

**ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND
VEGETABLE GROWERS IN THIRUVANANTHAPURAM
DISTRICT**

by

NAVITHA RAJ

(2016-11-026)

THESIS

**submitted in partial fulfillment of the
requirements for the degree of**

MASTER OF SCIENCE IN AGRICULTURE

Faculty of Agriculture

Kerala Agricultural University



DEPARTMENT OF AGRICULTURAL EXTENSION

COLLEGE OF AGRICULTURE

VELLAYANI, THIRUVANANTHAPURAM-695 522

KERALA, INDIA

2018

1

DECLARATION

2

I, hereby declare that this thesis entitled “**ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND VEGETABLE GROWERS IN THIRUVANANTHAPURAM DISTRICT**” is a bonafide record of research work done by me during the course of research and the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

Vellayani

Date: 9/8/18



Navitha Raj

(2016 -11-026)

CERTIFICATE

3

Certified that this thesis entitled “**ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND VEGETABLE GROWERS IN THIRUVANANTHAPURAM DISTRICT**” is a record of research work done independently by Ms. Navitha Raj (2016-11-026) under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, fellowship or associateship to her.

**Dr. B. SEEMA**

(Major Advisor, Advisory Committee)

Professor and Head

Department of Agricultural Extension

College of Agriculture, Vellayani

Thiruvananthapuram,

Kerala- 695 522

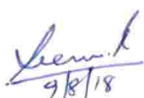
Vellayani

Date: 9/8/18

CERTIFICATE

4

We, the undersigned members of the advisory committee of **Ms. Navitha Raj (2016-11-026)**, a candidate for the degree of **Master of Science in Agriculture** with major in Agricultural Extension, agree that the thesis entitled **“Entrepreneurial behaviour of lease land vegetable growers in Thiruvananthapuram district”** may be submitted by Ms. Navitha Raj, in partial fulfillment of the requirement for the degree.


Dr. B. Seema

(Chairman, Advisory Committee)

Professor and Head

Department of Agricultural Extension

College of Agriculture, Vellayani

Thiruvananthapuram – 695522

Dr. A. Anilkumar

(Member, Advisory Committee)

Professor and Dean i/c

Department of Agricultural Extension

College of Agriculture, Vellayani

Thiruvananthapuram – 695522

Dr. G. S. Sreedaya

(Member, Advisory Committee)

Assistant Professor (Sr. Scale)

Department of Agricultural Extension

College of Agriculture, Vellayani

Thiruvananthapuram- 695522

Dr. Vijayaraghava Kumar

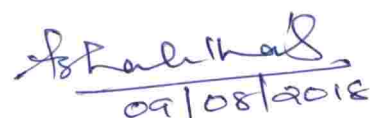
(Member, Advisory Committee)

Professor and Head

Department of Agricultural Statistics

College of Agriculture, Vellayani

Thiruvananthapuram – 695522

External Examiner


Acknowledgements

5

First and foremost, praises and thanks to the Almighty, for everything that happens to me

*With immense pleasure and happiness, I would like to express my sincere gratitude to **Dr. B. Seema**, Professor and Head, Department of Agricultural Extension and chairman for her constructive guidance, wholehearted dedication, advice, constant inspiration and valuable suggestions which render me to accomplish the research work successfully. I extend my sincere gratitude for providing a stress free situation by the open minded approach and for the care and affection bestowed on me throughout the study period.*

*I extend my sincere gratefulness to **Dr. A. Anilkumar**, Professor and Dean i/c, Department of Agricultural Extension for the valuable suggestions, technical advices and incessant motivation throughout the research work.*

*I convey my heartfelt thanks to **Dr. G. S. Sreedaya**, Assistant professor (Sr. Scale), Department of Agricultural Extension for the unceasing encouragement, valuable advices and whole hearted approach right from the beginning of the thesis work.*

*I wish to extend my sincere gratitude to **Dr. Vijayaraghava Kumar**, Professor and Head, Department of Agricultural Statistics, for the timely advice and statistical interpretation of the experiment data.*

*I gratefully acknowledge with special thanks **Dr. N. Kishore Kumar**, Professor and Head TSS, and **Dr. Allan Thomas**, Assistant professor (Sel. Grade) Department of Agricultural Extension for their constructive comments, creative suggestions and affectionate approach at all the stages of research work.*

*I express my sincere thanks to **Aswathi Chechi** and all other non-teaching staff of Department of Agricultural Extension for their sincere cooperation and kindly approach and inspiration offered during the study period.*

I thankfully acknowledge all the respondents of the study for the co-operation and patience shown during the course of my survey.

*No words can express my indebtedness to my dear friends **Suryaja, Elzu, Geethu, Jyothis and Muhsi** their plenteous support, help and jovial company throughout the course of my study. Also I express my sincere thanks to my friends **Anaswara, Aparna, Arya V.C, Pooja, Athira, Stephy, Ajil and Naveen** for their timely support, help, suggestions and co-operation during my research.*

*It's a matter of immense pleasure to express my thanks and whole hearted cheers to my dear extension mates **Reshu, Anju, Silpa, Akhil, Devika, Sreelekshmi, Hridya and Karishma** for their constant support, love and continued motivation.*

*It's my pleasure to express my special thanks to my dear seniors **Dhanu chechi, Preethu chechi, Greeshma chechi and Nitish chetan** for their valuable advices and constant support throughout the study period. I thankfully acknowledge my junior **Cibin** for the help rendered at various stages of the study.*

I thankfully acknowledge the help and support of all my juniors.

*I am dearth of words to express my love to my beloved parents **Sri Somarajan Nair and Smt. Vimala S Rajan** for their dedicated efforts to educate me to this level and whose unparalleled affection and persistent encouragement in keeping my career go a long way throughout my life and I owe profound gratitude to my sister **Neethu and Josin chetan** for their unconditional love and moral support which was instrumental in the successful completion of this venture.*



Vellayani

Navitha Raj

Date: 9/8/18

CONTENTS

7

SL. NO.	CHAPTER	PAGE NO.
1	INTRODUCTION	1-5
2	REVIEW OF LITERATURE	6-25
3	METHODOLOGY	26-42
4	RESULTS AND DISCUSSION	43-84
5	SUMMARY	85-91
6	REFERENCES	92-105
	ABSTRACT	106-109
	APPENDICES	110-131

LIST OF TABLES

8

Table No.	Title	Page No.
1	Variables and their measurement	32
2	Distribution of respondents based on overall entrepreneurial behaviour.	45
3	Distribution of respondents according to their entrepreneurial attributes.	46
4	Comparison of four panchayats with respect to entrepreneurial behaviour	51
5	Distribution of respondents based on structure of tenancy	52
6	Distribution of respondents based on the size of leased land	54
7	Distribution of respondents based on the mode of rent paid	55
8	Distribution of respondents based on the amount of rent paid	56
9	Distribution of respondents based on the crops under cultivation	57
10	Distribution of respondents according to the age	58
11	Distribution of respondents according to their annual income	59
12	Distribution of respondents according to their problem solving ability	60
13	Distribution of respondents according to their market orientation	61

14	Distribution of respondents according to their credit orientation	62
15	Distribution of respondents according to their self reliance	63
16	Distribution of respondents according to their information seeking behavior	64
17	Distribution of respondents according to their deferred gratification	65
18	Distribution of respondents based on their creativity	66
19	Distribution of respondents based on their environmental orientation	67
20	Distribution of respondents based on their decision making ability	68
21	Distribution of respondents based on their resource recycling	69
22	Correlation coefficient between selected personal, socio-economic and psychological characteristics of farmers and their entrepreneurial behaviour along with its components	71
23	Correlation between entrepreneurial behaviour and independent variables	75
24	Constraints faced by respondents related to lease land farming	79
25	General constraints faced by respondents	81

LIST OF FIGURES

10

Fig. No.	Title	Pages Between/ Page No.
1	Map of the study area	27-28
2	Selection of respondents	28-29
3	Conceptual framework of the study	42-43
4	Distribution of respondents of four panchayats based on their entrepreneurial behaviour	45-46
5	Distribution of respondents based on their entrepreneurial behaviour	45-46
6	Distribution of respondents based on the structure of tenancy	52-53
7	Distribution of respondents based on type of agreement of contract	52-53
8	Distribution of respondents according to size of leased land	54-55
9	Distribution of respondents based on the amount of rent paid	54-55
10	Distribution of respondents according to the age	58-59
11	Distribution of respondents according to their annual income	58-59
12	Distribution of respondents according to their problem solving ability	60-61
13	Distribution of respondents according to their market orientation	60-61

14	Distribution of respondents according to their credit orientation	62-63
15	Distribution of respondents according to their self reliance	62-63
16	Distribution of respondents according to their information seeking behavior	64-65
17	Distribution of respondents according to their deferred gratification	64-65
18	Distribution of respondents based on their creativity	66-67
19	Distribution of respondents based on their environmental orientation	66-67
20	Distribution of respondents based on their decision making ability	68-69
21	Distribution of respondents based on their resource recycling	68-69
22	Empirical model	84-85

12

LIST OF PLATES

Plate No.	Title	Pages Between
1	Interaction with farmers	91-92

LIST OF ABBREVIATIONS AND SYMBOLS

13

Abbreviations	Full form
%	Percentage
F	Frequency
GSVA	Gross State Value Added
Hortcorp	Kerala State Horticultural Products Development Corporation
km	Kilometer
M.Sc.	Master of Science
NARP	National Agricultural Research Project
NGO	Non Governmental Organisation
NHGs	Neighbourhood groups
NITI Aayog	National Institution for Transforming India
No.	Number
SHGs	Self Help Groups
SKSs	Swasrya Karshaka Samithis
VFPCK	Vegetable and Fruit Promotion Council of Kerala

LIST OF APPENDICES

Sl. No.	Title	Appendix No.
1	Variables for judge's ratings	I
2	Interview schedule	II

Introduction

1. INTRODUCTION

16

“Once you start working on something, don't be afraid of failure and abandon it. People who work sincerely are the happiest”

These words by Chanakya holds true for the farming community of the country. Agriculture is the backbone of Indian economy, since 61.5 per cent of Indian population depends on agriculture (Census report, 2011).

The agricultural scenario in Kerala is unique and distinct from other states in India in terms of land utilization pattern and cropping pattern. Kerala's agriculture as a whole is developing in terms of income generation from the mid eighties. Agriculture is the foundation of Kerala's economic structure. While the agriculture sector in Kerala has much potential, it is facing many challenges with regard to growth. An entrepreneurial growth in agricultural sector of Kerala is the need of the hour. The share of agriculture and allied sectors in total GSVA of the State has also declined from 13.7 per cent in 2012-13 to 10.5 per cent in 2016-17 (GOK, 2017).

The development of any nation depends primarily on the vital role played by entrepreneurs. The part played by entrepreneurs is of paramount importance especially in a developing country like India. Thus in all economic development activities more attention is being given to entrepreneurship development. The entrepreneur is essentially an economic man, who strives to achieve profits by adoption of innovations. However, entrepreneurs are not simply innovators, they are people with a will to act, to resume risk and to bring about changes through management of human efforts (Dannof, 1949). Further success of farming profession in the country depends mainly on the entrepreneurial behaviour of farmers.

Human development report says that globally the gap between the rich and the poor is widening every day. In India 500 million people are dependent on agriculture.

The gap is evident in the case of farming structure in Kerala. There is a huge difference between people who want to do farming but have no land and the ones who have enough land and socio-economic background but lack of interest in farming profession. This leads to leasing of land which is prevalent from ages in Kerala. The system of agricultural tenancy in which a landowner does not cultivate his land himself and leases out to others for cultivation against payment of rent has been present in all agrarian economies. At the same time it was portrayed as an inefficient and exploitative system without examining its impact under different situations (Deininger *et al.*, 2012). As a result many reforms came, in almost all states which not only aimed at giving occupancy right to tenants for all tenanted land, but also prohibited or restricted leasing or subleasing of land in the future.

The Kerala Land Reforms Act (1963) rendered tenancy legally invalid in the state and prohibited future tenancy as well (Thomas and Devi, 2016). It was implemented with the intention to place agricultural land in the hands of the tillers and ensure a dwelling place for the hutment dwellers, however the objective of distributing land to the tillers of the soil only partly took shape since majority of the former tenants who got benefited from land reforms were people who had no direct dependence on land for their livelihood. Further, agricultural labourers who worked on land for their livelihood did not benefit much from the land redistribution since they got only hutment dwelling rights and very little cultivable land (Nair and Menon, 2006).

There is agreement on the fact that the lease farming continues in India either as share cropping or as fixed rent tenancy, even in states where it is banned (Vijay, 2012). Similarly although the Land Reforms Act in Kerala prohibited the creation of any future tenancies in the state, tenancy very much exist.

Therefore a study on entrepreneurial behaviour of lease land vegetable growers, an unexplored area was attempted. The study focussed on entrepreneurial

behaviour of lease land vegetable farmers and their profile characteristics. The study also analysed the nature and extent of lease land farming in vegetables and the constraints faced by the lessee farmers as mentioned in the objectives of the study.

1.1 OBJECTIVES OF THE STUDY

1. To study the entrepreneurial behaviour of lease land vegetable growers.
1. To study the nature and extent of use of lease land by vegetable growers.
2. To study the profile characteristics of lease land vegetable growers
– personal, social, economic and psychological variables.
3. To identify the constraints faced by farmers and suggestions to overcome the constraints from respondents.
4. To develop a strategy to overcome the constraints faced by the vegetable entrepreneurs as perceived by the respondents.

1.2 SCOPE AND IMPORTANCE OF THE STUDY

Vegetables constitute an important part of a balanced human diet. Vegetables provide all the nutrient components like carbohydrates, proteins, fats, vitamins and water along with roughages which are essential constituents of balanced diet. Vegetables are commercially cultivated all over the country. The production of vegetables is 168,300 thousand tones (NHB, 2015) and as per agricultural census 2010-11, an area of 41,155 ha is under vegetable cultivation in India. The total area under the cultivation of vegetables in Kerala during 2016-17 is 46,732 hectare. It represents 4.94% area of total food crops. Total area under vegetables has an increase of 0.02% in the year 2016-17 than the previous year 2015-16 (GOK, 2017).

But still Kerala depends more on neighbouring states to meet an increasing demand. In the case of Thiruvananthapuram district, dependency is more because of

the proximity to neighbouring state which produces vegetables. The vegetables brought from other states have pesticide residue 3-5 times more than the permissible limit which was noticed by a team of food safety officials from Kerala (Hinduja, 2015). So it is the need of the hour that Kerala should become self-sufficient in vegetable production.

Since vegetable cultivation is capital intensive and risky, a vegetable grower needs to possess the ability to take risk, innovativeness and capacity to marshal resources in order to run enterprise successfully. Entrepreneurship is a distinct factor of production contributing to economic development of a country. Kerala having an agrarian economy, entrepreneurship development has to be given top priority. Hence an enterprise touch in any farm activity is of utmost importance since, it will ensure an entrepreneurial culture among farmers.

In Thiruvananthapuram district, 344.54 acres of land is under lease land vegetable cultivation (GOK, 2009). Though leasing out of land was banned in Kerala, in practice legal restriction on land leasing could neither eliminate the system of lease cultivation nor provide security of tenure to the tenants at will. As a result, landowners now prefer to give land on lease more on informal basis due to legal restriction, thereby making tenants more insecure and without incentive to make long term investment on leased land. Due to such restriction on land leasing, the occupational mobility of land owners who prefer to take up employment outside agriculture has been reduced, instead are forced to their land due to fear of losing it (Haque, 2012).

Various initiatives are taken up by government to legalize land leasing, recognizing the adverse impact of restrictions. On the rise of such issue NITI Aayog panel proposal of Model Land Leasing Act 2016 came to permit and facilitate leasing of agricultural land. But now it is up to state government to enact the laws. It is in this context a study was proposed with the objective of assessing the nature and extent of

lease land vegetable cultivation and the constraints faced by the vegetable growers. Also study throws light on the entrepreneurial behaviour of lease land vegetable growers which will provide database for the policy makers to streamline strategies for growth of vegetable entrepreneurs.

1.3 LIMITATIONS OF THE STUDY

The study has inherent time bound period, resources and small sample size. However utmost care was taken to make the study as systematic as possible. The study was carried out in four panchayats of Thiruvananthapuram district. A wide coverage was not possible as this study was taken as a part of the requirement for M.Sc. (Ag.) programme. Hence generalisability to other districts may not be appropriate. The responses from the respondents were based on their recall memory. However, in spite of all these limitations, serious efforts and devoted care was taken to carry out the research as objective and systematic as possible.

1.4 PRESENTATION OF THE STUDY

The report of the study has been presented under five chapters, the first chapter deals with the introduction which explains the topic, statement of problems, objectives, scope of the study and limitations of the research. The second chapter deals with review of literature which covers major studies related to the present study. The third chapter is the methodology which deals with process of investigation, method of data collection, sample size, sampling design, measurement of the dependent and independent variables. Fourth chapter deals with the results and discussions which explains the results of the study obtained and also the discussion of the results. The fifth and final chapter is the summary of the study and suggestions for future research. The references, appendixes and abstract of the thesis are given in the end.

Review of Literature

2. REVIEW OF LITERATURE

The chapter deals with research finding drawn from literature relevant to the study. A systematic and comprehensive review of the past relevant literature have been felt necessary to develop a better understanding of the present research and to formulate appropriate research methodology. In fact it is a pre-requisite for any future research to be carried out in a scientific manner. A reference to past study gives conformation and repudiation of research outcome with suitable reasons. An attempt is made to put together some of the closely related and available literature on research study.

Review of literature provides the researcher a better insight on the topic of study and to analyse the areas in which the research has been taken up. The collected literatures are presented in the following headings.

2.1 Concept and definition of entrepreneur and entrepreneurship

2.2 Concept of entrepreneurial behaviour and its dimensions

2.3 Concept of lease land farming

2.4 Profile characteristics of lease land vegetable growers influencing entrepreneurial behaviour

2.5 Constraints faced by the respondents

2.1 CONCEPT AND DEFINITION OF ENTREPRENEUR AND ENTREPRENEURSHIP

2.1.1 Entrepreneur

The word “Entrepreneur” is etymologically related to the French word “Entreprendre” which means to undertake. In France it was used mainly to describe “a manager or promoter” of a theatrical publication.

Entrepreneurs are those who convert inefficient use of resources and capital and move them into more productive and higher yield areas. Entrepreneurs look for opportunities to make profit and by doing so create new markets and fresh opportunities.

Schumpeter (1954) stated that entrepreneur is an innovator who works out new combinations of the factors of production and distribution, he performs the following:

1. Introduction of new goods
2. Introduction of new methods of production
3. Opening of new markets
4. Conquest of new sources of raw materials or half manufactured goods
5. Carrying out of new organization as of any industry

McClelland (1961) stated that entrepreneurs are ones who have aims of achieving high goals in business.

Drucker (1964) stated that entrepreneurs are ones who shift resources from areas of low productivity and yield to areas of higher productivity and yield.

Patil *et al.*, (1999) based on their work on entrepreneurial behaviour on little gourd growers reported that farmers who are progressive cannot be always identified as agricultural entrepreneurs but those who are entrepreneurs are essentially progressive farmers.

Schumpeter (2000) stated that the ability to combine already existing resources in creative ways is the chief characteristics of an entrepreneur. Since entrepreneur is the source of all the economic change, capitalism can be explained in terms of conditions giving rise to entrepreneurship.

Gopika (2009) conducted a study on entrepreneurial effectiveness of agripreneurs in Kerala stated that that off-farm agripreneurs were entrepreneurially the most effective category followed by the on-farm agripreneurs and the commercial farmers who were found to be almost on par in their effectiveness.

Hansson *et al.*, (2012) reported that psychological constructs in theory of planned behaviour (attitude, subjective norm and perceived behavioural control) influences farmers decision to extend their farm business to income generating activities outside the conventional agricultural production.

2.1.2 Entrepreneurship

Entrepreneurship is a type of human behaviour which is essential for the growth and development of any society. Entrepreneurship contributes to multidimensional development in various ways namely assembling and harnessing various inputs, bearing the risks, innovating and imitating the techniques of production to reduce the cost and improve its quality and quantity, expanding the horizons of the market, and coordinating and managing the manufacturing unit at various levels.

Stevenson (1985) reported that entrepreneurship is the process of creating value by bringing together a unique collection of resources to exploit an opportunity.

Timmons (1989) stated that entrepreneurship is a force that mobilizes other resources to meet unmet market demand. The ability to create and build something from practically nothing.

Samwel (2003) defined entrepreneurship as a function which requires investment and production process by raising capital, arranging labour and raw materials, finding site, introducing new techniques and commodities and discovering new sources for the enterprises.

Nazar and Mohideen (2005) stated that entrepreneurs organize the economic ventures for producing goods and services at lower cost with an objective of creation of new employments and setting up new business.

2.2 Entrepreneurial behaviour and its dimensions

Entrepreneurial behaviour operationally defined as a series of action an entrepreneur undertakes to establish his own enterprise. It is a composite skill, the resultant of many qualities and traits.

Bhaskaran (1978) based on his research to study the impact of institutional credit and its influence in the behaviour of farmers in adopting high yielding varieties of paddy cultivation stated that farmer's perception of risk has no relation with their extent of adoption and credit utilization.

Rao (1985) reported that individual, situational, psychological, social and experiential factors influence entrepreneurial behaviour.

North (1991) stated that entrepreneurial efficiency is largely a function of the market, which itself cannot function successfully and productively in the absence of other enabling social institutions and values.

Vijaykumar *et al.*, (2003) based on their study on correlates of entrepreneurial behaviour of floriculture farmers reported that education, land holding, annual income and social participation were positively and significantly correlated with entrepreneurial behavior of floriculture farmers.

Suresh (2004) opined that entrepreneurship is the resultant of a blend of many qualities and traits which include tangible factors as imagination, readiness to bear risks, ability to bring together and put to use other factors of production, capital, labour, land, and also intangible factors such as the ability to mobilize scientific and technological advances.

Pandeti (2005) who conducted a study on entrepreneurial behaviour of farmers in Raichur district of Karnataka stated that low innovativeness of small farmers might be due to their less education, smaller size of land holding, less social participation which leads to restricted information about new technologies. Higher innovativeness of medium and big farmers might be due to their higher education, large size of land holdings, higher annual income and their high extension participation and social participation.

Subrahmanyeswari *et al.*, (2007) reported that farmers who decide to take particular crop or use scientific methods to cultivate crops also exhibit entrepreneurial behaviour.

Chaudhari *et al.*,(2007) based on their study to develop a scale for the measurement of entrepreneurial behaviour of dairy farmers stated that entrepreneurial behaviour is the cumulative outcome of nine components namely, innovativeness, achievement motivation, decision making ability, risk orientation, co-ordinating ability, planning ability, information seeking behaviour, cosmopolitaness and self confidence.

Gurubalan (2007) based on his work on entrepreneurial behaviour of coconut oil- based unit- owners stated that majority of copra unit growers (60.00%) belonged to medium level followed by high (23.33%) and low (16.67%) level in their entrepreneurial behaviour.

Palmurugan *et al.*, (2008) based on their study on entrepreneurial behaviour of vanilla growers by found that entrepreneurs have medium to high level of persistence.

Sharma and Verma (2008) based on their work on women empowerment through entrepreneurial activities of self help groups revealed that involvement of rural women in entrepreneurial as well as other activities of SHGs boosted their self confidence and self reliance.

Kumar (2009) based on his study on group dynamics and entrepreneurial behaviour of women SHGs reported that the achievement motivation of majority of women in SHGs promoted by NGO was low to medium.

Rajashekhar (2009) carried out a study on analysis of technological gap in papaya cultivation in Bidar and Gulbarga districts stated that 52.5 percent of respondents had medium level of risk orientation followed by high and low levels.

Nishi *et al.*, (2010) based on their work on entrepreneurial behaviour and their correlates among dairy entrepreneurs reported that the frequency distribution of respondents on entrepreneurial behavior of respondents appeared to fall in normal distribution with 62.5 percent respondents with medium level of entrepreneurial behavior and 23.75 percent respondents in low level and 13.75 per cent respondents with high level of entrepreneurial behavior.

Bennur (2011) who conducted a study on entrepreneurial qualities and adoption behaviour of banana growers stated that risk orientation is an important part

of entrepreneurial behaviour which orients the farmer towards facing the situations of risks and uncertainty.

Ray (2011) stated that 'branded' products and services are produced with the help of entrepreneurship development, which will have an ever-increasing market demand.

Shilpashree (2011) carried out a profilistic study on awardee farmers in north Karnataka revealed that majority of respondents had medium achievement motivation followed by low and high.

Jagannathbarik (2013) in his study entrepreneurial behaviour of vegetable growers in Cuttack district, stated that 57.5 per cent of the respondents had medium level of innovativeness followed by low and high (20.83 % and 21.66%) level.

Wankhade *et al.*, (2013) based on his work on entrepreneurial behaviour of vegetable growers reported that majority of the vegetable growers were in medium level of all entrepreneurial traits/attributes. They defined entrepreneurial behaviour of vegetable growers as cumulative outcome of ten attributes namely risk taking, hope of success, persuasibility, manageability, self confidence, knowledgeability, persistence, feedback usage, innovativeness, and achievement motivation.

Sundaran (2016) based on her study on performance analysis on SHGs and SKSs on farm entrepreneurship revealed that 60 per cent of male respondents and 53.34 per cent of women respondents exhibited medium level of entrepreneurial behaviour.

Maratha *et al.*, (2017) based on their study on the corollary relationship between entrepreneurial behaviour and other attributes of chilli growers found that majority of the respondents had medium (59.16%) of entrepreneurial behavior

2.3 CONCEPT OF LEASE LAND FARMING

Bhaumik (1991) who carried out a study on tenancy and resource allocation reported that the application of intensive farming techniques were found to be high under leased in situations often leading to environmental damage.

Birthal and Singh (1994) stated that many researchers emphasized the size of owned land as influencing the decision of households to enter into the lease market.

Ajyadurai (1999) based on his work on entrepreneurs in India reported that an entrepreneur must be knowledgeable about his/her enterprise for better results.

GOK (2009) reported that the lease land farming promoted by the State Poverty Eradication Mission, Kerala through Kudumbasree has helped the women farmers to stay on agriculture for their livelihood.

Veron (2010) stated that banana and ginger are two other crops in which commercial lease cultivation is found to exist on a significant scale.

Deininger *et al.*, (2012) reported that the system of agricultural tenancy in which a landowner does not cultivate his land himself and leases out to others for cultivation against payment of rent has been present in all agrarian economies. At the same time it was represented as an inefficient and exploitative system without examining its impact under different situations. Land reforms had a significant and positive impact on accumulation of human and physical capital and on income growth.

Haque (2012) stated that there were several layers of intermediaries between the landlord and tenant all of whom had to be supported by backbreaking labour of the tenants.

Bezbaruah and Goswami (2013) based on their study found that two main forms of tenancy were fixed rent and share cropping in Assam.

NSSO (2013) reported that in Kerala, the percentage of households reporting leased out land is 2.01 whereas leased in is 14.29 and the average area leased in per household is 0.148 ha.

Reddy and Shaw (2013) reported there is agreement on the fact that the lease farming continues in India either as share cropping or as fixed rent tenancy, even in states where it is banned. The reasons are that these land lords are too poor to farm or too busy to farm.

Thomas (2013) who conducted a work on determinants and dynamics of lease land farming in pineapple reported that expansion of lease market is a consequence of the simultaneous increase in the numbers of two categories of people, 'those who have land but unable to cultivate' and 'those who have the labour and skills, but no lands or not enough lands of their own to cultivate', with the former category of people leasing out their lands to the latter for lease cultivation.

