

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**(Declared under section 3 of the UGC Act,1965)**

**SCHOOL OF AGRICULTURAL SCIENCES**

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Date: 22/07/2022

**CERTIFICATE**

This is to certify that the thesis entitled **“A STUDY ON ENTREPRENEURIAL PERFORMANCE OF PADDY GROWERS IN CHENGALPATTU DISTRICT OF TAMIL NADU”** submitted in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF SCIENCE (HONS.) AGRICULTURE** to the School of Agricultural Sciences, Bharath Institute of Higher Education And Research, is a record of bonafide research work carried out by **YASHIKA SIVAKUMAR, T.VIGNESH, P.JYOTHIKA** under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

*Mr. N. Manivannan*  
*22/07/2022*

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**PROJECT GUIDE**



DATE: 22/07/2022

**EXTERNAL EXAMINER**

**(Dr. R. STHULASIRAM)**

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We wish to profoundly thank the Lord Almighty for his grace, guidance, strength and blessings showered on us to put forth this dissertation.

With boundless pleasure, we evoke on record the ineffable personal indebtedness and heartfelt gratitude to erudite, words are being increasingly felt inefficient while we try to manifest our feelings towards our project guide **Mr.N.MANIVANNAN**, Assistant Professor in Agricultural Extension, whom the document will not find the reality at such an early date. His inspiring guidance, encouraging talks, free and frank interaction and unexplainable hospitality has played a major role in shaping our project in current format. He gives us freedom in doing our research work; providing timely suggestions to encourage and motivating us throughout our B.Sc., programme for successful result. we feel it is the golden opportunity to associate with him and learn many innovated procedures with critical appraisal throughout the period of research investigation and no words to thank him.

We place our deep sense of reverence to **Dr. A. SADASAKTHI**, Dean, School of Agricultural Science, for his learned counselling throughout the study period. He gave us timely suggestions for carrying out our research work, proper advices during evaluation and other periods while doing our research work

We are extremely grateful to **Dr. GEETHA JEBARATHNAM** Professor and Head, School of Agricultural Sciences, for the encouragement provided by her in completing this research work.

We also thankful to my dear friends K. Yogeshwaran, B. Anbarasan, K. Poojitha and Asi Vyshnavi for providing moral support throughout our project.

My profound thanks are due to Mr. R. Kesavan, ADA of Maduranthagam block, Mr. M. Saravanan, ADA of Thirukazhundram block and Mr. S. Arulprakash, ADA of Acharapakkam block for their precious and timely help rendered during survey and data collection. I express my heartfelt thanks to Farmers who encouraged and supported me.

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**U18CAGR401 PROJECT WORK (0+1)**

**Project Work**

**On**

**“A STUDY ON ENTREPRENEURIAL PERFORMANCE OF  
PADDY GROWERS  
IN CHENGALPATTU DISTRICT OF TAMIL NADU”**

**SCHOOL OF AGRICULTURAL SCIENCES**

**173, Agaram road, Selaiyur, Tambaram, Chennai -600073, Tamil Nadu**

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**IN PARTIAL FULFILMENT  
OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF  
BACHELOR OF SCIENCE (AGRICULTURE)**

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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

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**YASHIKA SIVAKUMAR**

**T.VIGNESH**

**P.JYOTHIKA**

## **ABSTRACT**

### **A STUDY ON ENTREPRENEURIAL PERFORMANCE OF PADDY GROWERS IN CHENGALPATTU DISTRICT OF TAMIL NADU**

*By*

**YASHIKA SIVAKUMAR  
T.VIGNESH  
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Chairman: **Mr.N.MANIVANNAN , M.Sc., (Agri.)**,  
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Agriculture is the art and science of cultivating the soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world's food and fabrics. Cotton, wool, and leather are all agricultural products. Agriculture also provides wood for construction and paper products. These products, as well as the agricultural methods used, may vary from one part of the world to another. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. As per 2018, agriculture employed more than 50per cent of the Indian work force and contributed 17–18per cent to country's GDP.

Entrepreneurs play a key role in any economy, using the skills and initiative necessary to anticipate needs and bringing good new ideas to market. An entrepreneur creates a firm to realize their idea, known as entrepreneurship, which aggregates capital and labour in order to produce goods or services for profit. Entrepreneurship is highly risky but also can be highly rewarding, as it serves to generate economic wealth, growth, and innovation. An entrepreneur is an individual who creates a new business, bearing most of the risks and enjoying most of the rewards. The process of setting up a business is known as entrepreneurship.

The entrepreneur is commonly seen as an innovator, a source of new ideas, goods, services, and business/or procedures. Entrepreneurship is one of the resources economists categorize as integral to production, the other three being land/natural resources, labour, and

capital. An entrepreneur combines the first three of these to manufacture goods or provide services.

Agricultural Entrepreneurship, also known as Agri-preneurship, means the term which is associated with the marketing as well as manufacturing of different agricultural products and inputs too. Agricultural entrepreneurship is an emerging field. It involves analysing and understanding the strategies of agricultural entrepreneurs, particularly in response to the institutional changes and economic and technological disruptions to which the agricultural industry is subject.

Paddy, (*Oryza sativa*) edible starchy cereal grain and the grass plant (family *Poaceae*) by which it is produced. Roughly one-half of the world population, including virtually all of East and Southeast Asia, is wholly dependent upon rice as a staple food; (95.00 per cent) of the world's rice crop is eaten by humans. As a cereal grain, domesticated rice is the most widely consumed staple food for over half of the world's human population, especially in Asia and Africa. Worldwide 742,541,804 tonnes of rice are produced per year. China is the largest rice producer in the world with 211,090,813 tonnes production volume per year. India comes second with 158,756,871 tonnes yearly production.

The present study was taken up in six selected villages in three blocks of Chengalpattu District of Tamil Nadu. A sample size of 60 respondents was selected by proportionate random sampling technique. The data were collected from the respondents with the help of well-structured and pre-tested interview schedule.

Thirteen socio-economic variables were selected viz., age, educational status, occupation, annual income, farm size, experience in paddy cultivation, area under paddy cultivation, farm power possession, social participation, extension agency contact, mass media exposure, training programmes attended and scientific orientation. In order to study the entrepreneurial performance, six entrepreneurial traits were identified. The selected entrepreneurial traits were self-confidence, decision-making ability, innovativeness, risk orientation, leadership ability and knowledge about paddy enterprise. Some traits were measured by using the already available tools and few were measured by developing new procedures. The overall entrepreneurial performance of the respondents was worked out. Constraints faced by the farmers in paddy production and marketing were also elicited. A appropriate statistical tools like percentage analysis, cumulative frequency, zero order correlation and regression analysis were used to analyse the findings of the study .

Majority of the respondents were old-aged and possessed formal education . They had crop enterprise alone as their occupation, with medium level of experience in paddy cultivation. They had marginal farm size with low annual income. They had low area under paddy cultivation with possesses low level of farm power. They had medium levels of social participation, high level of extension agency contact, medium level of mass media exposure, low level of training programmes attended and medium level of scientific orientation.

Majority of the respondents possessed medium level of entrepreneurial traits viz., self-confidence, high level of decision-making ability, medium level of innovativeness, medium level of risk orientation , medium level of leadership ability, and knowledge about the paddy enterprise.

Basically, the respondents were having small sized land holding with poor economic status. Further, they had insufficient knowledge on the practices like weedicides, pesticides and fertilizers application. Majority of the farmers reported that the labour scarcity is due 100 days jobs plan under “Mahatma Gandhi National Rural Employment Guarantee Act” where the agricultural labours are employed under the act and they are not willing to do agricultural work. The respondents reported that they did not have adequate knowledge on consumer segmentation, criteria for fixing price, market news, Regulated market etc. They were unaware of the market price prevailed on other districts and states. Hence, they might have expressed ‘Inadequate market intelligence’ as a major constraint. Regarding price fixation, the farmers did not have any role in fixing the price for their commodities whatever they had produced. The price fixation was done by commission agents. They fix very low prices without considering the production cost. Also, the grading procedures followed by commission agents were improper as reported by most of the respondents. Farmers sell their produce to local traders, wholesalers, retailers, etc., sometimes the payment would be delayed by the buyers and hence they could not plan for further activities. Hence, majority of the respondents would have perceived the above-mentioned constraints.

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# **CHAPTER - I**

## **INTRODUCTION**

**Who ploughing eat their food, they truly live:**

**The rest to others bends subservient, eating what they give.**

**- Thiruvalluvar (Thirukural-1033)**

Agriculture is the art and science of cultivating the soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world's food and fabrics. Cotton, wool, and leather are all agricultural products. Agriculture also provides wood for construction and paper products. These products, as well as the agricultural methods used, may vary from one part of the world to another. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 105,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep, and cattle were domesticated over 10,000 years ago. India ranks second worldwide in farm outputs. As per 2018, agriculture employed more than 50per cent of the Indian work force and contributed 17–18per cent to country's GDP.

### **1.1. ENTREPRENEURSHIP**

Entrepreneurs play a key role in any economy, using the skills and initiative necessary to anticipate needs and bringing good new ideas to market. An entrepreneur creates a firm to realize their idea, known as entrepreneurship, which aggregates capital and labour in order to produce goods or services for profit. Entrepreneurship is highly risky but also can be highly rewarding, as it serves to generate economic wealth, growth, and innovation. An entrepreneur is an individual who creates a new business, bearing most of the risks and enjoying most of the rewards. The process of setting up a business is known as entrepreneurship.

The entrepreneur is commonly seen as an innovator, a source of new ideas, goods, services, and business/or procedures. Entrepreneurship is one of the resources economists categorize as integral to production, the other three being land/natural resources, labour, and

capital. An entrepreneur combines the first three of these to manufacture goods or provide services.

## **AGRI-PRENEURSHIP**

Agricultural Entrepreneurship, also known as Agri-preneurship, means the term which is associated with the marketing as well as manufacturing of different agricultural products and inputs too. Agricultural entrepreneurship is an emerging field. It involves analysing and understanding the strategies of agricultural entrepreneurs, particularly in response to the institutional changes and economic and technological disruptions to which the agricultural industry is subject.

## **IMPORTANCE OF ENTREPRENEURSHIP & AGRI-PRENEURSHIP**

Traditionally, farmers are ignorant of scientific agriculture and effective agricultural management systems. Thus, they are unable to deal with delayed monsoons, drought, crop debts, fake seeds and shortage of fertilizer. Hence, the managerial, technical and innovative skills of entrepreneurship applied in the field of agriculture may build a well-trained Agri-entrepreneur who becomes a role model to all such depressed farmers. Agri-entrepreneurship has the prospect of social and economic development, for example, employment generation, poverty reduction, improvements in nutrition, health and overall food security in the national economy especially in rural areas.

Agri-entrepreneurship can be used as chief remedy for the solution of this complexity such as lower the burden of agriculture, produce employment opportunities for rural youth, control migration from rural to urban areas, boost national income, sustain industrial development in rural areas and cut down the pressure on urban cities. Agri-entrepreneurship program is crucial to build up entrepreneurs and management staff to deal agricultural industry across the world. Agri-entrepreneurship is greatly affected by the economic situation, education and culture.

## **1.2. IMPORTANCE OF PADDY CULTIVATION**

Paddy (*Oryza sativa*) edible starchy cereal grain and the grass plant (*Poaceae* family) by which it is produced. Roughly one-half of the world population, including virtually all of East and Southeast Asia, is wholly dependent upon rice as a staple food; (95.00 per cent) of the world's rice crop is eaten by humans. As a cereal grain, domesticated rice is the most widely consumed staple food for over half of the world's human population, especially in Asia and Africa. It is the agricultural commodity with the third-highest worldwide

production, after sugarcane and maize. Since sizable portions of sugarcane and maize crops are used for purposes other than human consumption, rice is the most important food crop with regard to human nutrition and caloric intake, providing more than one-fifth of the calories consumed worldwide by humans.

### 1.3. PADDY CULTIVATION IN WORLD

Worldwide 742,541,804 tonnes of rice is produced per year. China is the largest rice producer in the world with 211,090,813 tonnes production volume per year. India comes second with 158,756,871 tonnes yearly production.

**Table: 1 Area, Production, Productivity Paddy Cultivation in World**

S. No.	Country	Production (Metric Tons)	Productivity (Kg/Ha)	Area (Million Ha)
1.	China	14,89,90,000	6,710	30.8
2.	India	12,90,00,000	2,450	45.0
3.	Bangladesh	3,58,50,000	4,376	11.6
4.	Indonesia	3,44,00,000	5,152	11.1
5.	Vietnam	2,71,94,000	5,573	07.3

**SOURCE:** [www.statistic.com](http://www.statistic.com) (2021)

### 1.4. PADDY CULTIVATION IN INDIA

Rice is the staple crop of India, and every day millions of Indians find comfort in it. With high carbohydrate content, it is known to provide instant energy, and is a staple that is consumed by the majority of India's population. Rice crop's history is a bit obscured with different accounts of its origin. India is the world's second-largest producer of rice, and the largest exporter of rice in the world. Krishna-Godavari Delta region is historically called the "Rice Bowl of India", although the same term is also used for Chhattisgarh. In Andhra Pradesh itself, East Godavari district is known as the rice bowl of Andhra Pradesh.

**Table: 2 Area, Production, Productivity of Paddy Cultivation in India**

S. No.	States	Production (Metric Tons)	Productivity (Kg/Ha)	Area (Million Ha)
1.	West Bengal	14.68	2730	5.38
2.	Uttar Pradesh	12.17	2072	5.87
3.	Odisha	8.30	1992	4.17
4.	Andhara Pradesh	7.23	3022	2.39
5.	Tamil Nadu	5.73	3191	1.80

**SOURCE:** Agricultural statistics of 2021

### 1.5. PADDY CULTIVATION IN TAMIL NADU

Tamil Nadu has achieved a record coverage of paddy this financial year (2021-22) as the total area stands at 21.65 lakh hectares. Compared with the previous year (2020-21), paddy has been raised on nearly two lakhs more hectares this year. In this year's coverage, the Cauvery delta's share is around 7.4 lakh hectares and the non-delta 14.223 lakh hectares. Naturally, it was during the Samba/Thaladi/Pishanam cultivation season that farmers achieved the dominant part of the total coverage. In the delta, the extent of coverage in the season was 5.4 lakh hectares and in the rest of the state, 9.47 lakh hectares.

**TABLE: 3 Area, Production, Productivity of Paddy Cultivation in Tamil Nadu**

S. No.	Districts	Area (Million Ha)	Production (Metric Tons)	Productivity (Kg/Ha)
1.	Thanjavur	192,231	715,112	3720
2.	Thiruvarur	180,900	659,279	3644
3.	Thiruvannamalai	161,679	689,469	4264
4.	Nagapattinam	169,222	558,609	3301
5.	Cuddalore	132,151	495,309	3748

**SOURCE:** Agricultural Statistics of 2021

## **1.6. PADDY CULTIVATION IN CHENGALPATTU DISTRICT**

Agriculture is the main occupation of majority of the people in this District. Even though the area is very close to Chennai, Agriculture is the inevitable occupation of the people living in this district. Rice is the major crop grown throughout the district.

**Table: 4 Area, Production, Productivity of Paddy Cultivation in Chengalpattu**

<b>S. No.</b>	<b>Crop</b>	<b>Area (Million Ha)</b>	<b>Production (Metric Tons)</b>	<b>Productivity (Kg/Ha)</b>
1.	Paddy	102,557	419,227	4121

**SOURCE:** Record of **Joint Director of Agriculture Office, Chengalpattu (2021)**

### **SPECIFIC OBJECTIVES**

1. To study the characteristics of the selected respondents (Paddy growers).
2. To assess the entrepreneurial performance of the respondents (Paddy growers).
3. To find out the relationship between characteristics and entrepreneurial performance of the respondents.
4. To identify the constraints experienced by the entrepreneurs in production and marketing of paddy.

