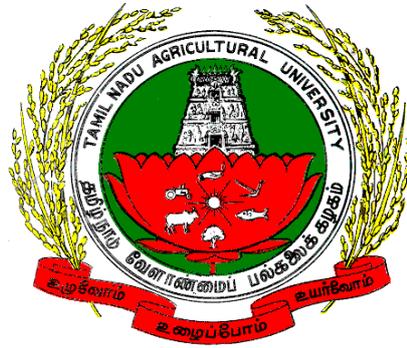


**LINKING ORGANIC FARMERS TO RETAIL STORES– AGRICULTURAL
MARKETING PERSPECTIVE**



By

KAVIYA P

B.Sc. (Agriculture)



**CHAUDHARY CHARAN SINGH NATIONAL INSTITUTE OF AGRICULTURAL
MARKETING**

JAIPUR, RAJASTHAN - 302033

2019

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Case study submitted in fulfillment of the requirement for

Research Internship Program

To

Chaudhary Charan Singh National Institute of Agricultural Marketing, Jaipur, Rajasthan

By

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CERTIFICATE

This is to certify that the Case study entitled, “**LINKING ORGANIC FARMERS TO RETAIL STORES – AGRICULTURAL MARKETING PERSPECTIVE**” submitted in fulfilment of **Research Internship Programme** to **Chaudhary Charan Singh National Institute of Agricultural Marketing, Jaipur, Rajasthan** is a record of bonafide research work carried out by **Ms. KAVIYA P** under my supervision and guidance and that no part of the report has been submitted for the award of any other degree, diploma, fellowships or other similar titles or prizes.

Place: Jaipur

Date:

Approved By

ACKNOWLEDGEMENT

This research process would have never come to achievement without the help and encouragement I received from various individuals.

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(P.KAVIYA)

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Abstract

Linking Organic farmers to Retail stores – Agricultural Marketing Perspective

In recent years, there is growing awareness of environmental protection, sustainable agricultural practices and the adverse impact of chemical inputs on the soil, environment and human health. This has prompted a shift towards organic farming and consumption of organic food. The Government of India has come up with policy initiatives to promote organic food. Such measures are expected to increase investment in organic food manufacturing and retailing. India has around 8,35,000 certified organic farmers and 1.81 million hectare area under organic certification and also there are 700 reliance fresh operating in 93 cities, 256 big bazars operating in 120 cities and 890 Easy day stores operating in 246 cities who all are supplying fresh vegetables to consumers. The farmers sell their produce to markets through a long marketing channel. This results in increased cost of transaction, increased marketing costs, reduced producer's share in consumer's rupee and less income. This study will be focused on assessing the feasibility and viability of direct linkages between organic farmers and retailers. For the specified purpose, the performance and current status of retail stores and farming practices in Coimbatore district, Tamil Nadu was studied. A sample of 30 farmers was selected randomly and primary data was collected using structured interview schedule. The study shows that, the farmer can earn an additional profit of Rs.1, 99, 712.5, Rs.1, 04, 597.5 and Rs.79, 654.75 per acre of tomato, onion and Okra crops respectively. The challenges and suggestions in implementing the alternative method of procurement were listed and ranked by the farmers. The ranked data was analysed using Henry Garrett's ranking technique. The results of Henry Garrett's ranking technique shows that the major challenges in implantation of the proposed linkage are Lesser price, Delayed payment, Transportation cost, No assurance of procurement, Organic conversion, Quality aspects and Certification cost. Similarly, the suggestions alleged by the farmers were ranked using Henry Garrett's ranking technique. Premium price, Mandatory procurement by retailers, OTC payment, Organic awareness, Proper guidelines, Training, Reducing certification cost, Quality standards and Contract basis are the suggestions ranked by the farmers. Based on the empirical evidence provided, study suggests timely inspections regarding organic standards, premium prices, promoting market information among the farmers and organising awareness programs, training programs and also for certain farmers, government can give subsidy in certification cost, creating new FPOs. By these all, the linkage of organic farmers with retail store will be more efficient is being suggested from the study.

CHAPTER I

1. Introduction

In recent years, there is growing awareness of environmental protection, sustainable agricultural practices and the adverse impact of chemical inputs on the soil, environment and human health. This has prompted a shift towards organic farming and consumption of organic food. Organic food products are broadly defined as those food products are produced without the use of synthetic external inputs such as chemicals, fertilizers, pesticides and synthetic hormones or genetically modified organisms (GMOs).

1.1. Status of Organic Farming in the world

The total land under organic farming increased from 11 million hectare in 1999 to 69.8 million hectares in 2018, and the total number of organic producers increased from 2 Lakh in 1999 to 2.7 million in 2018. In 2016, the size of the global organic food market was USD 10.25 billion in terms of value and it is projected to grow at a Compound Annual Growth Rate (CAGR) of 16.5 percent during 2017-2022, to reach USD 262.85 billion by 2022.

1.2. Status of Organic Farming in India

In India, the traditional method of agriculture was by default organic with negligible use of chemical inputs. Looking at the premium that consumers were willing to pay for organic food products prompted some Indian retailers to enter the organic food supply business. Survey based studies have shown that Indian consumers, especially those with middle to high levels of Income and higher education, believe that organic food products are healthier and superior in quality to conventional products, and they are willing to pay a premium for such produce. This has created lucrative business opportunities for the entrepreneurs. India has the largest number of organic producers in the world, according to World of Organic Agriculture Report 2018 published in February. With 8,35,000 certified organic producers globally, it is home to more than 30 percent of total number of organic producers (2.7 million) in the World. India contributes only 2.59 percent (1.81 million hectare) of the total area (69.8 million hectare).

It is found that before the beginning of cultivation of organic crops, their marketability and that too at a premium over the conventional produce has to be assured. Inability to get a premium at least during the period required to achieve the productivity levels of the conventional crop will be a deterrent. The survey found that a number of young entrepreneurs with innovative ideas have established start-ups in organic food business. In India, farm sizes

are small (average farm size is 1.15 hectare) and, therefore, retailers sourcing directly from farmers are expected to work with a large number of farmers.

1.3. Organic certification:

Certification not only assures consumers that a product that is not observably different from non-organic food was grown, processed and packaged according to rules that limit or ban synthetic inputs and that protect the environment, and assures producers that unscrupulous use of the term “organic” does not defraud them of price premiums and market shares (reduces transaction cost for buyers). It also makes the market more efficient by reducing information asymmetry along the marketing chain.

The 10th five year plan emphasizes promotion and encouragement of organic farming with the use of organic waste, Integrated Pest Management (IPM) and Integrated Nutrient Management (INM) (GOI, 2003).