Haque and Nair (2014) stated that if leasing of land is made legal and consequently if an active land lease market makes land available for leasing, it can become an important source of livelihood or additional income for poor and marginalized women.

Thomas (2014) reported that the area farmed under the collective farming programme (25,062 ha in 2009-10) is mainly under the lease farming arrangement.

Bhatnagar (2016) reported that land leasing is a commercial agreement in which the user or lessee acquires the right to use the land instead of certain amount of payment.

Roy (2016) reported that the land reforms for abolishing tenancy as well as hutment land were influential in increasing the land ownership but also contributed to land markets and urban transformation. Also reported that in the absence of periodic

introduction of proper land governance structures, land markets can also lead to imperfections and distortions.

Thomas and Devi (2016) reported that the Kerala Land Reforms Act (1963) rendered tenancy legally invalid in the state and prohibited future tenancy as well.

Devi *et al.*, (2017) reported that formal and informal groups of farmers are groups or individuals (expatriates, retired persons, unemployed youth, working class who are interested in farming) who start farming as a livelihood option or as a part-time hobby or as a social responsibility.

2.4 PROFILE CHARACTERISTICS OF LEASE LAND VEGETABLE GROWERS

2.4.1 Age

Bhagyalekshmi *et al.*, (2003) reported that majority of rural women micro entrepreneurs belonged to middle age (66.67%) group followed by young (22.22%) and old age (11.11%) group.

Kiran (2003) based on his study on technological gap and constraints in adoption of recommended practices of mango growers reported that age is non-significant with entrepreneurial qualities.

Suneetha (2003) based on her work on entrepreneurial behaviour of sericulture farmers reported that there is no significant relation between entrepreneurial behaviour and age of the respondents.

Madhushekar (2009) stated that majority (37.5%) of the chilli growers belonged to middle age category, followed by young age (35%) and old age (27.5%) categories.

Sreeram (2013) based on his study on entrepreneurial behaviour of members of “Kudumbashree” NHGs in Palakkad district in Kerala stated that people who are more enthusiastic and have the urge and will work irrespective of their age.

Arul *et al.*, (2014) based on thesis study on performance and evaluation of Self Help Groups reported that 92 per cent of the respondents who are involved in agricultural and allied activities belonged to middle age group (30-40 years).

Maratha *et al.*, (2017) found that most of the respondents (67.50%) belonged to middle age group followed by young (20.83%) and old age group (11.67%).

Namitha (2017) based on her study on Sustainability of commercial vegetable cultivation in Thiruvananthapuram district reported that 48 per cent of the farmers surveyed belonged to middle age category, followed by old age 42 per cent and young commercial vegetable farmers were only 10 per cent.

2.4.2 Annual income

Vijaykumar (2001) based on his work on entrepreneurship behaviour of floriculture farmers reported that 45.84 per cent of respondents were under medium income group followed by 27.50 per cent of low and 26.66 per cent of high income groups.

Suresh (2004) based on his work on entrepreneurial behaviour of milk producers in Chittoor district of Andhra Pradesh reported that most of respondents (80.33%) were in medium income group followed by high (15%) and low (4.17%) income groups.

Pandeti (2005) opined that majority of the respondents (50.83%) were in high income group followed by semi-medium, medium and low income groups with 25.84, 12.50 per cent and 10.83 per cent, respectively.

Gurubalan (2007) observed that 42.67 per cent of respondents had medium level income followed by low (37.33%) and high (20.00%) levels.

Revathy (2015) based on her work on social capital formation through farm women groups in vegetable production in Kollam district revealed that annual income showed a positive relationship with social capital formation whereas area under vegetable cultivation showed a negative relationship with social capital formation.

2.4.3 Problem solving ability

Sundaran (2016) based on her work on performance analysis of self help groups reported that majority (64.45%) of the respondents had medium problem solving ability followed by low (20%) and high (15.55%) category of respondents. She reported that male respondents exhibited better problem solving ability than female respondents since male respondents had better social participation and used resources more than women.

Kumar (2017) based on his study on entrepreneurial behaviour of students of B school reported that problem solving refers to the use of appropriate knowledge and skills in order to solve a problem. Creative thinking is required by an entrepreneur to discover various techniques for resolving different problematic issues of a business.

2.4.4 Market orientation

Lawrence and Dowling (2003) reported that entrepreneurial behaviour was positively and significantly related with market orientation.

Prabhugouda (2011) based on his study on entrepreneurial behaviour of pomegranate growers in Koppal district of Karnataka reported that majority (66.67%)

of the pomegranate growers belonged to medium market orientation followed by 22.5 per cent in the high and 10.83 per cent in the low market orientation category.

Kumar (2012) based on his study on entrepreneurs of vermicompost technology in Guntur district of Andhra Pradesh stated that three fourth of the entrepreneurs belonged to medium category (75%) of market orientation followed by respondents in the low (13.33%) and high (11.67%) categories.

Archana (2013) carried out a study on entrepreneurial behaviour of commercial seed growers of Dharwad reported that 86.67 per cent of the seed growers 'disagree' to the statement of 'Market news is not much useful to a farmer/seed grower' followed by 'agree'(13.33%).

Chalermphol *et al.*, (2014) based on their work on adoption of improved varieties of vegetable crops with pesticide use in Chiang Mai Province stated that for the promotion of commercial vegetable cultivation, appropriate market management plays an important aspect.

Pooja *et al.*, (2014) in their study entitled entrepreneurial behaviour of dairy farmers reported that majority of the dairy farmers had medium market orientation.

2.4.5 Credit orientation

Esakkimuthu (2012) based on his work on innovation in technical backstopping for the Thiruvananthapuram district panchayat pointed out that 41.1 per cent of the farmers had medium level of credit orientation and 33.3 per cent farmers had high level of credit orientation.

Giridhara (2013) based on her study on entrepreneurial behaviour of women entrepreneurs in Mandya district reported that majority (66.25%) of women

entrepreneurs had high level of credit orientation followed by medium (21.25%) credit orientation and 12.5 per cent of women entrepreneurs had low credit orientation.

Samuel *et al.*, (2014) based on the study conducted on analysis of economic efficiency and farm size stated that only few farmers had access to credit facilities due to lack of collateral and strict conditions for accessing credit.

Namitha (2017) reported that majority (69%) of the commercial vegetable growers exhibited medium level of credit orientation followed by respondents in the high level (18%) and low (13%) level.

2.4.6 Self reliance

Gurubalan (2007) stated that there existed a significant and positive relation between entrepreneurial behaviour and self reliance.

Centre for Development Research and Action (2009) reported that SHGs play an important part to overcome exploitation, create confidence and self-reliance of the rural poor, especially among women.

Kiranmayi (2013) based on his work on adoption behaviour of chilli farmers in Guntur district stated that majority of the farmers entered into lease agreement verbally with no written agreements made and moreover lease agreements were made for short term.

2.4.7 Information seeking behaviour

Suresh (2004) stated that majority of the respondents had medium level of information seeking behaviour followed by high and low level with 68.75, 17.08 and 14.17 per cent, respectively.

Tamilselvi and Sudhakar (2010) based on their study on entrepreneurial behaviour of vegetable growers of Tamil Nadu revealed that information source utilization had positive and significant relationship with entrepreneurial behaviour.

Kumar (2012) stated that majority (59%) sampled banana growers had medium level of information seeking behaviour followed by low (22%) and high (19%).

Rathod *et al.*, (2012) based on their work on entrepreneurial behaviour of dairy farmers in western Maharashtra opined that entrepreneurial behaviour had positive and significant correlation with information seeking behaviour at 1 per cent level.

Anupama (2014) reported that majority of respondents (72%) belonged to medium category with respect to information seeking behaviour followed by respondents in the high (17%) and low (11%) category.

Sasidharan (2015) based on his study on adoption of organic farming technologies in banana and vegetable crops in Kasargod district reported that majority of organic vegetable growers (68%) had medium level of information seeking behaviour, followed by low (19%) and high (13%) information seeking behaviour respectively.

2.4.8 Deferred gratification

Sangeetha (1997) based on her study on the managerial behaviour of commercial banana growers in Thiruvananthapuram district reported that there exist a positive and significant relation between managerial behaviour of palayankodan growers and deferred gratification at 1 per cent level.

Anitha (2004) reported that around 36.70 per cent of farm women had high deferred gratification followed by 30.80 percent in medium level and less than one-third (32.50%) of the farm women in low level of deferred gratification.

Kumar (2009) reported that one-third (38%) of women in SHGs had medium level of deferred gratification followed by low (32%) and high (31%) levels of deferred gratification.

Jagannathbarik (2011) based on his study on farming distress orientation among farmers in Amravati district of Maharashtra reported that there existed a positive relationship between deferred gratification and farming distress orientation among farmers.

2.4.9 Creativity

Vijayalakshmi (1980) reported that high creative ideas were found to come from respondents of high socio- economic status.

Sangeetha (1997) stated that creativity influences positively the extent of adoption of recommended cultivation practices of commercial palayankodan growers. It was reported that 63 per cent had high creative abilities, 29 per cent had medium and only 7 per cent had low creative abilities.

Simonton (2011) based on his study on psychology of creativity stated that creativity enables a person to adjust to novel circumstances and to solve problems that unexpectedly arise.

Dudhate (2014) based on his work on creativity of agricultural technical school students reported that independent variables namely gender, academic performance, type of family, land holding, family, educational background, parental

occupation and institutional climate were positively and significantly correlated with creativity at 1% level of significance.

2.4.10 Environmental orientation

Loganandhan (2002) revealed that 54 per cent of the farmers diverted to organic farming mainly due to environmental consciousness about environmental safety and ill effects of hazardous practices followed in modern farming.

Sasidharan (2015) revealed that majority of the vegetable farmers (75%) had high environmental orientation whereas 25 per cent of the farmers had low environmental orientation.

2.4.11 Decision making ability

Kumar (1997) carried out a study on feasibility analysis of privatization of extension services for selected farm enterprises reported that majority of small farmers (40%) belonged to low decision making category whereas 35 per cent of medium farmers and 37.5 per cent of big farmers belonged to medium decision making category which might be due to their overall annual income and size of land holding.

Rathod *et al.*, (2012) found that majority of the dairy farmers (82%) had medium decision making ability followed by low (12%) and high (6%) categories.

Archana (2013) reported that 46.67 per cent of the seed growers belonged to intermediate decision making category followed by rational (27.78%) and less rational (25.55%) respectively.

Priya *et al.*, (2014) based on their study on entrepreneurial behaviour of dairy farmers in Guntur district of Andhra Pradesh reported that majority of the respondents (60.00%) had medium level of decision making ability whereas 25 per cent had high level and 15.56 per cent had low level of decision making ability.

Maratha *et al.*, (2017) revealed that majority (56.66%) of the chilli growers had medium decision making ability, whereas 25.83 per cent of chilli growers had high and 17.5 percent had low decision making ability.

2.4.12 Resource recycling

Fakoya (2002) based on his work on assessment of livestock production systems based on crop residues and legumes in humid zones of Nigeria reported that feeding crop residues to livestock and other products that otherwise could create problems for waste disposal as one of the major advantages of crop-livestock integration.

Nair (2017) based on her study on multidimensional analysis of farmers in integrated farming systems in Kuttanad reported that resource recycling being an important part of integrated farming was practiced by majority (70% and 78%) of marginal and small farmers.

2.5 CONSTRAINTS FACED BY ENTREPRENEURS

Vijaylakshmi and Sharma (2002) reported that maximum number (23%) (38.3%) of the women entrepreneurs said that they had little knowledge about loans and they found difficulty in following the procedures and also reported that financial institutes don't put much faith on them and sometimes see them with suspicion. They also reported that lack of funds, high rate of interest, non-implementation of existing policies for financial assistance to women were other problems faced by women entrepreneurs.

Gopiram (2005) based on his work on knowledge and adoption of Bengal gram farmers in Kurnool district of Andhra Pradesh reported that the major problems encountered by farmers in crop cultivation include high cost of fertilizers and manures

(62%), lack of knowledge about application of recommended doses of manures and fertilizers (55%), lack of technical guidance (44%).

Nagesh (2006) in his study on entrepreneurial behaviour of pomegranate growers in Bangalkot district of Karnataka reported that the constraints faced by pomegranate growers were lack of storage facility, high incidence of pest and diseases, non availability of skilled labour for pruning, expensiveness of pruning operations, costly chemicals and fertilizers and lack of processing units.

Vennila (2006) based on her work on critical analysis of sustainability of women SHGs reported that inadequate marketing facilities for their products was the major threat for the best performing as well as poor performing SHGs.

Ravi (2007) based on his study on entrepreneurial behaviour characteristics of SC and ST farmers of Gulbarga district of Karnataka reported that majority of the respondents expressed that financial problems (78.75%), lack of knowledge level (77.5%) and low level of education (75.62%) followed by marketing problems (66.25%) were the major problems in undertaking entrepreneurial activities.

Kiranmayi (2013) reported that the most important constraints reported by the tenant farmers were more lease land rents, most of the land owners demand land leased rent before the commencement of the cropping season, lack of financial support from banks, difficult to pay entire lease amount in cash (93.33%), short term tenancy tenures (85%), development department do not offer agricultural trainings for tenant farmers (80%), input subsidy not available for tenant farmers (73.33%), no fixed lease land rents (68.33%) and lease contracts are verbal and no written agreements are made (60%).

Rai *et al.*, (2014) reported that 23 per cent farmers faced problem of non availability of improved seed, 22 per cent faced problem of non-availability of

information regarding technical guidance, 20 per cent had problem of non-availability of irrigation sources and 18 per cent farmers faced problem of high cost of inputs.

Sindhu (2015) in the study entitled a study on entrepreneurial behaviour of agripreneurs in Vishakapatnam district reported that inadequate marketing facilities, lack of proper irrigation sources were major constraints faced by vegetable growers.

Basheer (2016) based on her work on technology utilization of bittergourd in Thiruvananthapuram district stated that the major constraints faced by bittergourd growers were incidences of pest and diseases, floods due to heavy rainfall, labour shortage, scarcity of water resources, lack of knowledge on management practices, inadequate capital etc.

Namitha (2017) reported that the major constraints experienced by commercial vegetable growers were scarcity of water resources, extreme weather conditions, non assurance of premium price for organic products, incidences of pest and diseases, poor marketing facility, inadequate facility of value addition, high cost of input and inadequate extension support.

Methodology

3. METHODOLOGY

43

Methodology is that part of the research which provides readers with sufficient details to evaluate its appropriateness or to replace it (Smith and Davis, 2007). The research methodology in accordance with the objectives of the study is presented under the following section heads.

3.1 Research design

3.2 Locale of study

3.3 Selections of respondents

3.4 Operationalisation and measurement of variables

3.5 Nature and extent of lease land farming

3.6 Constraints faced by lease land vegetable growers

3.7 Suggestion to overcome the constraints faced by lease land vegetable growers

3.8 Techniques employed in data collection

3.9 Statistical tool used for data analysis

3.1 RESEARCH DESIGN

44

A traditional research design is a blueprint or detailed plan for how a research study is to be completed, operationalizing variables so that they can be measured, selecting a sample of interest to study, collecting data to be used as a basis for testing hypotheses, and analyzing the results (Thyer, 1993).

In the present study, *Ex- post-facto* research design was employed as the researcher does not have any direct control over the independent variables as they are inherent ones. Also the investigator has no direct control over the independent variables which has already occurred and then their effects become obvious (Ray and Mondal, 2011).

3.2 LOCALE OF STUDY

Thiruvananthapuram district was selected for the study as shown in Fig. 2. In Thiruvananthapuram district, 344.54 acres of land is under lease land vegetable cultivation (GOK, 2009). The district was selected purposively because of the greater extent of lease land farming prevalent in the district and also availability of higher proportion of commercial vegetable growers.

3.2.1 Brief description of the district

Thiruvananthapuram District is the southernmost district of the coastal state of Kerala. The district has an area of 2,192 square kilometers and a population of 3,307,284 (Census report, 2011), the second-most populous district in Kerala after Malappuram district. It is the densest district in Kerala with 1,509 inhabitants per square kilometer. It is divided into six taluks: Thiruvananthapuram, Chirayankeezhu, Neyyattinkara, Varkala, Nedumangadu and Kattakada. The district is 33.75 per cent urbanized.

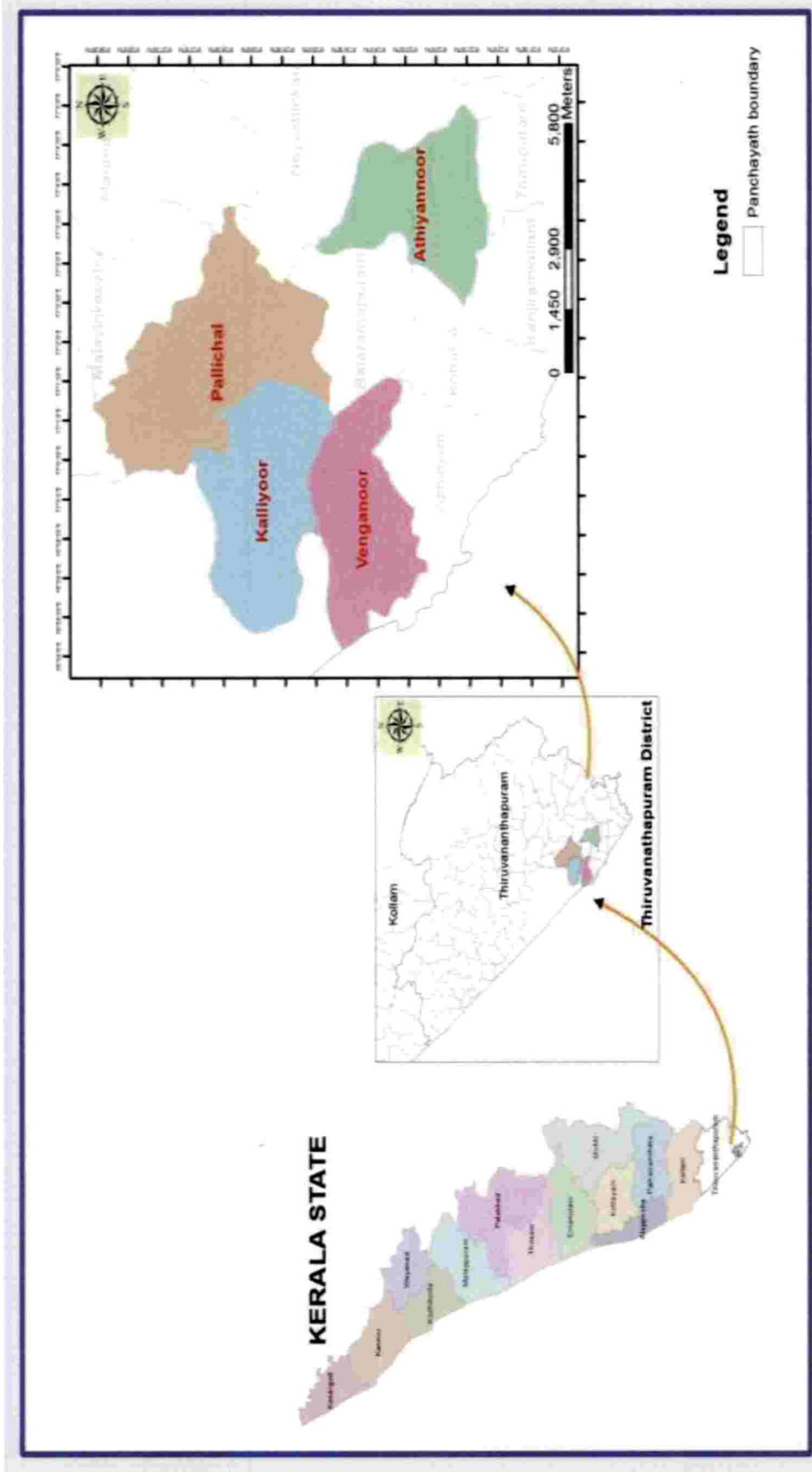


Figure 1. Map of the study area- Thiruvananthapuram district

Thiruvananthapuram district is situated between north latitudes $8^{\circ}17'$ and $8^{\circ}54'$ and east longitudes $76^{\circ}41'$ and $77^{\circ}17'$. The southern-most extremity, Kaliyikkavila, is 56 kilometres away from Kanyakumari, the "Land's end of mainland India". (Wikipedia, 2018).

The total geographical area of the district is 2.187 lakh hectares. It belongs to the Southern Zone according to the NARP classification of agro climatic zone. Agriculture is the primary occupation of the people of the district. More than 15 per cent of the total population of the district depends on Agriculture for their livelihood. Paddy is the most important crop cultivated in the wet lands. In Garden lands Coconut and Rubber, Banana and vegetables are the main crops (KSPB, 2018). In the district, net area sown is 135 hectare, Gross cropped area is 163 hectare and 120.7 per cent is the cropping intensity (CRIDA, 2011). In Thiruvananthapuram district, 3662 hectares of area is under vegetable cultivation.

3.3 SELECTION OF RESPONDENTS

Random sampling procedure was employed for the selection of respondents in the ultimate stage which comprised of lease land vegetable growers of Thiruvananthapuram district. Thiruvananthapuram district is divided into 11 development blocks. From these blocks, Pallichal and Neyyattinkara blocks having maximum area under lease land vegetable cultivation was purposively selected. From Pallichal block, Kalliyoor and Pallichal panchayats and from Neyyattinkara block, Venganoor and Athiyanoor panchayats were selected which were having maximum area under lease land vegetable cultivation. With the help of lists from concerned Krishibhavan, twenty lease land vegetable cultivators were selected randomly from each panchayat having land holding size not less than twenty cents and five years of experience in vegetable cultivation thus making a total of 80 lease land vegetable growers.

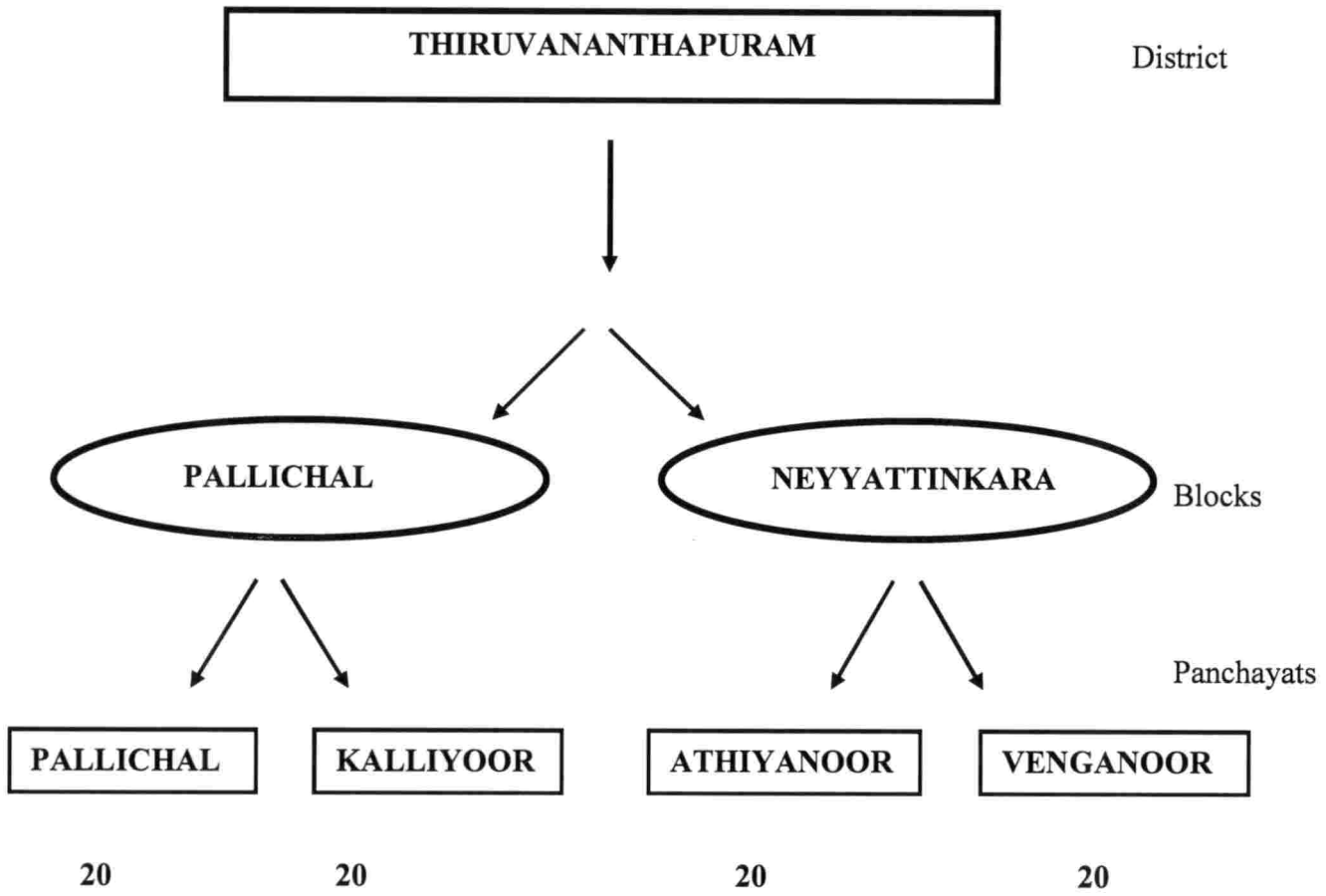


Figure.2. Selection of Respondents

3.4 OPERATIONALISATION AND MEASUREMENT OF VARIABLES

48

3.4.1 Operationalisation and measurement of dependent variable

3.4.1.1 *Entrepreneurial behaviour*

Based on the objectives of study, entrepreneurial behaviour of lease land vegetable growers was selected as the dependent variable.

In this study, entrepreneurial behaviour of vegetable growers is operationally defined as cumulative outcome of ten components/attributes namely risk taking, hope of success, persuasibility, manageability, selfconfidence, knowledgeability, persistence, feedback usage, innovativeness, and achievement motivation.

It was measured using a scale developed by Wankhade *et al.*, (2013) with necessary modifications (Appendix II). The scale consists of ten dimensions/attributes. Each dimension had five statements. The entrepreneurial attributes self assessment scale had a total of 50 statements. It was measured on a five point continuum ranging from 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with weightage of 5, 4, 3, 2 and 1. The score ranges between 5 to 25 for each dimension. Based on scores obtained under each sub scale for each dimension, the vegetable growers were grouped into three categories ranging from low to high by considering the mean and standard deviation values.

The entrepreneurial behaviour was measured in the present study with the help of entrepreneurial behaviour index i.e. by addition of scores of ten entrepreneurial attributes namely risk taking, hope of success, persuasibility, manageability, self confidence, knowledgeability, persistence, feedback usage, innovativeness, and achievement motivation. The total obtained score was converted

into the entrepreneurial behaviour index. The minimum and maximum score ranged between 50 and 250.

Entrepreneurial Behaviour Index

$$(EBI) = \frac{\text{Sum of obtained score on ten entrepreneurial attribute} - \text{Minimum}}{\text{Maximum obtainable score on ten entrepreneurial attribute} - \text{Minimum}} \times 100$$

Minimum value = 50

The ten dimensions and the respective statements were included in the interview schedule and the respondents were asked to respond to statements (Appendix II). The ten dimensions were operationalised as follows:

3.4.1.1.1 Risk Taking

Defined as the degree to which the farmer is oriented towards risk and uncertainty with regard to facing problems in farming.

3.4.1.1.2 Hope of success

Defined as the degree to which a person believe that the problems and barriers which he faces can be turned to opportunities.