## **ORGANIZATION OF PROJECT**

The study has been organised under the following five chapters.

### **CHAPTER I: INTRODUCTION**

Explains the need of choosing the specific topic, objectives, scope and limitation of the study.

### **CHAPTER II: REVIEW OF LITERATURE**

Deals with review of relevant literature and conceptual model on the basis of reviews enumerated by various authors in recent studies.

### **CHAPTER III: RESEARCH METHODOLOGY**

Describes the sampling design, the study area, measurement and analysis of dependent and independent variables and specific statistical tools that have been used to interpret the results.

### **CHAPTER IV: FINDINGS AND DISCUSSION**

Discusses the results of the study to draw the specific inferences and reasons.

### **CHAPTER V: SUMMARY AND CONCLUSION**

This chapter briefly summarises the work done with salient findings and conclusion, which also explains the implications on the basis of results

## CHAPTER – II

### REVIEW OF LITERATURE

*“The process of dribbling through the selected literature imparts some sort of confidence in the researcher and consequently the investigator would get a clear picture of the area problem”*

- Agarwal (1966)

Review of literature is a prime step to be carried out in any type of research. It is very much useful to know the previous work done in the field that are directly or indirectly related to the topic under investigation.

Keeping in this view the specific objectives of the study, an attempt was made in this chapter to collect the review of literature, which had meaningful relation to this study and the same has been presented under the following sections.

2.1. Characteristics of respondents

2.2. Entrepreneurial traits of the respondents

2.3. Entrepreneurial performance of respondents

2.4. Constraints experienced by the entrepreneurs in production and marketing of Paddy.

#### **2.1. CHARACTERISTICS OF RESPONDENTS**

The study of the characteristics of human population is called demography. The method of demography are empirical and statistical which make much use of advanced mathematics as those of any branch of social science, like anthropology and psychology. The review in this section is confined to only on the characteristics of respondents selected from relevant literature.

##### **2.1.1. AGE**

Dhileepan Jadeja (2019) reported that half of the respondents (50.00 per cent) belonged to middle age category followed by (30.00 per cent) of the respondents under old age category. Only (20.00 per cent) of the respondents were found to be under young age.

Priyadharshini (2020) revealed that majority of the respondents (45.00 per cent) belonged to middle age followed by young age (30.00 per cent) and old age (25.00 per cent) categories.

Vennila (2021) revealed that little more than half of the respondents (50.83 per cent) belonging to middle age group followed by (31.67 per cent) of respondents belonged to old age group. (Only 17.50 per cent) of the respondents belonged to young age categories.

Arun Kumar (2021) reported that slightly less than half of the respondents (43.33 per cent) were old aged followed by young (32.50 per cent) and middle aged (24.17 per cent) categories.

Chapke *et. al.*, (2022) reported that most of the farmers (64.00 per cent) were of middle age group between 35 and 45 years. However, few farmers (17.00 per cent) were of young age group below 35 years and (19.00 per cent) were of old age group of above 45 years.

### **2.1.2. EDUCATIONAL STATUS**

Dhileepan Jadeja (2019) reported that (30.00 per cent) of the respondents had secondary education level followed by primary education (25.00 per cent) and higher secondary education (20.00 per cent) and degree education (25.00 per cent).

Priyadharshini (2020) revealed that majority of the respondents (28.50 per cent) were educated upto pre-university education followed by (24.50 per cent) of the respondents having high school education, middle school education and degree education having equal per cent of respondents (19.50 per cent), primary school education (16.00 per cent) and illiterate (11.50 per cent).

Vennila (2021) revealed that (39.17 per cent) of the respondents had education upto secondary school education level followed by higher secondary education (33.33 per cent) and collegiate level (11.67 per cent). However, (08.33 per cent), (05.83 per cent) and (01.67 per cent) of the respondents were found to be illiterate, middle school and primary school level education respectively.

Arun Kumar (2021) reported that about one-fourth of the respondents (26.66 per cent) were with middle school education followed by illiterates (20.84 per cent), higher secondary

education (20.00 per cent), primary school education (17.50 per cent) and collegiate education (15.00 per cent) respectively.

Chapke *et. al.*, (2022) reported that most of the farmers (51.00 per cent) were illiterate who had no formal education. A few of them were educated up to higher secondary (25.00 per cent), middle school (14.00 per cent) followed by, negligible of them (06.00 per cent) were educated up to primary school and up to graduate level (04.00 per cent).

### **2.1.3. OCCUPATIONAL STATUS**

Dhileepan Jadeja (2019) reported that nearly three fourth (70.00 per cent) of the respondents had other subsidiary occupation along with mango cultivation. The (30.00 per cent) of the respondents had crop enterprise alone as their occupation.

Priyadharshini (2020) revealed that three-fourth of the respondents (75.00 per cent) had agriculture as the secondary occupation and one-fourth of the respondents (25.00 per cent) had agriculture as the primary occupation.

Vennila (2021) revealed that three-fourth of the respondents (75.00 per cent) had agriculture as their primary occupation followed by one – fourth of the respondents (25.00 per cent) having agriculture as their secondary occupation.

Arun Kumar (2021) noticed that most of the respondents (90.00 per cent) were found to have agriculture as their primary occupation. Respondents with agriculture as secondary occupation constituted only a lesser proportion (10.00 per cent).

### **2.1.4. ANNUAL INCOME**

Dhileepan Jadeja (2019) reported that more than fifty per cent (55.00 per cent) of the respondents had low level of annual income followed by (35.00 per cent) of the respondents with medium level of annual income. Only (10.00 per cent) of the respondents had high level of annual income.

Priyadharshini (2020) observed that more than fifty per cent of the respondents (52.50 per cent) had medium level of annual income followed by high (25.00 per cent) and low (22.50 per cent) levels of annual income.

Vennila (2021) revealed that two-third of the respondents (66.67 per cent) had medium level of annual income, whereas (21.67 per cent) of the respondents had low level of annual income, and (11.66 per cent) of the respondents had high level of annual income.

Chapke *et. al.*, (2022) reported that majority of them (55.00 per cent) had annual income medium level annual income (32.00 per cent) had low level and A few of them (13.00 per cent) had high level of income per annum.

### **2.1.5. FARM SIZE**

Dhileepan Jadeja (2019) reported that (58.33 per cent) of the respondents had small farm holdings (2.51 to 5.00 acres) followed by (25.00 per cent) of the respondents having big farm holdings (more than 05.00 acres). Only (16.67 per cent) of the respondents possessed marginal farms (less than 02.50 acres). It could be inferred that majority of the respondents (58.33 per cent) possessed small size farm holdings of (2.51 to 5.00 acres).

Priyadharshini (2020) revealed that majority of the respondents (42.50 per cent) possessed medium size of land holding followed by (25.00 per cent) of respondents having big size of land holding, and semi-medium size of land holding by (22.50 per cent) of the respondents. Only (10.00 per cent) of the respondents possessed small size of land holding, and there were no respondents having marginal size of land holding.

Vennila (2021) revealed that more than fifty per cent of the respondents (52.50 per cent) possessed small farm followed by one-third of the respondents (33.33 per cent) who had possessed land upto 2.50 acres and only (14.17 per cent) of the respondents had possessed more than 5.00 acres. More than sixty-five per cent of the respondents possessed small to big farm size.

### **2.1.6. EXPERIENCE IN PADDY CULTIVATION**

Dhileepan Jadeja (2019) reported that around (65.00 per cent) of the respondents had medium level of experience in mango cultivation, followed by low level (28.33 per cent) and high level of experience in mango cultivation (06.67 per cent). It could be inferred that nearly two third of the respondents possessed (65.00 per cent) medium level of experience in mango cultivation.

Vennila (2021) revealed that more than eighty-five per cent of the respondents (85.83 per cent) possessed high level of experience in coconut cultivation followed by (14.17 per cent) of respondents with medium level of experience.

Arun Kumar (2021) noticed that more than half of the respondents (52.50 per cent) had high level of farming experience followed by (39.17 per cent) of the respondents with medium level of farming experience and low level (08.33 per cent) of farming experience

Chapke *et. al.*, (2022) reported that most of the farmers (52.00 per cent) had experience of above 10 years in millets cultivation followed by (38.00 per cent) farmers had between 5-10 years of experience. (10.00 per cent) of farmers had 1-5years experience.

### **2.1.7. AREA UNDER PADDY CULTIVATION**

Dhileepan Jadeja (2019) reported that more than three fourth (80.00 per cent) of the respondents had low level of area under mango cultivation followed by (11.67 per cent) of the respondents with high level of area under mango cultivation. Only (08.33 per cent) of the respondents had medium level of area under mango cultivation.

Priyadharshini (2020) revealed that majority of the respondents had more than four acres (48.34 per cent) followed by upto two acres (08.33 per cent) and two to four acres (43.33 per cent).

Arun Kumar (2021) revealed that three- fourth of the respondents (75.00 per cent) had small level area under mango cultivation followed by (24.16 per cent) of the respondents with marginal level of area under mango cultivation and only very negligible proportion (00.83 per cent) of the respondents had large area under mango cultivation.

Chapke *et. al.*, (2022) reported that majority of farmers (92.00 per cent) cultivated millets crop on less than 0.7 ha area. However, only, (06.00 per cent) farmers apportioned 0.80 to 1.40 ha area for millet crops and negligible (02.00 per cent) of them used to cultivate millets on more than 1.40 ha area.

### **2.1.8. FARM POWER POSSESSION**

Dhileepan Jadeja (2019) reported that just more than fifty per cent of the respondents (51.67 per cent) possessed medium level of farm power, followed by (38.33 per cent) of the respondents with low level of farm power possession. Only (10.00 per cent) of the farmers possessed high level of farm power status.

Priyadharshini (2020) elucidated that more than two-fifth of the respondents (43.34 per cent) possessed low level of farm power followed by (40.00 per cent) and (16.66 per cent) of the respondents who had medium and high levels of farm power possession respectively.

Vennila (2021) enumerated that more than half of the respondents (56.67 per cent) fell under medium level of farm power possession, while one-third of the respondents (33.33 per cent) under low level and (10.00 per cent) of the respondents fell under high level of farm power possession categories.

### **2.1.9. SOCIAL PARTICIPATION**

Dhileepan Jadeja (2019) reported that (71.67 per cent) of the respondents had medium level of social participation followed by (23.33 per cent) of the respondents with low level of social participation. Only (05.00 per cent) of them had high level of social participation.

Vennila (2021) observed that (48.33 per cent) of the respondents had medium level of social participation followed by (30.00 per cent) of the respondents with low level of participation. Only (21.67 per cent) of the respondents had high level of participation in social organizations.

Arun Kumar (2021) observed that majority of the respondents (43.33 per cent) had low level of social participation followed by high (31.67 per cent) and medium (25.00 per cent) levels of social participation.

Chapke *et. al.*, (2022) that majority of the farmers (78.00 per cent) were members of different organizations while, (22.00 per cent) were not member of any organizations.

### **2.1.10. EXTENSION AGENCY CONTACT**

Dhileepan Jadeja (2019) reported that two fourth of the respondents (50.00 per cent) had medium level of extension agency contact followed by (36.67 per cent) respondents had low level of extension agency contact. Only (13.33 per cent) of the respondents had high level of extension agency contact.

Priyadharshini (2020) revealed that majority of the respondents (42.50 per cent) had medium level of extension participation followed by (32.50 per cent) of the respondents having low level of extension participation. Only (25.00 per cent) of the respondents had high level of extension participation.

Vennila (2021) revealed that just more than half of the proportion of the respondents (50.83 per cent) had medium level of extension agency contact followed by one-third of the respondents (33.33 per cent) with low level of extension agency contact and (15.84 per cent) of the respondents had high contact with extension functionaries.

Arun Kumar (2021) observed that majority of the respondents (43.33 per cent) had medium level of extension agency contact followed by low (40.00 per cent) and high (16.67 per cent) levels of extension agency contact.

#### **2.1.11. MASS MEDIA EXPOSURE**

Dhillepan Jadeja (2019) reported that (55.00 per cent) of the respondents had medium level of mass media exposure followed by (30.00 per cent) of the respondents with low level of mass media exposure in agricultural sector. Only (15.00 per cent) of the respondents had high level of mass media exposure.

Priyadharshini (2020) revealed that more than fifty per cent of the respondents (57.50 per cent) had medium level of mass media participation followed by (22.50 per cent) of the respondents with low level of mass media participation. Only (20.00 per cent) of the respondents had high level of mass media participation.

Arun Kumar (2021) revealed that majority of the respondents (43.33 per cent) had medium level of mass media exposure followed by low (40.00 per cent) and high (16.67 per cent) levels of mass media exposure.

Chapke *et. al.*, (2022) reported that majority of the farmers (78.00 per cent) were members of different organizations while, (22.00 per cent) were not member of any organizations.

#### **2.1.12. TRAINING PROGRAMMES ATTENDED**

Dhileepan Jadeja (2019) reported that majority of the respondents (58.33 per cent) attended medium number of training programmes, followed by (35.00 per cent) who have attended less number of training programmes. Only (06.67 per cent) of the respondents attended more number of training programmes.

Arun Kumar (2021) inferred that (70.00 per cent) of the respondents had attended medium number of training programmes followed by low (25.00 per cent) and high (05.00 per cent) numbers of training programmes attended.

Vennila (2021) inferred that regarding the training programmes attended by the respondents, one-third of the respondents (33.33 per cent) had attended one training programme followed by (30.00 per cent) of the respondents having attended two training programmes. Whereas, (19.17 per cent) of the respondents had not attended training programme, the remaining (17.50 per cent) of the respondents had attended three training programmes.

### **2.1.13. SCIENTIFIC ORIENTATION**

Dhileepan Jadeja (2019) reported that (51.67 per cent) of the respondents had medium level of scientific orientation followed by (35.00 per cent) of the respondents with high level of scientific orientation. Only a less per cent (13.33 per cent) of the respondents had low level of scientific orientation.

Arun Kumar (2021) reported that majority of the respondents (59.17 per cent) belonged to medium level of scientific orientation followed by high (22.50 per cent) and low (18.33 per cent) levels of scientific orientation.

Vennila (2021) reported that (40.01 per cent) of the respondents had medium level of scientific orientation followed by (38.88 per cent) of the respondents having high level of scientific orientation. Only (21.11 per cent) of the respondents had low level of scientific orientation.

## **2.2. ENTREPRENEURIAL TRAITS OF RESPONDENTS**

In order to study the entrepreneurial performance of paddy growers, six components were selected. The selected components were self- confidence, decision making ability, innovativeness, risk orientation, leadership ability and knowledge about the paddy enterprise.

### **2.2.1. SELF- CONFIDENCE**

Dhileepan Jadeja (2019) reported that most of the respondents (46.67 per cent) had medium level of self-confidence followed by (40.00 per cent) of the respondents with low level of self-confidence. Only (13.33 per cent) of the respondents had high level of self-confidence.

Priyadharshini (2020) inferred that three-fourth of the respondents (75.00 per cent) had high level of self-confidence followed by (23.34 per cent) of the respondents with medium level of self-confidence and (01.66 per cent) of the respondents had low level of self-confidence.

Vennila (2021) inferred that majority of the respondents (43.33 per cent) were having high level of self-confidence and (36.67 per cent) of the respondents had medium level of self-confidence. Whereas, (20.00 per cent) of the respondents were found to have low level of self-confidence.

### **2.2.2. DECISION MAKING ABILITY**

Dhileepan Jadeja (2019) reported that (40.00 per cent) of the respondents had medium level of decision-making ability followed by (33.33 per cent) of the respondents with high level of decision-making ability. Only (26.67 per cent) of them had low level of decision-making ability.

Priyadharshini (2020) revealed that (42.50 per cent) of the respondents had intermediate level of decision-making followed by (30.00 per cent) of the respondents having less rational level of decision-making ability. Only (27.50 per cent) of the respondents had rational level of decision-making.