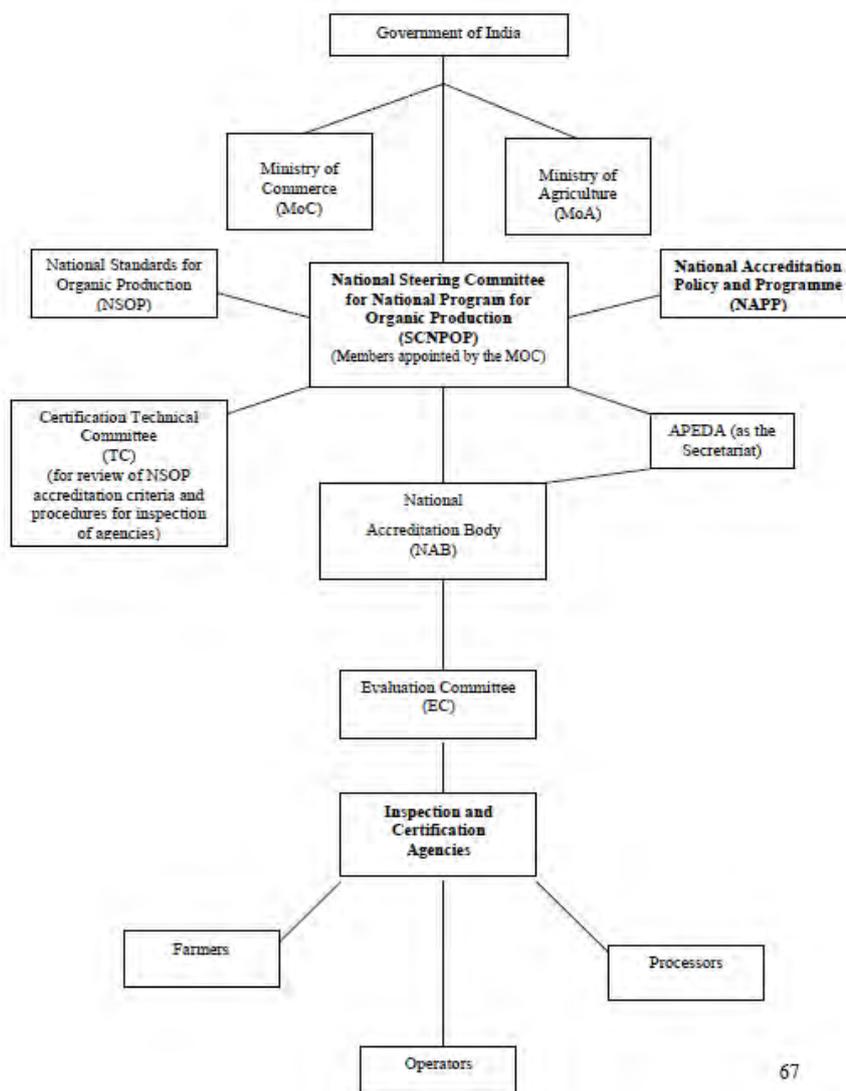
In 2001, a National Programme for Organic Production (NPOP) which aims at establishing national standards for organic products, based on IFOAM standards, was launched.

1.4. Location of NCOF and RCOF and their jurisdiction

Name of the centre	Location	Jurisdiction
NCOF	Ghaziabad	All India, esp. Delhi, UP and
RCOF	Bangalore	Karnataka, Kerala, TN, Pondicherry
RCOF	Bhubaneshwar	Bihar, Orrisa, West Bangal
RCOF	Hissar	Haryana, HP, Punjab, J&K
RCOF	Imphal	All NE States
RCOF	Jabalpur	MP, Gujrat, Rajasthan, Daman & Diu
RCOF	Nagpur	Maharashtra, Andhra Pradesh, Goa, Dadar & Nagar Haveli

Source: Bhattacharya, 2005.

1.5. Operational Structure of National Programme for Organic Production (NPOP), India (Source: Raste, 2004)



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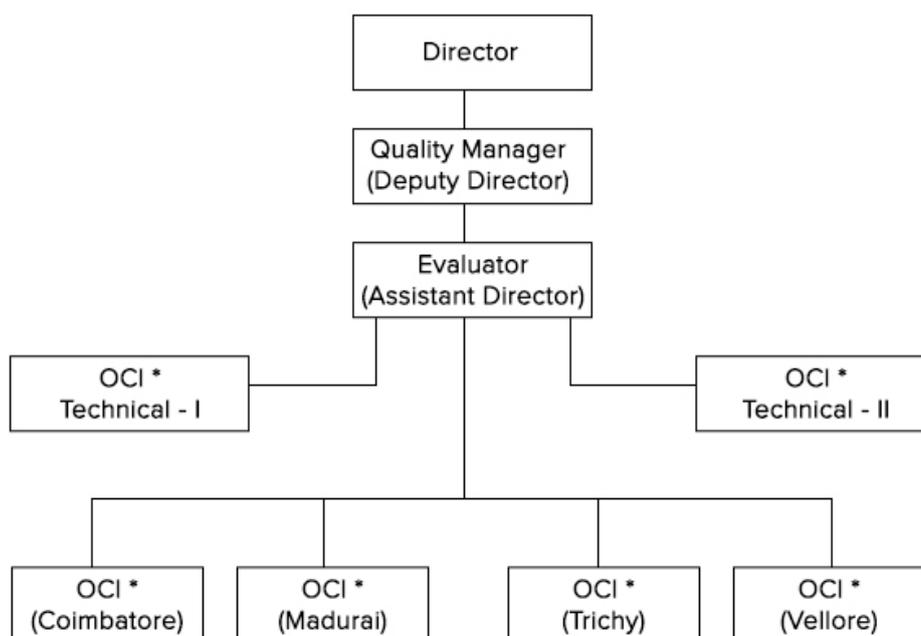
1.6. Tamil Nadu Organic Certification Department

Tamil Nadu Organic Certification Department (TNOCD) was established in the year 2007- 2008 to carryout inspection and certification of organic production system in accordance with NPOP (National Programme for Organic Production), which was launched by Government of India in the year 2000 and notified in October 2001 under the Foreign Trade and Development Act (FTDR Act).

Tamil Nadu Organic Certification Department is accredited by APEDA (Agricultural and Processed Food Products Exports Development Authority), New Delhi, Ministry of Commerce and Industry, Government of India. The accreditation number allotted to Tamil Nadu Organic Certification Department is NPOP/NAB/0019. Organic Certification carried out by this Department is on par with standards of European Union.

Tamil Nadu Organic Certification Department also imparts free training to registered organic farmers on National Standards for Organic Production, and Tamil Nadu Organic Certification Department Standards. During the year 2017-18, 30910 acres of land have been registered under Organic Certification by 3672 farmers in Tamil Nadu.

1.7. Organisational structure of TamilNadu Certification Department (TNOCD)



* Organic Certification Inspectors

** Head Quarters of Organic Certification Inspectors

Source: www.tnocd.net

Table 1.7.1: Average Price Difference between Organic and Conventional Products (in Percentage)

Product	Average Price Difference
Oilseed	17.6
Rice	17.1
Tea	18.6
Spice	18.9
Fruits and Vegetables	20.5
Medicinal plants	22.2
Herbs	21.8

Source: Arpita Mukherjee, Avantika Kapoor & Souvik Dutta. (2018). Organic Food Business in India: A Survey of Companies. *Indian Council for Research on International Economic Relations*, New Delhi, India.

Table 1.7.2: Fee structure of TNOCD

Item	Certification only on NPOP (In Rupees)	Certification on Foreign Standards (In Rupees)	Remarks
Registration fee	500 for small and marginal farmers 1000 for other farmers	5000/-	Annual renewal fee 25% of the registration fee
Fee for Inspection and certification	1000/ day	1200/day	For preparation, Inspection and certification work.
Fee for travel time	200/day	200/day	-
Travel Expenses	Actual	Actual	For travel, food and accommodation when applicable.
Fee for scope certificate	1000/-	1500	The added value of widely recognized certificate.
Fee for Transaction certificate, if required	500/-	1000/-	-
Chemical analysis, if required	Actual cost	Actual cost	Soil samples, water, leaf samples and product sample.