3.4.1.1.3 Persuasibility

It is the ability of an individual to convince and influence other individuals, customers and even competitors in order to create and maintain a good rapport.

3.4.1.1.4 Feedback usage

The degree to which an individual is ready to accept feedback.

3.4.1.1.5 Self confidence

50

The degree to which a person believes in his qualities, abilities and judgements.

3.4.1.1.6 Knowledgeability

In this context, it is the degree to which an individual has knowledge of his business, market, demand and supply.

3.4.1.1.7 Persistence

The degree to which an individual is persistent to achieve his goal.

3.4.1.1.8 Manageability

It is the degree to which an individual is capable to manage his business by himself

3.4.1.1.9 Innovativeness

It is the degree to which an individual adopts [~]new ideas relatively earlier than other members of the social system (Rogers and Svingen, 1964)

3.4.1.1.10 Achievement motivation

Achievement motivation is a psychological variable that differs from individual to individual and it urges individual towards reaching some goal, which he has set for himself.

3.4.2 Operationalisation and measurement of independent variables

Based on the objectives, review of literature, discussion with experts and observation made by the researcher, personal, social, economic and psychological variables were taken for the study which have relationship with the dependent variable. Forty independent variables were selected based on various literatures which were given for judges' rating to extension experts. It was given in the form of a questionnaire to collect responses from the judges on a five point continuum with response pattern "most relevant" "more relevant" "relevant" "less relevant" "least relevant" with scores 5,4,3,2,1 respectively. Copy of the questionnaire is furnished in the Appendix I.

The copies of questionnaire were sent to thirty judges through post and mail. Twenty four of the judges responded. The score assigned by these judges were added up for each variable. The variables having high scores were selected as the independent variables for the study.

Table 1. Variables and their measurement

Variable	Measurement
Age	Census report of GOI (2011)
Annual income	Measured by directly asking the respondents
Problem solving ability	Procedure developed by Sundaran (2016)
Market orientation	Scale developed by Samantha (1977)
Credit orientation	Procedure developed by Beal and Sibley(1967)
Self reliance	Scale developed by Porchezian (1991)

Information seeking behaviour	Scoring procedure followed by Anupama (2014)
Deferred gratification	Developed by Gowda (1991) and followed by Sangeetha (1997)
Creativity	Scale developed by Reddy(1990)
Environmental orientation	Scale followed by Sreevalsan (1995)
Decision making ability	Scale developed by Parimaladevi (2004)
Resource recycling	Measured by directly asking the respondents

3.4.2.1 Age

Operationalised as the number of years completed by the respondent at the time of investigation. This was measured as the total number of years completed by the farmer at the time of interview which was classified based on census report (2011).

Age category	Years	Score
Young	Less than 35	1
Middle aged	35-55	2
Aged	Greater than 55	3

3.4.2.2 Annual income

Refers to the total earning of the respondent through farm entrepreneurship per year. The variable was measured by directly asking the respondents based on which scoring was done.

3.4.2.3 Problem solving ability

Operationalised as the ability of the respondent to identify the problem, find the solution, select the best one and apply it.

It was measured using procedure developed by Sundaran (2016). It consisted of eight statements of which five were positive statements and three were negative statements. The respondents were asked to give their responses in a five point continuum ranging from 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with scores 5,4,3,2 and 1 respectively and vice-versa for negative statements. By summing up the score obtained for each statement, the score of the respondents was obtained. The score ranges from 8-40. (Appendix II)

3.4.2.4 Market orientation

Defined as the degree to which farmers are oriented towards marketing to obtain reasonable gains from selling the produce.

In this study the method used by Samantha (1977) was used to measure the variable. It consisted of six statements of which five were positive statements and one negative statement. A two point continuum scale of "agree" and "disagree" with score 2 and 1 was used. The score ranges from 6-12. (Appendix II)

3.4.2.5 Credit orientation

Refers to the orientation to avail and utilize credit by the respondent for commercial vegetable cultivation. It was measured using a scale developed by Beal and Sibley (1967). It consisted of five statements. The maximum score a respondent could get was 17 and minimum was 5. The statements were as follows:

1. Do you think a farmer like you should borrow credit for agricultural purpose?
 - Yes (2) / no (1)
2. In your opinion, how difficult is it to secure credit for agricultural purpose?
 - Very difficult(1)/ difficult (2) /easy (3) very easy(4)
3. How a farmer is treated when he goes to secure credit?
 - Very badly(1) badly (2) fairly (3) very fairly (4)
4. There is nothing wrong in taking credit from institutional sources for increasing farm production.
 - Strongly Disagree (1) Disagree (2) Undecided (3) Agree (4)
Strongly Agree (5)
5. Did you use the credit in the last two years for crop production?
 - Yes(2)/ No (1)

3.4.2.6 Self reliance

This refers to the extent to which a person relies on self for his future.

Porchezian (1991) measured self reliance by asking the respondents, "how much of your future depends on yourself". The response was measured based on the following scoring systems.

Percentage	Score
100	5
75-99	4
50-74	3
25-49	2
Less than 25	1
Not at all	0

3.4.2.7 Information seeking behaviour

Operationally defined as the frequency of contact or exposure of a farmer to different sources for obtaining farm information.

Scoring procedure followed by Anupama (2014) was used. The scores for frequency of use of the sources for seeking information ranged from 3 to 1 for 'frequently', 'occasionally' and 'rarely' in the order of sequence. The score ranges from 11-33. The respondents were classified into 3 categories low, medium and high considering the mean and standard deviation values.

3.4.2.8. Deferred Gratification

It refers to the postponement of immediate benefits of short range rewards in order to secure more long range goals and the resulting satisfaction.

This variable was measured using the scale developed by Gowda (1991) and followed by Sangeetha (1997). There were seven statements of which three were positive and four were negative statements. It was measured in a five point continuum with the following scoring pattern. Strongly agree-5, Agree-4, Undecided-3, Disagree-2, strongly disagree-1 and reverse for negative statements. Total score was calculated for an individual respondent by adding the scores. The score ranges from 9-45. (Appendix II)

3.4.2.9 Creativity

Creativity is the ability to generate new ideas and solve problems.

The scale developed by Reddy (1990) was used. Six positive statements were measured on a five point continuum ranging from Always (5), Very often (4), Sometimes (3), Rarely (2), Never (1). The sum of the score of each statement is the score of creativity of each respondent. The score ranges from 6-30. (Appendix II)

3.4.2.10 Environmental orientation

Operationally defined as the farmers concern for the environment that has prompted them for embracing organic farming practices in their farm.

The scale followed by Sreevalsan (1995) was used. The scale comprised of eight statements with responses agree or disagree. A two point continuum scale of “agree” and “disagree” with score 2 and 1 was used. The score ranges from 8-16. (Appendix II)

3.4.2.11 Decision making ability

In the present study, decision making ability is defined as the degree to which a farmer justifies the selection of most effective means from among the available alternatives on the basis of scientific criteria for achieving maximum economic profit.

It was measured using a scale developed by Parimaladevi (2004). The scale comprised of 6 statements of which three were positive and three were negative statements. It was measured on a four-point continuum, strongly agree, agree, disagree, and strongly disagree. A score of 4, 3, 2 and 1 was given for positive statements, and scoring was reversed for negative statements. The scores were added to measure the decision making capacity of the respondents. The score ranges from 6-24. (Appendix II)

3.4.2.12 Resource recycling

It is defined as the reuse of various available resources in the farmer's field.

An arbitrary scale was developed for the study with four statements reflecting resource recycling. A score of 2 was given if the farmer was practicing recycling and 1 if it is not so. The score ranges from 4-8. (Appendix II)

3.5 NATURE AND EXTENT OF LEASE LAND FARMING

57

In order to study the nature and extent of lease land farming, respondents were classified into different categories based on structure of tenancy, type of agreement of contract, size of leased land, mode of rent, amount of rent paid and major vegetables under lease land cultivation. (Appendix II)

3.5.1 Based on structure of tenancy

Respondents were classified according to the structure of tenancy existing in the study area into formal, informal and both categories using frequency and percentages.

Formal type of tenancy was operationally defined as the lease agreement made between the owner and tenant farmer involving legal procedures. Informal type of lease agreement involves no legal procedures. Both is a category wherein there is a combination of formal and informal structure of tenancy taken by the same respondent.

3.5.2 Based on the type of agreement of contract

Based on the type of agreement, respondents were categorized into those having written, verbal and both type of agreement using frequency and percentages.

Written type of tenancy form is the lease contract between the land owner and lessee involving written agreement. Verbal type of agreement is the contract made between the owner and the lessee orally. A combination of both is included in the third category of both.

3.5.3 Size of the lease land

58

Based on the size of leased land, respondents were categorized into less than 1 acre, between 1 and 3 acres and more than 3 acres based on frequency and percentages.

3.5.4 Mode of rent paid by the tenant:

Respondents were asked to express the mode of rent payment made for the leased land, in cash or kind.

Cash type of payment is defined as the rent paid in monetary form by the respondents for the leased land. Kind type of tenancy is operationally defined as the rent paid by the tenant farmer for the leased land in the form of produce.

3.5.5 Amount of rent paid

In order to study about the rent paid by the tenant farmers to the owners, respondents were asked about the lease rent paid by them for one acre of leased land per year. Based on their responses, categories were made considering mean and standard deviation values.

3.5.6 Major vegetables under lease land cultivation

In order to get an understanding about the vegetables cultivated on leased land in the study area, respondents were enquired about the type of vegetables they were cultivating in the leased land. Frequency and percentage analysis of respondents was done based on their responses.

3.6 CONSTRAINTS FACED BY LEASE LAND VEGETABLE GROWERS

To realise the problems faced by the lease land vegetable growers, a pretested list of constraints was developed after conducting the pilot survey. It was measured by directly asking the respondents. Frequency and percentage analysis of each constraints based on farmer's responses was done.

Sl.No.	Constraints	frequency
1.	Land lease rents are high	
2.	Owners demand payment of rent before the cropping season	
3.	Lack of timely and sufficient credit facilities from banks	
4.	Difficult to pay rent as cash	
5.	Money lenders are main source of credit for which they	
6.	No fixed lease land rates	
7.	No vouchers for the payment of lease rent for the land	
8.	Written agreements lack proper legal structure	
9.	Tenancy tenures require yearly renewal	
10.	Lease contract are mostly verbal	
11.	Tenancy tenure are short time	
12.	Instability of prices	
13.	Lack of proper marketing facilities	
14.	High labour charges	
15.	Inadequate extension service	
16.	Lack of proper technical knowledge	
17.	Non availability of quality planting material	
18.	Lack of proper irrigation sources	
19.	Lack of transport facility	
20.	Non availability of quality planting materials	

21.	Lack of cooperatives	
22.	Developmental department fails to offer agricultural trainings	
23.	Others	

3.7 SUGGESTIONS TO OVERCOME THE CONSTRAINTS FACED BY LEASE LAND VEGETABLE GROWERS

Suggestions for overcoming the constraints were collected from the respondents and experts based on discussions and interactions.

3.8 TECHNIQUES EMPLOYED IN DATA COLLECTION

Personnel interview was employed as the method of data collection. The schedule was pretested with 10 respondents selected outside the sample area and suitable modifications were made accordingly. On the basis of the experience gained, the schedule was modified. The interview was conducted in local language. The final interview schedule is enclosed. (Appendix II)

3.9 STATISTICAL TOOLS USED

The data collected from the respondents were scored, tabulated, and analysed using suitable statistical methods.

3.9.1 Mean

The respondents were categorized based on mean values of dependent and independent variables. After grouping the categories, percentage analysis was done.

3.9.2 Standard deviation

61

It is a positive square of the squared deviations taken from the arithmetic mean.

Respondents were grouped into three categories based on mean and standard deviation as given below.

Low :< (Mean- SD)

Medium: Mean \pm SD

High: > (Mean + SD)

3.9.3 Frequency and Percentage analysis

The selected variables were subjected to and interpreted in terms of frequency and percentage. Frequency and percentage analysis was done to know the distribution pattern of respondents according to variables. Percentage was calculated by finding the frequency of a particular cell multiplied by 100 and then further divided by the total number of respondents. Percentages were used for standardisation.

3.9.4 ANOVA

ANOVA (Analysis of Variance) was done to test whether there is any significant difference between the four panchayats with respect to their entrepreneurial behaviour.

3.9.5 Correlation Analysis

Simple correlation analysis was done to find out degree of relationship between dependent and independent variable. The significance of calculated 'r' values was tested for 5 per cent level and 1per cent level of significance.

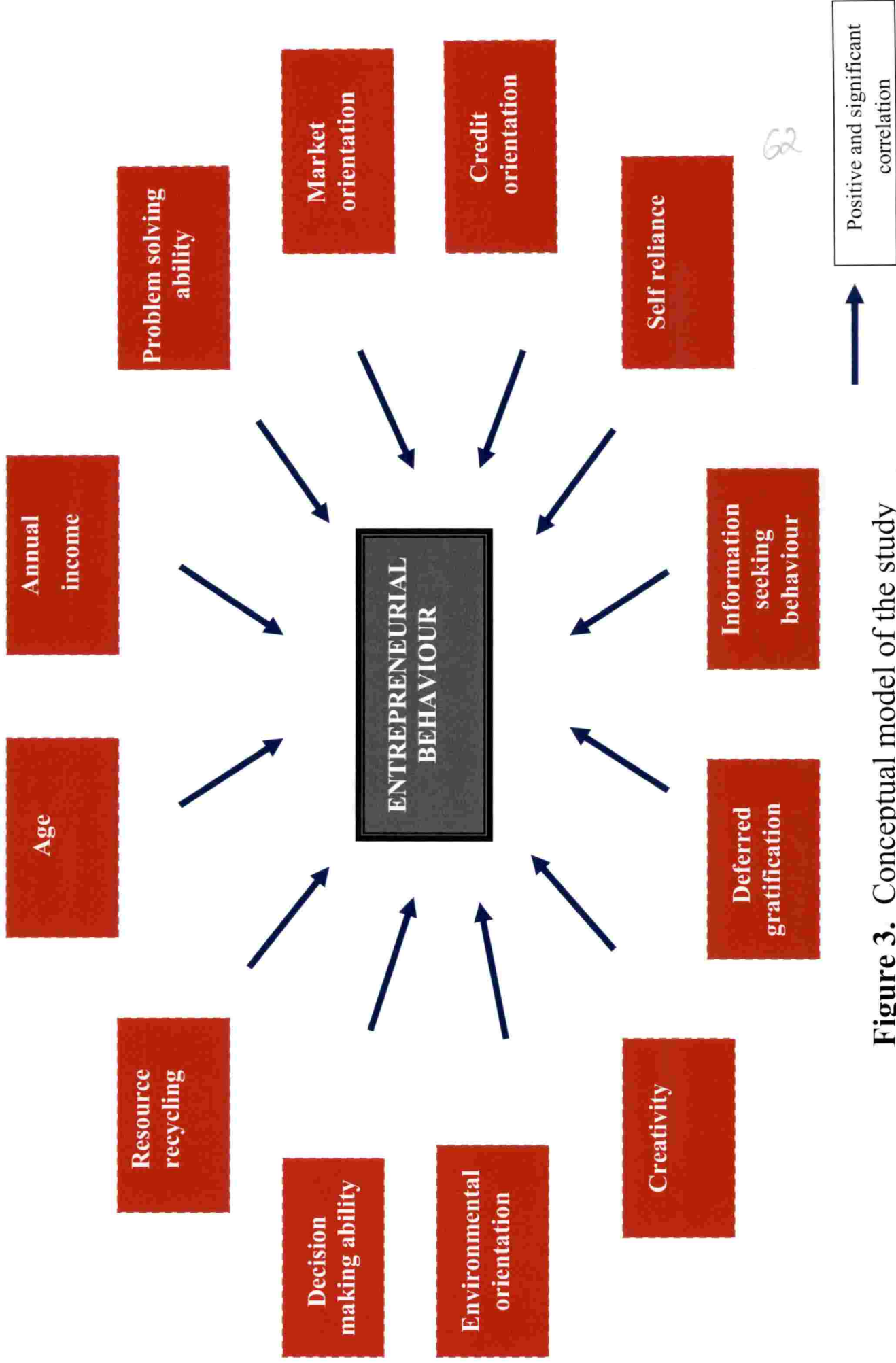


Figure 3. Conceptual model of the study

Results & Discussions

4. RESULT AND DISCUSSION

64

This chapter deals with results and discussion obtained from the analysis of data collected from the survey research. The data collected were classified, tabulated and analysed using various statistical methods. The results and discussions are presented in the following headings.

- 4.1 Entrepreneurial behaviour of lease land vegetable growers
- 4.2 Nature and extent of lease land farming
- 4.3 Distribution of respondents according to their profile characteristics
- 4.4 Relationship of entrepreneurial behaviour of lease land vegetable growers with profile characteristics of the respondents.
- 4.5 Constraints faced by lease land vegetable growers.
- 4.6 Suggestions to overcome the constraints faced by lease land vegetable growers

4.1 ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND VEGETABLE GROWERS

Entrepreneurial behaviour is defined as the ability of the respondent to exploit the opportunities and initiate an enterprise of his/her own for income generation. Entrepreneurial behaviour is defined as the ability of the rural woman to undertake risk and management of resources in order to maximize profit with a desire to outperform others (Gurubalan, 2007).

In the present study entrepreneurial behaviour was measured with the help of entrepreneurial behaviour index i.e. by addition of scores of ten entrepreneurial attributes namely risk taking, hope of success, persuasibility, manageability, self confidence, knowledgeability, persistence, feedback usage, innovativeness, and achievement motivation. The total obtained score was converted into the entrepreneurial behaviour index.

On the basis of entrepreneurial score obtained by lease land vegetable growers, considering mean and standard deviation values respondents were grouped into three categories i.e. low, medium and, high and their frequency distribution is given in Table 2.

4.1.1 Distribution of respondents based on their entrepreneurial behaviour

Table 2: Distribution of respondents based on overall entrepreneurial behaviour

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total N=80	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	5	25	5	25	4	20	5	25	19	23.75
Medium (61.87-80.9)	12	60	11	55	15	75	12	60	50	62.5
High	3	15	4	20	1	5	3	15	11	13.75
Mean=71.3 SD=9.51										

Expected score range of entrepreneurial behaviour index = 0-100

Data score range of entrepreneurial behaviour index = 49.5- 92.5

Majority (62.5%) of the lease land vegetable growers belonged to the medium level of entrepreneurial behaviour followed by low (23.75%) and high (13.75%). Among the sample of respondents, the mean score of entrepreneurial behavior was 71.39. The measure of standard deviation was 9.51. This shows that majority of the respondents had the ability to exploit the opportunities to initiate an enterprise of his or her own. This might be due to medium level of risk taking, hope of success, persuasability, manageability, self confidence, knowledgeability, persistence, feedback usage, innovativeness, and achievement motivation among the respondents. This result is in agreement with Pooja *et al.*, (2014) and Maratha *et al.*, (2017).

In case of panchayat wise distribution of respondents, 75 per cent respondents had medium level of entrepreneurial behaviour in Athiyanoor panchayat, whereas it

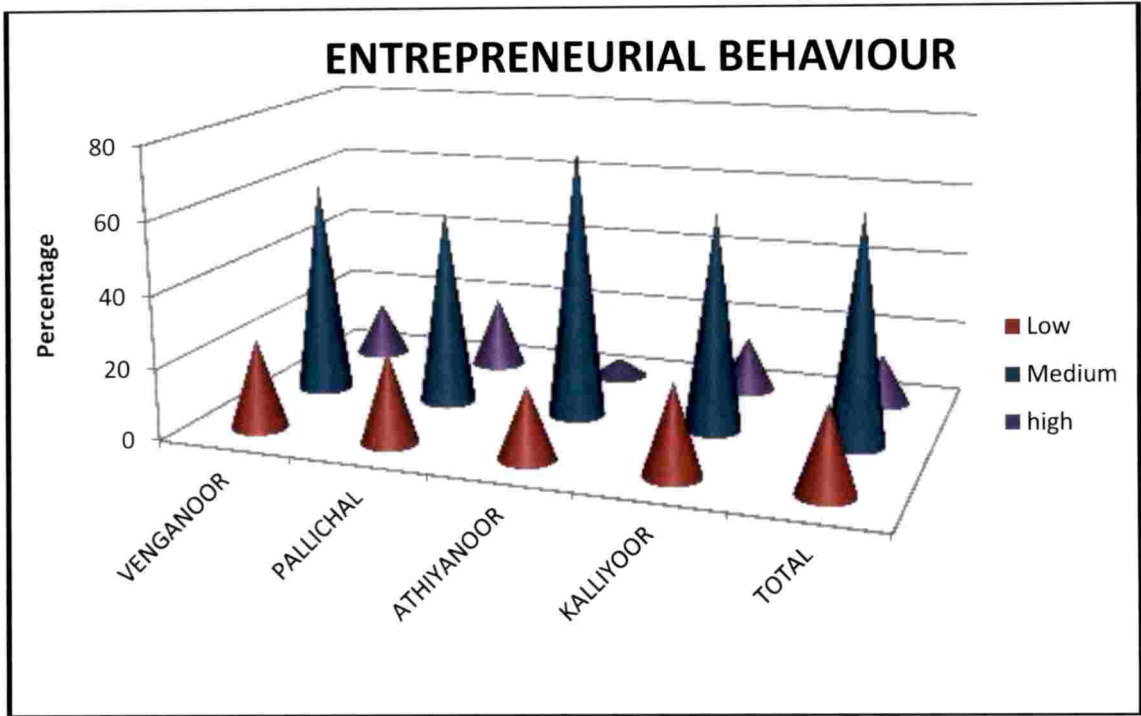


Figure 4. Distribution of respondents of four panchayats based on their entrepreneurial behaviour

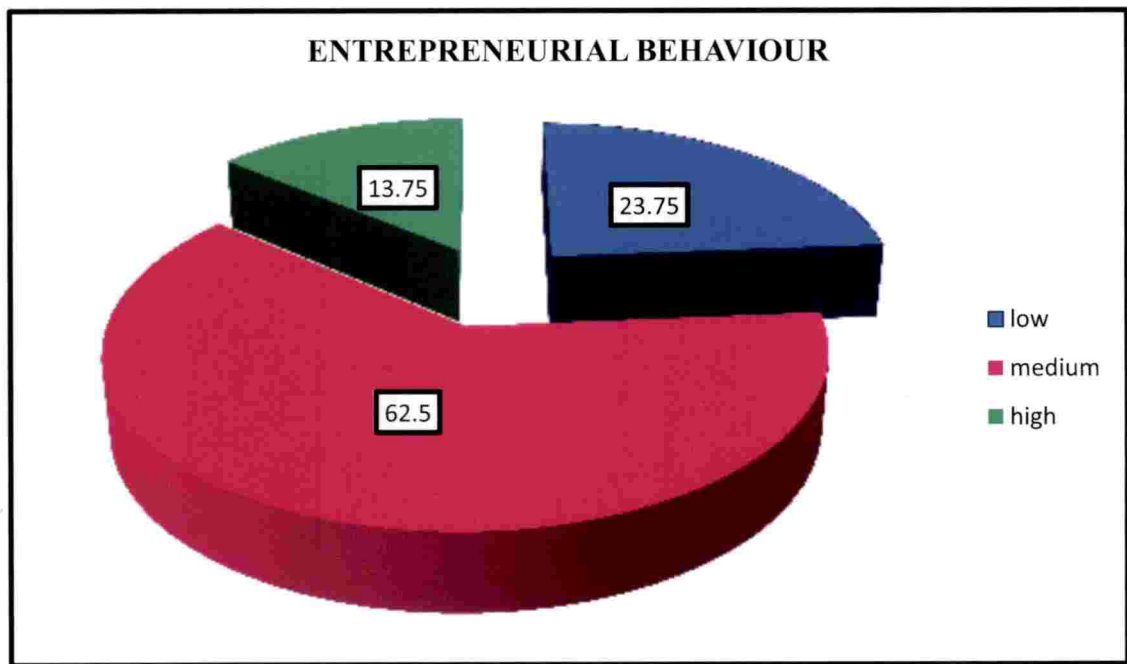


Figure 5. Distribution of respondents based on their entrepreneurial behaviour

was 60 per cent respondents in the case of Venganoor and Kalliyoor panchayats and 55 per cent in Pallichal panchayat.

4.1.2 Distribution of respondents according to their entrepreneurial attributes

In order to have an in-depth understanding of the entrepreneurial behaviour, the data with respect to the ten entrepreneurial attributes of the respondents have been furnished in Table 3.

Table 3. Distribution of the respondents according to their entrepreneurial attributes

Sl. No.	Components	Category	F	%
1.	Risk taking Expected score range =5-25 Data score range=18-25	Low	5	6.25
		Medium (19.95-22.8)	58	72.5
		High	17	21.25
		Mean= 21.4 SD=1.44		
2.	Hope of success Expected score rang=5-25 Data score range=15-23	Low	20	25
		Medium (17.44-21.45)	49	61.25
		High	11	13.75
		Mean= 19.5 SD=2.05		
3.	Persuasibility Expected score range=5-25 Data score range=15-24	Low	20	25
		Medium (17.29-21.41)	49	61.25
		High	11	13.75
		Mean= 19.35 SD= 2.06		
4.	Feedback usage Expected score range=5-25 Data score range=14-24	Low	20	25
		Medium (17.33-21.47)	50	62.5
		High	10	12.5
		Mean= 19.4 SD= 2.07		

5.	Self confidence Expected score range=5-25 Data score range=11-23	Low	14	17.5
		Medium (13.43-18.91)	55	68.75
		High	11	13.75
		Mean= 16.17 SD= 2.74		
6.	Knowledgeability Expected score range=5-25 Data score range=15-24	Low	20	25
		Medium (17.32-21.41)	49	61.25
		High	11	13.75
		Mean= 19.37 SD= 2.05		
7.	Persistence Expected score range=5-25 Data score range=15-24	Low	20	25
		Medium (17.35-21.45)	48	60
		High	12	15
		Mean= 19.4 SD= 2.05		
8	Manageability Expected score range=5-25 Data score range=15-25	Low	19	23.75
		Medium (17.33-21.74)	49	61.25
		High	12	15
		Mean= 19.53 SD= 2.21		
9	Innovativeness Expected score range=5-25 Data score range=15-25	Low	21	26.25
		Medium (17.19-21.53)	48	60
		High	11	13.75
		Mean =19.36 SD= 2.17		
10	Achievement motivation Expected score range=5-25 Data score range=12-24	Low	20	25
		Medium (17.12-21.46)	49	61.25
		High	11	13.75
		Mean= 19.28 SD= 2.17		

Risk taking

From Table 3 it is revealed that more than three fourth of the respondents were in the medium category of risk taking followed by high (21.25%) and low (6.25%). Since farming always depended on nature, it is a risky endeavour and for lease land farmers the risk associated is even more. This might be the reason for the medium to high risk orientation. The results are in agreement with Rajashekhar (2009).

Hope of success

The study revealed that majority (61.25%) of the respondents had medium hope of success followed by low (25%) and high (13.75%) level of hope of success. An entrepreneur who is financially sound has the freedom to invest more into new ventures and have more hope of success than fear of failure. The economic well-being of an entrepreneur adds to his hope of success.

Persuasibility

It was revealed that majority (61.25%) of the respondents had medium level of persuasibility followed by low (25%) and high (13.75%) level of persuasibility. This might be because of their medium self reliance and self confidence as most of them believe that they are the masters of their future and have the confidence to persuade others.

Feedback usage

Majority (62.5%) of the respondents had medium level of feedback usage followed by respondents in low (25%) and high (12.5%) level categories.