Vennila (2021) revealed that majority of the respondents had taken self-decision with the percentage ranging from (55.00 per cent) to (95.00 per cent), while (04.17 per cent) to (28.34 per cent) of respondents consulted their family members for taking decision. A minimum of (00.83 per cent) to (26.67 per cent) of respondents had taken joint decision with spouse on all the farming and marketing activities.

Arun Kumar (2021) reported that (40.01 per cent) of the respondents belonged to high level of decision-making ability, whereas (37.77 per cent) and (22.22 per cent) of the respondents were having medium and low levels of decision-making ability, respectively.

Chapke *et. al.*, (2022) reported that majority of the respondents (74.00 per cent) had low level of decision-making behavior. While, below one-fourth of respondents (18.00 per cent) had medium and negligible of them (08.00 per cent) had high level of decision-making behavior.

### **2.2.3. INNOVATIVENESS**

Dhileepan Jadeja (2019) reported that most of the respondents (40.00 per cent) had medium level of innovativeness followed by (33.33 per cent) of the respondents with high level of innovativeness. Only (26.67 per cent) of the respondents had low level of innovativeness.

Priyadharshini (2020) revealed that (47.50 per cent) of the respondents had medium level of innovativeness followed by (35.00 per cent) of the respondents with low level of innovativeness. Only (17.50 per cent) of the respondents had high level of innovativeness.

Vennila (2021) revealed that two-third of the respondents (66.67 per cent) belonged to high level of innovativeness, whereas one-fourth of the respondents (25.00 per cent) were in low level of innovativeness followed by (08.33 per cent) of the respondents with medium level of innovativeness category.

Arun Kumar (2021) revealed that (43.33 per cent) of the respondents were having high level of innovativeness followed by (32.23 per cent) and (24.44 per cent) of the respondents having medium and low levels of innovativeness, respectively.

### **2.2.4. RISK ORIENTATION**

Dhileepan Jadeja (2019) reported that half of the (50.00 per cent) respondents had medium level of risk orientation followed by nearly one-third (30.00 per cent) of the respondents with low level of risk orientation. Only (20.00 per cent) of them had high level of risk orientation.

Priyadharshini (2020) revealed that (40.00 per cent) of the respondents had high level of risk orientation followed by (35.00 per cent) of the respondents with medium level of risk orientation. Only (25.00 per cent) of the respondents had low level of risk orientation.

Vennila (2021) showed that around sixty per cent of the respondents (58.33 per cent) had medium level of risk orientation followed by one-fourth of the respondents (25.00 per cent) with low level of risk orientation. Whereas, (16.67 per cent) of them had high level of risk orientation.

Arun Kumar (2021) reported that (40.01 per cent) of the respondents had medium level of risk orientation followed by (37.77 per cent) of the respondents with high level of risk orientation. Only (22.22 per cent) of the respondents had low level of risk orientation.

### **2.2.5. LEADERSHIP ABILITY**

Dhileepan Jadeja (2019) reported that majority of the respondents (56.67 per cent) had medium level of leadership ability followed by (28.33 per cent) of the respondents with low level of leadership ability. Only (15.00 per cent) of the respondents had high level of leadership ability.

Priyadharshini (2020) revealed that exactly (50.00 per cent) of the respondents had medium level of leadership ability followed by (27.50 per cent) of the respondents having low level of leadership ability. Only (.50 per cent) of the respondents had high level of leadership ability.

Arun Kumar (2021) revealed that (38.89 per cent) of the respondents had medium level of leadership ability followed by (37.78 per cent) of the respondents having high level of leadership ability. Only (23.33 per cent) of the respondents had low level of leadership ability.

### **2.2.6. KNOWLEDGE ABOUT THE PADDY ENTERPRISE**

Dhileepan Jadeja (2019) reported that majority of the respondents (56.67 per cent) had medium level of knowledge about their enterprises followed by high (25.00 per cent) and low (18.33 per cent) levels of knowledge.

Vennila (2021) revealed that more than half of the respondents (51.67 per cent) had medium level of knowledge about coconut cultivation. While remaining (26.67 per cent) and (21.66 per cent) of the respondents had low and high levels of knowledge on coconut cultivation respectively.

Arun Kumar (2021) revealed that (37.78 per cent) of the respondents had high level of knowledge about improved grape cultivation practices followed by (36.66 per cent) of the respondents with medium and (25.56 per cent) with low levels of knowledge about improved grape cultivation practices.

## **2.3. ENTREPRENEURIAL PERFORMANCE OF RESPONDENTS**

### **2.3.1. PERCEIVED PROFITABILITY**

Dhilepan Jadeja (2019) reported that (40.00 per cent) of the respondents perceived mango cultivation as „somewhat profitable“ followed by (35.00 per cent) of the respondents who also perceived it „profitable“. (25.00 per cent) are most profitable

Priyadharshini (2020) inferred that nearly three-fourth of the respondents (73.34 per cent) perceived their enterprise as „profitable“ followed by (23.34 per cent) of the respondents who perceived their enterprise as „somewhat profitable“. A similar percentage of the respondents (01.66 per cent) perceived it as „most profitable“ and „least profitable“.

Vennila (2021) reported that fifty-five per cent of the respondents perceived coconut cultivation as a somewhat profitable enterprise followed by (25.83 per cent) of the respondents who perceived it as profitable. It was perceived as most profitable, least profitable and not at all profitable by (1.67 per cent), (12.50 per cent) and (05.00 per cent) of the respondents respectively.

### **2.3.2. MARKETING ABILITY**

Dhilepan Jadeja (2019) reported that nearly two-third of the respondents (65.00 per cent) had medium level of marketing ability towards mango cultivation followed by high (20.00 per cent) and low (15.00 per cent) levels of marketing ability.

Vennila (2021) showed that almost two- third of the respondents (65.00 per cent) had medium level of marketing ability followed by low (23.33 per cent) and high (11.67 per cent) levels of marketing ability.

Arun Kumar (2021) reported that (36.66 per cent) of the respondents had high level of market orientation followed by (35.56 per cent) of the respondents with medium level of market orientation. Only (27.78 per cent) of the respondents had low level of market orientation.

## **2.4. CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN PRODUCTION AND MARKETING OF PADDY**

Dhileepan Jadeja (2019) reported that major constraints experienced by majority of the respondents in marketing of mango were „Fixation of price by commission agents“ (97.00 per cent), „Price fluctuation“ (93.50 per cent), „Lack of remunerative price“ (93.00 per cent), „Dominance of middle man (90.00 per cent).The other constraints faced by the respondents were „Inadequate market intelligence“ (86.67 per cent), „Delayed payment from buyers“ (85.17 per cent), „Perishability of the mango“ (84.16 per cent), „Lack of knowledge on value addition“ (83.33 per cent), „Inadequate transport facilities“ (81.20 per cent).The first and foremost constraint reported by majority of the respondents (97.00 per cent) was fixation of price by the commission agents. Price fluctuation was the second constraint as reported by majority of the respondents (93.50 per cent).

Priyadharshini (2020) observed that the major constraints expressed by the banana growers in production were labour scarcity (91.66 per cent), high labour cost (90.00 per cent), non-availability of good quality suckers (83.33 per cent), inadequate power supply (75.00 per cent), high cost of inputs (71.66 per cent), and inadequate water supply during summer (66.66 per cent), insufficient credit facilities (63.33 per cent) and pest and disease attack (58.33 per cent). Further, they studied about marketing constraints and the constraints faced by the banana growers in marketing were fixation of the price by commission agent (93.33 per cent), improper weighing procedure (90.00 per cent), lack of cold storage facilities (86.66 per cent), perishability of the banana (84.16 per cent), price fluctuation (75.00 per cent) and inadequate transport facilities (37.50 per cent).

Vennila (2021) expressed that majority of the coconut cultivators (95.83 per cent) expressed „lack of knowledge on value addition“ as their first and foremost constraint followed by price fluctuation (87.50 per cent) as their second constraint. Dominance of middle man (83.33 per cent) was the third constraint. Delayed payment from buyers (79.17 per cent) was found to be the fourth constraint. The fifth constraint was inadequate market intelligence (76.67 per cent) which was followed by lack of transport facilities (74.25 per cent) as their sixth constraint. The last constraint reported by (62.50 per cent) of the respondents was inadequate transport facilities.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

**The man who store of learning gains,  
In one, through seven worlds, bliss attains.**

**-Thiruvalluvar (Thirukural) English Couplet: 398**

*“Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It explains various steps that are adopted by a researcher in studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research methods and techniques but also the methodology”*

**- Kothari (1990)**

The context of this chapter is associated with the research methods, measurements and procedures followed in the study to satisfy the requirement of specific objectives. The methodological study was grouped and presented under the following sub-heads.

- 3.1. Locale of research.
- 3.2. Selection of respondents.
- 3.3. Description of the study area.
- 3.4. Selection, operationalisation and measurement of variables.
- 3.5. Constraints experienced by the farmers in production and marketing of Paddy.
- 3.6. Methods of data collection.
- 3.7. Statistical tools used.

### **3.1. LOCALE OF RESEARCH**

#### **3.1.1. Selection of District**

Chengalpattu district came into existence on 29.11.2019, when it was carved out of erstwhile Kancheepuram district. The Chengalpattu District of Tamil Nadu was purposively selected for conducting research due to the following reasons.

1. Chengalpattu District ranks eighth in area under Paddy cultivation in Tamil Nadu (Vide Appendix D).
2. Chengalpattu is the major market centre for Paddy in Tamil Nadu.
3. Subsistence with more number of Paddy growers compared to other crop cultivars.
4. Studies on farm entrepreneur performance conducted so far in the district are inadequate.

5. The researcher's familiarity with the local dialect and culture of the people and nearness to the researcher's native place, who belongs to this district would help him in maintaining rapport and collection of data would be easy.

### 3.1.2. Selection of Block

Chengalpattu District has 08 blocks viz., Acharapakkam, Chithamur, Kattankulathur, Lathur, Maduranthagam, St. Thomas Mount, Thiruporur, Thirukalukundram. Among eight blocks, Acharapakkam, Maduranthagam, Thirukalukundram were purposively selected considering the maximum area under Paddy cultivation.

### 3.1.3. Selection of Villages

There are 188,101,93 revenue villages in Maduranthagam, Thirukalukundram, Acharapakkam block respectively. A list of villages were selected based on the maximum area under cultivate Paddy as documented in the office of the Assistant Director of Agriculture, Maduranthagam, Thirukalukundram, Acharapakkam blocks. Out of these villages, six villages were selected based on the maximum area under paddy cultivation. The selected six villages were **Ramapuram, Padhiri, Mudhukarai, Villvarayanallur, Egai, Veerakuppam**. The details are given in table 5.

**Table 5. Villages selected for the study**

S. No.	District	Block	Village
1	Chengalpattu	Maduranthagam	1. Villvarayanallur 2. Mudhukarai
		Thirukalukundram	1. Egai 2. Veerakuppam
		Acharapakkam	1. Ramapuram 2. Padhiri

## 3.2. SELECTION OF RESPONDENTS

A list of paddy growers from each of the selected villages was obtained from the respective Village Administrative Offices. A sample size of 60 was fixed for the study considering the limitation of time and other resources. The respondents were identified and selected by proportionate random sampling method. The number of respondents selected from each of the villages is given in table 6.

**Table 6. Village wise distribution of selected respondents**

<b>S. No.</b>	<b>Villages</b>	<b>Total number of paddy growers</b>	<b>Total number of respondents selected</b>
1	Villvarayanallur	341	15
2	Mudhukarai	284	12
3	Egai	210	09
4	Veerakuppam	198	09
5	Ramapuram	174	08
6	Padhiri	136	07
<b>Total</b>		<b>1343</b>	<b>60</b>

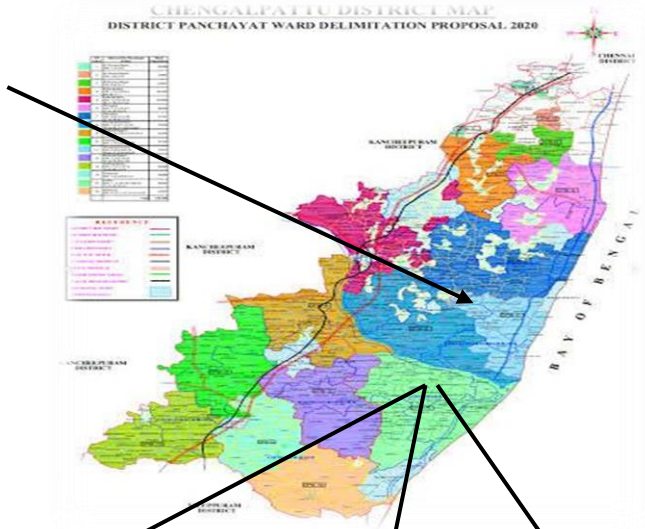
### **3.3. DESCRIPTION OF THE STUDY AREA**

In order to have a proper understanding about the findings and also relate them for similar situation elsewhere, it is necessary to know the general conditions of the study area. Hence, an attempt has been made to describe the study area in the following paragraphs.

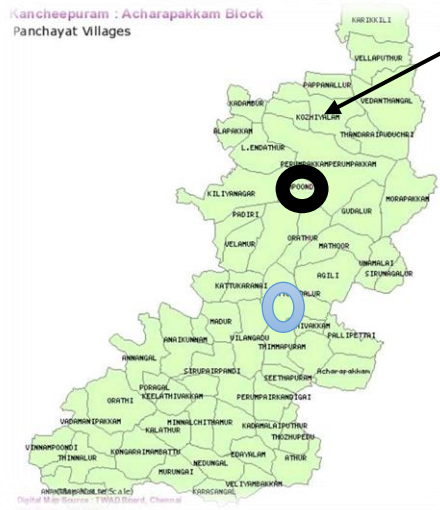
#### **3.3.1. LOCATION**

Chengalpattu district is situated on the north east coast of Tamil Nadu with a total geographical area of 2945 Sq.Kms. The district is bounded on the north by the Chennai district, West by the Kancheepuram district and Thiruvanamalai districts and on the south by the Vilupuram district. With a coastal length of 57 Kms, the district is bounded in the east by the Bay of Bengal. Chengalpattu features a tropical wet and dry climate.

**FIG. 1 MAP SHOWING STUDY AREA**



**Kancheepuram : Acharakkam Block**  
Panchayat Villages



**Ramapuram, Padhiri**

**Kancheepuram : Tirukkaiakunram Block**  
Panchayat Villages



**Egai, Veerakuppam**

**Kancheepuram : Madurantakam Block**  
Panchayat Villages



**Villvarayanallur, Mudhukarai**

### **3.3.2. SOIL TYPE**

The major soil types found in Chengalpattu District are alluvial, red soil, clay loam soil, sandy loam soil, loamy soil.

### **3.3.3. Irrigation sources**

The major irrigation sources are canals and tube wells in Chengalpattu District. The other sources of irrigation are tanks and ordinary wells.

### **3.3.4. Rainfall**

Average annual rainfall of the district is about 1400 mm. The district gets most of its annual seasonal rainfall from the north-east monsoon winds during the months of October and November.

### **3.3.5. Crops grown**

The principal crops grown in this district are paddy, Black gram, Groundnut, sugarcane and maize. Further, vegetable crops like Bitter melon, cucumber, snake gourd, Bottle gourd, bhendi, brinjal, chillies and flower crops like jasmine, rose, crossandra and chrysanthemum are grown.

## **3.4. SELECTION, OPERATIONALISATION AND MEASUREMENT OF VARIABLES**

### **3.4.1. Operationalisation and measurement of independent variables**

#### **3.4.1.1. Age**

Age was operationalised as the number of completed years of the respondents at the time of enquiry and the chronological age was taken for the measure. The scoring procedure developed by Trivedi (1963) and followed by Dhileepan Jadeja (2019) was used in the study. The respondents were classified into three categories as given below.