Source: Tamil Nadu Organic Certification Department

1.8. Status of Retail stores in India

With the rising preference for organic foods, a number of stores have emerged around the country to offer consumers a taste of healthy and fresh produce. The retailers who are supplying fresh organic vegetables to consumers are Reliance fresh, Big Bazar, Easy day.

In all over the India, there are 700 reliance fresh operating in 93 cities, 256 big bazars operating in 120 cities and 890 Easy day stores operating in 246 cities.

Some of the major organic retail stores in India are

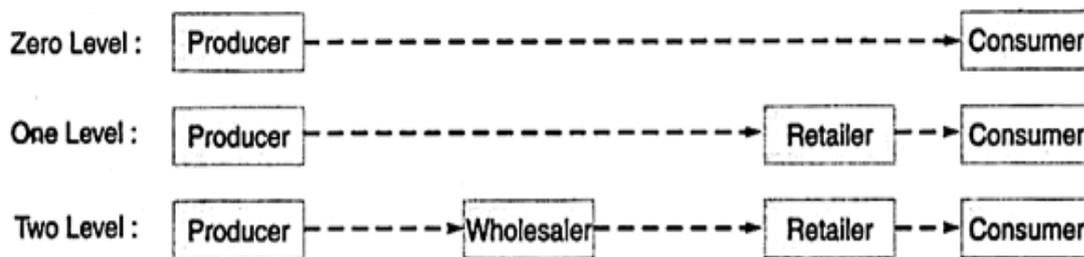
1. Navdanya Organic Outlet, Delhi
2. Organic Mandya, Mandya/Bangalore
3. Down to Earth, Jaipur
4. Restore, Chennai
5. Vaer Organic, Chennai
6. Sage Sustainable Living, Hyderabad
7. Eatofresh, Chandigarh
8. Conscious Food, Mumbai
9. Krishija, Kolkata
10. Farm 2 Kitchen, Pan India

Some of the foreign corporate companies selling organic products are Organic valley, Horizon Organic, Stonyfield organic in USA.

1.9. MARKETING CHANNELS FOLLOWED BY FARMERS:

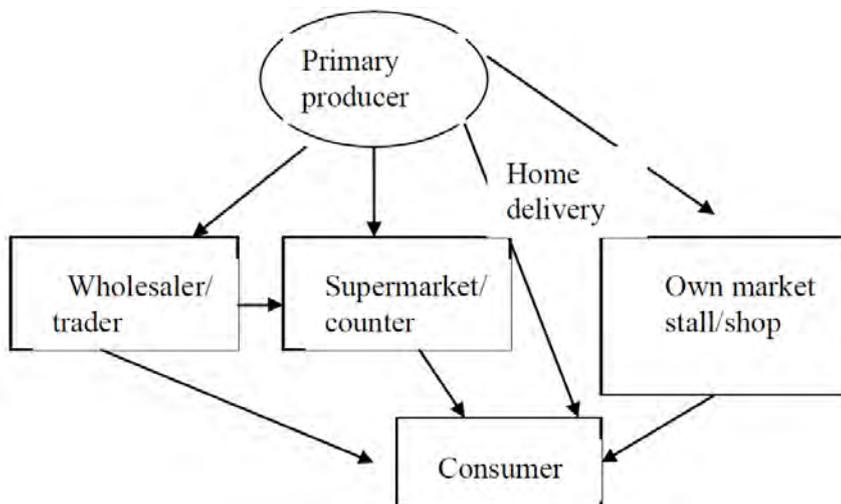
Channels of Vegetables:

1. Producers–consumer (village sale)
2. Producer–retailer–consumer (local sale)
3. Producer–Trader–commission agent–retailer–consumer.
4. Producer–commission agent–retailer–consumer
5. Producer–primary wholesaler–secondary wholesaler– retailer– consumer (distant market).



Distribution Channels in domestic organic produce market

(Source: Kumar and Jain, 2003)



PROCUREMENT CHANNELS FOLLOWED BY RETAILERS:

- Retailer → Farmer Associations/Farmer cooperatives → Farmers
- Retailer → Farmer

In this paper, based on primary survey of 20 farmers engaged in organic farming and 10 farmers engaged in conventional farming, the assessment was done. For the specified purpose, the performance and current status of 3 organic retail stores located at Coimbatore, Tamil Nadu was studied. It also examines the organic retail stores perception about the growth of the sector and makes policy recommendations for the holistic growth of this sector.

1.10. Research problem:

On the other hand, farmers sell their produce to markets through a long marketing channel. This results in increased cost of transaction, increased marketing costs, reduced producer's share in consumer's rupee and less income. This study will be focused on assessing the feasibility and viability of direct linkages between organic farmers and retailers.

1.11. Objectives:

The specific objectives of the study are

- To suggest a possible linkage in order to link retailers to the local Organic farmers of the nearby villages.
- To identify the challenges faced by the organic farmers in marketing and getting premium prices.
- To compare the organic farming with conventional farming with respect to production, marketing, selling prices and quality aspects.
- To understand the current procurement channels carrying out by retailers.

CHAPTER II

Description of study area

2.1 General particulars of the village:

For the specified purpose, the performance and current status of Coimbatore district, Tamil Nadu was studied.

Sl. No.	Name of Taluk	Towns	Sl. No.	Name of CD Block	No. of Villages	Inhabited Villages
1	Mettupalayam	3	1	Karamadai	20	20
2	Sulur	13	2	Madukkarai	10	10 ★
3	Coimbatore North	19	3	Periyanaickenpalayam	5	5
4	Coimbatore South	19	4	Sarkarsamakulam	6	6
5	Pollachi	14	5	Thondamuthur	9	9 ★
6	Valparai	1	6	Anaimalai	15	15
			7	Kinathukadavu	34	33
			8	Pollachi North	43	43 ★
			9	Pollachi South	24	24
			10	Annur	21	21 ★
			11	Sulur	10	10 ★
			12	Sulthanpet	20	20
				Not under any CD Block	20	3
Total		69	Total		237	219