An important attribute of entrepreneur is seeking and using feedback on his or her performance to improve. Wankhade *et al.*, (2013) had reported that entrepreneurs had medium level of feedback usage.

Self confidence

It was found that majority (68.75%) of the respondents had medium level of self confidence followed by 17.5 per cent in the low and 13.75 per cent in the high categories.

Entrepreneurs need to have faith in themselves and their ability to achieve predetermined goals which justifies the result obtained. Decision making ability of an entrepreneur positively influences his self confidence, as an entrepreneur with high decision making ability has the self confidence in taking decisions regarding his venture. The results are in line with Maratha *et al.* (2017).

Knowledgeability

Majority (61.25%) of the respondents were in the medium category of knowledgeability followed by low (25%) and high (13.75%) level categories.

The respondents expressed an urge to develop good knowledge of market and also production technology which is most important before starting any enterprise. Knowledge is essential to have a keen sense of the market, exploitation of opportunities and willingness to adapt environment which is an encouraging trait of an entrepreneur. Ajyadurai (1999) suggested that an entrepreneur must be knowledgeable about his/her enterprise for better results.

Persistence

Medium level of persistence was found in the majority (60%) of the respondents followed by respondents in low (25%) and high (12 %) level.

An entrepreneur needs persistence to keep himself motivated constantly against all obstacles and difficulties. He should not get discouraged by failures, rather he should move forward with more enthusiasm and self confidence to fulfill his dreams. The results are in line with results obtained by Palmurugan *et al.*, (2008).

Manageability

Results found that majority (61.25%) of the respondents had medium level of manageability followed by 23.75 percent of the respondents belonged to low manageability category.

Manageability is a desirable trait of an entrepreneur. Only 15 per cent were found to have high level of manageability. This is an indicator that majority lacked the ability to delegate responsibilities to others. Hence efforts should be made to inculcate such trait in the respondents through training programmes and increasing their land holdings.

Innovativeness

Majority (60%) of the respondents were in the medium level of innovativeness followed by respondents in the low and high level categories.

This might be due to their medium land holdings and medium information seeking ability. A commercial farmer needs to search new things and options in the production and marketing aspects of the enterprises. Further, trying new things is also a necessity for an entrepreneur to make the enterprises profitable. It is also true that innovatively oriented farmers always incline to use new and innovative methods in farming and have favourable perception towards innovations. The results are in accordance with Pandeti (2005) and Jagannathbarik (2013).

Achievement motivation

73

It is found that majority of respondents (61.25%) had medium achievement motivation followed by low and high level categories.

This may be because on achieving greater goals they attain higher social status which might have contributed to the result obtained. The findings are in accordance with the studies conducted by Shilpashree (2011).

4.1.3 Comparison of four panchayaths with respect to entrepreneurial behaviour

Table 4. Comparison of four panchayaths with respect to entrepreneurial behaviour

(N=80)

Sl. No.	Groups	Average
1.	Venganoor	70.55
2.	Pallichal	71.15
3.	Athiyanoor	71.65
4.	Kalliyoor	72.225
Critical difference		NS

When the four panchayaths were compared based on the entrepreneurial behaviour, it was found that the F value of ANOVA table was 0.108, which was less than F critical value(2.74), and hence there was no significant difference with respect to entrepreneurial behaviour among the four panchayaths. The result indicates that the respondents from four panchayaths had similar level of risk taking, hope of success, persistence, feedback, self confidence, Knowledge ability, Persuasibility, manageability, innovativeness and achievement motivation.

4.2 NATURE AND EXTENT OF LEASE LAND FARMING

74

In order to study the nature and extent of lease land farming, respondents were classified into different categories based on structure of tenancy, type of agreement, size of leased land, mode of rent, amount of rent paid and major vegetables under lease land cultivation.

4.2.1 Based on Structure of tenancy

Respondents were classified according to the structure of tenancy into formal, informal and both categories. The results were as follows

Table 5. Distribution of respondents based on structure of tenancy

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Formal (written)	10	50	6	30	2	10	2	10	20	25
Informal (verbal)	7	35	14	70	16	80	16	80	53	66.25
Both	3	15	0	0	2	10	2	10	7	8.75

It was evident from the Table 5 that majority of farmers (66.25%) were in the informal category. This shows that lease land farmers mostly had informal contract without any written document. This was followed by formal (25%) and combination of both (8.75%). Some of the farmers were leasing land from multiple lessors, wherein some of them may go for formal, some for informal and hence a combination group was included.

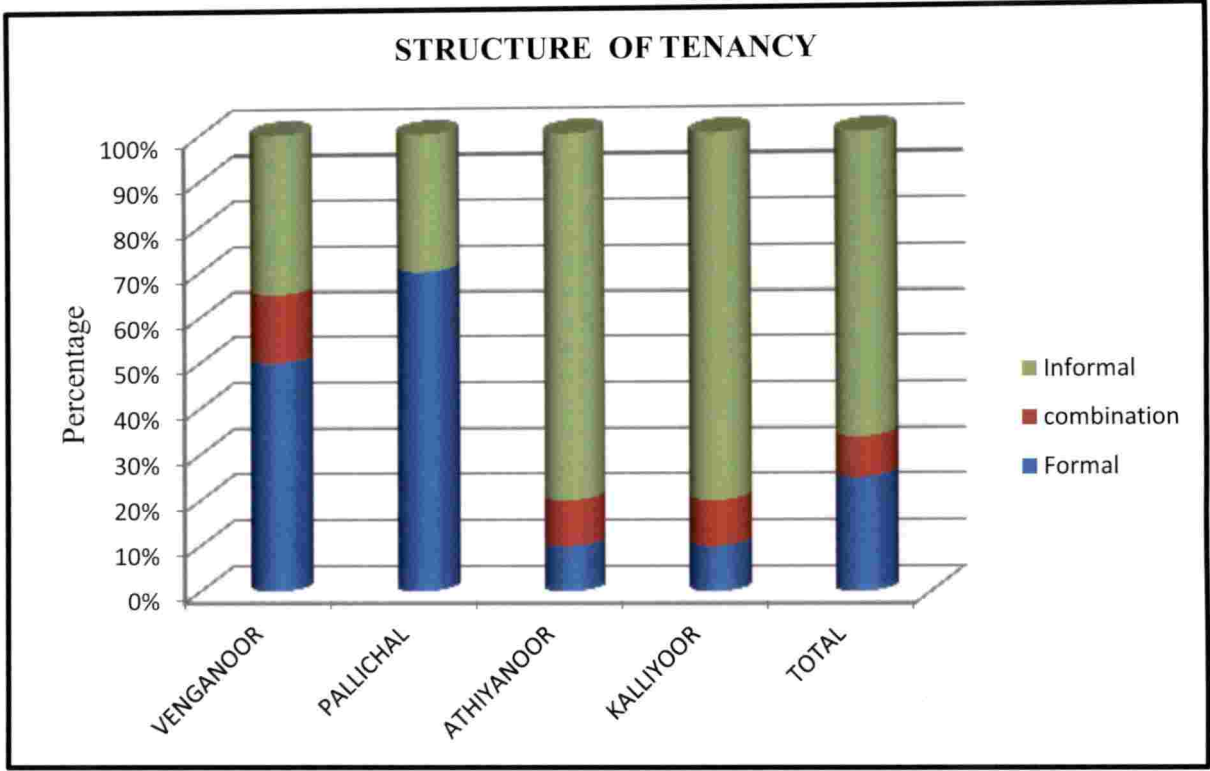


Figure 6. Distribution of respondents based on the structure of tenancy

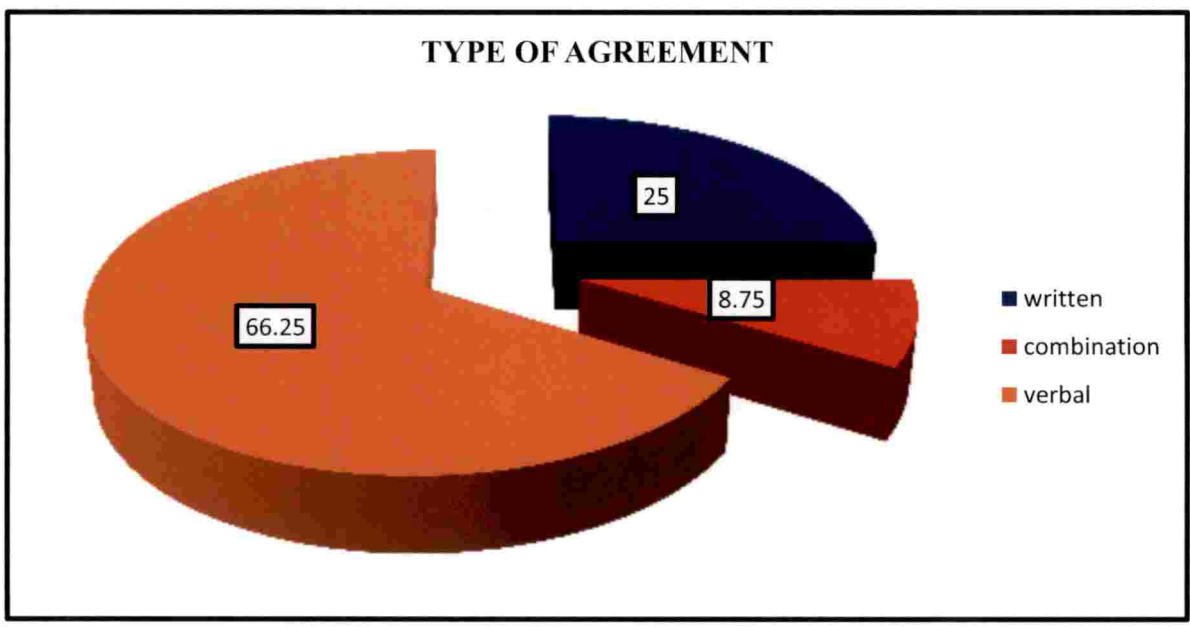


Figure 7. Distribution of respondents based on type of agreement of contract

In panchayat wise distribution, it was seen that 80 percent of respondents had informal contract in Kalliyoor and Athiyanoor panchayaths. It was 70 percent in Pallichal and 35 percent in Venganoor panchayat. Lack of any government formal legal measures or policies might be one of the reasons why there were more of informal contracts. The owners are reluctant to go for formal/written agreement because of the fear of losing ownership of land since there is no government policy or procedure existing to protect their right over land.

In Venganoor panchayat, 50 percent farmers had formal contract. These respondents were availing various support from Krishibhavan which necessitated them to have some sort of written agreement. It was found that formal contracts mainly involved written documents, which lacked any kind of legal procedures. These written documents were known by the name “Patta cheet” in local language.

4.2.2 Based on the type of agreement of contract

Based on the type of agreement, respondents were categorized into those having written, verbal and both type of agreement.

As evidenced by Table 5, majority respondents (66.25%) had entered into lease agreement by verbal contract followed by written (25%) and combination of both (8.75%). This shows that most contracts are made on a trust basis without any legal procedures.

The results are in conformity with the findings of Kiranmayi (2013).

4.2.3 Size of leased land

The land ownership pattern is one of the determinants of nature and size of lease market. To understand the leasing pattern in the study area, respondents were

grouped into categories based on their size of leased area as shown in the following Table.

Table 6. Distribution of respondents based on the size of leased land

Sl. No.	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
<1acre	11	55	7	35	14	70	9	45	41	51.25
1-3 acre	8	40	10	50	4	20	11	55	33	41.25
>3 acre	1	5	3	15	2	10	0	0	6	7.5

It was revealed from the table that majority of the farmers had leased land less than one acre followed by farmers who had leased 1-3 acres.

The probable reason for why farmers find it difficult to get more land for lease might be because that the land owners fear that they might lose it and so are prepared to give only small stretch of land for lease. Another reason might be due to the high fragmentation of land as a result of the expanding nuclear family structure, the average area under operational holdings is less than 0.8 hectare in Kerala as pointed out by Thomas (2013).

The low investment potential of tenants, difficulty in managing large acres of land and labour shortage might some of the reasons which prevent lessees from leasing large acres of land.

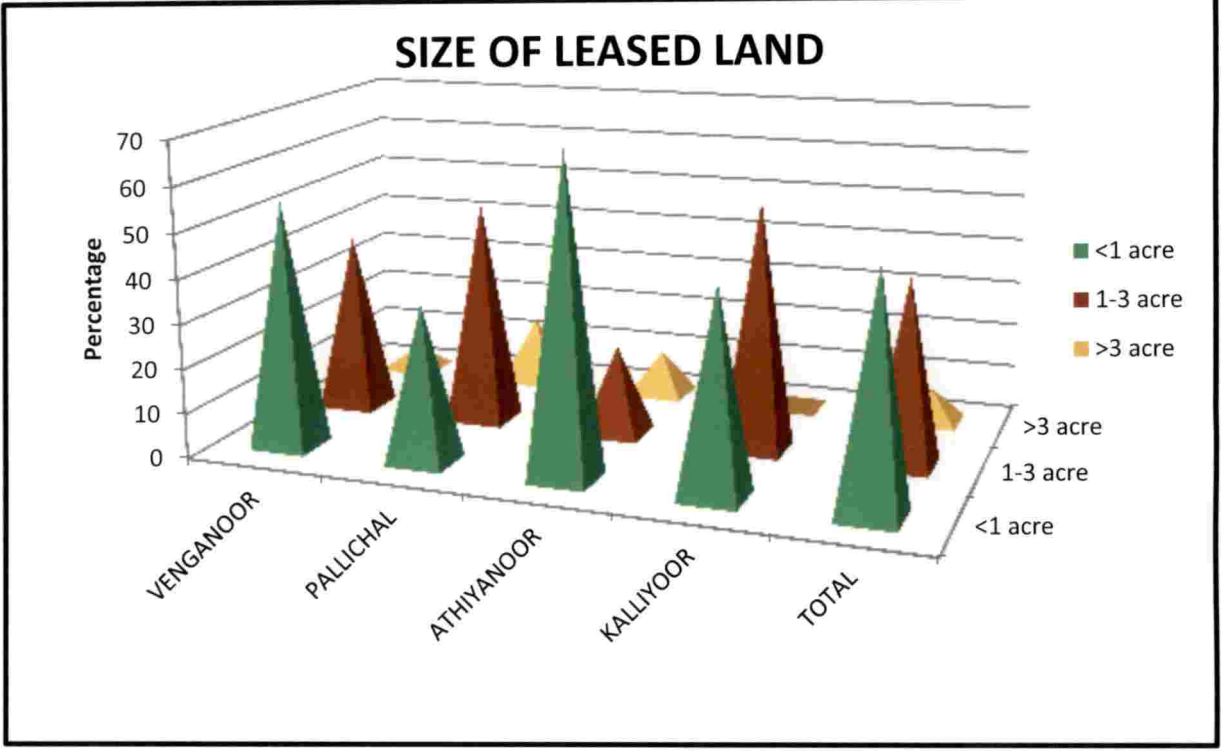


Figure 8. Distribution of respondents according to size of leased land

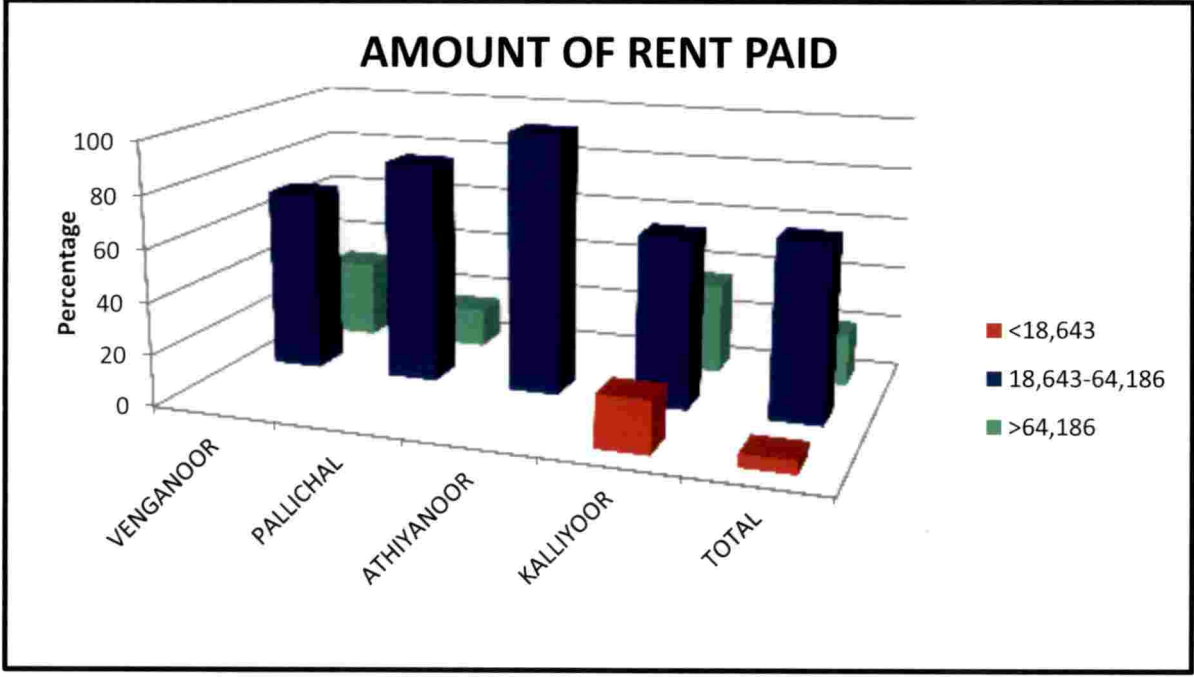


Figure9. Distribution of respondents based on the amount of rent paid

It was found that 70 per cent farmers of Athiyanoor panchayat had leased area less than 1 acre whereas it was 55 per cent in Venganoor, 45 percent in Kalliyoor and 35 percent in Pallichal panchayat.

4.2.4 Mode of rent paid by the tenant

Table 7 .Distribution of respondents based on the mode of rent paid

Sl. No.	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Cash	20	100	20	100	20	100	20	100	80	100
Kind	0	0	0	0	0	0	0	0	0	0

Cash was the only mode of rent used by all the respondents interviewed. Also it was found that most of the farmers paid rent before the commencement of growing season. Lessee farmers had to renew their tenure yearly. Owners demanded payment of rent in the beginning of the year as they feared that they might not get payment after the harvest of crop if crop failure occurs.

The results are in conformity with the findings of Kiranmayi (2013).

4.2.5 Amount of the rent paid

In order to study about the rent paid by the respondents to the owners, a classification was done based on the response. By using mean and standard deviation, farmers were grouped to three categories as follows.

Table 8. Distribution of respondents based on the amount of rent paid

80

Rent Rs. Acre ⁻¹	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
<18,640	0	0	0	0	0	0	4	20	4	20
18,640-64,000	14	70	17	85	20	100	13	65	64	80
>64,000	6	30	3	15	0	0	7	35	16	20
Mean=5798.5 SD=3187.7										

From the Table 8 it was revealed that 64 per cent of the respondents paid their rent in the range of Rs18,640-Rs.64,000 per acre per year. This variation in the rent amount was seen because of the difference in the pattern of lease land. Rents were high for low land compared to upland because of the easier water availability of which relieves the lessees from spending money for the installation of pumpsets for irrigation purpose.

It was found that 100 per cent of Athiyanoor respondents paid rent in the range of Rs18,640-Rs.64,000 whereas 85 per cent in Pallichal, 70 per cent in Venganoor and 65 per cent in Kalliyoor. Thirty five per cent of respondents paid lease rent in the range of greater than Rs. 64,000 which is because of difference in the pattern of land taken for lease. The probable reason for high rent range in Kalliyoor could be because more wet lands are taken for lease cultivation.

4.2.6 Major vegetables under lease land cultivation

81

Respondents were asked about the crops under lease cultivation. Based on their responses, following results were obtained as shown in Table 9.

Table 9. Distribution of respondents based on the crops under cultivation

Vegetables	Venganoor (20)	Pallichal (20)	Athiyanoor (20)	Kalliyoor (20)	Total (N=80)
Leafy	9	10	10	11	40
Solanaceous	3	6	0	0	9
Cucurbitaceous	11	17	14	16	58
Tubers	9	6	10	3	28
Malvaceous	6	3	6	6	21
Peas and beans	11	13	4	17	45
Cole crops	2	0	0	0	2

It is clear from the table that majority of farmers were cultivating cucurbitaceous crops such as snakegourd, bittergourd on leased land followed by cowpea and amaranthus. The same trend is noticed in all vegetable growing tracts of Thiruvananthapuram district which may be matching with the demand for the vegetables. This substantiates the result obtained.

4.3 DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR PROFILE CHARACTERISTICS

The distribution of respondents according to their personal, social, economical and psychological characteristics.

4.3.1 Age

On the basis of chronological age, respondents were classified into young, middle and old age as shown in the Table.10.

Table 10. Distribution of respondents according to the age

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
<35	0	0	2	10	0	0	1	5	3	3.75
35-55	9	45	1	5	4	20	10	50	24	30
>55	11	55	17	85	16	80	9	45	53	66.25

Majority (66.25%) of the respondents were found in the age group of greater than 55 years followed by middle age. Since the respondents were lease land farmers, most of them were doing lease land farming for more than ten years which justifies the result obtained. The risk associated with lease land farming is high compared to own land farming which might be one of the reason which prevents younger generation from taking up lease land farming.

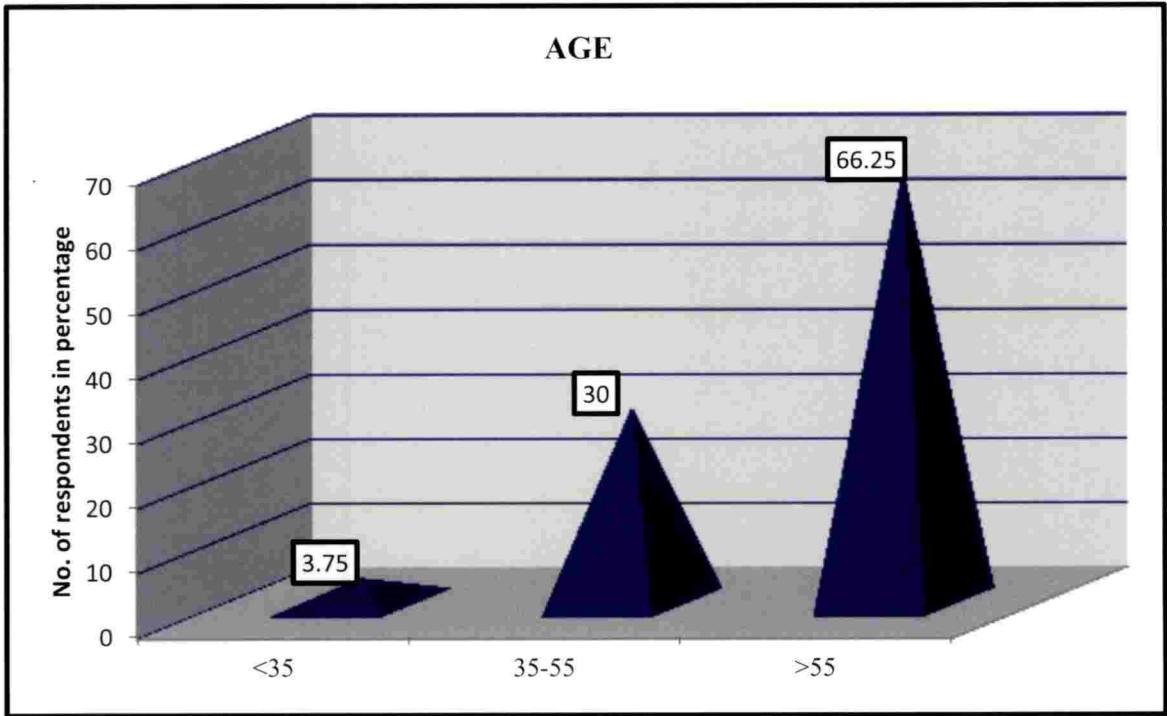


Figure10. Distribution of respondents according to age

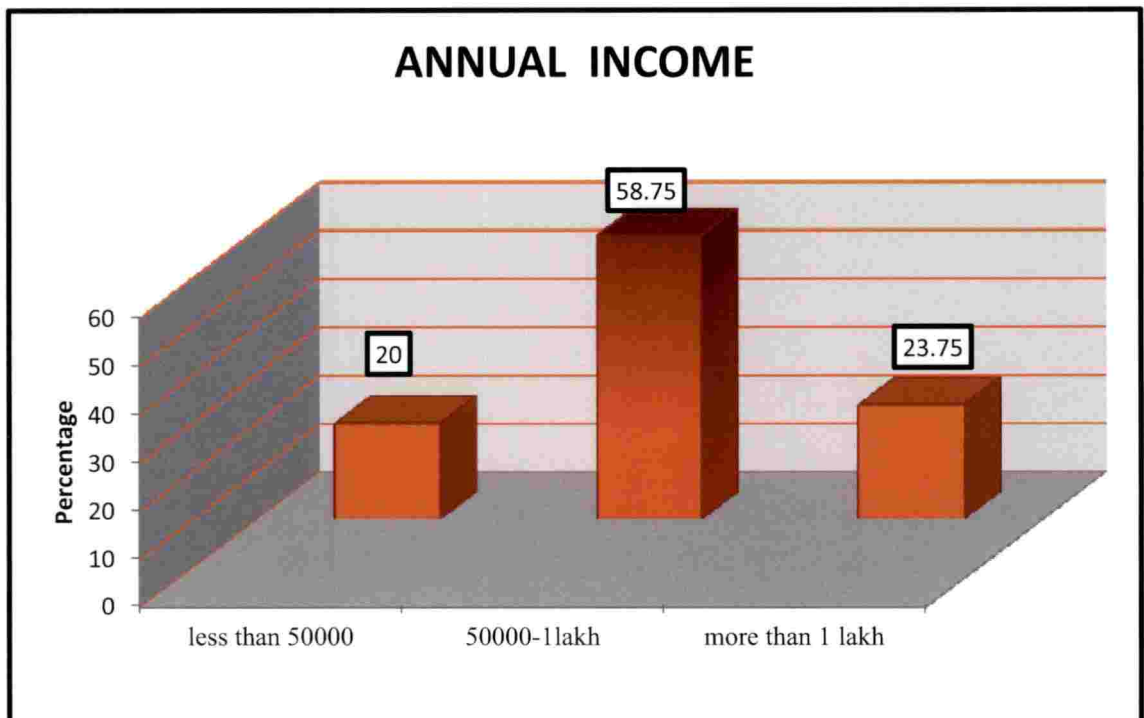


Figure 11. Distribution of respondents according to their annual income

Based on the panchayat wise distribution of respondents, it was found that 85 per cent of Pallichal farmers were in the old age category, whereas it was 80 per cent in Athiyanoor, 55 per cent in Venganoor and 45 per cent in Kalliyoor. Only 10 per cent in Pallichal and 5 per cent in Kalliyoor were in young category of respondents. The low profit margin in farming and attraction towards white collar jobs might be the reason which prevents younger generation from taking up lease land farming. These findings are in agreement with Basheer (2016).

4.3.2 Annual income

Table 11. Distribution of respondents according to their annual income

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
<50000	4	20	3	15	6	30	3	15	16	20
50000- 100000	13	65	15	75	10	50	9	45	47	58.75
>100000	3	15	2	10	4	20	8	40	17	23.75

Majority of the farmers were having annual income of Rs 50000-100000, followed by high and low. Lease rents and cost of cultivation influences annual income of the farmers. Variation in income level could be attributed to the size of land holdings and the type of vegetables cultivated.