<b>S. No.</b>	<b>Category</b>	<b>Age (in years)</b>
1	Young	Upto 35 years
2	Middle	36-45 years
3	Old	Above 45 years

#### **3.4.1.2. Educational status**

It has been operationalised as the ability of the respondents to read and write or the extent of formal education possessed. The sub-items are it literate, functionally literate,

primary education, middle education, secondary education and collegiate education. Illiterate is an individual who cannot read and write. A functionally literate can read and write. Primary education referred to the education in the school from first standard to fifth standard. Secondary education meant the education from sixth standard to tenth standards. Higher Secondary education meant the education from eleventh standard to twelfth standard. Collegiate education referred to the degree/diploma after schooling. To arrive the score for educational status of the farmers, the scoring procedure developed by Mansingh (1993) and followed by Priyadharshini (2020) was slightly modified for the research, as given below.

S. No.	Category	Score
1	Illiterate	1
2	Functionally literate	2
3	Primary education	3
4	Secondary education	4
5	Higher Secondary education	5
6	Collegiate education	6

#### 3.4.1.3. Occupational status

Occupational status was operationalised as the profession in which an individual spends much of his time, money and resources as a means to a livelihood to maintain himself and his family welfare. The following scoring procedure was used for this study which was followed by Arun Kumar (2021).

S. No.	Category	Score
1	Crop enterprise alone	1
2	Crop enterprise + any other subsidiary occupation	2

#### 3.4.1.4. Annual income

The annual income was operationalised as the net income of the respondent from main and subsidiary occupations. The scoring procedure followed by Vennila (2021) was adopted. One score was assigned for every thousand rupees of annual income.

### 3.4.1.5. Farm size

This referred to the extent of land cultivated by an individual at the time of survey. The area was directly taken as a measure and categorised into three point scoring procedure which was followed and adopted by Dhileepan Jadeja (2019).

S. No.	Category	Area	Score
1	Marginal farmer	Less than 2.50 acres	1
2	Small farmer	Above 2.50 – to 5.00 acres	2
3	Big farmer	More than 5.00 acres	3

### 3.4.1.6. Experience in paddy cultivation

It was operationalised as the actual number of completed years of experience of the respondents possessed in paddy cultivation at the time of survey. One score was assigned for every one year of experience in paddy cultivation. The scoring procedure adopted by Dhileepan Jadeja (2019) was followed. The respondents' experience in paddy cultivation was categorised into low, medium and high by using cumulative frequency method.

### 3.4.1.7. Area under paddy cultivation

Area under paddy cultivation referred to the number of acreage of cultivation which the respondent possessed exclusively in paddy cultivation at the time of survey. "One" score was assigned for each acre of paddy cultivation. The respondents were further classified into three categories and analysed with cumulative frequency method which was adopted by Chapke *et. al.*, (2022)

### 3.4.1.8. Farm power possession

It consists of mechanical and indigenous farm power. The scores obtained by an individual were summed up to arrive the total farm power possession with appropriate scoring procedure obtained to the individual. The scoring procedure developed by Anitta (1998) and followed by Priyadharshini (2020) was used.

S. No.	Category	Score
1	Country plough	1
2	Bullock pair	2
3	Tractor	10
4	Iron plough	2
5	Power tiller	4
6	Bullock cart	2

7	Sprayer	2
8	Oil engine	4
9	Electric motor	4
10	Pumpset	4

#### 3.4.1.9. Social participation

Social participation referred to the degree of involvement of the respondent in formal organizations either as a member or as an office bearer. The scoring procedure developed by Shasipuri (1972) and followed by Arun Kumar (2021) was used to measure the social participation of the respondents.

S. No.	Nature of participation	Score
1	Member in the past	1
2	Office bearer in the past	2
3	Member at present	3
4	Office bearer at present	4

The scores obtained by an individual for the past and present were summed up for all the organizations to arrive a total social participation score of an individual.

#### 3.4.1.10. Extension agency contact

This referred to the degree to which an individual maintained the contacts with various extension agencies. The scoring procedure followed by Dhileepan Jadeja (2019) was used in this study to measure the extension agency contact of the respondents.

S. No.	Frequency of contact	Score	Purpose	Score
1	Never	1	Agri	2
2	Sometimes	2		
3	Regular	3	Non- Agri	1

Each score obtained by an individual was considered to analyse the frequency with multiple scoring procedure for the purpose of contact of every item. The scores were summed up to arrive a total score of contact with extension agency of an individual. The respondents

were categorised into low, medium and high levels of contact with extension agency by employing the cumulative frequency method.

#### **3.4.1.11. Mass media exposure**

Mass media exposure referred to the degree to which the mass media sources such as a radio, television, newspaper, exhibition, agricultural films, and agricultural journals were utilised to get more information by the respondents. The variable was measured on two dimensions of exposure viz., frequency of exposure and purpose of exposure. The scoring system adopted by Priyadharshini (2020) was followed to quantify the variable. The scores obtained by an individual to analyse the frequency with multiple scoring procedure for the purpose of every item were summed up to arrive the total value of mass media exposure.

<b>S. No.</b>	<b>Frequency of exposure</b>	<b>Score</b>
1	Daily	6
2	Few days in a week	5
3	Once in a week	4
4	Once in a month	3
5	Rarely	2
6	Never	1
<b>S. No.</b>	<b>Purpose of exposure</b>	<b>Score</b>
1	Agriculture	2
2	Non–Agriculture	1

#### **3.4.1.12. Training programmes attended**

It was operationalised as an institutional training availed by the respondents related to any aspects of enterprise. If the respondent had received training related to his enterprise, one score was assigned for every training programme attended. The scoring procedure adopted by Vennila (2021) was followed. The respondents were further classified into low, medium, and high by using cumulative frequency method.

#### **3.4.1.13. Scientific orientation**

Scientific orientation was operationalised as the degree to which the farmer was oriented towards the use of scientific methods in farming. The scale developed by Supe (1969) and followed by Dhileepan Jadeja (2019) was used to measure the scientific orientation of the respondents.

The scale consisted of six statements, of which the second one was negative. The rest of them were positive. The respondents for each statement was measured by five-point continuum which ranged from 'strongly agree' to 'strongly disagree' with the following scores.

<b>Response</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Positive statement	7	5	4	3	1
Negative statement	1	3	4	5	7

The maximum score of an individual could get on this scale was forty two and minimum was six. The scores obtained for all the statements were added to arrive the total value of scientific orientation.

### **3.4.2. DEPENDENT VARIABLES**

Entrepreneurial performance was studied by several researchers by following different methodology procedures. Hence, it was felt that there is a necessity to evolve a comprehensive procedure to analyse the value of entrepreneurial performance of paddy growers. Accordingly, the methodology was developed based on the procedure developed by Eswaran (2012) to measure the entrepreneurial performance. Entrepreneurial performance was operationally defined as the combination of entrepreneurial ability, perceived profitability and marketing ability of paddy cultivars. The entrepreneurial performance was computed using the following equation:

$$EP = EA + PP + MA$$

Were,

**EP** was stated as Entrepreneurial Performance.

**EA** was stated as Entrepreneurial Ability.

**PP** was stated as Perceived Profitability.

**MA** was stated as Marketing Ability.

### 3.4.2.1. ENTREPRENEURIAL ABILITY

#### 3.4.2.1.1. SELF-CONFIDENCE

It is the degree to which an individual expressed the confidence in his own ability to complete a task-oriented challenge. The procedure was developed to measure the self-confidence of paddy growers in accordance with the entrepreneurial self-awareness scale which had been developed by Basavanna (1971) and adopted by Vennila (2021).

<b>Response</b>	<b>Agree</b>	<b>Disagree</b>
For positive statement	2	1
For negative statement	1	2

The scale consisted of ten statements. The third, sixth and tenth statements were positive, while the remaining were negative. The response on these statements were obtained as either agree or disagree. For an agree response on the positive statements and disagree response on the negative statements, a score of two was assigned. Similarly, for a disagree response on the positive statements and an agree response on the negative statements, a score of one was assigned. The sum of the scores obtained by an individual indicated the level of self-confidence.

#### 3.4.2.1.2. DECISION MAKING ABILITY

The degree to which an individual justified the selection of most efficient alternatives was analysed by joint decision or independent decision for achieving maximum economic profits. This component was measured by the scale originally developed by Singh (1978), Nandapurkar (1980) and followed by Chapke *et. al.*, (2022) which was slightly modified for this study.

There were sixteen areas of decision making, regarding farm operations and resources. The respondents were asked to mention whether the decision was taken independently or in consultation with others on each area. The scores of two and one were given for independent and joint decisions, respectively. The scores were summed up for all the sixteen and that was considered as the decision making score for each respondent.

### 3.4.2.1.3. INNOVATIVENESS

Innovativeness was operationalized as the degree to which an individual is relatively earlier in adopting new ideas in farming. The scale originally developed by Singh (1972) and followed by Dhileepan Jadeja (2019) was used to measure the innovativeness of the respondents.

Questions	Response	Score
When would you prefer to adopt an innovation?	As soon as it is brought to my knowledge.	3
	After seeing other farmers have done it successfully.	2
	I prefer to wait and take my own time.	1

### 3.4.2.1.4. RISK ORIENTATION

Risk orientation was operationalised as the degree to which the respondent was oriented towards risk and uncertainty in adopting innovative ideas in paddy cultivation. Risk orientation scale developed by Supe (1969) followed by Arun Kumar (2021) was used. The scale consisted of 6 items, wherein items 1 and 5 were negative and the rest were positive. The score obtained for each statement was summed up to get the individual respondent's risk orientation score. The possible range of score in this scale ranged from 6 to 42. Maximum score would reveal high risk orientation, while the minimum score would reveal low risk orientation.

Response	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Positive statements	7	5	4	3	1
Negative statements	1	3	4	5	7

#### **3.4.2.1.5. LEADERSHIP ABILITY**

Leadership ability was operationalised as the degree to which an individual can initiate or motivate the actions of other individuals. The leadership ability of the respondents was measured by using a three-point rating scale developed by Nandapurkar (1980) and followed by Priyadharshini (2020). There were five items relating to leadership ability with three responses viz., 'always', 'sometimes', and 'never' for which the scores were assigned as 3, 2 and 1 respectively. By summing up the scores, the leadership ability scores were obtained.

#### **3.4.2.1.6. KNOWLEDGE ABOUT THE PADDY ENTERPRISE**

Knowledge was generally understood as an ultimate acquaintance of individual facts.

Bloom *et al.* (1956) defined that knowledge is the desirable behaviour under test situation, which emphasises the remembering either by the recognition or recall of ideas, materials or phenomena and later they defined Knowledge as one of the important components of behaviour and plays a vital role in the adoption of innovated practices.

Singh (1981) also denoted knowledge as the understanding of farmers about the recommended practices in agricultural cultivation practices. To measure the knowledge on paddy cultivation the knowledge test was developed by Singh (1981) and followed by Dhileepan Jadeja (2019), was adopted in this study.

The test included 32 items covering the important paddy cultivation practices. Each item of knowledge test was dichotomised into correct and incorrect responses. Every correct response was assigned two score, while the incorrect responses received one score. The total scores obtained by the respondents on the knowledge test formed the respondent's knowledge score. The possible range of score in this test was from 32-64. Maximum score would reveal high knowledge, while the minimum score would indicate low knowledge.

#### **COMPUTATION OF ENTREPRENEURIAL PERFORMANCE SCORE**

The scores for all the above six entrepreneurial components were summed up. Thus the score for entrepreneurial performance for each respondent was arrived. By following cumulative frequency method, the respondents were categorized into low, medium and high on their entrepreneurial performances.

### 3.4.2.2. PERCEIVED PROFITABILITY

It is the degree to which an enterprise had been perceived to be relatively advantageous in terms of economic profit. This was quantified in terms of respondent's perception regarding profit earned from paddy cultivation. The responses were obtained on a five point rating scale as followed. The variable was measured by using the procedure developed by Singh (1992) and followed by Vennila (2021).

S. No.	Category	Score
1	Not at all profitable	1
2	Least profitable	2
3	Somewhat profitable	3
4	Profitable	4
5	Most profitable	5

### 3.4.2.3. MARKETING ABILITY

Marketing ability referred to the capacity or tendency of an individual farmer to identify the market trend to sell the product for greater returns. Marketing ability was studied under ten dimensions namely, use of additional channel, price fixing criteria, consumer segmentation, publicity during price fall, record keeping, expenditure incurred on transport, place of market, collection of money and source of market information. To measure the marketing ability of the respondents, the scoring procedure was developed by Sudhakar (2002) which was followed by Arun Kumar (2021) used with slight modification.

S. No.	Questions	Category		Score
1	Use of additional channel	A	Existence of additional channel	2
		B	Absence of additional channel	1
2	Price fixing criteria	A	Based on cost of production	3
		B	Based on demand for the produce	2
		C	Based on personal need for money	1
3	Consumer segmentation	A	Existence of consumer segmentation	2
		B	Non-existence of consumer segmentation	1
4	Publicity	A	Expenditure incurred on publicity	2
		B	No expenditure incurred	1
5	During price fall	A	Go for processing	3
		B	Sell at same price	2
		C	Distribute the produce to friends and neighbours at free of cost	1
6	Record keeping	A	Maintaining records	2
		B	Not maintaining records	1
7	Expenditure incurred on transport	A	More	4
		B	Much	3
		C	Less	2
		D	Least	1
8	Place of market	A	Local	1
		B	Retailer	2
		C	Wholesaler	3
		D	Export	4
9	Collection of money	A	Immediately after sale	3
		B	A week after sales	2
		C	A month after sales	1
10	Source of market information	A	Relations and friends	1
		B	Local marketing centres	1
		C	Common agents / brokers	1
		D	Contractors	1
		E	Retailers	1
		F	AIR / DD	1
		G	Internet	1

### **3.3. CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN PRODUCTION AND MARKETING OF PADDY**

Based on the review of available literature, discussion with subject matter experts and observations of the researcher, the constraints encountered in paddy cultivation and marketing were listed out. The respondents were asked to mention the production and marketing constraints separately and the data collected were analysed using percentage analysis.

### **3.4. COLLECTION OF DATA**

Data collection was done with the help of well-structured interview schedule. The schedule was prepared in English and translated into Tamil by the researcher for easy administration and gathering information from the respondent in his native language. Before finalizing the schedule, it was pre-tested in a non-sampling area and necessary changes were made in finalizing the schedule. The data were collected during the month of April 2022 by personally interviewing the respondents by the researcher and the collected data were interpreted and tabulated for appropriate statistical analysis.

### **3.5. STATISTICAL TOOLS USED**

The data collected from the respondents were coded, compiled and analyzing using the following statistical methods.

#### **3.5.1. Cumulative frequency**

Using this tool categorisation of various independent and dependent variables into low, medium and high was done by maximum and minimum possible scores of a variable.

#### **3.5.2. Percentage analysis**

Percentage analysis was done to make simple comparisons wherever necessary.

#### **3.5.3. Simple correlation coefficient**

Simple correlation coefficient was used to find out the degree of relationship between independent and dependent variables. The significance of calculated “r” values was tested at 5 per cent and 1 per cent levels of probability.

#### **3.5.4. Multiple linear regression analysis**

This analysis was done to determine the net contribution of selected independent variables with the dependent variable. This gives the percentage of variation that a set of independent variables jointly explain on the dependent variables.



**FIG.2 CONCEPTUAL MODEL OF THE STUDY**

## CHAPTER- IV

### FINDINGS AND DISCUSSION

*“The scientific value of a fact depends on its relation with other facts and in this connection the most common place and facts are often precisely the most valuable ones, while a fact that strikes the imagination or stirs the moral feelings may be either isolated or exceptional or so simple as to involve hardly any problem”*

**-Thomas (1990)**

The findings of the present study as per the methodology prescribed in the preceding chapter have been highlighted in accordance with the objectives set forth under the following sequence.