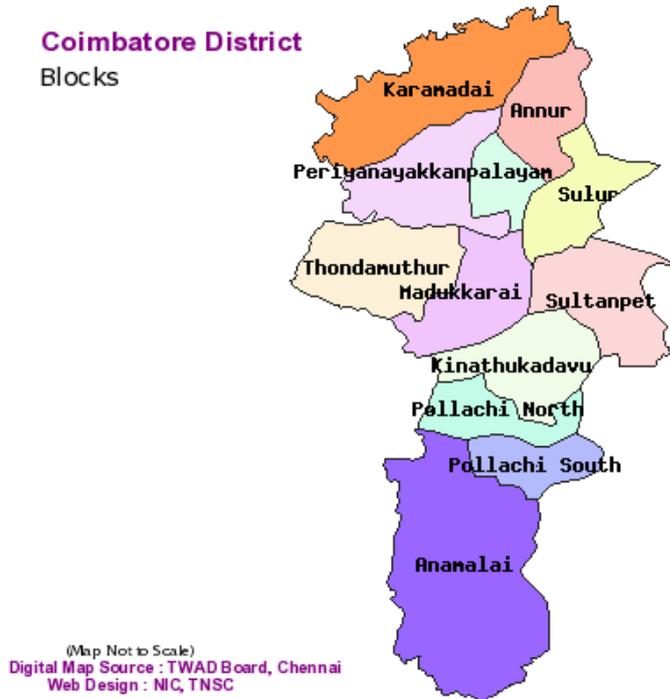


Table 2.1.Population Details of the District

		State		District		
Number of Villages	Total	15,979		237		
	Inhabited	15,049		219		
	Uninhabite	930		18		
Number of Towns	Statutory	721		51		
	Census	376		18		
	Total	1,097		69		
Number of Households	Normal	1,84,62,231		9,55,286		
	Institution	47,452				
	Houseless	15,299		442		
Population	Total	Persons	7,21,47,030		34,58,045	
		Males	3,61,37,975		17,29,297	
		Females	3,60,09,055		17,28,748	
	Rural	Persons	3,72,29,590		8,39,105	
		Males	1,86,79,065		4,19,032	
		Females	1,85,50,525		4,20,073	
	Urba	Persons	3,49,17,440		26,18,940	
		Males	1,74,58,910		13,10,265	
		Females	1,74,58,530		13,08,675	
		State		District		
		Number	Percentage	Number	%	
Literates	Persons	5,18,37,507	80.09	26,35,907	83.98	
	Males	2,80,40,491	86.77	13,94,790	89.06	
	Females	2,37,97,016	73.44	12,41,117	78.92	
Scheduled Castes	Persons	1,44,38,445	20.01	5,35,911	15.50	
	Males	72,04,687	19.94	2,66,960	15.44	
	Females	72,33,758	20.09	2,68,951	15.56	
Scheduled Tribes	Persons	7,94,697	1.1	28,342	0.82	
	Males	4,01,068	1.11	14,245	0.82	
	Females	3,93,629	1.09	14,097	0.82	

Workers and Non-					
Total Workers (Main and Marginal)	Persons	3,28,84,681	45.58	15,67,950	45.34
	Males	2,14,34,978	59.31	10,83,125	62.63
	Females	1,14,49,703	31.8	4,84,825	28.04
(i) Main Workers					
(i) Main Workers	Persons	2,79,42,181	38.73	14,43,252	41.74
	Males	1,89,61,194	52.47	10,22,328	59.12
	Females	89,80,987		4,20,924	24.35
(ii) Marginal Workers					
(ii) Marginal Workers	Persons	49,42,500		1,24,698	3.61
	Males	24,73,784		60,797	3.52
	Females	24,68,716		63,901	3.70
Non-Workers					
Non-Workers	Persons	3,92,62,349		18,90,095	54.66
	Males	1,47,02,997		6,46,172	37.37
	Females	2,45,59,352		12,43,923	71.96

Category of Workers (Main & Marginal)

(i) Cultivators	Persons	42,48,457	12.92	80,217	5.12
	Males	27,32,479	12.75	51,679	4.77
	Females	15,15,978	13.24	28,538	5.89
(ii) Agricultural Labourers	Persons	96,06,547	29.21	2,30,026	14.67
	Males	48,42,707	22.59	1,17,447	10.84
	Females	47,63,840	41.61	1,12,579	23.22
(iii) Workers in household industry	Persons	13,64,893	4.15	50,085	3.19
	Males	5,91,132	2.76	27,648	2.55
	Females	7,73,761	6.76	22,437	4.63
(iv) Other Workers	Persons	1,76,64,784	53.72	12,07,622	77.02
	Males	1,32,68,660	61.9	8,86,351	81.83
	Females	43,96,124	38.4	3,21,271	66.27

2.2. Agricultural status of the village (2017-18):

Table 2.2: Land use pattern of the village

Sl.No.	Classification	Area (ha)
1.	Forest	6647
2.	Barren and Uncultivable uses	4793
3.	Land put to Non-Agricultural uses	76045
4.	Cultivable Waste	8619
5.	Permanent Pastures and Other Grazing Land	77
6.	Land Under Miscellaneous Tree Crops and Grooves not included in Net Area Sown	3309
7.	Current Fallows	26647
8.	Other Fallow Land	68553
9.	Net Area Sown	172409
10.	Geographical Area according to Village Records	367098
11.	Total Cropped Area	176808
12.	Area cropped more than once	4399

Source: Deputy Director of Statistics, Coimbatore. ('G' Return)

2.2.1. Area, Production and Productivity of major crops cultivated in the district:

Table 2.3: Area, Production productivity of major crops

Crops	Area(ha)		Production (MT)		Productivity (Kg/ha)	
	Cbe	India	Cbe	India	Cbe	India
Tomato	1,945	7,69,000	19,864	1,96,60,000	10,208	-
Onion	786	1,267	10,239	23,284	13,027	-
Okra	273	5,08,000	2,366	6,168	8,667	-
Banana	7,412	9,00,000	2,85,123	31,218	38,468	-
Coconut	84,531	22,15,000	12,197	16,046	144	-

2.2. General particulars of the Retail Stores:

Uyir Organic farmer market, Sugam organics and SMK Organic food store are the leading seller of organic products in Coimbatore. Uyir organic was started in the year 2015 at Dr. Rajendra Prasad road, P N Palayam, Coimbatore-37. Sugam Organics was started in the year 2002 at Avinashi road, Goldwins, Peelamedu , Coimbatore-14. SMK Organic store was started in 2011 at Thirumurugan nagar, Vadavalli, Coimbatore-41.

Organic Retail Stores brings farmer and buyer into unified platform and ensures the quality of the products and best price from the farmers. These stores procures fresh organic fruits and vegetables from the nearby farmers and supply to consumers. In addition to that, they also supplies organic products such as spices, Groceries, etc.

Chapter III

Methodology

The assessment was done based on primary data collected from the 20 local Organic and 10 conventional farmers and 3 Organic retail stores using the formulated structured interview schedule. Simple random sampling was used in selecting sample respondents. Also, Department of Sustainable Organic Agriculture at Coimbatore was investigated regarding the method of certification of organic produces.

Using the collected primary data, the cost of production and marketing of vegetables to the market and retailers for the existing system and for the proposed system of direct linkage between farmers and the Retailers was calculated. Besides, the profit that farmers receive in the current and proposed mode of marketing was calculated. Finally, the increased producer's share in consumer's rupee and the additional profit that the farmers gain through the proposed linkage were determined.

3.1 Henry Garrett's ranking technique:

This technique is used to evaluate the most significant factor which influences the respondent. As per this method, respondents have been asked to assign ranks for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula:

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

Where, R_{ij} = Rank given for the i^{th} variable by j^{th} respondents

N_j = Number of variable ranked by j^{th} respondents

With the help of Garrett's Table, the per cent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. The factors having highest mean value is considered to be the most important factor.

For the current study, the respondents have been asked to rank from 1 to 7 for the factors that have to be established for the successful launch of linking farmers to the retailers. These scores were manipulated mathematically and each factor has been assigned a rank based on its importance and influence over the farmers.