The panchayat wise distribution shows that majority of respondents in Pallichal, Venganoor, Athiyanoor, Kalliyoor panchayats were having annual income in the range of Rs. 50000- 100000. The results are in disagreement with Vijaykumar (2001).

4.3.3 Problem solving ability

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 12.

Table 12. Distribution of respondents according to their problem solving ability

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	4	20	4	20	0	0	1	5	9	11.25
Medium (22.7-30.89)	14	70	12	60	17	75	15	75	58	72.5
High	2	10	4	20	3	15	4	20	13	16.25
Mean=26.8 SD=4.09										

Expected score range = 8-40 Data score range = 19-36

Majority (72.5%) of the respondents had medium problem solving ability followed by high and low levels. This could probably be because of the ability of the farmers to solve various issues which occurs as part of farming. Most of the farmers were experienced vegetable growers which might have increased their problem solving ability over the years. It is an encouraging trend noticed because as an entrepreneur, the problem solving ability should be more, in the commercial growers.

It is found that 75 percent of the respondents were in the medium category of problem solving ability in Athiyanoor and Kalliyoor panchayats and 70 per cent in Venganoor panchayat and 60 per cent in Pallichal panchayat which is a reflection of their

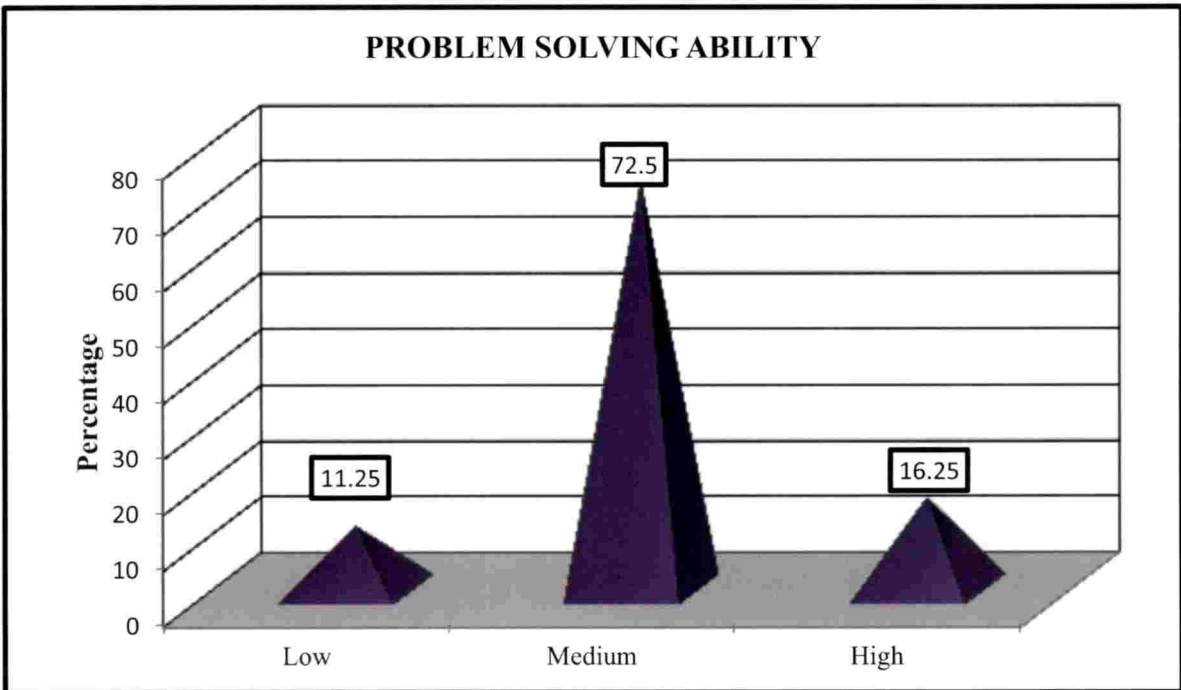


Figure 12. Distribution of respondents according to their problem solving ability

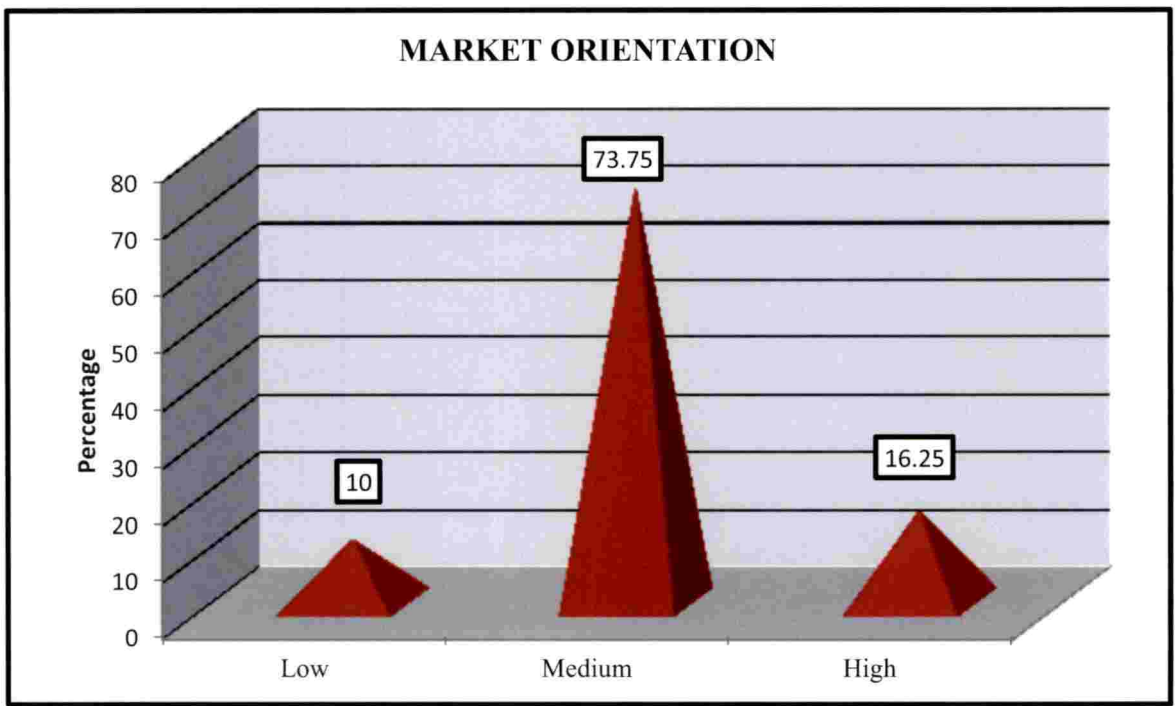


Figure 13. Distribution of respondents according to their market orientation

ability to identify problems and finding the best solution to it. The results are in agreement with Sundaran (2016)

4.3.4 Market orientation

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 13.

Table 13. Distribution of respondents according to their market orientation

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	0	0	6	30	2	10	0	0	8	10
Medium (61.87-80.9)	16	80	11	55	16	80	16	80	59	73.75
High	4	20	3	15	2	10	4	20	13	16.25
Mean= 9.1 SD= 0.607964										

Expected score range = 6-12 Data score range = 8-11

From the Table 13 it is revealed that majority (73.75%) of the respondents had medium level of market orientation followed by high (16.25%) and low (10%) levels. This shows that majority of the farmers are oriented to market to get reasonable gains of their produce.

Based on the panchayat wise distribution, it was found that 80 per cent of the respondents were in the medium category of market orientation in Venganoor, Athiyanoor and Kalliyoor panchayats and 55 per cent in Pallichal panchayat. This

might be due to the proximity of markets for the respondents in Venganoor, Athiyanoor and Kalliyoor panchayat when compared to farmers of Pallichal panchayat. Farmers depended on markets of VFPCCK, Horticoops etc. to get reasonable gains for their produce. Similar findings were reported by Pooja *et al.*, (2014).

4.3.5 Credit orientation

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 14

Table 14. Distribution of respondents according to their credit orientation

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	1	5	0	0	2	10	0	0	3	3.75
Medium (7.97-12.17)	13	65	17	85	16	80	14	70	60	75
High	6	30	3	15	2	10	6	30	17	21.25
Mean = 10.075 SD = 2.103										

Expected score range = 5-17 Data score range = 7-14

As it is revealed from the Table 14 that majority of the respondents (75%) were having medium credit orientation followed respondents in high (21.25%) and low (3.75%) categories. The entire process of farming depends on owned and borrowed resources. As farming is risky and being commercial growers, dependency on credit sources is needful. Credit orientation is a desirable trait of a lease land

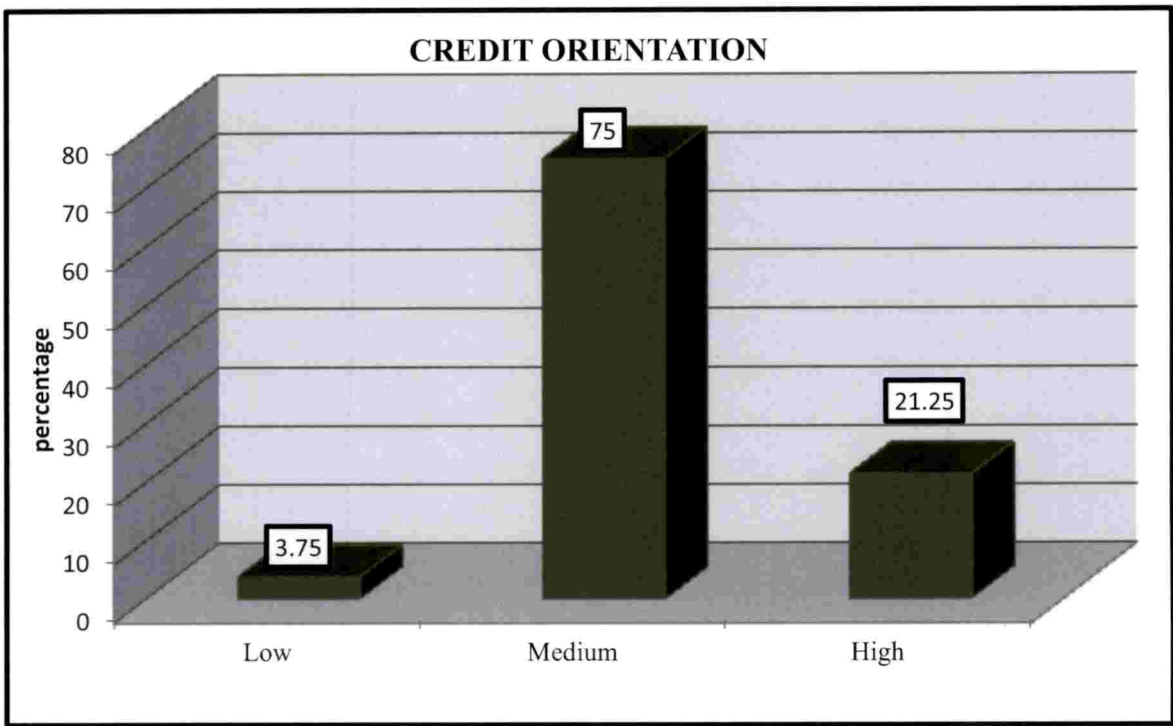


Figure 14. Distribution of respondents according to their credit orientation

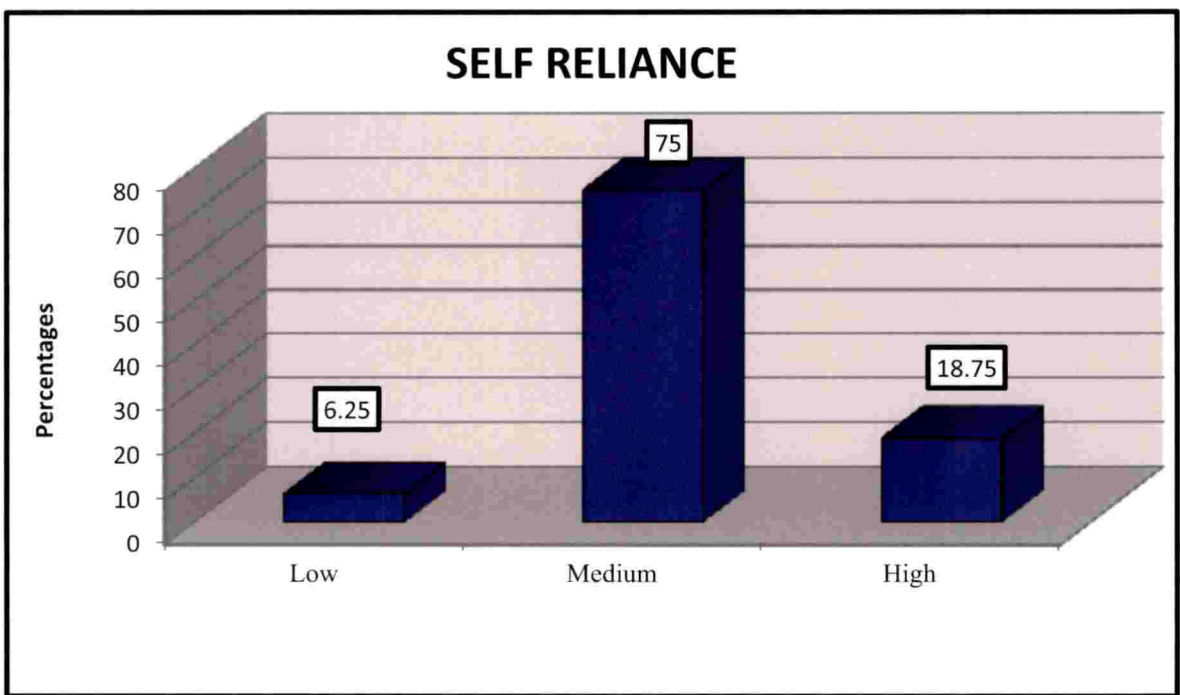


Figure 15. Distribution of respondents according to their self reliance

farmer. Moreover the result obtained is justified because respondents are prepared to invest money in lease land which is a reflection of their credit orientation.

A detailed analysis revealed that respondents of all the four panchayats tend towards medium level of credit orientation with 85 per cent in Pallichal panchayat followed by 80 per cent in Athiyanoor, 70 per cent in Kalliyoor panchayat and 65 per cent in Venganoor panchayat. The results are in conformity with Namitha (2017).

4.3.6 Self reliance

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 15.

Table 15. Distribution of respondents according to their self reliance

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	0	0	3	15	2	10	0	0	5	6.25
Medium (2.69-4.40)	16	80	13	75	16	80	15	75	60	75
High	4	20	4	20	2	10	5	25	15	18.75
Mean = 3.55 SD=0.855										

Expected score range= 1-5 Data score range= 2-5

Table revealed that majority (77.5%) had medium level of self reliance, followed by low (12.5%) and high (10%) level of self reliance. This is because an entrepreneur has the desire to capitalize his technical skill himself rather than

depending on others. An entrepreneur feels that his destiny depends on himself. He takes pride being the master of his job.

From the detailed analysis of panchayat wise distribution, it was found that in Venganoor and Athiyanoor panchayats, more than three fourth of the respondents were in the medium category of self reliance and it was 75 per cent in Kalliyoor and Pallichal panchayats. It was noticed that 25 per cent of respondents had high self reliance in Kalliyoor panchayat. Their high problem solving ability might be one of the reasons which contributed to the same. The results are in agreement with the findings of Gurubalan (2007).

4.3.7 Information seeking behaviour

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 16.

Table 16. Distribution of respondents according to their information seeking behavior

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	8	40	3	15	3	15	1	5	15	18.75
Medium (16.98-25.21)	11	55	15	75	17	85	16	80	59	73.75
High	1	5	2	10	0	0	3	15	6	7.5
Mean =21.1 SD=4.11										

Expected score range= 11-33 Data score range= 13-29

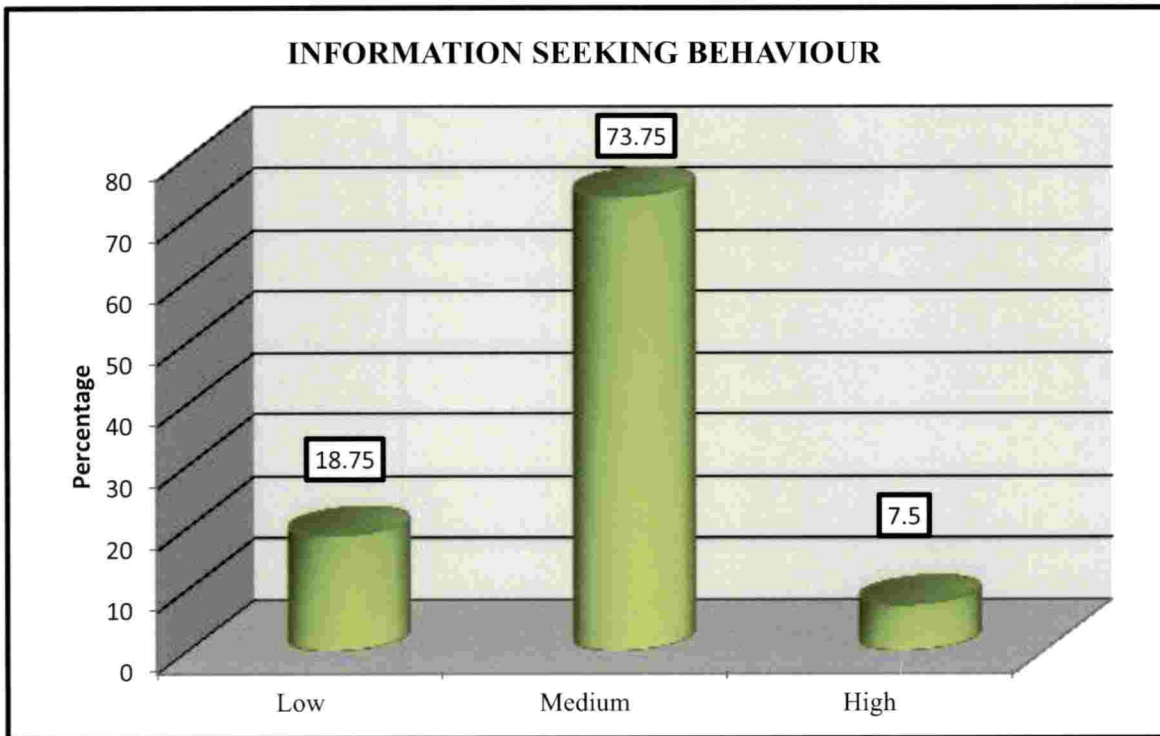


Figure 16. Distribution of respondents according to their information seeking behaviour

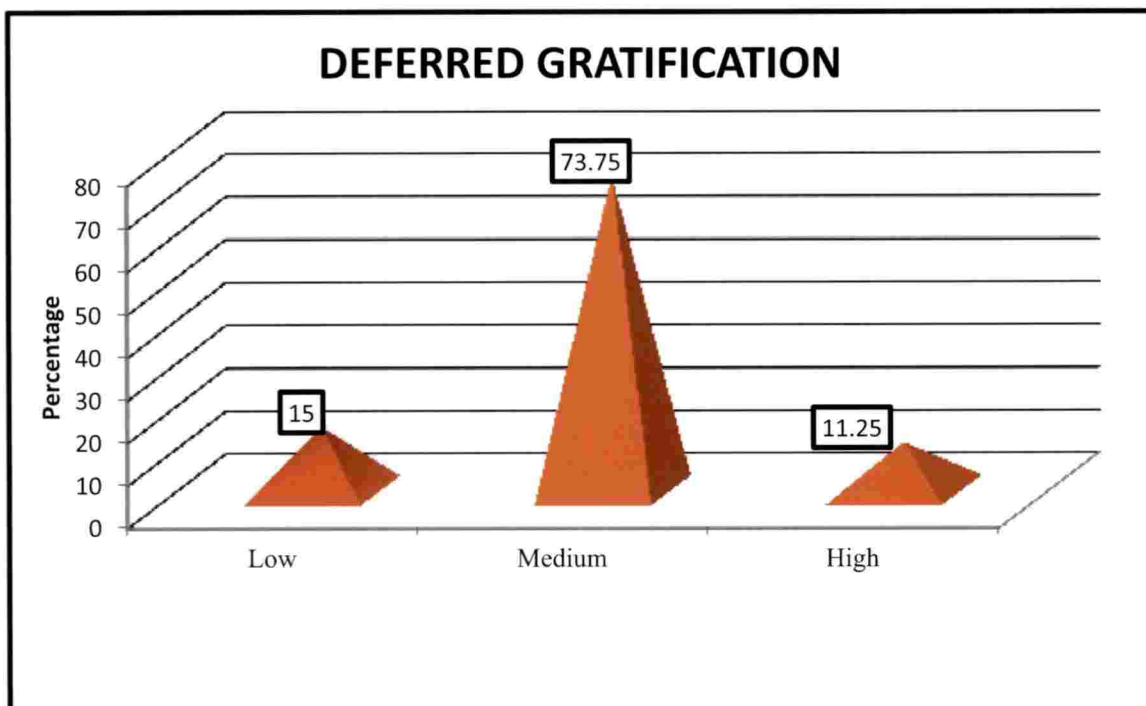


Figure 17. Distribution of respondents according to their deferred gratification

Table 16, revealed that majority (73.75%) respondents had medium information seeking behaviour followed by low (18.75%) and high (7.5%). Information seeking behaviour facilitates for promoting innovativeness, technical knowledge and market knowledge to the respondents.

From the detailed analysis of panchayat wise distribution, it was found that in Athiyanoor, Kalliyoor and Pallichal, three fourth of the respondents were in the medium category of information seeking behaviour whereas it was 55 per cent in Venganoor panchayat. A farmer who is interested to diversify his farm activities essentially require information, which he gathers through various sources, might be the reason for the medium information seeking behaviour exhibited. This result is in agreement with the findings of Sasidharan (2015).

4.3.8 Deferred gratification

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 17.

Table 17. Distribution of respondents according to their deferred gratification

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	8	40	1	5	1	5	2	10	12	15
Medium (18.88-30.46)	9	45	16	80	19	95	15	75	59	73.75
High	3	15	3	15	0	0	3	15	9	11.25
Mean =24.67 SD=5.79										

Expected score range= 9-45 Data score range= 10-35

The results depicts that majority (73.75%) of the respondents were in the medium category of deferred gratification followed by low (15 %) and high (11.25%) category.

Table 17, disclosed that majority (95 %) of the respondents in Athiyanoor panchayat had medium deferred gratification which shows the attitude of the respondents to postpone their immediate benefits for achieving long term goals. It was found that 85 per cent in Kalliyoor and 75 per cent in Pallichal panchayats had medium level of deferred gratification whereas only 45 per cent were in medium level in Venganoor panchayat. The Results are in conformity with Kumar (2009).

4.3.9 Creativity

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 18.

Table 18. Distribution of respondents based on their Creativity

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	2	10	3	15	6	30	3	15	14	17.50
Medium (11.43-21.71)	14	70	13	65	12	60	14	70	53	66.25
High	4	20	4	20	2	10	3	15	13	16.25
Mean =16.575 SD=5.142										

Expected score range= 6-30 Data score range= 7-28

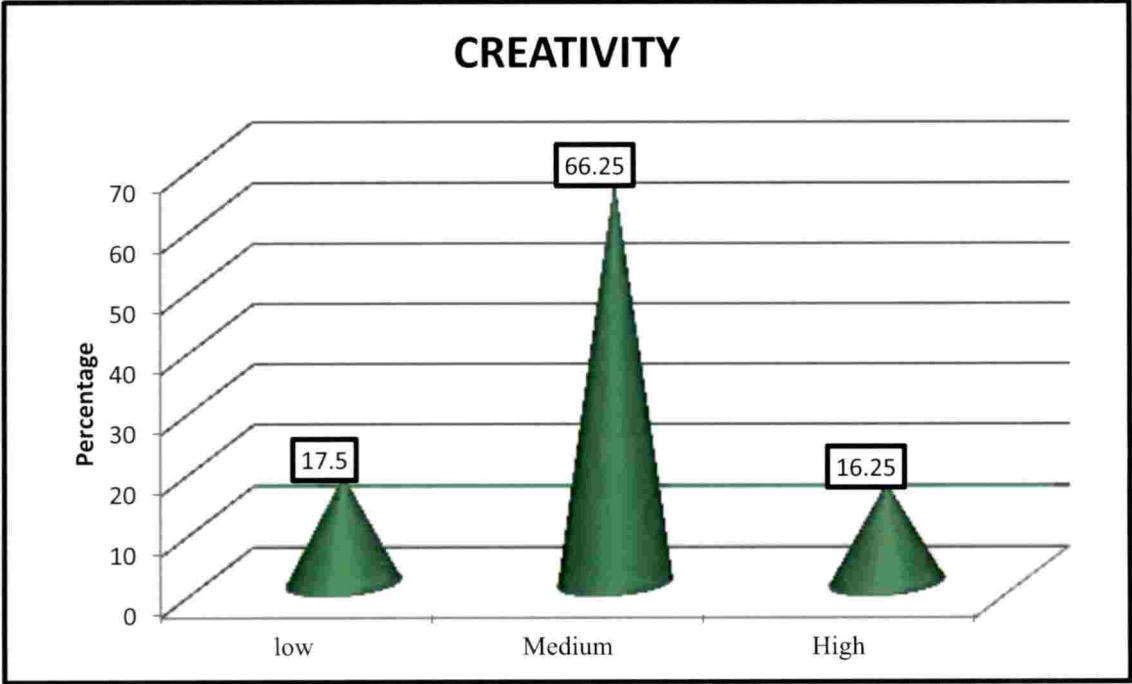


Figure 18. Distribution of respondents based on their creativity

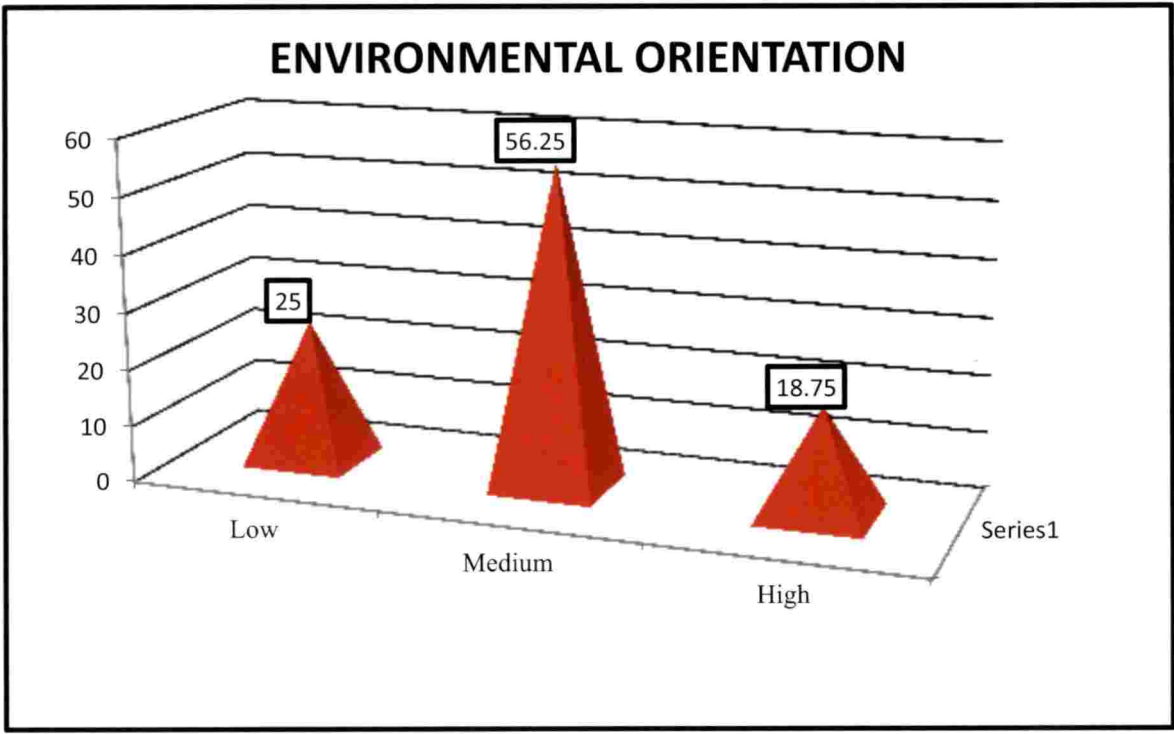


Figure 19. Distribution of respondents based on their environmental orientation

It is seen from Table that majority of the respondents (66.25%) belonged to the medium category of creativity followed by low(17.50%) and high (16.25%). Their ability to devise novel methods to improve the quality of work and to think of new ways of solving problems is a reflection of their creativity.