- 4.1. Characteristics of selected paddy growers.
- 4.2. Entrepreneurial performance of selected paddy growers.
- 4.3. Relationship of the characteristics of respondents with entrepreneurial performance.
- 4.4. Constraints experienced by the entrepreneurs in production and marketing of paddy.

#### **4.1. CHARACTERISTICS OF SELECTED PADDY GROWERS**

The findings on the characteristics of the respondents are given below. The respondents were separated under various categories of variables with respect to the social characteristics.

##### **4.1.1. AGE**

Age is an important factor as it reveals the mental maturity of an individual to take decision for achieving his needs. Hence, it has been considered in this study. Results on distribution of respondents according to their age are presented in table 7.

**Table 7. Distribution of respondents according to their age (n=60)**

<b>S. No.</b>	<b>Category</b>	<b>Number of respondents</b>	<b>Per cent</b>
1	Young	13	22.00
2	Middle	15	25.00
3	Old	32	53.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be observed from table 7 that half of the respondents (53.00 per cent) belonged to old age category followed by 25.00 per cent of the respondents under middle age category. Only 22.00 per cent of the respondents were found to be under young age. Most of the respondents belongs to old age groups category. The selection of respondents was based on knowledge and experience in paddy cultivation, where the respondents with old age group category has high experience in paddy cultivation. This finding was in line with the findings of Chapke *et. al.*,(2022).

#### 4.1.2. EDUCATIONAL STATUS

Level of education of an entrepreneur is one of the factors influencing their involvement and decision-making process in day-to-day life. Educational status is one of the factors which may influence the farmer in entrepreneurial activities and adopting innovation ideas. It is general presumed that higher the education level, higher would be the rate of entrepreneurial and marketing behaviour. Hence, the literacy level of the respondents in this study was enquired right from literate to collegiate education. The results on distribution of respondents according to their educational status are presented in table 8.

**Table 8. Distribution of respondents according to their educational status (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Illiterate	10	16.00
2	Functionally literate	02	03.00
3	Primary education	14	23.00
4	Secondary education	18	30.00
5	Higher Secondary education	08	14.00
6	Collegiate education	08	14.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

The table 8 revealed that 30.00 per cent of the respondents had secondary education level followed by primary education (23.00 per cent) and illiterate (16.00 per cent). Higher Secondary education and Collegiate education were 14.00 per cent of the respondents. Less than ten per cent of the respondents were Functionally literate (03.00 per cent). This may be due to, the study area comprised majority of the families with poor economic status. Most of the respondents falls in old age groups, as they lack higher education facilities in rural area and secondary education was considered as the highest level of education. This finding derives support from the findings of Vennila (2021) who also reported that majority of the respondents had secondary level education.

#### 4.1.3. OCCUPATIONAL STATUS

Occupation is conceptualised as any activity in which a person is regularly engaged to achieve a standard utilitarian award. Result on distribution of respondents according to their occupation is presented in table 9.

**Table 9. Distribution of respondents according to their occupational status (n=60)**

<b>S. No.</b>	<b>Category</b>	<b>Number of Respondents</b>	<b>Per cent</b>
1	Crop enterprise alone	33	55.00
2	Crop enterprise + any other subsidiary occupation	27	45.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

From the above table, it could be noticed that nearly three fourth (55.00 per cent) of the respondents had crop enterprise alone as their occupation. The 45.00 per cent of the respondents had other subsidiary occupation along with paddy cultivation. Since most of farmers fall under old age category, they have more experience in paddy cultivation and paddy cultivation is their major occupation. This finding is in line with the findings of Arun Kumar (2021) who also reported that majority of the respondents had crop enterprise alone as their occupation.

#### 4.1.4. ANNUAL INCOME

Total earnings by the respondent in a year through farm and non-farm sources. Results on distribution of respondents according to their annual income are presented in table 10.

**Table 10. Distribution of respondents according to their annual income (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	34	56.00
2	Medium	14	24.00
3	High	12	20.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be observed from the table 10 that more than fifty per cent (56.00 per cent) of the respondents had low level of annual income followed by 24.00 per cent of the respondents with medium level of annual income. Only 20.00 per cent of the respondents had high level of annual income. It could be inferred that majority of the respondents (56.00 per cent) had low annual income. In recent decades, failure of monsoon, lack of market availability sources and price fluctuation of paddy might be attributed as the main reasons for the low annual income. As discussed earlier the farmers had crop enterprise alone as their occupation, so we suggested the farmer to do Integrated farming system, which can increase their income. This finding is in parallel with the findings of Dhileepan Jadeja (2019) who also reported that majority of the respondents had low level of annual income.

#### 4.1.5. FARM SIZE

Size of the farm may influence the decision of the respondents in selection of crops and selection of buyers. Results on distribution of respondents according to their farm size are presented in table 11.

**Table 11. Distribution of respondents according to their farm size (n=60)**

S. No.	Category	Number of Respondents	Per cent
1	Marginal farm (upto 2.50 acres)	46	77.00
2	Small farm (2.51 to 5 acres)	8	13.00
3	Big farm (more than 5 acres)	6	10.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

The above table revealed that 77.00 per cent of the respondents had Marginal farm (upto 2.50 acres) followed by 13.00 per cent of the respondents having Small farm (2.51 to 5 acres). Only 10.00 per cent of the respondents possessed Big farm (more than 5 acres). It could be inferred that majority of the respondents (77.00 per cent) possessed Marginal farm (upto 2.50 acres). It was quite natural that large farm holdings are not necessary to cultivate paddy in their own farm. Even in less farm size, a farmer can cultivate paddy and get profit. The above finding had drawn the support, from Priyadharshini (2020) who also reported that majority of the respondents possessed Marginal farm (up to 2.50 acres).

#### **4.1.6. EXPERIENCE IN PADDY CULTIVATION**

‘Experience is the best teacher’, says a proverb. Farming experience acquired over a period of time paves the correct way for success in farming. Farming experience helps the farmers in making rational decision in farm activities and majority of them were under middle age group, thus it plays a major role in adoption or rejection behaviour of an individual. Results on distribution of respondents according to their experience in paddy cultivation are presented in table 12.

**Table 12. Distribution of respondents according to their experience in paddy cultivation (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	15	25.00
2	Medium	31	52.00
3	High	14	23.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

The table 12 revealed that around 52.00 per cent of the respondents had medium level of experience in paddy cultivation, followed by low level 25.00 per cent and high level of experience in paddy cultivation (23.00 per cent). It could be inferred that nearly two third of the respondents possessed (65.00 per cent) medium level of experience in paddy cultivation. As discussed earlier, majority of the respondents were under old age category, which might be responsible for the medium level of experience in paddy cultivation. This result was contradictory with the findings of Dhileepan Jadeja (2019).

#### 4.1.7. AREA UNDER PADDY CULTIVATION

Results on distribution of respondents according to their area under paddy cultivation are presented in table 13.

**Table 13. Distribution of respondents according to their area under paddy cultivation (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	48	80
2	Medium	08	13
3	High	04	07
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be revealed from table 13 that more than three fourth (80.00 percent) of the respondents had low level of area under paddy cultivation followed by 13.00 per cent of the respondents with medium level of area under paddy cultivation. Only 07.00 percent of the respondents had high level of area under paddy cultivation. It was quite natural that large farm holdings were not necessary to cultivate paddy in the farm. Even in less acre of land, a farmer could cultivate paddy and get profit. This might be due to the fact that most of the respondents had small farm size. This finding was in line with the findings of Chapke *et. al.*, (2022).

#### 4.1.8. FARM POWER POSSESSION

Results on distribution of respondents according to their farm power possession are presented in table 14.

**Table 14. Distribution of respondents according to their farm power possession (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	39	65.00
2	Medium	17	28.00
3	High	04	07.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be observed from the table 14 that just more than fifty per cent of the respondents (65.00 per cent) possessed low level of farm power, followed by 28.00 per cent of the respondents with medium level of farm power possession. Only 07.00 per cent of the farmers possessed high level of farm power status. The paddy growers take agricultural operation in only smaller proportion of their holdings. Hence it is not necessary to possess high cost of farm power equipment. This might be due to the reason for the low level of farm power possession. This finding also gets support from the findings of Priyadarshini (2020) who also reported that majority of the respondents had low level of farm power possession.

#### 4.1.9. SOCIAL PARTICIPATION

Participation in social organizations would naturally help entrepreneur to maintain good relationship with other members of the social system and help them to gather new ideas and information related to their occupation. Results on distribution of respondents according to their social participation were presented in table 15.

**Table 15. Distribution of respondents according to their social participation (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	24	40.00
2	Medium	25	42.00
3	High	11	18.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be inferred from the above table that 42.00 per cent of the respondents had medium level of social participation followed by 40.00 per cent of the respondents with low level of social participation. Only 18.00 per cent of them had high level of social participation. As discussed earlier, majority of the respondents were under old age group, and medium level of social organisations, absence of adequate number of social organisations in the study area and lack of time availability to the farmers might be the possible reasons for medium level of social participation. This finding is in accordance with that of Vennila (2021).

#### 4.1.10. EXTENSION AGENCY CONTACT

Extension agency contact refers to the contact to the respondents with extension functionaries. Extension workers help the farmer to become aware of the relevant new technologies and also keep them to gain adequate knowledge about the technologies. Hence, more contact by the farmer with extension agency the participation in the innovative programmes by the farmers would also be high. This variable was measured in terms of frequency and purpose for which the contact was made. Results on distribution of respondents according to their extension agency contact are presented in table 16.

**Table 16. Distribution of respondents according to their extension agency contact (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	06	10.00
2	Medium	25	42.00
3	High	29	48.00
<b>Total</b>		<b>60</b>	<b>100</b>

It could be revealed from the above table that two fourth of the respondents (48.00 per cent) had High level of extension agency contact followed by 42.00 per cent respondents had medium level of extension agency contact. Only 10.00 per cent of the respondents had low level of extension agency contact. From the results, it could be interpreted that forty per cent of the respondents had high level contact with extension agency, due to many visits made by extension functionaries to the farmer's field and the farmers visit to the office of the extension functionaries. From the above findings, it could be observed that majority of them possessed high level of extension agency contact.

#### 4.1.11. MASS MEDIA EXPOSURE

The results on distribution of respondents according to their mass media exposure are presented in table 17.

**Table 17. Distribution of respondents according to their mass media exposure (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	15	25.00
2	Medium	33	55.00
3	High	12	20.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

The table 17 revealed that 55.00 per cent of the respondents had medium level of mass media exposure followed by 25.00 per cent of the respondents with low level of mass media exposure in agricultural sector. Only 20.00 per cent of the respondents had high level of mass media exposure. Majority of the respondents possessed various media sources like newspaper, magazines, television and radio sets, but they were not frequently using these media sources for gathering agricultural information. It would have resulted for medium level of mass media exposure. This finding is in conformity with the findings of Dhileepan Jadeja (2019).

#### 4.1.12. TRAINING PROGRAMMES ATTENDED

The results on distribution of respondents according to the training programmes attended are presented in table 18.

**Table 18. Distribution of respondents according to the training programmes attended (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	46	77.00
2	Medium	13	21.40
3	High	01	01.60
<b>Total</b>		<b>60</b>	<b>100.00</b>

The above data revealed that majority of the respondents (77.00 per cent) attended low number of training programmes, followed by 21.40 per cent who have attended medium number of training programmes. Only 01.60 per cent of the respondents attended more number of training programmes. On perusal of the findings, it was found that majority of the respondents had received low number of trainings. As discussed earlier, most of the farmers have medium level of social participation and mass media exposure, which could have result in low training programmes attended.

#### 4.1.13. SCIENTIFIC ORIENTATION

Results on distribution of respondents according to their scientific orientation are presented in table 19.

**Table 19. Distribution of respondents according to their scientific orientation (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	09	15.00
2	Medium	26	43.00
3	High	25	42.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be seen from the table 19 that 43.00 per cent of the respondents had medium level of scientific orientation followed by 42.00 per cent of the respondents with high level of scientific orientation. Only a less per cent (15.00 per cent) of the respondents had low level of scientific orientation. The reasons for the medium level of scientific orientation might be due to the medium level of social participation and mass media exposure. This finding is in agreement with the findings of Arun Kumar (2021).

## 4.2. ENTREPRENEURIAL ABILITY OF RESPONDENTS

Entrepreneurial ability was categorised into three levels viz., low, medium and high based on six dimensions viz., self-confidence, decision making ability, innovativeness, risk orientation, leadership ability and knowledge about the paddy enterprise.

### 4.2.1. SELF-CONFIDENCE

To know the extent of which respondents had high degree of confidence towards paddy production and marketing. Result on distribution of respondents according to their self-confidence is presented in table 20.

**Table 20. Distribution of respondents according to their self-confidence (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	06	10.00
2	Medium	39	65.00
3	High	15	25.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

Most of the respondents (65.00 per cent) had medium level of self-confidence followed by 25.00 per cent of the respondents with high level of self-confidence. Only 10.00 per cent of the respondents had low level of self-confidence. Many of the respondents had medium level of formal education, medium leadership quality and medium level of social participation which could have enabled them to have medium level of self-confidence. This result derives support from the findings of Dhileepan Jadeja (2019) who also reported that majority of the respondents had medium level of self-confidence.

### 4.2.2. DECISION-MAKING ABILITY

Decision making refers to the activity involved or the procedure followed by the paddy growers in choosing the best alternatives from among the available number of alternatives relating to entrepreneurial activities and marketing behaviour. Under production and marketing activities totally sixteen areas were considered for decision making ability by respondents. Result on distribution of respondents according to their decision- making ability is presented in table 21.

**Table 21. Distribution of respondents according to their decision-making ability****(n=60)**

<b>S. No.</b>	<b>Category</b>	<b>Number of respondents</b>	<b>Per cent</b>
1	Low	15	25.00
2	Medium	18	30.00
3	High	27	45.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

The data in table 21 reported that 45.00 per cent of the respondents had high level of decision-making ability followed by 30.00 per cent of the respondents with medium level of decision-making ability. Only 25.00 per cent of them had low level of decision-making ability. In this process, most of the respondents reported that they were involved in self-decision making, medium level exposure of farmers to mass media and high level of extension agency contact has helped the farmers in boosting the self-perception, self-esteem and confidence contributing to developing decision making ability in various aspects of paddy cultivation. Hence, it may be concluded that a majority of the respondents belonged to high level of decision-making ability. This finding is on parallel with the findings of Arun Kumar (2021) who also found that majority of them had high level of decision-making ability in farm practices.

#### **4.2.3. INNOVATIVENESS**

Lerner (1981) indicated that, concern for success in an activity and optimism that would be attained, can only be sustained by a commitment to the activism, which requires, not only passive acquiescence towards innovations from the outside, but also a vigorous sense of initiative of self evidence to search new ways, which was usually referred to as innovativeness. The innovativeness of the respondents was measured and given in the table 22.

**Table 22. Distribution of respondents according to their innovativeness (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	06	10.00
2	Medium	43	72.00
3	High	11	18.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

Most of the respondents (72.00 per cent) had medium level of innovativeness followed by 18.00 per cent of the respondents with high level of innovativeness. Only 10.00 per cent of the respondents had low level of innovativeness. The formal education of the respondents coupled with medium level of media exposure; scientific orientation would have enabled them to adopt innovative ideas in medium range. This finding is in accordance with Dhileepan Jadeja (2021).

#### **4.2.4. RISK ORIENTATION**

Risk orientation reflected one's readiness or willingness to use recommended technologies. The data relevant to the risk orientation of the respondents are presented in table 23.

**Table 23. Distribution of respondents according to their risk orientation (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	16	27.00
2	Medium	27	45.00
3	High	17	28.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

Nearly Half of the (45.00 per cent) respondents had medium level of risk orientation followed by nearly one-third (28.00 per cent) of the respondents with high level of risk orientation. Only 27.00 per cent of them had low level of risk orientation. Risk is the biggest challenge for the farmers who cultivate and market paddy under unforeseen circumstances. The paddy growers who also prone to risk, generally would have medium levels of innovativeness and orientation towards entrepreneurial activities. This had contributed for more respondents to come under medium level of risk orientation. This finding derives support from Vennila (2021) who also reported that majority of the respondents had medium level of risk orientation in paddy cultivation.