Chapter IV

Results and Discussion

The findings of the present study as well as relevant discussion have been presented under following heads:

4.1. Enhancement in the profit of the farmers:

The following table shows the sale price of the produce under conventional marketing channel and the proposed organic farming and the estimated increase in profit of the farmer.

Table 4.1: Comparison between profits received by the farmers in the conventional and Organic farming

Commodity	Particulars	Existing System (Rs./Kg)	Direct linkage (Rs./Kg)	Increased profit (Rs./Kg)	Increased profit (Rs./ac)	Final Profit (Rs./yr)
Tomato	Sale price	48	57.84	9.84	1, 99, 712.5 (43.91% increased than existing)	1,97,212.5 (Certificati on cost Rs.2500/yr)
	Transportation cost (Field to PU)	0.5	0.65	-0.15		
	Marketing cost	4.1	1.7	2.4		
	Cost of cultivation	6.4	2.24	4.16		
	Profit	37	53.25	16.25		
Onion	Sale price	45	54.23	9.23	1, 04, 597.5 (81.13% increased than existing)	1,02,097 (Certificati on cost Rs.2500/yr)
	Transportation cost (Field to PU)	0.5	0.65	-0.15		
	Marketing cost	2.8	0.45	2.35		
	Cost of cultivation	15.2	5.13	10.07		
	Profit	26.5	48	21.5		
Okra	Sale price	37	44.6	7.6	79, 654.75 (106.28% increased than existing i.e., twice)	77,154.75 (Certificati on cost Rs.2500/yr)
	Transportation cost (Field to PU)	0.5	0.65	-0.15		
	Marketing cost	2.8	0.45	2.35		
	Cost of cultivation	15.08	5.09	9.9		
	Profit	18.62	38.41	19.79		

From the above table, it was found that when the producer sells his produce through the current marketing channel, the price received for the produce is Rs.48 per kg of tomato. And if the organic farmers intends to sell his produce to the retailers he can sell his produce at Rs.57.84 per kg of produce. But in case of the current marketing channel, the farmers need not pay for the transportation cost more and if the proposed direct linkage channel is implemented the farmers need to bear an additional transportation cost of Rs.0.15 per kg of the produce. Despite the inclusion of transportation cost, the farmers will get an additional profit of Rs.16.25 per kg of tomato. Finally, the farmer will have an additional profit of Rs.1, 99, 712.5 per acre for tomato. Similarly, the farmer can earn Rs1, 04, 597.5 and Rs.79, 654.75 per acre of onion and Okra crops respectively which excludes certification cost of Rs.2500/year.

4.2. Producer's share in consumer's rupee:

The following table shows the cost of procuring fresh vegetables in the current system and proposed direct linkage system of organic farmers and retail stores.

Table 4.1: Comparison between cost of procuring fresh organic vegetables in the current system and proposed direct linkage system

Commodity	Particulars	Existing System (Rs./Kg)	Direct linkage (Rs./Kg)	Producer's share in consumer's rupee (Rs./kg)
Tomato	Procurement cost	42	57.84	12.68
	Marketing cost	1	1	
	Transportation cost	3.16	0	
	Total cost	46.16	58.84	
	Selling price	65	65	
	Profit	18.84	6.16	
Onion	Procurement cost	43	54.23	12.23
	Marketing cost	1	1	
	Transportation cost	3.16	0	
	Total cost	49.16	55.23	
	Selling price	60	60	
	Profit	17	4.77	
Okra	Procurement cost	37	44.6	4.44
	Marketing cost	1	1	
	Transportation cost	3.16	0	
	Total cost	41.16	45.6	
	Selling price	50	50	
	Profit	8.84	4.4	

The cost of procuring 1kg of tomato from the farmers is Rs.42. And if the local organic farmers are linked directly to the retailers, it will cost Rs.57.84 per kg of tomato. This shows Rs.12.68 which is the money consumers are spending in purchasing one kg of tomato from the retailers which will be the producer's share. Ultimately, the Producer's share in consumer's rupee will be Rs.78, 679.4 per year for purchasing 17kg of tomato per day. The major cause for this producers share is because of procuring organic vegetables at premium prices and reduced transportation cost. Similarly, procuring onion and Okra from the local organic farmers will give producers share in consumers rupee Rs.12.23 and Rs.4.44 per kg of the produce respectively. Ultimately, if the proposed linkage of the retailers and local farmers is implemented, the farmers will get their share in consumer's rupee i.e., Rs.75, 887.15 for onion and Rs.16, 206 for Okra. These results are shown briefly in the above table.

4.3. Challenges alleged by the farmers:

The farmers were asked to list down the problems in the proposed system of linking organic farmers with retailers and each of the problem statement was ranked from 1 to 8 based on the importance of each factor by the farmers itself. Garrett's Ranking Technique was employed to analyze the ranked data and is presented as follows.

Table 4.3.1: Preferences and ranking of problems alleged by the farmers

S.No	Particulars	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
1	Lesser price	20	6	2	0	1	0	0	0
2	Delayed payment	8	6	3	8	2	4	0	0
3	Organic conversion	2	1	7	9	0	11	0	0
4	Transportation	0	6	2	11	1	9	0	1
5	Quality aspects	0	11	11	0	5	2	0	1
6	No assurance of procurement	0	0	5	0	12	3	9	1
7	Certification cost	0	0	0	2	8	1	16	3
8	Seasonal supply	0	0	0	0	1	0	5	24

The table shows the preference and ranking of problems anticipated by the respondents about the linking organic farmers with retailers. Among the 30 farmers, Lesser price was ranked as first by 20 respondent, second ranked by 6 respondents. Similarly, delayed payment was ranked as first by 8 respondents, second ranked by 6 respondents. In the same way all respondents gave ranking to their problems facing.

The Garrett's ranks were calculated by using appropriate Garrett's Ranking formula. The based on the Garrett's ranks, the Garrett's value was calculated. The Garrett's tables and scores of problem listed in above table, and multiplied to records scores in table 4.3.2, finally by adding each row, the total Garrett's score were obtained

$$\text{Per cent position} = 100 (\text{Rij} - 0.5) / \text{Nj}$$

Where, Rij = Rank given for the ith variable by jth respondents

Nj = Number of variable ranked by jth respondents

Table 4.3.2: Percent Position and Garrett's Value

S. No.	$100 (\text{Rij} - 0.5) / \text{Nj}$	Percent position	Garrett's score
1	$100 (1-0.5) / 8$	6.25	80
2	$100 (2-0.5) / 8$	18.75	69
3	$100 (3-0.5) / 8$	31.25	60
4	$100 (4-0.5) / 8$	43.75	54
5	$100 (5-0.5) / 8$	56.25	47
6	$100 (6-0.5) / 8$	68.75	41
7	$100 (7-0.5) / 8$	81.25	33
8	$100 (8-0.5) / 8$	93.75	21

Table 4.3.3: Calculation of Garrett's score and Ranking for the problems listed by the sample respondents

Problems	Garrett's score								Avg	Rank
	1	2	3	4	5	6	7	8		
Lesser price	1600	552	120	0	0	0	0	0	75.73	1
Delayed payment	480	414	60	324	517	0	0	0	59.83	2
Organic conversion	120	207	420	108	517	205	0	0	53.9	5
Transportation	0	552	540	594	0	0	66	0	58.4	3

Quality aspects	0	138	0	54	235	492	264	21	42.8	6
No assurance of procurement	0	276	660	486	94	123	33	0	55.7	4
Certification cost	0	0	0	0	0	369	528	105	33.4	7
Seasonal supply	0	0	0	54	47	41	99	504	24.83	8

From the above table, the most important problem that the farmers expect to arise from “linking organic farmers with retail stores” is that the farmers tend to get more profit if they are willing to sell their produce at premium prices. Because, Farmers are afraid that they may get lesser price for their produce. Another important factor is that the payment can be delayed after selling. Following these factors is that, the farmers have to abide the transportation cost from the field to the retail stores in the proposed system. And also, they felt that the conversion of conventional to organic is difficult, there is no assurance of procurement, the quality parameters are not maintained in organic and certification cost is not affordable. At last, the least important problem is that that the supply won’t be for throughout the year and it depends on the season.