From the detailed analysis of panchayat wise distribution, it was found 70 per cent respondents were in the medium category of creativity in Venganoor panchayat and Kalliyoor panchayats followed by 65 per cent in Pallichal and 60 per cent in Athiyanoor panchayats. The results are in disagreement with Sangeetha (1997).

4.3.10 Environment orientation

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 19.

Table 19. Distribution of respondents based on their environmental orientation

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	5	25	3	15	5	25	7	35	20	25
Medium (4.20-6.548)	11	55	11	55	12	60	11	55	45	56.25
High	4	20	6	30	3	15	12	60	15	18.75
Mean =5.375 SD=6.548										

Expected score range= 8-16 Data score range= 4-8

From the Table 19, it is evident that majority (56.25%) had medium environmental orientation followed by low (25%) and high (18.75%). This might be

because lease contracts are mostly for short tenure and to meet their demands from farmers follow practices which are not environmentally oriented. It takes about three years for a farm to be registered as organic. Since the tenure period is short, the option to switch to organic farming is limited for lease land farmers which justifies the result.

From the detailed analysis of panchayat wise distribution, it was found 60 per cent respondents were in the medium category of environmental orientation in Athiyanoor panchayat followed by 55 per cent in Venganoor, Pallichal and Kalliyoor panchayats. The results are in disagreement with Sasidharan (2015).

4.3.11 Decision making ability

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 20.

Table 20. Distribution of respondents based on their decision making ability

Category	Venganoor (20)		Pallichal (20)		Athiyanoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	4	20	7	35	4	20	4	20	19	23.75
Medium (12.71-16.33)	13	65	8	40	12	60	12	60	45	56.25
High	3	15	5	25	4	20	4	20	16	20

Expected score range= 6-24 Data score range= 12-18

Table 20 revealed that majority of farmers belonged in the medium category, whereas the percentages were equal in the low and high category. The findings are in agreement with Rathod *et al.* (2012). Since the respondents are lease land farmers who

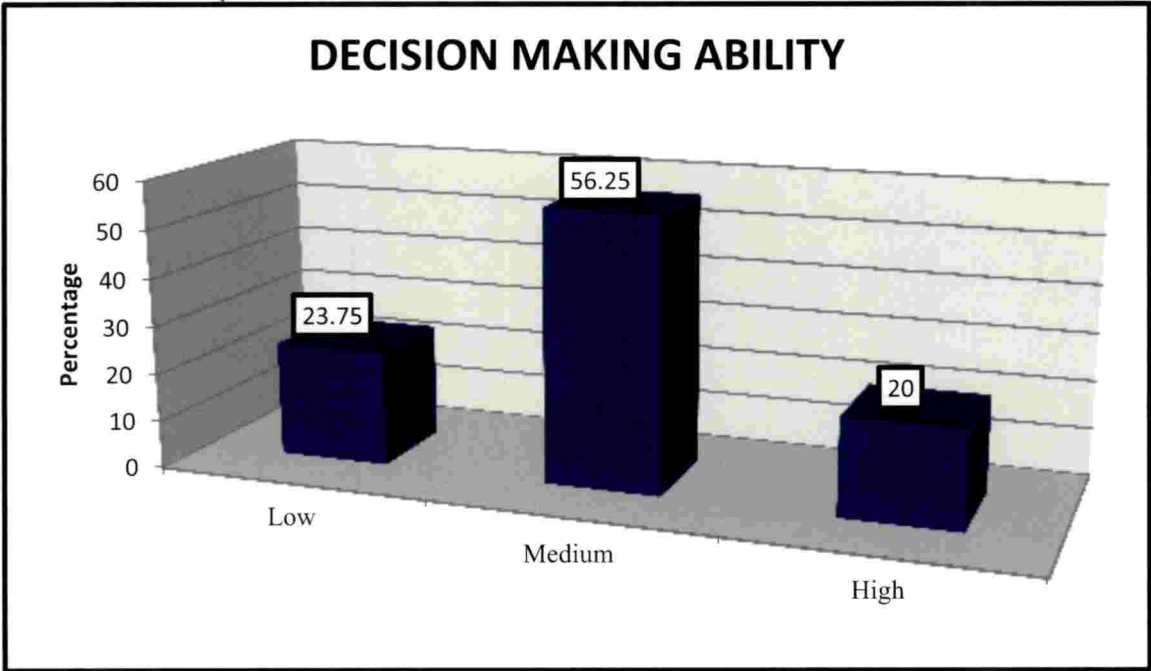


Figure 20. Distribution of respondents based on their decision making ability

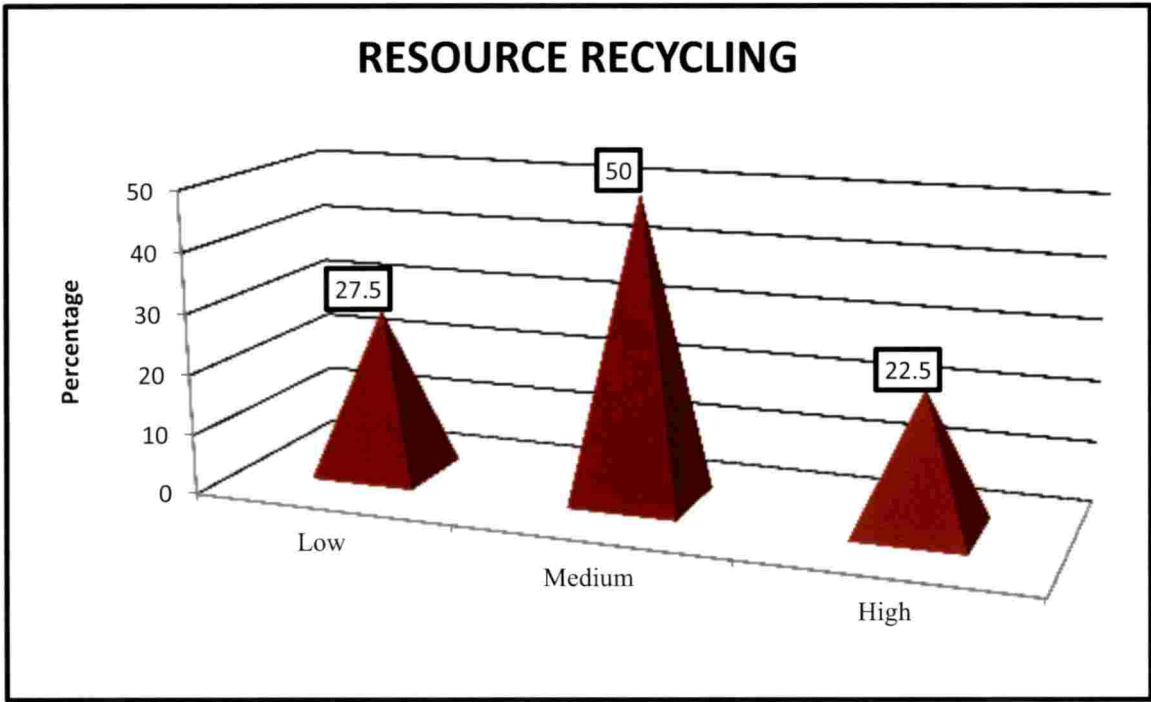


Figure 21. Distribution of respondents based on their resource recycling

are competed to take decisions at various stages of cultivation. The other possible reason might be that even in the context of ever changing agro-climatic conditions and lack of stabilized price policy, they are forced to take decision which might have sharpened their decision making ability.

From the detailed analysis of panchayat wise distribution, it was found 65 per cent respondents were in the medium category of decision making ability in Venganoor panchayat followed by 60 per cent in Athiyannor and Kalliyoor panchayats and 40 per cent in Pallichal panchayat. The results are in conformity with Kumar (1997).

4.3.12 Resource recycling

Respondents were categorized into low, medium and high considering mean and standard deviation values and the results were depicted in Table 21.

Table 21. Distribution of respondents based on their resource recycling

Category	Venganoor (20)		Pallichal (20)		Athiyannoor (20)		Kalliyoor (20)		Total (N=80)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Low	8	40	4	20	5	35	5	25	22	27.5
Medium (4.04-6.40)	8	40	11	55	11	55	8	40	40	50
High	4	20	5	25	2	10	7	35	18	22.5
Mean =5.037 SD=0.906										

Expected score range= 4-8 Data score range= 4-8

A perusal of Table 21 revealed that majority of farmers fall in the medium category (50%) followed by low (27.5%) and high (22.5%).

A panchayat wise distribution revealed that almost half of the respondents were practicing resource recycling in all the four panchayats which is a desirable trend noticed. Almost equal percentages of respondents were found in the low and high category. It is in agreement with Palmurugan *et al.* (2008).

4.4 RELATIONSHIP OF ENTREPRENEURIAL BEHAVIOUR WITH PROFILE CHARACTERISTICS OF RESPONDENTS

4.4.1 Correlation coefficient between selected personal, socio-economic and psychological characteristics of farmers and their entrepreneurial behaviour along with its components.

4.4.1.1 Risk taking

From the Table 22 it was evident that problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were positively and significantly correlated with risk taking at 1 per cent level of significance.

Risk taking is an important attribute of an entrepreneur. A farmer who is able to solve problems as and when they arise, able to choose best alternative among available ones and able to use his creative abilities is having good risk taking ability which is an important trait of an entrepreneur. A commercial farmer should have good market orientation to know about the price trends, demand and supply and risks associated with the agri-business. Also higher credit orientation helps farmer to face the risks associated with the venture. This justifies the result obtained.

Table 22. Correlation coefficient between selected personal, socio-economic and psychological characteristics of farmers and their entrepreneurial behaviour along with its components

behaviour along with its components

	Risk Taking	Hope of success	Persuasibility	Feedback usage	Self confidence	Knowledgeability	Persistence	Manageability	Innovativeness	Achievement motivation
Age	.125	.099	.148	.131	-.064	.135	.132	.073	.165	.163
Annual income	.099	.244*	.125	.175	.121	.136	.106	.123	.136	.125
Problem solving ability	.828**	.834**	.805**	.788**	.542**	.820**	.831**	.813**	.807**	.759**
Market orientation	.400**	.295**	.204	.229*	.339**	.284*	.251*	.402**	.260*	.170
Credit orientation	.181	.244*	.227*	.214	.208	.240*	.286*	.293**	.230*	.198
Self reliance	.628**	.751**	.636**	.631**	.493**	.660**	.680**	.739**	.614**	.554**
Information seeking behaviour	.583**	.524**	.478**	.454**	.378**	.490**	.499**	.512**	.486**	.440**
Deferred gratification	.404**	.327**	.186	.189	.414**	.195	.187	.226*	.185	.159
Creativity	.420**	.550**	.462**	.456**	.321**	.505**	.488**	.554**	.483**	.420**
Decision making ability	.648**	.616**	.590**	.603**	.498**	.637**	.609**	.649**	.610**	.562**

*significant at 5 percent level **significant at 1 percent level

4.4.1.2 Hope of success

102

In the case of hope of success, problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were found to be significant at 1 per cent level of significance. Credit orientation was found to be significant at 5 per cent level.

Problem solving ability, self reliance, information seeking behaviour, deferred gratification, creativity, decision making ability motivates the farmer to believe that the problems and barriers which he faces can be turned into opportunities, which is an encouraging trait of an entrepreneur.

4.4.1.3. Persuasibility

It was revealed that problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability were positively and significantly correlated at 1 per cent level. Credit orientation was found to be significant at 5 per cent level of significance.

Problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability improves the ability of a farmer to influence and persuade others. This justifies the results obtained.

4.4.1.4 Feedback usage

It was found that problem solving ability, self reliance, information seeking ability, creativity and decision making ability were positively and significantly correlated with feedback usage at 1 per cent level. Market orientation was found to have positive and significant correlation with feedback usage at 5 per cent level.

An important trait of an entrepreneur is accepting feedback from others in order to overcome his shortcomings and improve his performance.

4.4.1.5 Self confidence

103

With respect to self confidence, problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were found to have positive and significant correlation at 1 per cent level significance.

A higher level of problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability boosts the confidence level of an entrepreneur to perform tasks and make decisions which justifies the results obtained.

4.4.1.6 Knowledgeability

In case of knowledgeability, problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability had positive and significant relation at 1 per cent level. Market orientation and credit orientation had significant and positive correlation at 5 percent level.

The characteristics such as problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability, market orientation and credit orientation positively influences the knowledgeability of a farmer.

4.4.1.7 Persistence

Problem solving ability, self reliance, information seeking behaviour, creativity, and decision making ability were positively and significantly correlated with persistence at 1 per cent level. Market orientation and credit orientation had significant correlation with persistence at 5 percent level.

The characteristics such as problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability positively influences the persistent nature of a farmer.

4.4.1.8 Manageability

In case of manageability, problem solving ability, market orientation, credit orientation, self reliance, information seeking behaviour, creativity, and decision making ability at 1 per cent level had significant and positive relationship whereas deferred gratification had significant and positive relationship at 5 per cent level.

An individual with high self reliance has the capability to manage his business by himself. The characteristics such as problem solving ability, credit orientation, information seeking behaviour, creativity influences positively manageability of a farmer.

4.4.1.9 Innovativeness

With regard to Innovativeness, problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability had significant and positive correlation at 1 per cent level. Market orientation and credit orientation had significant and positive correlation at 5 per cent level.

Problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability, market and credit orientation seem to be interrelated which influence farmers to bring change in their socio- psychological orientation to adopt new ideas earlier than other members in the social system.

4.4.1.10 Achievement motivation

105

In case of achievement motivation, problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability had positive and significant correlation at 1 per cent level.

Achievement motivation is a driving force in the farmer to perform his best and to excel in his profession. The higher problem solving ability, self reliance, information seeking ability, creativity, decision making ability induces tendency in farmer to set higher achievement standards and provides higher confidence level to achieve goals.

4.4.2 Correlation coefficient between entrepreneurial behaviour and independent variables

Correlation analysis was done to determine whether any relationship exists between dependent and independent variable.

Table 23. Correlation between entrepreneurial behaviour and independent variables

Independent variable	Correlation co-efficient
Age	0.116
Annual income	0.154
Problem solving ability	0.855**
Market orientation	0.311**
Credit orientation	0.257*
Self reliance	0.701**
Information seeking behaviour	0.528**

Deferred gratification	0.273*
Creativity	0.511**
Environmental orientation	-0.055
Decision making ability	0.660**
Resource recycling	0.063

*significant at 5 per cent level **significant at 1 per cent level

A perusal of Table 23 revealed that problem solving ability, market orientation, self reliance, information seeking behaviour, creativity, decision making ability had significant and positive correlation at 1 per cent level and credit orientation and deferred gratification had positive and significant correlation at 5 per cent level with entrepreneurial behaviour. It was found that age, annual income, resources recycling were non-significantly correlated whereas environmental orientation had negative correlation with entrepreneurial behaviour.

The non-significant correlation between age and the entrepreneurial behaviour supports the view that people who are more diligent and enthusiastic will work irrespective of their age. This is in agreement with Suneetha (2003) and Sreeram (2013).

It was found that there was no significant correlation between entrepreneurial behaviour and annual income. Tenant farmers do farming irrespective of their annual income. It is more of their livelihood option. The risk associated with lease land farmers are high therefore, higher income could help them to cover the risk factor associated with the enterprise to a great extent. The result is controversial to the result by Vijaykumar *et al.*, (2003).

It is observed that problem solving ability of the respondents had positive and significant relation at 1 per cent level of significance. This is in agreement with

Sundaran (2016) who reported that there was a significant and positive relation between problem solving ability and entrepreneurial behaviour at 1 per cent level for both men and women SHG members.

A positive and significant correlation existed between market orientation and entrepreneurial behaviour at 1 per cent level of significance. The ultimate aim of any commercial vegetable grower is to get remunerative prices for his produce. Therefore a sound knowledge of market is a very important in order explore opportunities, gaps in demand and supply, price trends etc. existing in the market which justifies the results obtained. Results are in line with Lawrence and Dowling (2003).

It was found that credit orientation had significant and positive correlation with entrepreneurial behaviour at 5 per cent level. An entrepreneur depends on various sources of credit to meet his demands. An entrepreneur should have the orientation to avail and utilize credit for commercial vegetable cultivation. This justifies the significant relation between credit orientation and entrepreneurial behaviour.

Entrepreneurial behaviour had positive and significant correlation with information seeking behaviour at 1% level. A commercial vegetable grower could become an entrepreneur only when he is informative and utilizes all possible information. This justifies the result obtained. The findings are in accordance with Rathod *et al.* (2012).

Deferred gratification had positive and significant correlation with entrepreneurial behaviour at 5 per cent level. Hence it can be interpreted that a commercial grower prefers postponement of immediate benefits of short range rewards in order to secure more long range goals and the resulting satisfaction. It could be argued that the postponement of immediate satisfaction by farmers increases their saving in relation to accumulation of capital. Under this capital position a farmer

will be in a better position to make appropriate choice for the success of his agribusiness. This is in line with Kumar (2009).

It was found that creativity had positive and significant correlation with entrepreneurial behaviour at 1 per cent level. This reflects the fact that the ability of a farmer to devise novel or alternate methods to improve the quality of work positively improves his entrepreneurial behaviour. The results are in line with Sangeetha (1997).

Entrepreneurial behaviour was negatively correlated with environmental orientation. As the respondents were lease land farmers who had to pay a considerable amount of their returns as rent to the land owner, they follow various practices which are not environmentally oriented. This is in agreement with Bhaumik (1991).

Decision making ability had significant and positive correlation with entrepreneurial behaviour at 1 per cent level of significance. Decision making ability is the selection of best possible alternatives from among available alternatives. Adoption process essentially involves decision making whether to accept or reject a new idea or practice. It provides required impetus to make optimum utilization of resources in farm for achieving profits.

Resource recycling was non-significantly correlated with entrepreneurial behaviour. Lease land farmers are more profit oriented because of their socio-economic conditions. As a result they rarely practice recycling of resources. Also the negative correlation between environmental orientation and entrepreneurial behaviour signifies the result obtained.

4.5 Constraints faced by the leased land vegetable growers

Constraints faced by the respondents were categorized under two subheads as constraints related to land lease and general constraints. Constraints were ranked based on the percentage of respondents perceived a particular problem and the results are

presented in Table 24 and 25. The constraints were identified and given rank based on frequency and percentage.

Table 24. Constraints faced by respondents related to lease land farming

Sl.No.	Constraints related to land lease	F	%	Rank
1.	Land lease rents are high	80	100	1
2.	Owners demand payment of rent before the cropping season	80	100	1
3.	Lack of timely and sufficient credit facilities from banks	75	93.75	3
4.	Difficult to pay rent as cash	55	68.75	6
5.	Money lenders are main source of credit for which they demand high interest rate	45	56.25	8
6.	No fixed lease land rent rates	78	97.5	2
7.	No vouchers for the payment of lease rent for the land	67	83.25	5
8.	Written agreements lack proper legal structure	53	66.25	7
9.	Tenancy tenures require yearly renewal	75	93.75	3
10.	Owners demand their land back in short notice	45	56.25	8
11.	Lease contract are mostly verbal	53	66.25	7
12.	Tenancy tenure are short time	70	87.5	4

From the Table 24 it is clear that high lease rent and owners demanding payment of rent before the cropping season got first rank among the lease land related constraints. No fixed land lease rents was the second most important constraint perceived by 97.5 per cent respondents. While 93.75 per cent perceived that lack of

timely and sufficient credit facilities from banks and tenancy tenures require yearly renewal(3rd rank), 87.5 per cent perceived short tenure period(4th rank), 83.25 per cent perceived that no voucher for payment of rent(5th rank), 68.75 per cent perceived that difficulty to pay rent as cash (6th rank),66.25 per cent perceived that lack of proper legal structure for agreement of lease contract(7th rank)and owners demanding their land back in short notice(8th rank) as constraints in lease land farming.

Lease rents were high which varied from place to place depending on the land pattern of the leased land. Also lease rents were not fixed, it varied according to the owners' interest and mostly owners demanded payment of rent before the commencement of cropping season. There was a fear among the owners that they might not receive the rent in case of crop failure. Only few farmers were able to pay their rent after the harvest of crop, who were mostly relatives or friends of the owners.

Other major constraints were yearly renewal of the rent even when the lease contract was for 3 years and lack of timely and sufficient credit facilities from banks. Farmers depend on money lenders in order to avoid the cumbersome procedures of banks. One of the main reasons for this was that their inability to produce any kind of security to banks to get loans. Since no vouchers were given against payment of rent prevented them getting insurance or subsidies from development departments. Owners demanded their land back in short notice and farmers are left with no choice but to give land back or pay rent more than usual to retain their agreement. Tenures are mostly short term which prevents farmer from land improvement practices. This happens because of the lack of any formal legal structure for lease agreements.

The results are in agreement with Kiranmayi (2013)

Table 25. General constraints faced by respondents.



Sl.No.	General constraints	F	%	Rank
1.	Instability of prices	80	100	1
2.	Lack of proper marketing facilities	50	62.5	4
3.	High labour charges	65	81.25	2
4.	Lack of provision for vegetable crop insurance	80	100	1
5.	Non availability of fertilizer depo	10	12.5	9
6.	Non availability of quality planting material	15	18.75	8
7.	Lack of proper technical knowledge	65	81.25	2
8.	Lack of proper irrigation sources	20	25	7
9.	Non availability of labour	41	51.25	6
10.	Lack of transport facility	20	25	7
11.	Inadequate extension service	65	81.25	2
12.	Non availability of quality planting materials	20	25	7
13.	High cost of inputs	40	50	5
14.	Developmental department fails to offer agricultural trainings for farmers	57	71.25	3

From Table 25 it is clear that the most important (1st rank) general constraints were instability in prices and lack of provision of vegetable crop insurance. Moreover vegetable insurance given was same for all vegetables irrespective of its cost of cultivation of crops. High labour charges, lack of proper technical knowledge and

inadequate extension service as Krishibhavan officials rarely visited farmer's field were the second most important constraint. Development departments fail to offer trainings to farmers (3rd rank), lack of proper marketing facilities (4th rank), high cost of inputs (5th rank), non availability of labour (6th rank), lack of proper irrigation sources, lack of transport facilities to market place and non availability of quality planting materials (7th rank) and 18.75 per cent perceived that non availability of quality planting materials were the other general constraints faced by vegetable growers.

From the study it was found that farmers were given planting materials without sufficient field trials as was observed in Venganoor panchayat where some farmers tried a new variety of snakegourd which yielded long and slender fruits. These fruits had no market value or consumer acceptance. As a result those lease land growers were financially affected. Lack of guidance from concerned officials might be another reason which lead to such problems.

Similar results were reported by Sindhu (2015).

4.6 SUGGESTIONS TO OVERCOME THE CONSTRAINTS FACED BY LEASE LAND VEGETABLE GROWERS

Suggestions for overcoming the constraints were collected from the respondents and experts

4.6.1 Suggestions for overcoming the constraints as perceived by lease land vegetable growers

Extension of land tenure to a period of three to four years, so that farmers get a chance to switch over to organic practices, periodic evaluation by Krishibhavan officials, providing technical guidance by extension officials so that they learn about the technologies and practices that have come new in the market, better farmer

friendly approaches by bank and timely availability of loans, provision of vegetable insurance based on the cost of cultivation of concerned crop, timely availability of insurance especially at the time of crop loss and also availability of quality planting materials.

4.6.2 Suggestions for improvement given by experts

During the survey, based on the focused group interactions and discussions with experts such as Krishibhavan officials, VFPCCK officials, field officers proposed some of the suggestions as given below

Legalization of leasing and active lease market would make the system of lease agreement transparent, would improve production efficiency due to greater security of tenure, increased long term farm investment and also better utilization of land, labour and other resources.

Panchayats should play lead role promoting lease land farming. Panchayats should create land bank, which could act as a formalized institution for safeguarding the interest and rights of lessors and lessees. Government backed land bank would function as intermediary between those who want to lease out their lands and those who want to lease in. These land banks could act as insurance scheme for lease holders to get compensation for crop failure.

State should formulate appropriate policy framework to support lease land farming so that there is fixity of tenure, facilitate contracts between the lessors and lessees, making available the relevant information on the availability of land for lease, all agreements between tenant and owner should be written and formal and legal, receipts should be given on payment of land lease, empowering lease land farmers for securing credit from banks.

In order to improve entrepreneurial behaviour, suggestions were given to provide better extension agent support to adopt improved practices and technologies, timely and need specific training to farmers by developmental departments, improve marketing and transportation facilities without intermediaries, better availability of government subsidies and schemes, provide timely and sufficient credit facilities, promotion of value addition technologies and facilities to ensure fair price of agricultural produce during all periods.