#### 4.2.5. LEADERSHIP ABILITY

The data relevant to the leadership ability of the respondents are presented in table 24

**Table 24. Distribution of respondents according to their leadership ability (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	02	03.00
2	Medium	32	54.00
3	High	26	43.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

From the above table, it could be observed that majority of the respondents (54.00 per cent) had medium level of leadership ability followed by 43.00 per cent of the respondents with high level of leadership ability. Only 3.00 per cent of the respondents had low level of leadership ability. The respondents had medium levels of self-confidence, decision-making ability and achievement motivation that might have resulted with medium level in acquiring leadership qualities. This finding is in agreement with that of Priyadarshini (2020).

#### 4.2.6. KNOWLEDGE ABOUT THE PADDY ENTERPRISE

The relevant data regarding their knowledge gained on paddy cultivation are presented in table 25.

**Table 25. Distribution of respondents according to their knowledge about paddy enterprise (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	10	16.00
2	Medium	44	74.00
3	High	06	10.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

Majority of the respondents (74.00 per cent) had medium level of knowledge about their enterprises followed by low (16.00 per cent) and high (10.00 per cent) levels of knowledge. From the above findings, it could be inferred that majority of them belonged to medium level of knowledge category about paddy cultivation practices. The reason behind such medium level of knowledge towards the various cultivation aspects might be due to medium level of literacy, medium level of scientific orientation, medium level of mass media exposure of the respondents which might have enabled them to acquire medium level of knowledge on paddy cultivation. Moreover, there was medium level of the respondents in attending the extension agency contacts and social participation on paddy production and marketing which in turn helped them to gains more information on entrepreneurial knowledge. These findings are in line with Vennila (2021) who also found that nearly fifty per cent of the respondents had medium level of knowledge.

### 4.2.3. PERCEIVED PROFITABILITY

The table 26 depict the distribution of respondents according to their perceived profitability.

**Table 26. Distribution of respondents according to their perceived profitability (n=60)**

<b>S. No.</b>	<b>Category</b>	<b>Number of respondents</b>	<b>Per cent</b>
1	Not at all profitable	03	05.00
2	Least profitable	18	30.00
3	Somewhat profitable	23	38.00
4	Profitable	14	24.00
5	Most profitable	2	03.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be observed from table 26 that 38.00 per cent of the respondents perceived paddy cultivation as 'somewhat profitable' followed by 30.00 per cent of the respondents who also perceived it 'least profitable'. It was perceived as 'most profitable', 'least profitable' and 'not at all profitable' by 03.00 per cent, 30.00 per cent and 05.00 per cent of the respondents respectively. Being a remunerative cash crop, paddy contributes for the main income to the farmers in several ways. Hence, they might have perceived it as somewhat profitable enterprises. This observation is in line with the findings of Dhilepan Jadeja (2019) who also reported that majority of the respondents had perceived agriculture crop as somewhat profitable.

#### 4.2.4. MARKETING ABILITY

The relevant data regarding the marketing ability of the respondents were presented in table 27

**Table 27. Distribution of respondents according to their marketing ability (n=60)**

S. No.	Category	Number of respondents	Per cent
1	Low	34	57.00
2	Medium	18	30.00
3	High	08	13.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

A glance at the data in table 27 showed that nearly two-third of the respondents (57.00 per cent) had low level of marketing ability towards paddy cultivation followed by medium (30.00 per cent) and high (13.00 per cent) levels of marketing ability. The reason behind the low level of marketing ability is due to the presence of more paddy agents and middle man.

#### 4.2.5. ENTREPRENEURIAL PERFORMANCE OF THE SELECTED PADDY GROWERS

The entrepreneurial performance was computed using the following equation:

$$EP = EA + PP + MA$$

Were,

**EP** was stated as Entrepreneurial Performance.

**EA** was stated as Entrepreneurial Ability.

**PP** was stated as Perceived Profitability.

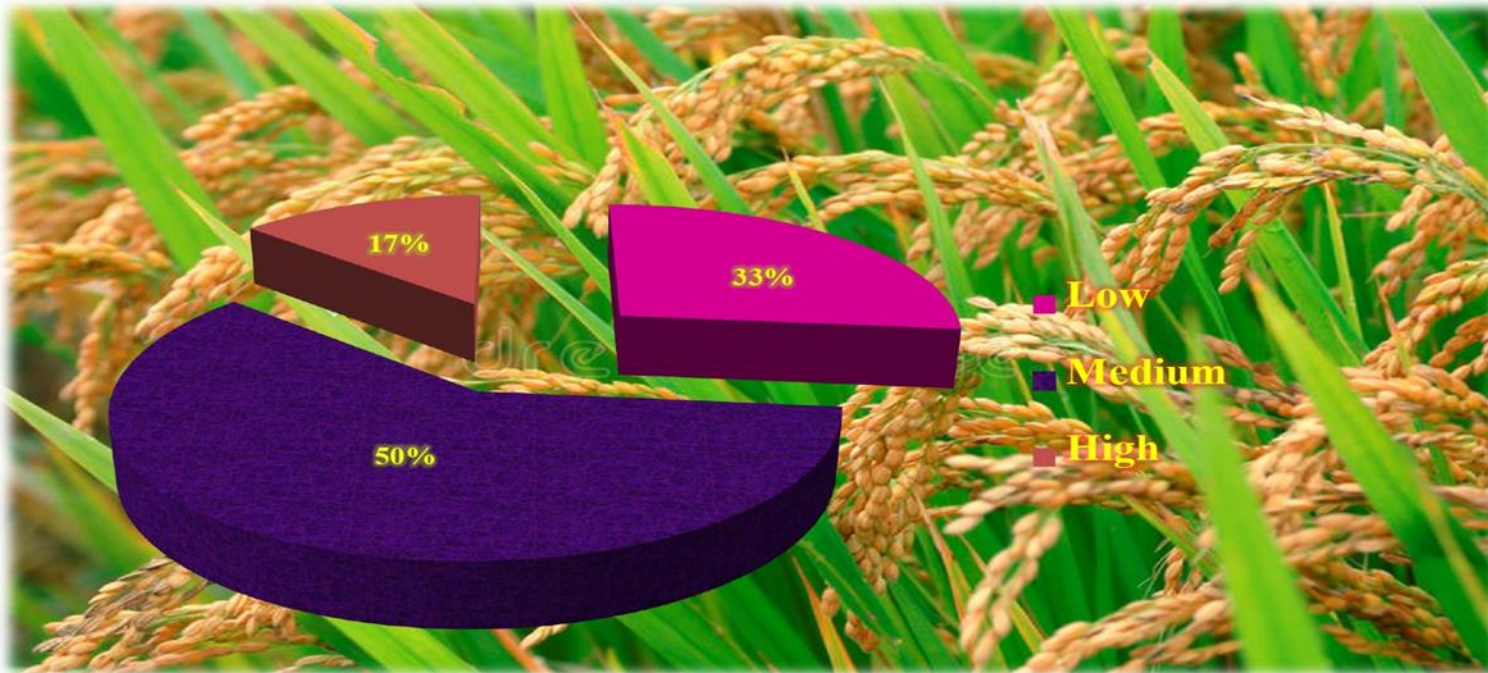
**MA** was stated as Marketing Ability.

Results on distribution of respondents according to their entrepreneurial performance are presented in table 28 and fig 3.

**Table 28. Distribution of respondents according to their entrepreneurial performance  
(n=60)**

<b>S. No.</b>	<b>Category</b>	<b>Number of respondents</b>	<b>Per cent</b>
1	Low	20	33.00
2	Medium	30	50.00
3	High	10	17.00
<b>Total</b>		<b>60</b>	<b>100.00</b>

It could be observed from the table 28 that 50.00 per cent of the respondents were found to have medium level in their entrepreneurial performance followed by 33.00 per cent of the respondents with low level of entrepreneurial performance. Only 17.00 per cent of the respondents were with high level of entrepreneurial performance. The medium level of entrepreneurial traits, medium level of risk orientation and leadership ability, and fifty per cent of the respondents having medium level of experience in paddy cultivation might have enabled them to medium level of entrepreneurial performance.



**FIG.3 DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR OVERALL ENTREPRENEURIAL PERFORMANCE**

### 4.3. RELATIONSHIP OF CHARACTERISTICS OF THE RESPONDENTS WITH ENTREPRENEURIAL PERFORMANCE

**Table 29. Association and Contribution of Characteristics of the Respondents with Entrepreneurial Performance of Paddy Growers (n=60)**

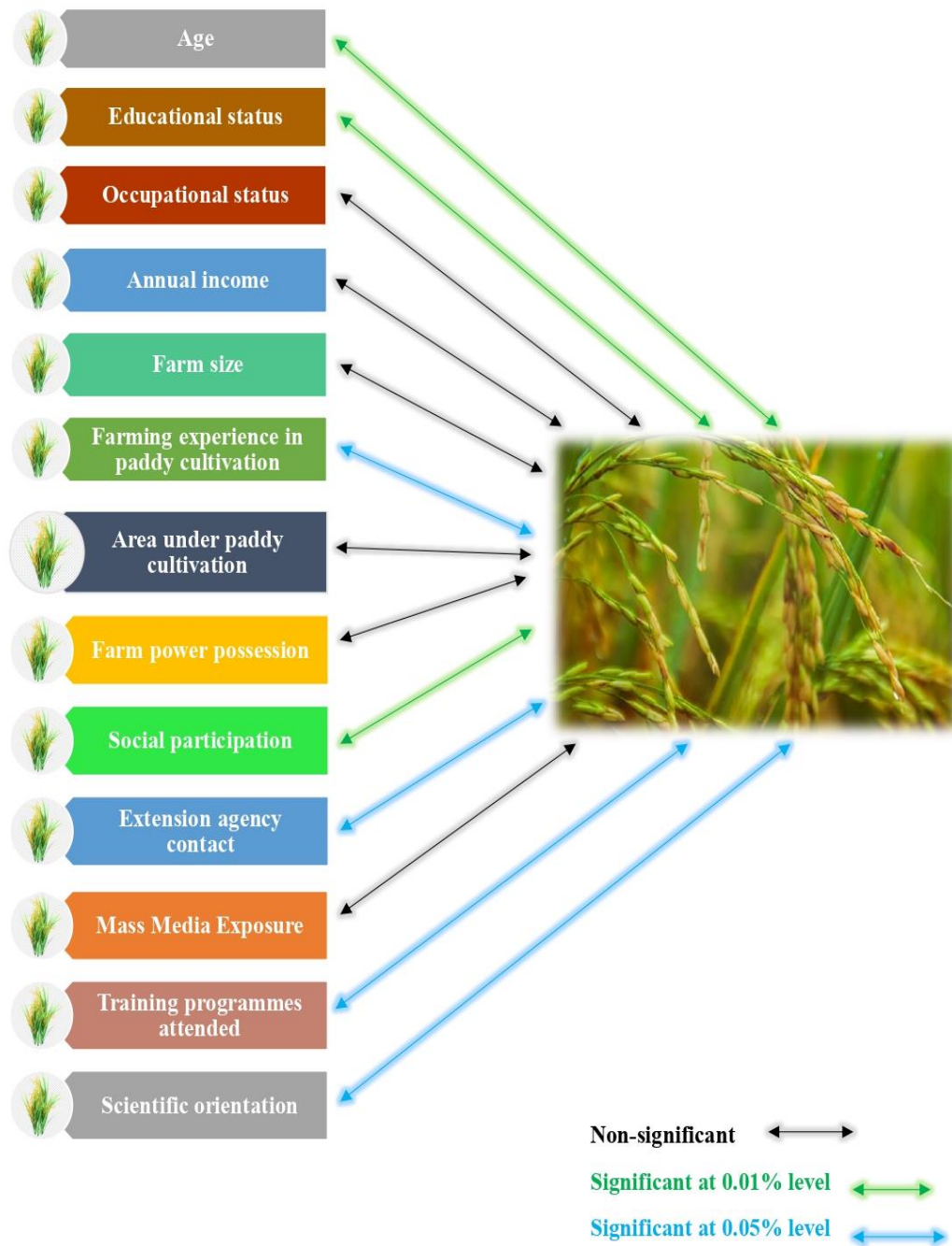
Var. No.	Variables	'r' value	Standardized regression coefficient	Standardized error	't' value
X <sub>1</sub>	Age	0.182*	0.848	2.222	3.363**
X <sub>2</sub>	Educational status	0.258**	2.99	0.828	2.662**
X <sub>3</sub>	Occupational status	0.089NS	1.315	1.100	1.185NS
X <sub>4</sub>	Annual income	0.016NS	0.982	0.704	1.379NS
X <sub>5</sub>	Farm size	0.106NS	0.346	0.269	1.237NS
X <sub>6</sub>	Experience in paddy cultivation	0.221*	2.488	1.116	2.208*
X <sub>7</sub>	Area under paddy cultivation	0.068NS	-0.60	0.725	0.721NS
X <sub>8</sub>	Farm power possession	0.030NS	-0.221	0.387	-1.562NS
X <sub>9</sub>	Social participation	0.202*	1.423	0.620	2.634**
X <sub>10</sub>	Extension agency contact	0.200*	1.468	0.735	1.973*
X <sub>11</sub>	Mass media exposure	0.095NS	0.162	0.163	1.420NS
X <sub>12</sub>	Training programmes attended	0.210*	0.200	0.455	2.206*
X <sub>13</sub>	Scientific orientation	0.251**	1.205	0.495	2.413*

**a = 10.618                  R<sup>2</sup> = 0.517          F = 6.702\*\***

\*\* - Significant at 1 per cent level of probability.

\* - Significant at 5 per cent level of probability.

NS - Non-significant.



**FIG.4 EMPERICAL MODEL SHOWING THE CHARACTERISTICS OF THE RESPONDENTS WITH THE ENTREPRENEURIAL PERFORMANCE OF THE PADDY GROWERS**

#### 4.3.1. Association of Characteristics of the Respondents with Entrepreneurial Performance

Correlation analysis was performed to find out the association of independent variables with the dependent variable entrepreneurial performance and the results are presented in table 29.

It could be observed from table 29, that out of thirteen characteristics considered for the study, two variables had shown positive and highly significant relationship with their entrepreneurial performance at one per cent (0.01) level probability and they were Educational status ( $X_2$ ) and scientific orientation ( $X_{13}$ ). The variables age ( $X_1$ ), experience in paddy cultivation ( $X_6$ ), social participation ( $X_9$ ), extension agency contact ( $X_{10}$ ) and training programmes attended ( $X_{12}$ ) were found to be positively significant at five per cent (0.05) level of probability.

The correlation value for the rest of the six variables showed non- significant association with the entrepreneurial performance.

#### 4.4 CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN PRODUCTION AND MARKETING OF PADDY

The findings on the production and marketing constraints experienced by the farmers are presented in this section.

##### 4.4.1. PRODUCTION CONSTRAINTS IN PADDY CULTIVATION

The data on constraints experienced by the paddy growers in production of paddy are presented in the table 30

**Table 30. Constraints experienced by the entrepreneurs in production of paddy (n=60)**

S. No.	CONSTRAINTS	MEAN SCORE	RANK
1	Labour scarcity	09%	V
2	High Labour cost	05%	VIII
3	Failure in seasonal rainfall	11%	IV
4	High cost of input	19%	II
5	Non-availability of machinery in time	16%	III
6	High Labour cost	05%	IX

7	Inadequate credit facilities	05%	VII
8	Non-availability of seedling	09%	VI
9	Pest and disease attack	21%	I

Regarding the production constraints, 'Pest and disease attack' (21.00 per cent) followed by 'High cost of input' (19.00 per cent), 'Non-availability of machinery in time' (16.00 per cent), 'Failure in seasonal rainfall' (11.00 per cent), 'Labour scarcity' (09.00 per cent), 'Non-availability of seedling' (09.00 per cent), 'Inadequate credit facilities' (05.00 per cent), 'High Labour cost' (05.00 per cent) and 'High Labour cost' (05.00 per cent) secured ranks from I to IX respectively.