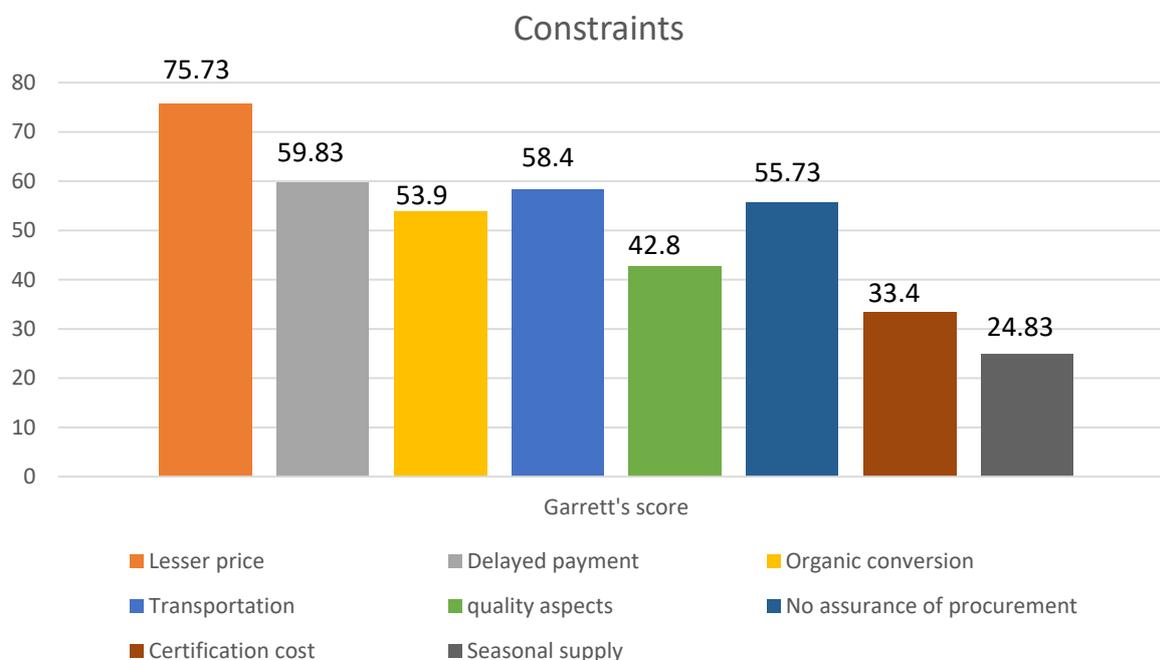


Fig. 4.1: Average Garrett’s scores of problems expected to arise in the process of linking farmers and retailers.

Similarly, the farmers are asked to list out their suggestions for establishing the linkage and they were asked to rank the steps to be taken by the government for successful implementation of the proposed marketing channel from 1 to 9. These ranks were analysed using the Henry Garrett's ranking technique. The factor with more Average Garrett's score is found to be the most important factor that influences the linkage between organic farmers and retailers. The results of Garrett's ranking for the possibilities are as follows.

Table 4.3.4: Calculation of Garrett's score and Ranking for the suggestions listed by the respondents

Suggestions	Garrett's score									Avg	Rank
	1	2	3	4	5	6	7	8	9		
Premium price	1600	560	122	0	0	0	0	0	0	76.73	1
Mandatory procurement	486	350	61	330	550	0	0	0	19	59.86	2
Proper guidelines	162	210	427	110	450	225	0	0	38	54.06	5
Contract basis	0	140	0	0	150	90	38	31	399	28.26	9
OTC payment	0	560	549	605	0	0	76	0	0	59.66	3
Training	81	70	0	55	200	495	304	62	38	43.5	6
Organic awareness	0	280	610	495	100	45	38	31	38	54.56	4
Reducing certification cost	0	0	0	0	0	405	532	217	0	38.46	7
Quality standards	0	0	61	55	50	90	152	589	38	34.5	8

From the above table, it has been concluded that the organically produced produce should get the premium prices. Another issue quoted by the respondents is that, they don't have any assurance for procurement of their produce by the retailers. So, the suggestion given by

the farmers is to make mandatory procurement of the produce from the local farmers. The third most important way to implement the project is making immediate cash payment to the farmers for the produce is the important way to make farmers sell their produce directly to retailers. In this method of linkage, the government shall organise Organic awareness programs, proper guidelines should be given to the farmers for efficient production of organic produces, Training programs are also can be conducted to train the farmers in the organic way.

Reducing the certification cost has been ranked as seventh by the sampled respondents. Sometimes, the organic farmers are unable to afford the certification cost by government. Purchasing the produce from the local farmers can be initiated on a contractual basis with a group of farmers is a suggestion given by the respondents and has been ranked eighth among other factors. Followed by these proposals, farmers are not having much knowledge in maintaining quality standards in organic farming. So Suggestions can be given based on quality standards such as Indigenous varieties with good quality produces with good yield.

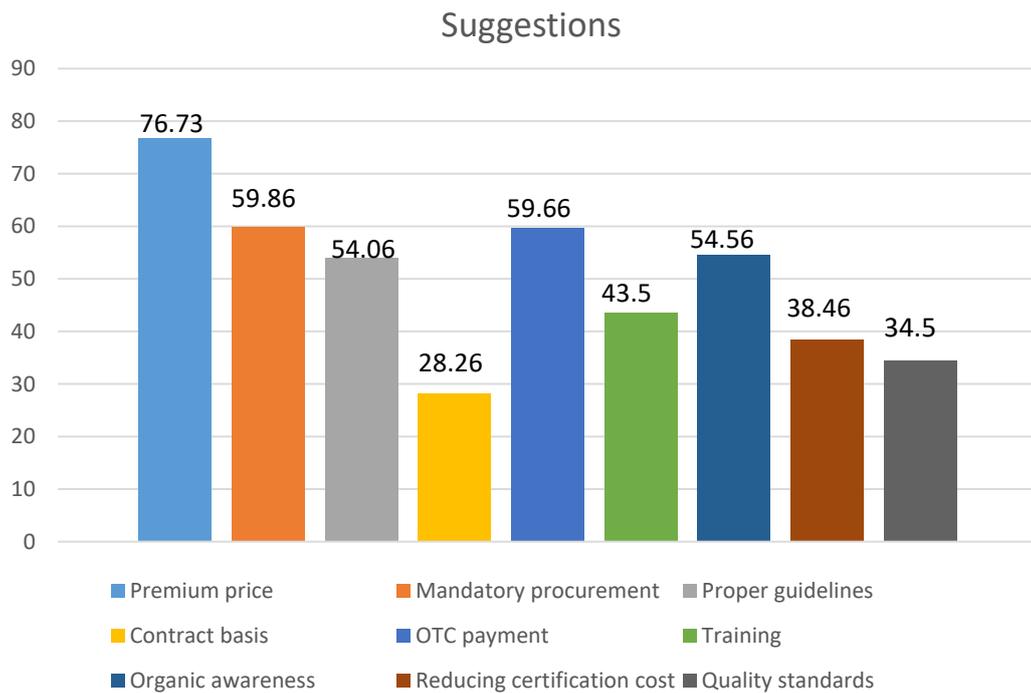


Fig. 4.2: Average Garrett's scores of suggestions proposed by the respondents to link farmers and Retailers.