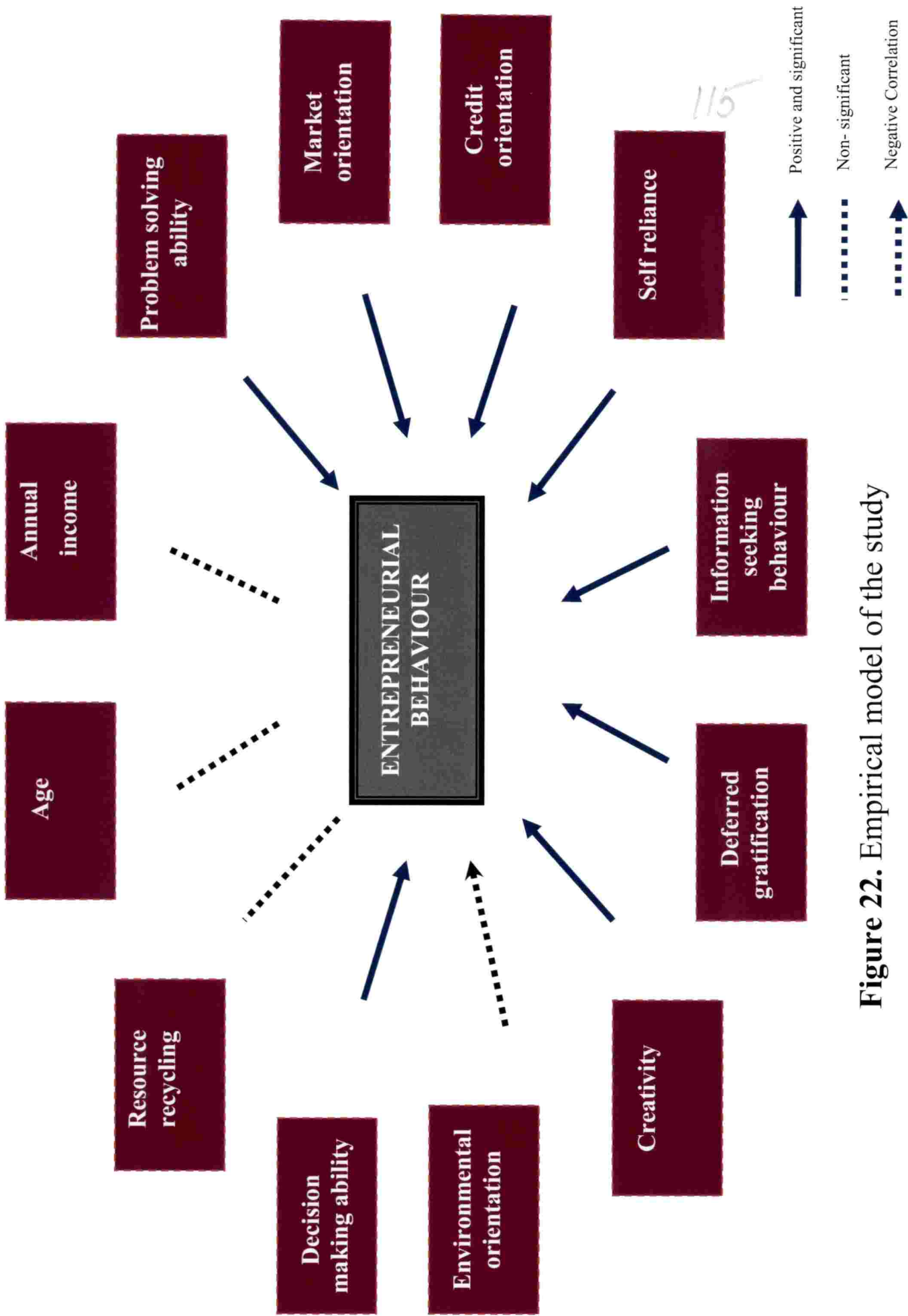


Figure 22. Empirical model of the study

Summary

5. SUMMARY

117

Entrepreneurship is crucial for the growth and development of any society. Entrepreneurship is an effective tool for widening the entrepreneurial base for those who have poor financial resources or managerial background. Since vegetable cultivation is risky, a commercial vegetable grower needs to possess the ability to take risks, innovativeness, confidence and capacity to marshal resources in order to run the enterprise successfully. Lease land cultivation being prominent in Thiruvananthapuram, a study for analyzing the entrepreneurial behaviour of lease land vegetable growers was needful.

Keeping the above facts in view, an attempt was made to critically analyse the entrepreneurial behaviour of lease land vegetable growers. The specific objectives of the study were:

- To study the entrepreneurial behaviour of lease land vegetable growers.
- To study the nature and extent of use of lease land by vegetable growers.
- To study the profile characteristics of lease land vegetable growers – personal, social, economic and psychological variables.
- To identify the constraints faced by farmers and suggestions to overcome the constraints from respondents.
- To develop a strategy to overcome the constraints faced by the vegetable entrepreneurs as perceived by the respondents.

The study was conducted in Thiruvananthapuram district of Kerala which was selected purposively because of the greater extent of lease land farming prevalent in the district and also availability of higher proportion of commercial vegetable growers. From these blocks, Pallichal and Athiyanoor blocks having maximum area

under lease land vegetable cultivation was purposively selected. From Pallichal block, Kalliyoor and Pallichal panchayat and from Athiyanoor block, Venganoor and Athiyanoor panchayats were selected which were having maximum area under lease land vegetable cultivation. With the help of lists from concerned Krishibhavans, twenty lease land vegetable cultivators were selected randomly from each panchayat having land holding size not less than twenty cents and five years of experience in vegetable cultivation thus making a total of 80 lease land vegetable growers.

Entrepreneurial behaviour of lease land growers with ten entrepreneurial attributes was the dependent variable. Twelve independent variables were selected for the study.

The data was collected by personnel interview method in local language. Statistical tools viz, frequency, percentages, mean, standard deviation, correlation coefficient, ANOVA were used to analyse the data obtained from research.

Major findings of the research

Entrepreneurial behaviour of lease land vegetable growers

1. Majority (62.5%) of lease land vegetable growers belonged to the medium level of entrepreneurial behaviour.
2. Majority of the respondents belonged to medium category of risk taking (72.5%), hope of success (61.25%), persuasibility (61.25%), feedback usage (62.5%), self confidence (68.75%), knowledgeability (61.25%), persistence (60%), manageability (61.25%), innovativeness (60%) and achievement motivation (61.25%).

3. On comparison of four panchayats with respect to their entrepreneurial behaviour, it was found that there was no significant difference among the four panchayats.
4. Majority (66.25%) of the respondents had informal structure of tenancy and used verbal type of agreement of contract.
5. Majority (51.25%) of the farmers had leased land less than one acre followed by farmers(41.25%) who had leased 1-3 acres.
6. Cash was the only mode of rent used by all the respondents to pay lease rent.
7. It was found that 67.5 per cent of the respondents paid rent in the range of Rs. 18,640- Rs. 64,000 per acre per year.
8. Majority of the farmers were cultivating cucurbitaceous crops under lease land cultivation followed by cowpea and amaranthus.
9. Majority (66.25%) of the respondents were found in the age group of greater than 55 years.
10. Majority (58.75%) of the respondents were having annual income of Rs. 50000- Rs. 100000
11. Majority of the respondents had medium problem solving ability (72.5%), market orientation (73.75%), credit orientation (75%), self reliance (75%), information seeking behaviour (73.75%), and deferred gratification (73.75%), creativity (66.25%), environmental orientation (56.25%), and decision making ability (56.25%), resource recycling (50%).
12. Problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were

- positively and significantly correlated with risk taking at 1 per cent level of significance.
13. Problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were found to be significant at 1 per cent level of significance with hope of success. Credit orientation was found to be significant at 5 per cent level.
 14. In case of persuasibility, problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability were positively and significantly correlated at 1 per cent level. Credit orientation was found to be significant at 5 per cent level of significance.
 15. Problem solving ability, self reliance, information seeking ability, creativity and decision making ability were positively and significantly correlated with feedback usage at 1 per cent level. Market orientation was found to have positive and significant correlation with feedback usage at 5 per cent level.
 16. With respect to self confidence, problem solving ability, market orientation, self reliance, information seeking behaviour, deferred gratification, creativity and decision making ability were found to have positive and significant correlation at 1 per cent level significance.
 17. In case of knowledgeability, problem solving ability, self reliance, information seeking behaviour, creativity and decision making ability had positive and significant relation at 1 per cent level. Market orientation and credit orientation had significant and positive correlation with knowledgeability at 5 per cent level.
 18. Problem solving ability, self reliance, information seeking behaviour, creativity, and decision making ability were positively and significantly

correlated with persistence at 1 per cent level. Market orientation and credit orientation had significant correlation with persistence at 5 per cent level.

19. In case of manageability, problem solving ability, market orientation, credit orientation, self reliance, information seeking behaviour, creativity, and decision making ability at 1 per cent level had significant and positive relationship whereas deferred gratification at 5 per cent level.
20. With regard to Innovativeness, problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability had significant and positive correlation at 1 per cent level. Market orientation and credit orientation had significant and positive correlation at 5 per cent level.
21. In case of achievement motivation, problem solving ability, self reliance, information seeking behaviour, creativity, decision making ability had positive and significant relation at 1 per cent level.
22. Problem solving ability, market orientation, self reliance, information seeking behaviour, creativity, decision making ability had significant and positive correlation at 1 per cent level and credit orientation had positive and significant correlation at 5 per cent level with entrepreneurial behaviour.
23. It was found that age, annual income, resources recycling were non-significantly correlated whereas environmental orientation had negative correlation with entrepreneurial behaviour.
24. High lease rent and owners demanding payment of rent before the cropping season got first rank among the lease land constraints. No fixed lease rent was the second most important constraint followed by lack of timely and sufficient credit facilities from banks, short tenure period, no voucher for payment of rent and lack of legal structure for agreement in the order.

25. The major general constraints faced by farmers were instability in prices and lack of provision of vegetable crop insurance, high labour charges, inadequate extension service, lack of proper technical knowledge, failure of development departments to offer trainings to farmers, lack of proper marketing facilities, and high cost of inputs and non availability of labour.
26. Extension of land tenure to a period of three to four years, periodic evaluation by Krishibhavan officials, providing technical guidance by extension officials, timely availability of loans, provision of vegetable insurance based on the cost of cultivation of concerned crop were some of the suggestions given by respondents.
27. Legalization of land leasing, creation of land bank, provide better extension agent support to adopt improved practices and technologies, timely and need specific training to farmers by developmental departments, improve marketing and transportation facilities without intermediaries, better availability of government subsidies and schemes, providing timely and sufficient credit facilities, promotion of value addition technologies were suggestions given by experts.

Implications of the study

The implications of the study are as follows.

The present study was confined only to one district and further studies in similar line can be done in other districts to generalize the results obtained. The ground realities existing in lease land farming brought out through this study and the constraints faced by lease land vegetable growers along with the suggestions can be utilized by concerned authorities while formulating schemes and programmes to boost vegetable production. The study highlights that land leasing exists in the state in an unstructured and unregulated form which calls for reforms in land leasing.

Suggestions for future research

123

This study was conducted on a limited scale and to generalize the findings on a larger context, it may be necessary to undertake the study in a wider geographical area including more independent variables. Further detailed study can be undertaken to identify nature and extent of lease land farming and the constraints faced by lease land farmers in other crops like banana and pineapple.



Plate 1. A farmer of Venganoor panchayat showing his harvested produce



Plate 2. An innovative farmer of Kalliyoor panchayat showing yellow sticky traps



Plate 3. In conversation with a farmer of Kalliyoor panchayat



Plate 4. Interviewing a farmer of Athiyanoor panchayat



Plate 5. Farmers of Venganoor panchayat with their harvested produce



Plate 6. At the amaranthus field of a farmer in Pallichal panchayat



Plate 7. Snake gourd field in Venganoor panchayat



Plate 8. A farmer of Athiyanoor panchayat treating planting material in pesticide solution



Plate 9. At the bittergourd field of a farmer in Pallichal panchayat

174 370



Plate 10. A farmer explaining the constraints faced by lease land vegetable growers



Plate 11. A farmer's field with a new snakegourd variety which has no demand in the market

References

6. REFERENCES

130

- Ajyadurai, K. 1999. *Women Entrepreneurs in India: A Review*. Women Entrepreneurship-Issues and Strategies. Kanishka Publishers and Distributors, New Delhi, pp. 4-9.
- Anitha, B. 2004. A study on entrepreneurial behaviour and market participation of farm women in Bangalore rural district of Karnataka. M.Sc. (Ag.) thesis, University of Agricultural Sciences, Bangalore, 180p.
- Anupama, S. 2014. Content development for an agricultural expert system on organic vegetable cultivation. M.Sc. (Ag.) thesis. Kerala Agricultural University, Thrissur, 134p
- Archana, K. N. 2013. Entrepreneurial behaviour of commercial seed growers of Dharwad. M. Sc.(Ag.) thesis. University of Agricultural Sciences, Dharwad, 98p.
- Arul, P., Tamilenth, S. and Srividhya, C. 2014. A study on performance and evaluation of self help groups in Thiruppurambiyam village of Kumbakonamtaluk, Thanjavur district. *Afr. J. Geo Sci. Res.* 2(2):23-36.
- Basheer, N. 2016. Technology utilization of bittergourd in Thiruvananthapuram district. M.Sc. (Ag.) thesis. Kerala Agricultural University, Thrissur, 110p.
- Beal, M. and Sibley, W. 1967. Knowledge and adoption level of farmers trained in training programmes. *Indian J. Ext. Edn.* 33(4): 64-87.
- Bennur, A.K. 2011. A study on entrepreneurial qualities and adoption behaviour of banana growers. M.Sc. (Ag.) thesis. University of Agricultural Sciences, 97p.

- Bezbaruah, M. P. and Goswami, B. 2013. Do sharecroppers undersupply effort? Evidence from a farm level survey in Assam plains. *Bangladesh Dev. Stud.* 36 (2):43-56.
- Bhagyalaxmi, K., Gopalakrishna. R. V., and Sudarshanreddy, M.2003. Profile of the rural women micro-entrepreneurs. *J. Res.* 31(4): 51-54.
- Bhaskaran, S.1978. To study the impact of institutional credit and its influence in the behaviour of farmers in adopting high yielding varieties of paddy cultivation. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 108p.
- Bhatnagar, G.V.2016. Niti Aayog Panel Proposes Model Land Leasing Law [on-line]. Available: <https://thewire.in/29657/niti-aayog-panel-proposes-model-land-leasing-law/> [14 Oct 2017].
- Bhaumik, S.K. 1991. Tenancy and resource allocation - a review with fresh data. *Indian J. Agric. Econ.* 46(4): 568-575.
- Birthal, P. S. and Sing, R. P. 1994. 'Contractual Arrangements' in agriculture of developing Economy. *Indian J. Agric. Econ.* 49(2):187-204.
- Census India. 2011. *Population of India* [on- line]. Available: [http:// censusindia.gov.in](http://censusindia.gov.in). [5 Mar 2018].
- Centre for Development Research and Action .2009. *Micro Finance and Empowerment of Scheduled Caste Women: An Impact Study of SHGs in Uttar Pradesh and Uttaranchal* [on-line]. Available: http://planningcommission.nic.in/reports/se-report/ser/stdy_mcrofin.pdf. [30 Jan 2018].
- Chalermphol, J., Bastakoib, G.B., and Bastakotib, R. C. 2014. Adoption of improved varieties of vegetable crops with pesticide use in Chiang Mai Province, Northern Thailand. *Procedia Environ. Sci.* 20: 418-424.

- Chaudhari, R. R., Hirevenkanagoudar, L. V., Hanchinal, S. N., Mokashi, A. N., Katharki, P. A., and Banakar, B. 2007. A scale for measurement of entrepreneurial behaviour of dairy farmers. *Karnataka J. Agric. Sci.* 20(4): 792-796.
- CRIDA [Central Research Institute for Dry land Agriculture]. 2012. Agricultural contingency plan for the district: Thiruvananthapuram [on-line]. Available: [http://www.crida.in/CP2012/statewiseplans/kerala%20\(Pdf\)/KAU,%20Trichur/KER14-Trivandrum-30-06-2011.pdf](http://www.crida.in/CP2012/statewiseplans/kerala%20(Pdf)/KAU,%20Trichur/KER14-Trivandrum-30-06-2011.pdf). [12 june 2018].
- Dannof, C. H. 1949. *Observations at Entrepreneurship in Agriculture change and the Entrepreneur*. Harvard [7] University Press, Cambridge, pp.56-58.
- Deininger, K., Jin, S., and Nagarajan, H. K. 2012. Land reforms, poverty reduction, and economic growth evidence from India. *J. Dev. Stud.* 45(4): 496-521.
- Devi, P.I., Thomas, J.M., and Solomon, S.S. 2017. Institutionalism Land Market operations for Lease land Farming-the scope and constraints. *Int. J. Res. Econ. Soc. Sci.* 7(8):170-184.
- Drucker, P. F. 1964. *Innovation and Entrepreneurship*. Harper and Row, New York, pp. 27-28.
- Dudhate, S. N. 2014. Creativity of agricultural technical school students. M.Sc. (Ag.) thesis. College of Agriculture Vasanthrao Naik Marathwada Krishi Vidayapeeth Parbhani, 119p.
- Ezakkimuthu, M. 2012. Innovation in technical backstopping for the Thiruvananthapuram district panchayat- a critical appraisal of the samagraproject on banana cultivation. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 76p.

- Fakoya, E. 2002. "Assessment of livestock production systems based on crop residues and legumes in humid zones of Nigeria." Proceeding of the Nigeria society for animal production 27th Annual NASP Conference, Akure, pp. 374-376.
- Giridhara. 2013. A study on entrepreneurial behaviour of women entrepreneurs in Mandya district. M.Sc. (Ag.) thesis, University of Agricultural Sciences, Bangalore, 135p.
- GOK [Government of Kerala]. 2009. *Economic Review 2009* [on-line]. Available: http://spb.kerala.gov.in/images/pdf/ER1959_2009/2009.pdf [1 Dec. 2016].
- GOK [Government of Kerala]. 2017. Agricultural statistics 2016-17 [on-line]. Available: http://www.ecostat.kerala.gov.in/images/pdf/publications/Agriculture/data/2016-17/rep_agristat_1617.pdf [12 July. 2018].
- Gopika. 2009. Entrepreneurial effectiveness of agripreneurs in Kerala. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 148p.
- Gopiram, M. 2005. Knowledge and adoption of Bengal gram farmers in Kurnool district of Andhra Pradesh. M.Sc. (Ag.) Thesis. Acharya N G Ranga Agricultural University, Hyderabad, India, 165p.
- Gowda, B. L.R. 1991. Crisis management by farmers an analysis. Ph.D. thesis, University of Agricultural Sciences, Bangalore, 170p.
- Gurubalan, M. 2007. Entrepreneurial Behavior of Coconut Oil- based Unit- Owners. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 80p
- Hansson, H., Ferguson, R., and Olofsson, C. 2012. Psychological constructs underlying farmers' decisions to diversify or specialise their businesses—An application of Theory of Planned Behaviour. *J. Agric. Econ.* 63(2): 465-482.

- Haque, T and Nair, J. 2014. Ensuring and Protecting the Land Leasing right of Poor Women in India. In: *Annual World Bank Conference on Land and Poverty*. 24-27 March 2014, Washington DC [on-line]. Available:http://www.landesa.Org/wp_content/uploads/Ensuring-and-Protecting-the-Land-Leasing-Right-of-Poor-Women-in-India-by-Haque-Nair-March-2014.pdf [22 Nov.2016].
- Haque, T. 2012. Impact of land leasing restrictions on agricultural efficiency and equity-a study of selected Indian states. In: *Annual World Bank Conference on Land and Poverty*. 23-26 April 2012, Washington DC [on-line]. Available:http://www.landandpoverty.com/agenda/pdfs/paper/haque_1_paper.pdf [20 Nov. 2016].
- Hinduja. 2015. Mind your veggies: Kerala complains to Tamil Nadu of pesticide residue. *Hindustan Times*, 18 June. 2015, p.3.
- Jagannathbarik. 2013. Entrepreneurial behaviour of Vegetable growers in Cuttack district, Odisha. M.Sc. (Ag.) thesis, University Of Agriculture and Technology, Bhubaneswar, 79p.
- Kiran, S. T. 2003. A Study on technological gap and constraints in adoption of recommended practices of mango growers. M.Sc. (Ag.) thesis, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth Dapoli, Maharashtra, 130p.
- Kiranmayi, K.2013. Adoption behaviour of chilli growers in Guntur district of Andhra Pradesh. M.Sc. (Ag.) thesis, Acharya N. G. Ranga Agricultural University, Hyderabad, 224p.
- KSPB [Kerala state planning board] .2018. KSPB home page [on-line]. Available: <http://spb.kerala.gov.in/index.php/district-profile-tvpm>. [25 June 2018].

- Kumar, M. V. 2017. A study of entrepreneurial behaviour of students of B schools. Ph.D. thesis. Devi Ahilya Vishwavidyalaya, Indore, 210p.
- Kumar, P. R. 2009. A study on group dynamics and entrepreneurial behaviour of women in SHGs. Ph.D. thesis. University of Agricultural Sciences, Bangalore. 233p.
- Kumar, S.1997. Feasibility analysis of privatization of extension services for selected farm enterprises. Ph.D. Thesis, Acharya N. G. Ranga Agricultural University, Hyderabad, 240p.
- Kumar, T.S. 2012. A study on entrepreneurs of vermicompost technology in Guntur district of Andhra Pradesh. M.Sc. (Ag.) thesis. Acharya N. G. Ranga Agricultural University, Hyderabad, 190p.
- Kumar.V.H.V.2012. Knowledge and Adoption of chemical fertilizers and pesticides by cole crop growers, M.Sc. (Ag.) thesis, University of Agricultural Sciences, Dharwad, 108p.
- Lawrence, L and Dowling, M.2003. Firm networks: External relationships as sources for growth and competitiveness of entrepreneurial firms. *Entrepreneurship and regional development*. 15(1): 1-26.
- Loganandhan. N. 2002. Socio-economic implications of organic farming in Tamil Nadu. Ph.D. thesis, IARI New Delhi, 214p.
- Madhusekhar, B. R. 2009. A study on marketing behaviour of chilli growers in Guntur district of Andhra Pradesh. M.Sc. (Ag.) thesis. Acharya N G Ranga Agricultural University, Hyderabad, 120p.
- Maratha, P., Badodiya, S.K., and Chaurasiya, K. K. 2017. Corollary relationship between entrepreneurial behaviour and other attributes of chilli growers at

SawaiMadhopur block of SawaiMadhopur district in Rajasthan, India. *Indian J. of Agric. Res.*, 51(3): 227-232.

McClelland, D.C. 1961. *The Achieving society*. Vakils Feffer and Simons Pvt. Ltd., Bombay, 200p.

Nagesh. 2006. A Study on entrepreneurial behaviour of pomegranate growers in Bangalkot district of Karnataka, M.Sc. (Ag.) Thesis, University of Agricultural Science, Dharwad, 130p.

Nair, K.N. and Menon, V. 2006. Lease farming in Kerala - findings from micro level studies. *Econ. Polit. Wkly.* 41(26): 2732-2738.

Nair, M. G. 2017. Multidimensional analysis of farmers of integrated farming systems in Kuttanad, 144p.

Namitha, K. 2017. Sustainability of Commercial Vegetable Cultivation in Thiruvananthapuram district: A Multidimensional Analysis. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 106p.

Nazar and Mohideen. 2005. *Women entrepreneurship and small scale industries*. Himalaya Publishing House, New Delhi, pp. 6-9.

NHB [National Horticulture Board]. 2015. NHB homepage [on-line]. Available: <http://nhb.gov.in/PDFViwer.aspx?enc=3ZOO8K5CzcdC/Yq6HcdIxCOU1kZZenFuNVXacDLxz28=http://nhb.gov.in> [10Dec2016].

Nishi, A.K., Malik, B.S., and Yadav, V.K. 2010. Entrepreneurial Behaviour and their Correlates among Diary Entrepreneurs in Northern India. *Indian J. Ext. Educ.*, 46 (3&4):53-61.

- North, D. 1991. *Institutions, Institutional Change and Economic Preference* (2nd Ed). CUP. New York, pp. 96-102.
- NSSO [National Sample Survey Organisation]. 2013. Report on Household Ownership and Operational Holdings in India. [on-line]. Available: http://mospi.nic.in/sites/default/files/publication_reports/Report_571_15dec15_2. [16 Oct 2017].
- Palmurugan M., Anita, J., and Padaria, R. N. 2008. Entrepreneurial behaviour of Vanilla growers of Tamil Nadu and Kerala. *Indian J. Ext. Educ.* 44(1&2): 58-64.
- Pandeti, C, M. 2005. A study on the entrepreneurial behaviour of farmers in Raichur district of Karnataka. M.Sc.(Ag.) thesis, University of Agricultural Sciences, Dharwad, 121p.
- Parimaladevi, S. 2004. Effectiveness of agriclincs and agribusiness training programmes in Kerala. M.Sc. (Ag.) thesis. Kerala Agricultural University, Thrissur, 120p.
- Patil, V. G., Mahadik, R. P., and Patil, A. S. 1999, Entrepreneurial behaviour of littlegourd growers. *Maharashtra J. Ext. Educ.* 28: 240-243.
- Pooja, P., Patel, M. M., Badodiya, S.K., and Sharma, P. 2014. Entrepreneurial behaviour of dairy farmers. *Indian Res. J. Ext. Edu.* 14 (2):46-49.
- Porchezian, M.R. 1991. An analysis of entrepreneurial behaviour of farmers. M.Sc. (Ag.) thesis. Tamil Nadu Agricultural University, Coimbatore. 120p.
- Prabhugouda, K. 2011. Entrepreneurial behaviour of pomegranate growers in Koppal district of Karnataka. M.Sc. (Ag.) thesis. Acharya N. G. Ranga Agricultural University, Hyderabad, 180p.

- Priya, N, K., Praveen, R., and Sivanarayana, G. 2014. Entrepreneurial behaviour of dairy farmers in Guntur district of Andhra Pradesh. *Life Sci. Int. Res. J.* 1(1): 56-75.
- Rai, D.P., Singh, S.K., and Dangi, J. S. 2014. A study on entrepreneurial behaviour of vegetable growers in Bhopal district of M.P. *Agric. Update.* 9(3): 368-372.
- Rajashekhar. 2009. An analysis of technological gap in papaya cultivation in Bidar and Gulbarga districts of north Karnataka. M.Sc. (Ag.) thesis. University of Agricultural Sciences, Bangalore, 100p.
- Rao, G.V.K. 1985. A prediction analysis of farming performance of farmers through their entrepreneurial behavior factors. Ph.D. thesis, Andhra Pradesh Agricultural University, Rajendra Nagar, Hyderabad.
- Rathod, P.K., Nikam, T. R., Landge, S., and Hatey, A. 2012. Entrepreneurial behaviour of dairy farmers in western Maharashtra, India. *International J.Commerce Business Manag.* 5(2), pp.115-121.
- Ravi, G.K. 2007. A study on entrepreneurial behaviour characteristics of SC and ST farmers of Gulbarga district of Karnataka. M.Sc. (Ag.) thesis. University of Agricultural Sciences, Bangalore, 164p.
- Ray, G. L. 2011. *Extension Communication and Management.* Kalyani Publishers, New Delhi, pp. 280-290.
- Ray, G.L. and Mondal, S. 2011. *Research methods in social sciences and extension education.* Kalyani Publishers, New Delhi. 330p.
- Reddy, B. and Shaw, A. 2013. New Landlords'- 'Too Poor to Farm' or 'Too Busy to Farm'? *Econ. Polit. Wkly.* 48 (38): 65-70.



174370

139

- Reddy, K. N. 1990. Job competence and job performance of agricultural officers under the T & V system in Andhra Pradesh. Ph. D. thesis, University of Agricultural Sciences, Bangalore. 180p.
- Revathy. 2015. Social capital formation through farm women groups in vegetables production in Kollam district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 101p.
- Rogers, and Svenning, L. 1964. *Modernisation among peasants. The impact of communication*. Holt, Rinehart and Winston, New York, 149p.
- Roy, N. 2016. Land reforms, land markets and urban transformation identifying some long run impacts of land reforms from Kerala, India. *J. Land Rural Stud.* 4(2): 123-139.
- Samantha, R. K. 1977. A study on some agro- economic, socio- psychological and communication variables associated with repayment of Agricultural Credit of Nationalised bank, Ph. D. thesis, Bidhan Chandra Krishi Vidyalaya, Naida, West Bengal. 271p.
- Samuel, M., Chris, A., and Richard, M.2014. Analysis of Economic Efficiency and Farm size: A Case Study of wheat farmers in Nakuru district, Kenya. *Econ. Res. Int.* [online]. Available: <https://www.hindawi.com/journals/ecri/2014/802706/> [11April2018].
- Samwel, K. L. 2003. Co-operative entrepreneurship – A perspective. *Kurukshetra*,pp. 20- 23.
- Sangeetha, K. G. 1997. Managerial Behaviour of commercial banana growers in Thiruvananthapuram district. M.Sc. (Ag.) thesis. Kerala Agricultural University, 165p.