Basically, the respondents were having small sized land holding with poor economic status. Further, they had insufficient knowledge on the practices like weedicides, pesticides and fertilizers application. Majority of the farmers reported that the labour scarcity is due 100 days jobs plan under "Mahatma Gandhi National Rural Employment Guarantee Act" where the agricultural labours are employed under the act and they are not willing to do agricultural work. Hence, majority of the respondents would have perceived the above-mentioned constraints.

#### **4.4.2. CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN MARKETING OF PADDY**

The results on constraints experienced by the paddy growers in marketing of paddy are presented in table 31.

**Table 31. Constraints experienced by the entrepreneurs in marketing of paddy**

(n=60)

S. No.	CONSTRAINTS	MEAN SCORE	RANK
1	Fixation of price by commission agents	12%	V
2	Price fluctuation	16%	II
3	High cost incurred on transport	14%	IV
4	Delayed payment from buyers	25%	I
5	Lack of remunerative price	05%	VII
6	Inadequate storage facilities	12%	VI
7	Inadequate market intelligence	16%	III

Table 31, revealed that major constraints experienced by majority of the respondents in marketing of paddy were 'Delayed payment from buyers' (25.00 per cent), 'Price fluctuation' (16.00 per cent), 'Inadequate market intelligence' (16.00 per cent), 'High cost incurred on transport' (14.00 per cent), 'Fixation of price by commission agents' (12.00 per cent), 'Inadequate storage facilities' (12.00 per cent), 'Lack of remunerative price' (05.00 per cent).

The respondents reported that they did not have adequate knowledge on consumer segmentation, criteria for fixing price, market news etc. They were unaware of the market price prevailed on other districts and states. Hence, they might have expressed 'Inadequate market intelligence' as a major constraint. Regarding price fixation, the farmers did not have any role in fixing the price for their commodities whatever they had produced. The price fixation was done by commission agents. They fix very low prices without considering the production cost. Also, the grading procedures followed by commission agents were improper as reported by most of the respondents.

## CHAPTER - V

### SUMMARY AND CONCLUSION

*“It is the final stage of a research study. The purpose of the summary is to narrate the interested readers, the problem investigated, the method used to solve the problem, the result of the investigation and the conclusion inferred from the results”.*

*- Sadhu and Singh (1983).*

Agriculture is the art and science of cultivating the soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world's food and fabrics. Cotton, wool, and leather are all agricultural products. Agriculture also provides wood for construction and paper products. These products, as well as the agricultural methods used, may vary from one part of the world to another. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 105,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep, and cattle were domesticated over 10,000 years ago. India ranks second worldwide in farm outputs. As per 2018, agriculture employed more than 50 per cent of the Indian work force and contributed 17–18 per cent to country's GDP.

Entrepreneurs play a key role in any economy, using the skills and initiative necessary to anticipate needs and bringing good new ideas to market. An entrepreneur creates a firm to realize their idea, known as entrepreneurship, which aggregates capital and labour in order to produce goods or services for profit. Entrepreneurship is highly risky but also can be highly rewarding, as it serves to generate economic wealth, growth, and innovation. An entrepreneur is an individual who creates a new business, bearing most of the risks and enjoying most of the rewards. The process of setting up a business is known as entrepreneurship.

The entrepreneur is commonly seen as an innovator, a source of new ideas, goods, services, and business/or procedures. Entrepreneurship is one of the resources economists categorize as integral to production, the other three being land/natural resources, labour, and capital. An entrepreneur combines the first three of these to manufacture goods or provide services.

Agricultural Entrepreneurship, also known as Agri-preneurship, means the term which is associated with the marketing as well as manufacturing of different agricultural products and inputs too. Agricultural entrepreneurship is an emerging field. It involves analysing and understanding the strategies of agricultural entrepreneurs, particularly in response to the institutional changes and economic and technological disruptions to which the agricultural industry is subject.

Traditionally, farmers are ignorant of scientific agriculture and effective agricultural management systems. Thus, they are unable to deal with delayed monsoons, drought, crop debts, fake seeds and shortage of fertilizer. Hence, the managerial, technical and innovative skills of entrepreneurship applied in the field of agriculture may build a well-trained Agri-entrepreneur who becomes a role model to all such depressed farmers. Agri-entrepreneurship has the prospect of social and economic development, for example, employment generation, poverty reduction, improvements in nutrition, health and overall food security in the national economy especially in rural areas.

Agri-entrepreneurship can be used as chief remedy for the solution of this complexity such as lower the burden of agriculture, produce employment opportunities for rural youth, control migration from rural to urban areas, boost national income, sustain industrial development in rural areas and cut down the pressure on urban cities. Agri-entrepreneurship program is crucial to build up entrepreneurs and management staff to deal agricultural industry across the world. Agri-entrepreneurship is greatly affected by the economic situation, education and culture.

Paddy (*Oryza sativa*) edible starchy cereal grain and the grass plant (family *Poaceae*) by which it is produced. Roughly one-half of the world population, including virtually all of East and Southeast Asia, is wholly dependent upon rice as a staple food; (95.00 per cent) of the world's rice crop is eaten by humans. As a cereal grain, domesticated rice is the most widely consumed staple food for over half of the world's human population, especially in Asia and Africa. Worldwide 742,541,804 tonnes of rice are produced per year. China is the largest rice producer in the world with 211,090,813 tonnes production volume per year. India comes second with 158,756,871 tonnes yearly production.

India is the world's second-largest producer of rice, and the largest exporter of rice in the world. Krishna-Godavari Delta region is historically called the “Rice Bowl of India”,

although the same term is also used for Chhattisgarh. In Andhra Pradesh itself, East Godavari district is known as the rice bowl of Andhra Pradesh.

Tamil Nadu has achieved a record coverage of paddy this financial year (2021-22) as the total area stands at 21.65 lakh hectares. Compared with the previous year (2020-21), paddy has been raised on nearly two lakhs more hectares this year. In this year's coverage, the Cauvery delta's share is around 7.4 lakh hectares and the non-delta 14.223 lakh hectares.

Agriculture is the main occupation of majority of the people in this District. Even though the area is very close to Chennai, Agriculture is the inevitable occupation of the people living in this district. Rice is the major crop grown throughout the district.

### **SPECIFIC OBJECTIVES**

1. To study the characteristics of the selected respondents (Paddy growers).
2. To assess the entrepreneurial performance of the respondents (Paddy growers).
3. To find out the relationship between characteristics and entrepreneurial performance of the respondents.
4. To identify the constraints experienced by the entrepreneurs in production and marketing of paddy.

The present study was taken up in six selected villages in three blocks of Chengalpattu District of Tamil Nadu. A sample size of 60 respondents was selected by proportionate random sampling technique. The data were collected from the respondents with the help of well-structured and pre-tested interview schedule.

Thirteen socio-economic variables were selected viz., age, educational status, occupation, annual income, farm size, experience in paddy cultivation, area under paddy cultivation, farm power possession, social participation, extension agency contact, mass media exposure, training programmes attended and scientific orientation. In order to study the entrepreneurial performance, six entrepreneurial traits were identified. The selected entrepreneurial traits were self-confidence, decision-making ability, innovativeness, risk orientation, leadership ability and knowledge about paddy enterprise. Some traits were measured by using the already available tools and few were measured by developing new procedures. The overall entrepreneurial performance of the respondents was worked out. Constraints faced by the farmers in paddy production and marketing were also elicited. A

appropriate statistical tools like percentage analysis, cumulative frequency, zero order correlation and regression analysis were used to analyse the findings of the study which have been summarised below.

### **5.1. CHARACTERISTICS OF THE RESPONDANCE:**

Majority of the respondents were old-aged (53.00 per cent) and possessed formal education (30.00 per cent). They had crop enterprise alone as their occupation. (55.00 per cent) with medium level of experience in paddy cultivation (52.00 per cent). They had marginal farm size (77.00 per cent) with low annual income (56.00 per cent). They had low area under paddy cultivation (48.00 per cent) with possesses low level of farm power (65.00 per cent). They had medium levels of social participation (42.00 per cent), high level of extension agency contact (48.00 per cent), medium level of mass media exposure (55.00 per cent), low level of training programmes attended (77.00 per cent) and medium level of scientific orientation (43.00 per cent).

### **5.2. ENTREPRENEURIAL PERFORMANCE OF THE RESPONDENTS**

Majority of the respondents (60.00 per cent) were found to be medium in their entrepreneurial performance followed by low (26.67 per cent) and high (13.33 per cent) levels of entrepreneurial performance.

#### **5.2.1. Overall entrepreneurial ability of the respondents**

Majority of the respondents (55.00 per cent) had low level of entrepreneurial ability followed by 35.00 per cent and 10.00 per cent of the respondents with medium and high levels of entrepreneurial ability respectively.

#### **5.2.2. Entrepreneurial traits of the respondents**

Majority of the respondents possessed medium level of entrepreneurial traits viz., self-confidence (65.00 per cent), high level of decision-making ability (45.00 per cent), medium level of innovativeness (72.00 per cent), medium level of risk orientation (54.00 per cent), medium level of leadership ability (54.00 per cent), and knowledge about the paddy enterprise (74.00 per cent).

#### **5.2.3. PERCEIVED PROFITABILITY**

Majority of the respondents (38.00 per cent) perceived their enterprises as 'somewhat profitable' followed by 30.00 per cent, 24.00 per cent, 05.00 per cent and 03.00 per cent of the respondents who perceived their enterprises as 'least profitable', 'profitable', 'not at all profitable', and 'most profitable' respectively.

#### **5.2.4. MARKETING ABILITY**

More than fifty per cent (57.00 per cent) of the respondents possessed low level of marketing ability followed by 30.00 per cent of the respondents with medium level of marketing ability. Only 13.00 per cent of the respondents had high level of marketing ability.

#### **5.3.1. RELATIONSHIP OF CHARACTERISTICS OF THE RESPONDENTS WITH THEIR ENTREPRENEURIAL PERFORMANCE**

Thirteen characteristics considered for the study, two variables had shown positive and highly significant relationship with their entrepreneurial performance at one per cent (0.01) level probability and they were educational status ( $X_2$ ) and scientific orientation ( $X_{13}$ ). The variables age ( $X_1$ ), experience in paddy cultivation ( $X_6$ ), social participation ( $X_9$ ), extension agency contact ( $X_{10}$ ) and training programmes attended ( $X_{12}$ ) were found to be positively significant at five per cent (0.05) level of probability.

The correlation value for the rest of the six variables showed non- significant association with the entrepreneurial performance.

#### **5.4. CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN PADDY PRODUCTION AND MARKETING**

##### **5.4.1. PRODUCTION CONSTRAINTS**

Regarding the production constraints, 'Pest and disease attack (21.00 per cent) followed by 'High cost of input' (19.00 per cent), 'Non-availability of machinery in time' (16.00 per cent), 'Failure in seasonal rainfall' (11.00 per cent), 'Labour scarcity' (09.00 per cent), 'Non-availability of seedling' (09.00 per cent), 'Inadequate credit facilities' (05.00 per cent), 'High Labour cost' (05.00 per cent) and 'High Labour cost' (05.00 per cent) secured ranks from I to IX respectively.

Basically, the respondents were having small sized land holding with poor economic status. Further, they had insufficient knowledge on the practices like weedicides, pesticides and fertilizers application. Majority of the farmers reported that the labour scarcity is due 100 days jobs plan under "Mahatma Gandhi National Rural Employment Guarantee Act" where the agricultural labours are employed under the act and they are not willing to do agricultural work. Hence, majority of the respondents would have perceived the above-mentioned constraints.

#### **5.4.2. MARKETING CONSTRAINTS**

The growers revealed that major constraints experienced by majority of the respondents in marketing of paddy were ‘Delayed payment from buyers’ (25.00 per cent), ‘Price fluctuation’ (16.00 per cent), ‘Inadequate market intelligence’ (16.00 per cent), ‘High cost incurred on transport’ (14.00 per cent), ‘Fixation of price by commission agents’ (12.00 per cent), ‘Inadequate storage facilities’ (12.00 per cent), ‘Lack of remunerative price’ (05.00 per cent).

The respondents reported that they did not have adequate knowledge on consumer segmentation, criteria for fixing price, market news, Regulated market etc. They were unaware of the market price prevailed on other districts and states. Hence, they might have expressed ‘Inadequate market intelligence’ as a major constraint. Regarding price fixation, the farmers did not have any role in fixing the price for their commodities whatever they had produced. The price fixation was done by commission agents. They fix very low prices without considering the production cost. Also, the grading procedures followed by commission agents were improper as reported by most of the respondents. Farmers sell their produce to local traders, wholesalers, retailers, etc., sometimes the payment would be delayed by the buyers and hence they could not plan for further activities. Hence, majority of the respondents would have perceived the above-mentioned constraints.

#### **IMPLICATION OF THE STUDY**

On the basis of the salient findings of the study entitled ‘**A Study on Entrepreneurial Performance of Paddy growers in Chengalpattu District of Tamil Nadu**’ is certain broad implications are drawn and presented below.

1. The findings on characteristics of the paddy growers will help the extension personnel of the Department of Agriculture and allied sectors by the Government of Tamil Nadu, in understanding the paddy growers. With appropriate designing strategies, the government organization can utilise them to increase the paddy production in Chengalpattu District.
2. The present study indicates that majority of the respondents in the study were having secondary level of education. The education level is a crucial factor in determining the inclination of farmers towards agriculture and its allied sectors. As the literacy level of paddy growers in the study area was in better position, printed literature with regard to latest technologies in paddy cultivation may be distributed to the farmers after the course of training in paddy cultivation. They are also aware on new

technologies that can improve production and bring sustainability development in agriculture-oriented enterprise.

3. Majority of the respondents possessed marginal to small farm; hence, it is suggested that care should be taken to effect of low-cost technologies and popularise the disseminate information on paddy technologies.
4. The overall entrepreneurial performances as well as the components of the entrepreneurial performance of the paddy growers were found to be low. Hence, it is necessary to improve their entrepreneurial performance by designing Entrepreneurship Development Training Programmes (EDTPs) suitable for paddy growers. These entrepreneurial characteristics of the paddy growers can be improved with appropriate training, exposure visit and educational programmes and also involving them in various development programmes.
5. The paddy growers have shown low level of marketing ability, which indicates the inefficiency by planners and policy-makers at State and District level to make arrangement for marketing the products for maximum price. It is also necessary to streamline all the marketing channels properly in order to reduce the constraints faces by the paddy growers in marketing and produce. An effective marketing strategy also needs to be framed by the State Department of Agriculture in co-ordination with the regulated markets, commission agents and other marketing organizations functioning at village level. A separate co-operative society and regulated market exclusively for paddy growers may be established.

### **SUGGESTIONS FOR FUTURE RESEARCH**

1. The present study was carried out in only one District of the State. So, it needed to be replicated on larger samples covering all the paddy growers area of Tamil Nadu State, so that the inferences drawn can be generalised to a greater extent.
2. A separate in-depth study on the value-added products of paddy can be undertaken.
3. A comparative study on entrepreneurship and marketing performance of small, marginal and big farmers may be taken-up.
4. An Action-research may be taken exclusively on entrepreneurial and marketing performance of paddy growers.
5. Case studies on successful paddy entrepreneurs may be conducted in future.
6. Training needs among the paddy entrepreneurs may enlighten them to grasp more information oriented with entrepreneurial ability.