CHAPTER V

Summary and Conclusion

The study shows that, that when the producer sells his produce through the current marketing channel, the price received for the produce is Rs.48 per kg of tomato. And if the organic farmers intends to sell his produce to the retailers he can sell his produce at Rs.57.84 per kg of produce. But in case of the current marketing channel, the farmers need not pay for the transportation cost more and if the proposed direct linkage channel is implemented the farmers need to bear an additional transportation cost of Rs.0.15 per kg of the produce. Despite the inclusion of transportation cost, the farmers will get an additional profit of Rs.16.25 per kg of tomato. Finally, the farmer will have an additional profit of Rs.1, 99, 712.5 per acre for tomato. Similarly, the farmer can earn Rs.1, 04, 597.5 and Rs.79, 654.75 per acre of onion and Okra crops respectively excluding Certification cost Rs.2500/year.

It was found from the study, the cost of procuring 1kg of tomato from the farmers is Rs.42. And if the local organic farmers are linked directly to the retailers, it will cost Rs.57.84 per kg of tomato. This shows Rs.12.68 which is the money consumers are spending in purchasing one kg of tomato from the retailers will be the producers share. Ultimately, the Producer's share in consumer's rupee will be Rs.78, 679.4 per year for purchasing 17kg of tomato per day. The major cause for this producers share is because of procuring organic vegetables at premium prices and reduced transportation cost. Similarly, procuring onion and Okra from the local organic farmers will give producers share in consumers rupee Rs.12.23 and Rs.4.44 per kg of the produce respectively. Ultimately, if the proposed linkage of the retailers and local farmers is implemented, the farmers will get their share in consumer's rupee i.e., Rs.75, 887.15 for onion and Rs.16, 206 for Okra.

The employment of Henry Garrett's Ranking technique to analyse the rankings given by the farmers to the problems listed by themselves implies that, the most important problem that the farmers expect to arise from "linking organic farmers with retail stores" is that the farmers tend to get more profit if they are willing to sell their produce at premium prices. Because, Farmers are afraid that they may get lesser price for their produce. Another important factor is that the payment can be delayed after selling. Following these factors is that, the farmers have to abide the transportation cost from the field to the retail stores in the proposed system. And also, they felt that the conversion of conventional to organic is difficult, there is no assurance of procurement, the quality parameters are not maintained in organic and certification cost is

not affordable. At last, the least important problem is that that the supply will not be for throughout the year and it is depends on the season.

Similarly, upon analysing the rankings given by the farmers to the suggestions listed by them, it has been concluded that that the organically produced produces should get the premium prices. Another issue quoted by the respondents is that, they don't have any assurance for procurement of their produce by the retailers. So, the suggestion given by the farmers is to make mandatory procurement of the produce from the local farmers. The third most important way to implement the project is making immediate cash payment to the farmers for the produce is the important way to make farmers sell their produce directly to retailers. In this method of linkage, the government shall organise Organic awareness programs, proper guidelines should be given to the farmers for efficient production of organic produces, Training programs are also can be conducted to train the farmers in the organic way.

Reducing the certification cost has been ranked as seventh by the sampled respondents. Sometimes, the organic farmers are unable to afford the certification cost by government. Purchasing the produce from the local farmers can be initiated on a contractual basis with a group of farmers is a suggestion given by the respondents and has been ranked eighth among other factors. Followed by these proposals, farmers are not having much knowledge in maintaining quality standards in organic farming. So Suggestions can be given based on quality standards such as Indigenous varieties with good quality produces with good yield.

5.1. Policy Suggestions:

The following policy implications may be considered for further research and development based on above results.

The study clearly shows that the organic farmers earn more profit when linked to the Organic retail stores than the existing marketing channel. But the Farmers presume that they would get lower prices in the alternative channel. This indicates the deficit awareness about the market information of organic produces among the farmers. So, there is a pressing need to promote market information of organic produces among the farmers.

As proposed by the farmers, the proposed channel must be made more efficient that inspections can be conducted in retail stores for checking procurement price, payment method, whether the produces are certified are not and by that, linkage between the local farmers and retailers can be initiated through these inspections by Organic certification inspectors.

To meet out the losses, subsidy can be given because the farmers will meet lesser yield and higher cost of cultivation during their organic conversion period (3-4 years).

Many changes are needed if India is to overcome the constraints and achieve its rich potential in organic agriculture.

- Developing appropriate and strong extension services.
- Reducing the cost of certification and easily approachable to farmer.
- Providing subsidies and other financial support during organic conversion period.
- Providing regular training on cultivation techniques of organic agriculture from seed to grain.
- Promoting market information of organic produces among the farmers
- Conducting inspections in retail stores for checking procurement price, payment method, whether the produces are certified are not.
- Suggesting organic farmers to follow integrated farming system to protect themselves from undesired situations.
- Create new FPOs and link with Retail shops.
- Providing awareness about supplying organic produces to e-commerce. Organic Farmers can also sell their produce to nearby collection centres of e-commerce stores. For example, Big Basket. These collections are located in Metropolitan cities such as Chennai, Bangalore, Mumbai, etc. Farmers can sell directly or through FPOs.

Garrett's ranking table

Percentage	Score	Percentage	Score	Percentage	Score
0.09	99	20.93	66	80.61	33
0.2	98	22.32	65	81.99	32
0.32	97	23.88	64	83.31	31
0.45	96	25.48	63	84.56	30
0.61	95	27.15	62	85.75	29
0.78	94	28.86	61	86.89	28
0.97	93	30.61	60	87.96	27
1.18	92	32.42	59	88.97	26
1.42	91	34.25	58	89.94	25
1.68	90	36.15	57	90.83	24
1.96	89	38.06	56	91.67	23
2.28	88	40.01	55	92.45	22
2.63	87	41.97	54	93.19	21
3.01	86	43.97	53	93.86	20
3.43	85	45.97	52	94.49	19
3.89	84	47.98	51	95.08	18
4.38	83	50	50	95.62	17
4.92	82	52.02	49	96.11	16
5.51	81	54.03	48	96.57	15
6.14	80	56.03	47	96.99	14
6.81	79	58.03	46	97.37	13
7.55	78	59.99	45	98.72	12
8.33	77	61.94	44	98.04	11
9.17	76	63.85	43	98.32	10
10.16	75	65.75	42	98.58	9
11.03	74	67.48	41	99.82	8
12.04	73	69.39	40	99.30	7
13.11	72	71.14	39	99.22	6
14.25	71	72.85	38	99.39	5
15.44	70	74.52	37	99.55	4
18.69	69	76.12	36	99.68	3
18.01	68	77.68	35	99.80	2
19.39	67	79.12	34	99.91	1
				100	0

E.Garrett's statistics in Psychology and Education, Feffer and Simans Private Limited, 21969, p.329.