- Sasidharan, A. 2015. Adoption of Organic Farming Technologies in Banana and Vegetable crops in Kasaragod district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 121p.
- Schumpeter, J.A. 1954. *The Theory of Economic Development*. Harvard University Press, Cambridge, 325p.
- Schumpeter, J. A. 2000. Entrepreneurship as Innovation. *Entrepreneurship: The Social Science View*, Available at SSRN: <https://ssrn.com/abstract=1512266> [16 Nov. 2016].
- Sharma, P. and Varma, S. K. 2008. Women empowerment through entrepreneurial activities of self help groups. *Indian Res.J.Ext.Edu.* 8 (1): 46-51.
- Shilpashree, B. S. 2011. A profilistic study on awardee farmers in North Karnataka. M. Sc. (Ag.) thesis, University of Agricultural Sciences, Bangalore, 165p.
- Simonton. 2011. The psychology of creativity. Available: <https://simonton.faculty.ucdavis.edu/wpcontent/uploads/sites/243/2015/08/HistoryCreativity.pdf> [14 April 2018].
- Sindhu, K. 2015. A study on entrepreneurial behaviour of agripreneurs in Vishakapatnam district of Andhra Pradesh. M. Sc. (Ag.) thesis. Acharya N. G. Ranga Agricultural University Rajendranagar, Hyderabad, 192p.
- Smith, R. A. and Davis, S. F. 2007. *The psychological detective: An introduction to conducting research in Psychology* (4th Ed.). Upper Saddle River, NJ: Pearson/Prentice Hall, 87p.
- Sreeram, V. 2013. A study on entrepreneurial behaviour of members of "Kudumbashree" NHGs in Palakkad district in Kerala. M.Sc. (Ag.) thesis. Acharya N. G. Ranga Agricultural University Rajendranagar, Hyderabad, 164p.

- Sreevalsan, J.M. 1995. Taxonomical analysis of agricultural modernity of farmers. M. Sc. (Ag.) thesis. Kerala Agricultural University, Thrissur, 68p.
- Stevenson, H. H. 1985, *New Business Ventures and The Entrepreneur*. Homewood, IL Irwin, 180p.
- Subrahmanyeswari, B., Veeraraghava R. K., and Sudhakar, R. B. 2007. Entrepreneurial behavior of rural women farmers in dairying: a multidimensional analysis. *Livestock Research for Rural Development*. Available: [website://lrrd.org/lrrd19/1/subr19015htm](http://lrrd.org/lrrd19/1/subr19015htm) [14 April 2012].
- Sundaran, S. R. 2016. Performance analysis of Self Help Groups (SHGs) and SwasrayaSamithis (SKSs) on Farm entrepreneurship in Thiruvananthapuram district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Thrissur, 121p.
- Suneetha, S. R. 2003. A Study on the entrepreneurial Behaviour of sericulture farmers in Chittoor district of Andhra Pradesh. M.Sc. (Ag.) thesis, Andhra Pradesh Agricultural University, Tirupathi, Hyderabad, 158p.
- Suresh. 2004. Entrepreneurial behaviour of milk producers in Chittoor district of Andhra Pradesh – A critical study. M.V.Sc. thesis, Acharya N. G. Ranga Agricultural University, Hyderabad.
- Suresh, R. J. 2004. *Entrepreneurship: Concept and Development*. Third Concept. 17(203): 39-42.
- Tamilselvi, G. and Sudhakar, G. 2010. Entrepreneurial behaviour of vegetable growers of Tamil Nadu. *Mysore J. Agric. Sci.* 44(3): 590-593.
- Thomas, J. 2013. Determinants and dynamics of lease land farming in pineapple. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara. 157p.

- Thomas, J. and Devi, P.I. 2016. Structure and dynamics of lease land farming in Kerala. *J Trop. Agric.* 53(2): 173-179.
- Thomas, T. 2014. Kudumbashree Women Farmer's Groups-Contribution to Food Security [on-line]. Available: http://kudumbashretisspgddp.edu.in/pdf/research_downloads/faculty_articles/Tanie%20Thomas.pdf [2 Oct. 2017].
- Thyer, B.A. 1993. 'Single-systems Research Design' in R.M. Grinnell (Ed), *Social Work, Research and Evaluation* (4th Ed.). Itasca Illinois: Peacock, 140p.
- Timmons, J. A., 1989, *The entrepreneurial mind*, Andover Brick House. Available: www.ruraleship.org [22 mar 2018].
- Vennila, M. A. 2006, A critical analysis of sustainability of women SHGs in Tamil Nadu. Ph.D. thesis. University of Agricultural Sciences, Bangalore, 200p.
- Veron. R. 2010. *Real Markets and Environmental Change in Kerala, India: A New Understanding of Crop Markets on Sustainable Development*. Ashgate Publishing Ltd, England, 350p.
- Vijay, R. 2012. Structural Retrogression and Rise of 'New Landlords' in Indian Agriculture: An Empirical Exercise. *Econ. Polit. Wkly.* 47(5): 37-45.
- Vijayalakshmi. 1980. Academic achievement and socio-economic status as predictors of creative talent. *J Psychological Res.* 24 (1): 43-47.
- Vijaykumar, K., 2001, Entrepreneurship behaviour of floriculture farmers in Ranga Reddy district of Andhra Pradesh. M. Sc. (Agri.) Thesis, Acharya N. G. Ranga Agricultural University, Hyderabad, 155p.

Vijaykumar, K., Pochaiiah, M. and Raghupathi R, G., 2003, Correlates of Entrepreneurial Behaviour of Floriculture farmers. *Manage Ext. Res. Rev*, pp.153-164.

Vijaylakshmi and Sharma, P. 2002. Women entrepreneurs and finance. *Soc. Wel.*49(2): 19-24.

Wankhade, R. P., Sagane, M. A., and Mankar, D. M. 2013. Entrepreneurial behaviour of vegetable growers. *Agric. Sci. Digest.* 33(2): 85-91.

Wikipedia. 2018. Thiruvananthapuram district [on-line]. Available: https://en.wikipedia.org/wiki/Thiruvananthapuram_district [14 June 2018].

Abstract

145

**ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND
VEGETABLE GROWERS IN THIRUVANANTHAPURAM
DISTRICT**

by

**NAVITHA RAJ
(2016-11-026)**

**Abstract of the thesis
submitted in partial fulfillment of the
requirements for the degree of**

MASTER OF SCIENCE IN AGRICULTURE

**Faculty of Agriculture
Kerala Agricultural University**



**DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
VELLAYANI, THIRUVANANTHAPURAM-695 522
KERALA, INDIA**

2018

ABSTRACT**ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND VEGETABLE GROWERS IN THIRUVANANTHAPURAM DISTRICT**

The present study entitled "Entrepreneurial behaviour of lease land vegetable growers in Thiruvananthapuram district" focused on the entrepreneurial behaviour, profile characteristics, nature and extent of lease land farming and the constraints faced by the lease land vegetable growers. The study comprised of eighty respondents who were selected randomly from four panchayats of Thiruvananthapuram district. Entrepreneurial behaviour of lease land growers with ten entrepreneurial attributes was the dependent variable. Twelve independent variables were selected based on judges' rating.

A structured interview schedule was used for data collection. Statistical tools such as arithmetic mean, standard deviation, frequency, correlation analysis and ANOVA were used for the analysis.

Based on the analysis of data, it was found that majority (62.5%) of the farmers were having medium entrepreneurial behaviour. On comparison of four panchayats, it was found that there was no significant difference between the panchayats which means all the respondents of four panchayats had similar level of entrepreneurial behaviour.

Distribution of respondents based on their entrepreneurial attributes was done using mean and standard deviation, it was found that majority (72.5%) of the respondents belonged to medium category of risk taking (72.5%), hope of success (61.25%), persuasibility (61.25%), feedback usage (62.5%), self confidence (68.75%), knowledgeability (61.25%), persistence (60%), manageability (61.25%), innovativeness (60%) and achievement motivation (61.25%).

In order to study the nature and extent of lease land farming, respondents were classified into different categories based on structure of tenancy, type of agreement, size of leased land, mode of rent, amount of rent paid and major vegetables under lease land cultivation. It was found that 66.25 per cent of respondents had informal and verbal contract followed by 25 per cent of them in the formal and written category. It might be due to the fact that owners are reluctant to go for formal/written agreement because of the fear of losing ownership of land since there is no government policy or procedure existing to protect their right over land. Majority (51.25%) of the respondents had leased an area of less than 1 acre. The probable reason might be because that the land owners fear that they might lose ownership of land and so are prepared to give only small stretch of land for lease. It was found that all the respondents paid their rent as cash. Over 67.5 per cent of the farmers paid their rent in the range Rs.18,640- Rs. 64,000 per acre per year. This variation in the rent amount was seen because of the difference in the pattern of lease land. Most of the farmers cultivated cucurbitaceous crops followed by cowpea.

Majority (66.25%) of the respondents belonged to age category of more than 55 years. Majority (58.75%) of the farmers had an annual income of Rs. 50000-100000. Majority of the respondents were in the medium category of problem solving ability (72.5%), market orientation (73.75%), information seeking behaviour (73.75%) and deferred gratification (73.75%). Three fourth of the respondents had medium level of credit orientation and self reliance. Majority (66.25%) of the farmers used creative ideas to solve problems. With respect to environmental orientation and decision making, majority (56.25%) were in the medium category. The findings revealed that 50 per cent of the farmers were recycling their farm resources.

Result of the correlation analysis between ten attributes of entrepreneurial behaviour and twelve independent variables revealed that four of the variables *viz.*, problem solving ability, information seeking ability, creativity and decision making ability had positive and significant correlation with all (ten entrepreneurial attributes).

With respect to overall entrepreneurial behaviour, problems solving ability, creativity, deferred gratification, market orientation, credit orientation and self reliance were found to have positive and significant correlation with entrepreneurial behaviour.

Constraints faced by lease land farmers were found based on discussion with the respondents and ranking was done accordingly. High lease rent and owners demanding payment of rent before the cropping season got first rank among the lease land constraints. No fixed lease rent was the second most important constraint followed by lack of timely and sufficient credit facilities from banks, short tenure period, no voucher for payment of rent and lack of legal structure for agreement in the order.

The major general constraints faced by farmers were instability in prices and lack of provision of vegetable crop insurance, high labour charges, inadequate extension service, lack of proper technical knowledge, failure of development departments to offer trainings to farmers, lack of proper marketing facilities, high cost of inputs and non availability of labour.

Extension of land tenure to a period of three to four years, periodic evaluation by Krishibhavan officials, providing technical guidance by extension officials, timely availability of loans and insurance, provision of vegetable insurance based on the cost of cultivation of concerned crop were some of the suggestions given by respondents.

Legalization of land leasing, creation of land bank, provide better extension agent support to adopt improved practices and technologies, timely and need specific training to farmers by developmental departments, improve marketing and transportation facilities without intermediaries, better availability of government subsidies and schemes, providing timely and sufficient credit facilities, promotion of value addition technologies were suggestions given by experts.

Thus the study revealed that majority of the lease land vegetable growers belonged to the medium category of entrepreneurial behaviour. The constraints

experienced by the farmers need the attention of government agency, policy makers, and extension organisation of the state for their redressal to boost up vegetable production.

Appendices

APPENDIX I



KERALA AGRICULTURAL UNIVERSITY
COLLEGE OF AGRICULTURE
Department of Agricultural Extension
Vellayani - 695 522
Thiruvananthapuram

☎(O) 0471-2342928

(M) 9447961835

Dr. B Seema

Professor and Head

email: seemamousam@yahoo.com

Date: 16-01-2018

Sir/Madam,

Ms. Navitha Raj. (Ad. No. 2016-11-026), the post graduate scholar in the Department of Agricultural Extension, College of Agriculture, Vellayani is undertaking a research study entitled "**Entrepreneurial behaviour of lease land vegetable growers in Thiruvananthapuram district**" as part of her research work. Variables supposed to have close association with the study have been identified after extensive review of literature.

Considering your vast experience and knowledge on the subject, I request you to kindly spare some of your valuable time for examining the variables critically as a judge to rate the relevancy of them. Kindly return the list duly filled at the earliest in the self-addressed stamped envelope enclosed with this letter.

Thanking you,

Yours faithfully

(Dr. B.Seema)

ENTREPRENEURIAL BEHAVIOUR OF LEASE LAND VEGETABLE GROWERS IN THIRUVANANTHAPURAM DISTRICT

152

Objectives

Study the entrepreneurial behaviour of lease land vegetable farmers and their profile characteristics. The study will also analyse the nature and extent of lease land farming in vegetables and the constraints faced by the lessee farmers.

Personal, Social, Economic and Psychological variables taken for the study

Variables are given in bold cases and their respective meaning is explained for easy understanding of intended meaning. You may please rate the statement with a tick mark in the appropriate column against the statement with special reference to its importance to meet the objectives of the study.

S. No.	Variable	Operational definition	Relevancy rating (R - relevant)				
			Most R	More R	R	Less R	Least R
1.	Age	Operationalised as actual age of the farmer in completed years at the time of interview.					
2.	Annual income	Refers to the total earning of the farmer through farm entrepreneurship per year					
3.	Market perception	Operationalised as the capacity of the farmer to identify the market trend to sell the produce for greater returns					
4.	Decision making ability	Operationally defined as the degree of weighing the available alternatives in terms of their desirability and their likelihoods and choosing the most appropriate one for achieving maximum profit on his farming.					
5.	Social participation	Refers to the content and nature of participation of farmer in					

		various activities					
6.	Dealing with failure	Operationalised as the character of the farmer to deal with failure and being more intended on success					
7.	Personal initiatives and responsibilities	Refers to the character of farmer to put themselves in situations where they are personally responsible for the success or failure of the operation.					
8.	Use of resources	Operationalised as the willingness of the farmer to seek and to utilise outside resources					
9.	Problem solving ability	Operationalised as the ability of the farmer to identify the problem, find the solution, select the best one and apply it.					
10.	Work commitment	Refers to the ability of farmer for taking personal sacrifices and additional efforts to accomplish the objectives.					
11.	Extension orientation	Refers to the extent of contact of a farmer with different extension agencies and his /her participation in various extension activities					
12.	Family size	Refers to the number of family members in each farmer's household.					
13.	Land holding	Refers to the total land owned by the farmer					
14.	Caste	Refers to the hierarchy of a group member whether belongs to upper/backward/SC					

15.	Market orientation	Defined as the degree to which farmers are oriented toward marketing to obtain reasonable gains from selling the produce					
16.	Labour availability	Refers to the extent of availability of labour by the farmer					
17.	Education	Defined as the level of formal education attained by the respondent.					
18.	Material possession	Defined as the materials owned by farmer which helps him in developing his farm and family					
19.	Scientific orientation	Refers to the degree to which a farmer is oriented to the use of scientific methods in his cultivation					
20.	Credit orientation	Refers to the favourable and positive attitude of the respondent towards obtaining credit from institutional sources					
21.	Self reliance	Refers to the extent to which a person relies on self for his future.					
22.	Cosmopolitaness	Degree to which respondent is oriented to his/her immediate outside social system					
23.	Education	Defined as the level of formal education attained by the respondent					
24.	Level of aspiration	Defined as the future level of achievement in his job, which he is expecting based on the knowledge about the level of past experience					
25.	Mass media exposure	Refers to the degree to which the different mass media					

		namely television, newspaper, magazines, bulletins, books and films were utilised by the entrepreneur for getting information					
26.	Information seeking behaviour	Defined as extent to which respondent is seeking information from different communication sources					
27.	Perceived knowledge of the technology	Defined as the thorough knowledge and understanding of the respondent about the technology					
28.	Economic motivation	Defined as the occupational excellence in terms of profit maximisation and relative value placed on economic ends by an entrepreneur.					
29.	Socio-political participation	Refers to the extent and nature of participation of respondent in various activities of socio-political participation					
30.	Creativity	Refers to the ability to generate new ideas and solve problems					
31.	Farming experience	Total number of years a respondent had been engaged in commercial vegetable cultivation					
32.	Incentives received for vegetable cultivation	Defined as the number of incentives received by the farmer from government and other agencies for promoting commercial vegetable cultivation					
33.	Awareness about agripreneurial	Refers to the extent to which the respondents were familiar with the various entrepreneurial					

	opportunities	opportunities					
34.	Environmental orientation	Operationalised as degree to which a farmer has concern for his environment.					
35.	Soil fertility management	Operationalised as the practices undertaken to maintain the fertility of soil.					
36.	Resource recycling	Defined as the reuse of various available resources in the farmer's field					
37.	Progressiveness-traditionalism	Refers to the relative receptivity of a farmer towards modern values and practices					
38.	Attitude towards use of chemical fertilisers	The degree of positive and negative effect associated with the use of chemical fertilisers for the crop towards which the farmer differ in varying degrees					
39.	Expenditure pattern	Defined as the total amount spent on foods, non food consumptive items, agriculture, livestock etc.					
40.	Time orientation	Operationalised as the entrepreneurs anticipation of future trends based upon their past experience and exposure. Entrepreneurs stick to the time pragmatically while doing their jobs.					
41.	Any other (Specify)						

APPENDIX II

**KERALA AGRICULTURAL UNIVERSITY
COLLEGE OF AGRICULTURE, VELLAYANI, THIRUVANANTHAPURAM
DEPARTMENT OF AGRICULTURAL EXTENSION**

INTERVIEW SCHEDULE FOR FARMERS

**Entrepreneurial behaviour of lease land vegetable growers in
Thiruvananthapuram district**

No.

Date:

Name of Block

Name of Panchayat

Name and address of respondent

1. Name

2. Age:

3. Address

4. Phone no.

5. Annual income**6. Farm size**

Area owned acre

Area leased in acre

7. Are under vegetable cultivation:

Area owned acre

Area leased in acre

8. Major vegetables grown under cultivation**9. Tenancy forms:**

Sl. No.	category	Response
1.	Formal	
2.	Semi formal	
3.	Informal	

10. Forms based on way of expression of tenure of the land:

Sl. No.	Category	Response
1.	Verbal	
2.	Written	

11. Size of leased land by the tenant

Sl. No.	Category	Response
1.	Small(<5 acre)	
2.	Medium (5-10 acre)	
3.	Large (>10 acre)	

12. Mode of rent paid by the tenant

S. No.	Category	Response
1.	cash	
2.	Kind	
3.	Cash and kind	

13. Entrepreneurial attributes

Please give your degree of agreement and disagreement about each of the following statements

(SA-‘Strongly agree’, A-‘Agree’, UD-‘Undecided’, DA-‘Disagree’ and SDA-‘Strongly disagree’)

Sl.No.	Entrepreneurial attributes	SA	A	UD	DA	SDA
		5	4	3	2	1
1.	Risk Taking					
1.	I don't fear investing my money on a venture whose dividends I have calculated					
2.	I will consider a risk worth taking if the probability for success is 40-60%.					

3.	I don't mind working under conditions of uncertainty as long as there is a reasonable probability of gains from it for me.					
4.	I will consider a risk worth taking only if the probability for success is 60-100%					
5.	I don't care if the profit is small so long as it is assured and constant					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
2.	Hope of success					
1.	I believe problems and barriers can be turned into opportunities that can be exploited					
2.	I am unprepared for the outcome of my actions.					
3.	I don't think of negative consequences of decisions that I make					
4.	I cannot see the future as bright and promising					
5.	I meet and solve problems as they are.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
3.	Persistence					
1.	1 don't allow failures to discourage me.					

2.	Once I have started a task I usually carry it to its completion.					
3.	I find myself working harder under stress.					
4.	I work just as hard as most people I know.					
5.	When I fail in a goal, I immediately turn my attention to another goal.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
4.	Use of Feed Back					
1.	I don't get upset when given negative feedback about the way I perform					
2.	I try to know more about the life stories of successful businessmen.					
3.	Mistakes and failures overwhelm me so much that I cannot learn from them.					
4.	I am unwilling to change my mind, once it is made up even in the face of new development.					
5.	I find no reason to consult other people about how to run my business better because I am satisfied with the way I run it.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
5.	Self Confidence					
1.	I accomplish most when I am alone, under no direct supervision of any one.					

2.	I tend to overestimate my capabilities for succeeding in any venture.					
3.	I doubt my ability to cope under new untested condition.					
4.	I find difficulty in asserting myself against the opinion of majority					
5.	Even if I am capable hardworking and ambitious, if I do not have the money, I cannot start a business.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
6.	Knowledgeability					
1.	The knowledge, experience and training I have on my proposed business is good enough.					
2.	My competence is better than that of the ordinary man in my community.					
3.	I want to have good knowledge of my market before I start my business					
4.	I need not waste time and money on "market research" if the product sells, I will go on producing					
5.	I don't see the importance of reading the newspaper every day.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
7.	Persuasability					
1.	I don't get discouraged by an initial "No" from a buyer because I am usually able to convince him inevitably to my product.					
2.	I am able to stimulate and direct others					
3.	I find it hard to beg, that is to ask favours from other people					
4.	I have difficulties in obtaining loans from people					
5.	It is not so easy for me to get people to do what I want them to do.					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
8.	Manageability					
1.	I find nothing wrong in consulting expert advice regarding how I must manage my business					
2.	As an entrepreneur I need to practice basic managerial skills so that my business need not be a one man show for a concerted effort of myself and those who work for me.					
3.	It is not necessary to be scientific and rational labour management as long as one has the will to do what he wants					

	done.					
4.	I cannot be away too long from my business because no one else can manage its activities.					
5.	I believe the sole proprietorship is the best form of ownership for a business to succeed					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
9.	Innovativeness					
1.	While my product/service may not entirely be new. I am thinking of new and better ways to make it competitive					
2.	White others see nothing unusual in the surrounding. I am able to perceive in it new opportunities for business,					
3.	I avoid changing the way things are done					
4.	I have never tried introducing new products to the market and I do not think I want to try.					
5.	Do you want to earn more money by starting new economic activity					

Sl.No.	Entrepreneurial attributes	SA 5	A 4	UD 3	DA 2	SDA 1
10.	Achievement Motivation					
1.	I take pleasure in taking challenges makes me work harder.					
2.	In business I am more concerned with growth (being successful) rather than with profit.					
3.	I want to earn only as much as to attain a comfortable way to live.					
4.	I do not mind taking unchallenging work on a routine basis if the pay is good.					
5.	I like people on the basis of friendship and other relations (for their loyalty) rather than on the basis of competence.					

14. Problem solving ability

Sl. No.	Statement	SA 5	A 4	UD 3	DA 2	SDA 1
1.	I am usually able to think effective alternative to solve a problem					
2.	I make judgements and later regret them					
3.	I asked someone for advice and followed it					
4.	make decision and am happy with them later					
5.	am unsure whether I can handle the problem					

6.	When confronted with a problem I collect all piece of information regarding the situation					
7.	I trust my ability to solve new and difficult problems					
8.	I am confident that I can solve a problem					

15. Market orientation

A-Agree DA-Disagree

Sl.No.	Statements	Response	
		A (2)	DA (1)
1.	Market is not useful to farmer		
2.	A farmer can get good price by eliminating the middle man		
3.	One should sell his produce to the nearest market irrespective of price		
4.	One should purchase his inputs from shops where his friends or relatives are purchasing		
5.	One should grow those crops which have more market demand		
6.	Co-operatives can help a farmer to get better price for his produce		

16. Self reliance: "How much of your future depends on yourself". The response will be measured based on the following scoring systems

Percentage	Score
100	
75-99	
50-74	
25-49	
Less than 25	
Not at all	

17. Creativity

Sl. No	Statements	Always 5	Very often 4	Sometime 3	Rarely 2	Never 1
1.	I devise novel methods to improve the quality of work					
2.	I can develop alternative ways of doing work					
3.	I can improvise ways to get things done if planned arrangements fail					
4.	I think of new ways of solving problems					
5.	I visualise unforeseen deviations in planned course of action					
6.	I use humour to get out of difficult situations					

18. Environmental orientation

Sl.No.	Statement	Agree (2)	Disagree (1)
1.	Excessive and exploitative use of pesticides poses threat to earth and human kind		
2.	Soil pollution, air pollution and water pollution are the major environmental issues concerned by humans		
3.	Do you agree that older method of farming were safer than the present ones ?		
4.	Tastier and healthier agricultural products are obtained by the use of organic plant protection measures.		

19. Resource recycling

Statement	Yes(2)	No(1)
Do you use crop residues as manure to the succeeding crop?		
Do you use farm waste for composting?		
Do you use crop residues or farm waste for biogas production?		
Do you use cowdung from your farm as crop manure?		

20. Information seeking behaviour

169

Sl.No	Source	Frequently (3)	Occasionally (2)	Rarely (1)
1.	Radio			
2.	Television			
3.	Newspaper			
4.	Magazines			
5.	Agricultural Literatures			
6.	Kiosks			
7.	Mobile phones			
8.	E-extension			
9.	Krishibhavan			
10.	Fellow growers			
11.	Any others			

21. Deferred gratification

Please give your degree of agreement and disagreement about each of the following statements

(SA-‘Strongly agree’, A-‘Agree’, UD-‘Undecided’, DA-‘Disagree’ and SDA-‘Strongly disagree’)

Sl. No.	Statements	SA (5)	A (4)	UD (3)	DA (2)	SDA (1)
1.	I am good at saving money rather than spending it straight away					
2.	When I am in a market place I tend to buy a lot which I had not planned to buy					

3.	I agree with the philosophy of eat drink and be merry for tomorrow we may all be dead					
4.	I invest more on farm to expect some return in long run					
5.	I often feel that it is worthwhile to wait and think over before deciding anything					
6.	I like to spend money for my family as soon as I get it					
7.	I am good at planning things well in advance					
8.	I somehow manage to keep atleast a little fodder in reserve for future uncertain weather					
9.	I donot save food grains to face future uncertainties					

22. Decision making ability

Please give your degree of agreement and disagreement about each of the following statements

(SA-‘Strongly agree’, A-‘Agree’, UD-‘Undecided’, DA-‘Disagree’ and SDA-‘Strongly disagree’)

Sl.No	Statements	SA (4)	A (3)	DA (2)	SDA (1)
1.	I analyse problems by considering the pros and cons and take decisions				
2.	I will not take a decision without consulting				

171

	others				
3.	In general I prolong my decisions				
4.	Once I take a decision, I will stick on it				
5.	I need a lot of time to take a decision				
6.	I can take firm decision and initiate action when there are more alternatives				

23. Credit orientation

- Do you think a farmer like you should borrow credit for agricultural purpose?
Yes 2/ no 1
- In your opinion, how difficult is of to secure credit for agricultural purpose?
Very difficult (1)/ difficult (2) /easy (3) very easy(4)
- How a farmer is treated when he goes to secure credit?
Very badly (1) badly (2) fairly (3) very fairly (4)
- There is nothing wrong in taking credit from institutional sources for increasing farm production
SDA (1) DA (2) UD (3) A (4) SA (5)
- Did you use the credit in the last two years for crop production?
Yes (2)/ No (1)

24. Constraints

Sl. No.	Constraints	F
1.	Land lease rents are high	
2.	Owners demand payment of rent before the cropping season	
3.	Lack of timely and sufficient credit facilities from banks	
4.	Difficult to pay rent as cash	
5.	Money lenders are main source of credit for which they	
6.	No fixed lease land rates	
7.	No vouchers for the payment of lease rent for the land	
8.	Written agreements lack proper legal structure	
9.	Tenancy tenures require yearly renewal	
10.	Lease contract are mostly verbal	
11.	Tenancy tenure are short time	
12.	Instability of prices	
13.	Lack of proper marketing facilities	
14.	High labour charges	
15.	Inadequate extension service	
16.	Lack of proper technical knowledge	
17.	Non availability of quality planting material	
18.	Lack of proper irrigation sources	
19.	Lack of transport facility	
20.	Non availability of quality planting materials	
21.	Lack of cooperatives	
22.	Developmental department fails to offer agricultural trainings	
23.	Others	

174370