7. A study on impact of various government programmes available to the paddy growers.

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**APPENDIX-I****DISTRICT WISE AREA UNDER PADDY CULTIVATION IN  
TAMIL NADU (2020 -21)**

<b>S. No.</b>	<b>District</b>	<b>Area (ha)</b>	<b>Rank</b>
1	Ariyalur	22792	22
2	Chennai	246	37
3	Coimbatore	1599	36
4	Chengalpattu	102,557	08
5	Cuddalore	132151	05
6	Dharmapuri	3889	34
7	Krishnagiri	22961	23
8	Dindigul	9221	32
9	Erode	35561	20
10	Kancheepuram	70375	12
11	Kanniyakumari	11955	28
12	Karur	11392	29
13	Kallakurichi	56847	14
14	Madurai	48461	15
15	Mayiladuthurai	18223	25
16	Nagapattinam	169222	03
17	Namakkal	7635	33
18	Perambalur	2613	34
19	Pudukkottai	74925	11
20	Ramanathapuram	125617	06
21	Ranipet	42900	17
22	Salem	9753	31
23	Sivagangai	63492	13
24	Thanjavur	192231	01
25	Tenkasi	35151	21
26	Tirupathur	40470	18
27	The Nilgiris	207	38
28	Theni	13501	27
29	Thiruvallur	88873	09
30	Thiruvannamalai	161679	04
31	Thiruvarur	180900	02
32	Thoothukudi	14209	26
33	Thiruchirapalli	44261	16
34	Thirunelveli	82983	10
35	Thirupur	10407	30
36	Vellore	40637	19
37	Villupuram	110521	07
38	Virudhunagar	20238	24
<b>Total</b>		<b>18,87,045</b>	

**Source: Department of Economics & Statistics, Chengalpattu District, Tamil Nadu Government (2020-2021)**

## APPENDIX-II

### VILLAGE WISE AREA UNDER PADDY CULTIVATION

#### MADURANTHAKAM BLOCK (2020-2021)

S. No.	Village	Area (ha)
1	Villvarayanallur	335.56*
2	Mudhukarai	320.50*
3	Silavattam	509.55
4	Jamin Endathur	1172.47
5	Pakkam	544.36

#### THIRUKAZHUKUNDRAM BLOCK (2020-2021)

S. No.	Village	Area (ha)
1	Egai	223.79*
2	Keerapakkam	445.99*
3	Veerakuppam	168.64
4	Periyakattu Pakkam	274.85
5	Nerumbur	786.68

#### ACHARAPAKKAM BLOCK (2020-2021)

S. No.	Village	Area (ha)
1	Ramapuram	776.71*
2	Pathiri	650.50*
3	Keezhamur	882.80
4	Minnal Chithamur	476.33
5	Mangalam	200.00

Source: Office of the Assistant Director of Agriculture, Respective blocks of Chengalpattu District.  
(2020-2021)

\* - Selected villages.

## APPENDIX- III

### INTERVIEW SCHEDULE

#### A STUDY ON ENTREPRENEURIAL PERFORMANCE OF PADDY GROWERS IN CHENGALPATTU DISTRICT OF TAMIL NADU

#### PART I

Village : Respondent No :

Name of the Respondent : Block :

Address :

1. AGE (COMPLETED YEARS) : Years

2. EDUCATIONAL STATUS :

Illiterate	Functionally literate	Primary education	Middle education	Secondary education	Collegiate

3. OCCUPATIONAL STATUS : Please talk about your occupational status.

1. Crop enterprise alone.
2. Crop enterprise + any other subsidiary occupation.

4. ANNUAL INCOME:

- I. From paddy cultivation : Rs. /Year
- II. From other sources : Rs. /Year
- Total : Rs. /Year

5. FARM SIZE:

Less than 2.50 acres (<1 ha)	
2.50- 5.00 acres (1-2 ha)	
Above 5.00 acres (>2 ha)	

**6. EXPERIENCE IN PADDY CULTIVATION:** \_\_\_\_\_**7. AREA UNDER PADDY CULTIVATION:** \_\_\_\_\_**8. FARM POWER POSSESSION:**

S. No.	Farm power	Numbers
1	Bullock Pair	
2	Country plough	
3	Iron plough	
4	Power tiller	
5	Pump set	
6	Bullock cart	
7	Sprayer	
8	Electric motor	
9	Oil engine	

**9. SOCIAL PARTICIPATION:**

Generally, farmers take part in many of the social organizations, but they differ in their nature of participation. I shall read such organizations one after another. Please indicate the organizations in which you are / were member or an office bearer.

S. No.	Name of Organization	Present		Past	
		Member	Office bearer	Member	Office bearer
1	Village panchayats				
2	Panchayat union				
3	Village co-operative				
4	Co-op. Marketing society				
5	Co-op. Milk society				

6	Farmers Association				
7	Paddy Growers Association				

**10. EXTENSION AGENCY CONTACT:**

S. No.	Name of the Extension Agent	Frequency of contact			Purpose of contact	
		Regular	Sometimes	Never	Agri	Non-Agri
1	AAO					
2	AO					
3	ADO					
4	ADA					
5	DDA					
6	JDA					
7	Scientists from SAUs					
8	Bank officials					
9	Input dealers					

**11. MASS MEDIA EXPOSURE:**

S. No.	Name of the Media	Frequency						Purpose	
		Daily	Few days in a week	Once in a week	Once in a month	Rarely	Never	Agri	Non-Agri
1	Radio								
2	Television								
3	Newspaper								
4	Magazines								
5	Leaflets/ Folders								
6	Posters/ charts								
7	Extn. Literature								
8	Wall paintings								
9	Trial plot								
10	Demonstrations								
11	Agricultural Exhibition								
12	Tours/ Field trips								
13	Agri. Film/video								

**12. TRAINING PROGRAMMES ATTENDED:**

Name of the training attended	Name of the institution	Purpose of training	Duration	Utility

### 13. SCIENTIFIC ORIENTATION:

S. No.	Statements	SA	A	UD	DA	SDA
1	New methods of farming give better result to a farmer than old methods.					
2	The way farming by our forefathers is still the best way to farming today.					
3	Even a farmer with lot of farm experience should use new methods of farming.					
4	Though it takes time for a farmer to learn new methods in farming, it is worth the efforts taken.					
5	Even a good farmer experiments with new ideas in farming.					
6	The traditional method of farming has to be changed in order to raise the standard of living of farmers.					

**SA- Strongly Agree; A - Agree; UD - Undecided; DA - Disagree;**

**SDA- Strongly Disagree**

### PART- II

#### I. DIMENSIONS OF ENTREPRENEURIAL PERFORMANCE

##### 1. SELF-CONFIDENCE:

Please state your agreement or disagreement for the following statements.

S. No.	Statements	Agree	Disagree
1	I have a fear of failure in anything I want to accomplish		
2	I feel insecure within myself		
3	I can face a difficult situation without worry		
4	I am hesitant about taking decisions		
5	I frequently feel unworthy		
6	I can adjust readily to new situation		
7	I am usually discouraged when the opinion of others differ from my own		
8	I have several times given up doing a thing because I thought too little of my ability		
9	I find it hard to keep my mind on a task or job		
10	I have enough faith in my ability		

## 2. DECISION MAKING ABILITY:

S. No.	Area of Decision making	Joint decision	Independent Decision
1	To try new varieties		
2	To try new practices		
3	To change cropping pattern		
4	Buying / selling of land		
5	Credit procurement and marketing		
6	To buy requirements		
7	Land improvement		
8	Hiring of labour		
9	Time of harvest		
10	Time of sowing		
11	Mode of transport		
12	Place of marketing		
13	Choosing the market channel		
14	Determining the price of produce		
15	Value addition		
16	Profit reinvestment		

## 3. INNOVATIVENESS:

When do you prefer to adopt an improved new practice or innovation?

- I. As soon as it brought to my knowledge
- II. After I have seen other farmers doing it successfully
- III. I prefer to wait and take my own time.

## 4. RISK ORIENTATION:

Kindly give your agreement (or) disagreement about each of the following statements.

S. No.	Statements	SA	A	UD	DA	SDA
1	A farmer should grow large number of varieties to avoid greater risk involved in growing one (or) two crops.					
2	A farmer should take more of a chance in making a big profit than to be content with a smaller but less risky profit.					

3	A farmer who is willing to take greater risk than the average farmer usually does better financially.					
4	It is good for a farmer to take risk when he knows his chance of success is fairly high.					
5	It is better for a farmer not to try new farming method unless most others in the locality have used it with success.					
6	Trying entirely a new method in farming by an entrepreneur involves risk but it is worth.					

### 5. LEADERSHIP ABILITY:

As entrepreneur has to take decision, get the things done, initiate the actions and motivate the followers. Here are some statements related to this aspect. Please give your response.

S. No.	Statements	Always	Sometimes	Never
1	Did you participate in discussion on new practices on your enterprise in the group meeting or in peer group?			
2	Whenever you see a new practice, did you initiate discussion about it with your colleagues?			
3	Do the other people regard you as a good source of information on new practices?			
4	Do you assign the enterprise work to your family members?			
5	Do you offer new approaches to problem?			

### 6. KNOWLEDGE ABOUT THE PADDY ENTERPRISE:

S. No.	Technologies	Correct	Incorrect
<b>I</b>	<b>Preparation of main field</b>		
1	Designing a layout for a Paddy field		
2	Ploughing and Levelling		
<b>II</b>	<b>Variety</b>		
3	Name the Paddy varieties recommended for your tract.		
<b>III</b>	<b>Season</b>		
4	Mention the right season for Paddy Cultivation.		
<b>IV</b>	<b>Sowing</b>		
5	Mention the Seed rate		
<b>V</b>	<b>Transplanting</b>		
6	Mention the recommended spacing for transplanting.		

<b>VI</b>	<b>Irrigation management</b>		
7	Mention the interval of irrigation		
8	What are the economic methods of irrigation for paddy		
9	What is the advantage of drip irrigation		
<b>VII</b>	<b>Fertilizer application</b>		
10	Mention the recommended quantity of green leaf manure		
11	Mention the recommended quantity of FYM		
12	In how many splits do you apply fertilizers		
13	Mention the recommended quantity of urea		
14	Mention the recommended quantity of super phosphate		
15	Mention the quantity of muriate of potash		
16	Mention the recommended quantity of micronutrient: a) Zinc Sulphate b) Ferrous Sulphate		
17	Mention the name of micro nutrients		
18	Mention the period of applying fertilizers		
19	How do you apply the fertilizers?		
<b>VIII</b>	<b>Weed management</b>		
20	Mention the recommended quantity of herbicides		
<b>IX</b>	<b>Plant protection</b>		
<b>A</b>	<b>Pest management</b>		
21	Mention the recommended pesticide to control the stem borer		
22	Mention the recommended pesticide to control the BPH		
23	Mention the recommended pesticide to control the Leaf Folder (or) Leaf Roller		
<b>B</b>	<b>Disease management</b>		
24	Mention the recommended chemicals for Foot rot		
25	Mention the recommended chemicals for Bacterial leaf streak		
26	Mention the recommended chemicals for Grain rot		
27	Mention the recommended chemicals for Blast		
<b>X</b>	<b>Harvesting</b>		
28	Mention the time of harvesting.		
29	Mention any one harvesting symptom		

<b>XI</b>	<b>Method of harvest</b>		
30	Mention the correct method of harvest of paddy		
<b>XII</b>	<b>Processing</b>		
31	Mention the methods of processing of paddy.		
32	Mention about the storage		

## II. PERCEIVED PROFITABILITY:

How do you perceive about the profitability of your enterprise?

S. No.	Items	Response
1	Not at all profitable	
2	Least profitable	
3	Somewhat profitable	
4	Profitable	
5	Most profitable	

## III. MARKETING ABILITY:

Please answer how you are performing the following marketing activities.

S. No.	Response	Category
1	Use of additional channel	a. Existence of additional channel
		b. Absence of additional channel
2	Price fixing criteria	a. Based on cost of production
		b. Based on demand for the produce
		c. Based on personal need for money
3	Consumer segmentation	a. Existence of consumer segmentation
		b. Non-existence of consumer segmentation
4	Publicity	a. Expenditure incurred on publicity
		b. No expenditure incurred
5	During price fall	a. Go for processing
		b. Sell at same price
		c. Distribute the produce to friends and neighbours at free of cost
6	Record keeping	a. Maintaining records
		b. Not maintaining records
7	Expenditure incurred on transport	a. More
		b. Much
		c. Less
		d. Least

8	Place of market	a. Local
		b. Retailer
		c. Wholesaler
		d. Internet
9	Collection of money	a. Immediately after sales
		b. A week after sales
		c. A month after sales
10	Source of market information	a. Relations and friends
		b. Local marketing centres
		c. Commission agents / brokers
		d. Contractors
		e. Retailer
		f. AIR/DD
		g. Internet

### PART-III

#### CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS IN PRODUCTION AND MARKETING OF PADDY

S. No	PRODUCTION CONSTRAINTS	RESPONSE
1	Labour scarcity	
2	High labour cost	
3	Failure of seasonal rainfall	
4	High cost of inputs	
5	Non-availability of machinery in time	
6	Non-availability of FYM	
7	Inadequate credit facilities	
8	Non-availability of seedlings	
9	Pest and disease attack	

II	MARKETING CONSTRAINTS	RESPONSE
1	Fixation of price by commission agents	
2	Price fluctuation	
3	High cost incurred on transport	
4	Delayed payment from buyers	
5	Lack of remunerative price	
6	Inadequate storage facilities	
7	Inadequate market intelligence	

## APPENDIX-IV

List showing the classification of characteristics of the respondents based on cumulative frequency.

S. No.	Variables	Low	Medium	High
<b>I</b>	<b>Independent variables</b>			
1	Annual income	30 – 104	105 - 178	179 - 252
2	Experience in paddy cultivation	2 – 18	19 - 34	35 - 50
3	Area under paddy cultivation	0.5 – 2.5	2.6 – 4.5	4.6 – 6.5
4	Farm power possession	6 – 11	12 -16	17 - 21
5	Social participation	0 – 2.33	2.34 – 4.66	4.67 – 6.99
6	Extension agency contact	0 – 2.66	2.67 – 5.32	5.33 – 7.98
7	Mass media exposure	6 - 20.66	20.67 - 35.32	35.33 - 49.98
8	Training programmes attended	0 - 0.66	0.67 – 1.32	1.33 – 1.98
9	Scientific orientation	18 – 23	24 - 28	29 - 33
<b>II</b>	<b>Characteristics of entrepreneurial performance</b>			
1	Overall entrepreneurial performance	133-143	144-154	>154
<b>III</b>	<b>Dimension wise entrepreneurial behaviour</b>			
1	Self- confidence	9 – 12.66	12.67 – 16.32	16.33 – 19.98
2	Decision-making ability	17 – 22	23 - 27	28 - 32
3	Risk orientation	14 – 19.33	19.34 – 24.66	> 24.67
4	Leadership ability	0 – 3	4 - 6	7 - 9
5	Knowledge about the paddy enterprise	46 – 52.33	52.34 – 58.66	58.67 – 64.99
<b>IV</b>	<b>Marketing ability</b>	13 – 16.33	16.34 – 19.66	19.67 – 22.99

# DATA COLLECTION

**Block Name: Maduranthakam**

**Village Name: Villvarayanallur**



**Name of the Respondent: K. Manikandan**



**Name of the Respondent: K. Sakthivel**

**Block Name: Maduranthakam**

**Village Name: Mudhukarai**



**Name of the Respondent: J. Kupammal**



**Name of the Respondent: R. Santhi**

**Block Name: Thirukazhukundram**

**Village Name: Egai**



**Name of the Respondent: S. Nagaraj**



**Name of the Respondent: P. Venkatesan**



**Name of the Respondent: K. Swaminathan**



**Name of the Respondent: N. Rajendren**

**Block Name: Acharapakkam**

**Village Name: Ramapuram**



**Name of the Respondent: S. Kannan**



**Name of the Respondent: Y. Tamil selvan**

**Block Name: Acharapakkam**

**Village Name: Padhiri**



**Name of the Respondent: I. Selvaraj**



**Name of the Respondent: V. Mohan**