FARMERS INTERVIEW SCHEDULE (Organic Type)

A. General Particulars:

1. Name of the farmer: _____ Age: _____
2. Address: _____ Village: _____
3. Educational Qualification:
- i) Below matric ii) Matric iii) Graduate iv) Others
4. Annual Household Income (Gross in Rs.):
- i) Below 1.5 lakh ii) 1.5 – 3 lakh iii) 3 – 5 lakh iv) Above 5 lakh
5. Land Resources:

S. No.	Land	Area in acre			
		Owned	Leased in	Leased out	Total operated area
1.	Wet land				
2.	Garden land				
3.	Dry land				

Farmer type: Marginal / Small / Medium / Large

6. Farming Experience (in years) : _____
- Experience in organic farming : _____
7. Income obtained from organic farming : _____
8. Particulars of agriculture allied activities : _____

Particulars	Numbers	Total Production	Total Cost (Rs.)	Value of output	Net income

B. Crop Details:

Particulars	Crop I	Crop II	Crop III
Area cultivated (in acre)			
Total cost of cultivation			
Mode of Transportation & Transportation cost incurred by the farmer.			
Marketing cost i) Packaging ii) Grading iii) Storing			
Total production (Yield/acre)			
Price received for the produce (Rs./kg)			
Actual market price of the produce (Rs./kg)			
Gross revenue received from the crop(Rs./acre)			
Net revenue from the crop (Rs./acre)			
To whom do you sell the produce?			
Marketing channel			
Who are the intermediaries involved in the marketing process?			

C. Some other questions related to the objectives:

1. Can you increase your area under cultivation and production of particular crop if the stores requires?

- a. If yes, how much?
- b. If no, why?

2. Are you ready to cultivate other crops if demanded by Retail stores?

- a. If yes, what are all the crops that can be cultivated and and how much can you produce?
- b. If no, why?

3. Do you think this process will be profitable?

- a. If yes, is that more than your current net revenue?
- b. If no, why?

4. Can you suggest any other way of selling your produce to the Retail shops?

5. What are all the problems you are facing in selling the produce?

Less Price	Transportation	Consumer preference	Environmental aspects	Intermediaries	Marketing cost
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6. Do you aware about organic certification?

If yes,

- a. How do you came to know about Certification?
- b. Year first certified
- c. Crops under certification
- d. What is the certification cost?

If no, why?

7. Are you following any Organic quality aspects in production?

If yes, what are the aspects you are following?

Quality Criteria	Crop I	Crop II	Crop III

If no, why?

FARMERS INTERVIEW SCHEDULE (Conventional type)

A. General Particulars:

1. Name of the farmer: _____ Age: _____
2. Address: _____ Village: _____
3. Educational Qualification:
- i) Below matric ii) Matric iii) Graduate iv) Others
4. Annual Household Income (Gross in Rs.):
- i) Below 1.5 lakh ii) 1.5 – 3 lakh iii) 3 – 5 lakh iv) Above 5 lakh
5. Land Resources:

S. No.	Land	Area in acre			
		Owned	Leased in	Leased out	Total operated area
1.	Wet land				
2.	Garden land				
3.	Dry land				

Farmer type: Marginal / Small / Medium / Large

6. Farming Experience (in years) : _____
- Experience in organic farming : _____
7. Total no. of members in the family : _____
8. Income obtained from organic farming : _____
9. Particulars of agriculture allied activities : _____

Particulars	Numbers	Total Production	Total Cost (Rs.)	Value of output	Net income

B. Crop Details:

Particulars	Crop I	Crop II	Crop III
Area cultivated (in acre)			
Total production (Yield/acre)			
Total cost of cultivation			
Price received for the produce (Rs./kg)			
Mode of Transportation & cost incurred by the famer.			
Marketing cost i) Packaging ii) Grading iii) Storing			
Actual market price of the produce (Rs./kg)			
Gross revenue received from the crop(Rs./acre)			
Net revenue from the crop (Rs./acre)			
To whom do you sell the produce? How much distance from your place?			
Marketing channel			
Who are the intermediaries involved in the marketing process?			

C. Some other questions related to the objectives:

1. Instead of selling your produce to the markets, would you like to sell anywhere else?

2. Would you like to sell your produce to Retail Stores?
 - a. If yes, will you sell all your produce to the Retail?

 - b. If no, what will be the problem in the process?
3. At what price will you give your produce?

4. Can you increase your area under cultivation and production of particular crop if the stores requires?
 - a. If yes, how much?
 - b. If no, why?
5. Are you ready to cultivate other crops if demanded by Retail stores?
 - a. If yes, what are all the crops that can be cultivated and and how much can you produce?
 - b. If no, why?
6. Do you think this process will be profitable?
 - a. If yes, is that more than your current net revenue?
 - b. If no, why?
7. Can you suggest any other way of selling your produce to the Retail shops?

8. What are all the problems you are facing in selling the produce?

Less Price	Transportation	Consumer preference	Environmental aspects	Intermediaries	Marketing cost
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Retail stores- Questionnaire

S. No.	Particulars	Responses		
1.	Name of the Store			
2.	Name of the in charge Contact no.			
3.	Address of the store			
4.	Years of Experience			
5.	What are the crops that are being sold? Mention major 3 vegetables			
6.	List of locations from where the vegetables are being procured and how much distance from the store?			
7.	Whether the procured produces are certified or not?			
8.	At what price do you procure from the farmers?	I	II	III
9.	How much the quantity of produces are being procured? Whether in weekly or daily basis?	I	II	III
10.	How the prices are fixed?			
11.	Procurement channel			
12.	Who are the intermediaries involved in the procurement process?			

13.	What is the purchasing price of the commodity from intermediary (cost and margin)	I	II	III
14.	Is there any storage facility available in the shop? (Duration for which commodity can be stored)			
15.	Is there any cold storage facility available in the shop? If yes, give area details			
16.	What are the quality standards do you expecting from farmers? a. Size b. Shape c. Colour d. Uniformity in ripening e. Shelf life	I	II	III
17.	How quality standards are maintained in the shop?			
18.	Do you find any difficulty in procurement of produce?			
19.	Payment pattern			
20.	Who are all your major consumers?			
21.	At what prices do you sell to the consumers? (Rs./kg)	I	II	III

22.	How much profit will you get? (Rs./kg)	
23.	How much turn over you are getting? (Monthly/yearly)	
24.	What is the mode of transportation and cost incurred in it? (Rs./kg)	
25.	Marketing cost incurred in it (Rs./kg) (packaging, grading)	
26.	Would you like to buy from local farmers?	

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UYIR organic Farmers market



SMK Organic food store



Sugam organic



Packaging materials



Tamil Nadu Organic Certification Department



ADH office



District Statistical Office



Farmer's Survey





