31	2.43	5.37	3.78	4.89	3.04	3.90	2.85
Value Added (Rs/kg)	8.24	7.56	6.40	5.66	10.85	8.34	7.55	4.62	5.65	4.15
Efficiency Index	**208.60**	**252.0**	**193.35**	**232.92**	**202.04**	**220.63**	**154.39**	**151.97**	**144.87**	**145.6**

(Ch – Channel)

It was evident from the Table5.30 that channel-2 was found to be most efficient channel with a higher index value where retailers procured produce directly from farmers through commission agents. The value added per rupee of the marketing cost was high and farmers' prices remaining constant, consumers were able to get at lower prices.

Shepherd's Index of Marketing Efficiency

Shepherd's Index was also used to analyze the comparative efficiency of the marketing chains using the consumers' price and value added to the produce. The higher the value of Shepherd's index higher is the efficiency of the channel.

Table5.31 Shepherd's Index of Marketing Efficiency

Particulars	Bhendi		Brinjal		Onion		Tomato		Chillies	
	Ch 1	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**	**Ch 1**	**Ch 2**
Consumers' price (Rs/kg)	19.9	19.22	14.6	13.86	22.00	19.49	12.00	9.07	10.5	9.00
Value Added(Rs/kg)	8.24	7.56	6.40	5.66	10.85	8.34	7.55	4.62	5.65	4.15
Efficiency Index	141.50	154.23	128.12	144.87	202.76	133.69	58.94	96.32	85.84	116.86

(Ch-channel)

It was evident from the Table5.31 that channel-2 was found to be an efficient channel with the highest index value for all the five crops where wholesalers were eliminated leading to a reduction in consumers' prices.

Due to the absence of wholesalers in channel-2, the price paid by the consumer was low while the price received by the farmer remained to be the same in both the channels for all the five crops. Hence channel-2 is adjusted as efficient one comparing channel-1.

CHAPTER VI

SUMMARY AND CONCLUSION

In this chapter, a brief summary of the research along with the findings and conclusion are presented in a nutshell. The specific objectives of the study are:

i. to analyze the marketing decision behaviour of farmers with regard to vegetables;
ii. to estimate the marketing cost and margins of different intermediaries in vegetable marketing;
iii. to arrive at the marketing efficiency of different channels; and
iv. to develop suitable strategies for efficient marketing of selected vegetables.

Oddanchatram in Dindigul district of Tamil Nadu forms the study area. It is purposively selected since the company proposes to study the different marketing channels for bhendi, brinjal, onion, tomato and chillies marketed from Oddanchatram. For the study, 100 farmers and 30 intermediaries were randomly selected. The sample farmers were selected from in and around Oddanchatram, since the identified crops are cultivated in these area. The intermediaries consisted of commission agents, wholesalers and retailers.

Thus the sample included 100 farmers and 30 intermediaries. The primary data required for the study were collected through personal interview method with the help of comprehensive pretested interview schedule.

General Characteristics of Sample Farmers

Majority of the sample farmers belonged to the age group of 46 to 55 years who constituted 35.00 per cent of sample.

All the farmers were literates with majority of them had primary level of education (37.00 per cent) which is followed by farmers with higher secondary level (26.00 per cent) and secondary level (23.00 percent) education.

Majority of the farmers operated an area of 6-10 acre farms which accounted for 40.00 percent of the sample while above 10 acre farms constituted 33.00 percent.

About 74.00 per cent of the sample farmers considered agriculture as a primary occupation.

Majority of the farm families belonged to the income category of Rs 0.51 to 1.00 lakh (39.00 per cent) followed by farmers with annual income less than Rs 0.50 lakh (31.00 per cent). 40 percent of the farmers had an experience of less than 15 years. At the same time nearly one fourth of the farmers had an experience of 31-45 years.

Tomato as a single vegetable crop was cultivated by 13 percent of the farmers. When farmers raised two or three vegetables per annum tomato found a place in the list.

Nearly of the sample farmers (42.00 per cent) had grown vegetables in the month of June -July while others (39.00 per cent) cultivated during month of Jan-Feb.

Majority of the farms had open well irrigation (40.00 per cent) followed by farms with both open and bore wells (33.00 per cent).

General characteristics of Sample Intermediaries

Majority of the sample wholesalers belonged to the age group of 31- 45 years (50.00 per cent) followed by more than 45 years (30.00 per cent).

Majority of the wholesalers had secondary level education (40.00%) and retailers (50.00 percent)

Majority of the sample wholesalers had 16-30 years experience in vegetable trade while 30 per cent had more than 31-45years experience.

Nearly 70 percent of the farmers sold vegetables through commission agents who arranged sale on behalf of the farmers. The study revealed that disbursement of loan by commission agent was the major reason for sale through them followed by arranging transport facility.

Marketing Costs and Marketing Margins

Since the farmer sells his produce through commission agents in the both the channels, the marketing cost incurred by the farmers of these crops were found to be same in both the channels. The marketing cost of onion for the farmers was higher than that of other vegetables**.**

It is significant that wholesalers were involved only in channel -1. The marketing cost incurred by the wholesaler was high in tomato and onion. The cost of transport was higher in case of tomato while handling loss was found to be more in onion.

In channel-1 wholesalers played a major role and grading was undertaken by them. In channel-2, grading was done by retailers due to the absence of wholesale traders. Cost of other activities remained to be one and the same in both the channels. Handling

loss was found to be high in all the vegetables and it was maximum in tomato and onion followed by chillies. It was minimum in brinjal.

In the case of channel-2, wholesalers were eliminated and retailers purchased produce directly from farmers through commission agents. Hence grading was done by retailers themselves and marketing cost incurred by the retailers was higher in Channel 2. In channel-1 he had a reduced margin comparing channel-2 due to the presence of wholesaler in channel-1.

Marketing Channels for Major Vegetables in Oddanchatram Market

The marketing channel-1 of bhendi, brinjal, onion, tomato and chillies from Oddanchatram of Dindigul district involved producers / farmers, commission agents, wholesalers and retailers. In this market, farmers are routinely supplying their produces through commission agents by incurring a marketing cost; in both channels commission agents took 10 per cent commission from the farmers.

The channel-2 of marketing bhendi, brinjal, onion, tomato and chillies from Oddanchatram was the advanced channel where producer/farmer sold their produce through in commission agent to the retailer. Here wholesalers were absent.

The marketing efficiency of different channels was analyzed using certain indices like Acharya and Agarwal Index and Shepherd's Index. Among the two channels studied, channel two was found to be the most efficient channel.

RECOMMENDATIONS:

Based on the results of the study it is recommended that the case firm could start its collection centre in Oddanchatram.

It can directly procure vegetables from the farmers without any commission agents. Since commission agents are providing loan for cultivation of crops, besides arranging for transport facilities, it is suggested that contract farming of vegetables under a buy back agreement by the firm could be considered along with crop insurance programme.

Since prices of vegetables are fluctuating, it could be so arranged that the contract need not specify the purchase price, where as the prices that prevails during harvesting season - on a weekly basis – at Oddanchatram market could be considered. Through this the firm can be sure of assured supply of vegetables throughout the year. Due to contract farming the farmers could be assured of financial assistance from banks, crop insurance, besides an assured market at market prices. This could ensure better prices for farmers and lower prices for consumers.

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