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An analysis of enterprise involvement and Entrepreneurial skills among Agricultural Farmers

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Abstract

India's economy is primarily dependent on agriculture. For their bread and butter, most Indians in rural areas rely on agricultural pursuits. The primary economic activity is agriculture; nevertheless, post-harvest losses, such as food weight loss, food quality loss, and food value loss, make food less appetising to consumers and result in low farmer incomes or profits, substantially contributing to rural poverty. Rural teenagers are educated but do not have the same skills as their urban counterparts. The lack of new, challenging, and better agricultural career opportunities for educated rural youth limits their employment opportunities. The limited employment opportunities in agriculture necessitate the promotion of rural entrepreneurship. Entrepreneurial abilities are among the factors that add to the success of agricultural production units. Creating agribusiness and new agricultural job opportunities is necessary to reduce rural migration and promote rural upliftment. Investigating the enterprise involvement of agricultural entrepreneurs in the Thoothukudi District of Tamilnadu state, farmer participation in training programs, and the development of entrepreneurship competencies are the goals of the current study. A sample of 120 farmers who grew millets and pulses was chosen by proportionate random sampling. The necessary data was obtained through in-person interviews using a carefully thought-out and tested interview schedule. Newspapers, periodicals, journals, essays, books, and websites were examples of secondary data sources. Based on the average scores of entrepreneurs in the 15–30, 30-45, and 45–220 age groups, which are 3.6222, 3.4016, and 3.7919, respectively, it can be said that farm decision-making pattern, scientific orientation, and market orientation are the three key elements of enterprise involvement among the agricultural entrepreneurs in the Thoothukudi district. The different age groups of

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entrepreneurs differ significantly because each enterprise involvement variable—innovativeness, agricultural decision-making pattern, market orientation, planning ability, and opportunity detector—has a substantial "F" value at the five percent level.

Key words : entrepreneurial ability, enterprise involvement, farm decision-making, scientific and market orientation.

Agriculture and related industries account for the majority of the Indian economy. In India and abroad, the agriculture sector supplies food to all population segments. In addition to meeting the nation's food needs, this sector maintains ecological balance, generates foreign exchange by exporting excess produce, supplies agricultural products to industry as inputs, and creates a more significant percentage of jobs.

In order to achieve numerous development objectives, including food security, income generation, job creation, and industrial development, agriculture remains the most crucial sector of the Indian economy[12]. India's rural communities will benefit from agricultural economic growth[4].

Due to globalisation, this industry has been compelled to adopt a commercial orientation. Agriculture is not a source of income anymore. Lately, farming has become a hazardous activity. An adventurous nature emerges in the agricultural and related sectors when risks are connected to agricultural activities[7]. The author of this study attempted to address the orientation of entrepreneurship to agricultural activities in Tamilnadu state's Thoothukudi District while considering all of these factors.

As farmers' social activity and socioeconomic standing increased, so did their entrepreneurial behaviour[2]. Farmers must develop entrepreneurial behaviour because they take chances when growing and selling their food. This means they must become more innovative and capable of making better decisions. Farmers must take risks to deal with any issues[16].

Innovation, economic expansion, and the creation of sustainable agriculture methods all depend on entrepreneurship. This highlights the importance of entrepreneurial skills, such as risk management, strategic planning, and innovation, in boosting the competitiveness and resilience of agricultural businesses[8]. These skills are essential, especially in agricultural farming, to manage difficulties such as market volatility, regulatory requirements, and sustainable resource use[3].

One important quality that organic farmers may use to obtain a competitive edge is innovation, which allows them to diversify their product offers, embrace sustainable techniques, and investigate new marketing channels[14]. Therefore, effective risk management techniques are crucial for managing the uncertainties associated with agricultural farming, such as shifting environmental conditions and yield fluctuations[1]. Additionally, sound financial and business planning is essential to the sector's economic sustainability since it directs decisions on diversification and investment thata are vital to long-term survival[11].

In the agricultural industry, entrepreneurial behaviour is a marketing tactic and psychological pathway to enhance agribusiness performance and promote sustainable growth[13]. By equipping individuals with the skills and creativity necessary to succeed and endure in the farming industry, entrepreneurial behaviour helps them grow personally[15]. Entrepreneurial behaviour is merely human behaviour that entails spotting and seizing business opportunities through establishing and growing new company initiatives[7].

The literature, however, urges more research on developing these skills among farmers, even if the value of entrepreneurial skills in agriculture is well acknowledged[4]. Investigating efficient training and support networks to foster an entrepreneurial spirit and prepare farmers for success in a continuously changing agricultural environment[10]. Enhancing agricultural entrepreneurs' skills can also help advance social welfare and environmental sustainability by addressing both short-term operational issues and long-term societal objectives[9].

Objectives of the study :

The following are the primary objectives of the study :

1. To study data on the socioeconomic situation of the sample surveyed.
2. To highlight the land used for cultivation.
3. To explore the farmer's preliminary processing operation.
4. To find the farmer's social participation and extension agency contact information.
5. To evaluate the training programmes attended and the scientific orientation of the farmer.
6. To measure the enterprise involvement of agricultural entrepreneurs.
7. To study the farmer's engagement in the training programme and the development of entrepreneurial competencies.
8. To examine the problems faced by farmers.

The study was conducted in the Thoothukudi district of Tamilnadu. Out of the twelve blocks in the Thoothukudi district, the Vilathikulam, Pudur, and Ottapidaram blocks were chosen because they had the most significant areas planted to pulses and millets. A proportional random selection method was used to choose a sample size of 220 millet and pulse growers. A meticulously planned and tested interview schedule was followed to collect the required data through in-person interviews. Secondary data sources included books, journals, essays, periodicals, newspapers, and websites. The data gathered from the source was analysed using several statistical techniques, including probability analysis, correlation analysis, f-test, averages, and percentage analysis. The data was gathered from July to September of 2024.

Table-1. Age-wise classification of the respondents

Sl. no.	Age	No. of Respondents	Percentage
1.	Young (15-30)	26	11.82
2.	Middle (30-45)	149	67.73
3.	Old (45-60)	45	20.45
	Total	220	100.0

Source: Primary Data

The total number of responders was 220. The table shows that middle-aged respondents made up 67.73% of the sample. Of those surveyed, 11.82% are younger and 20.45% are older. The paper claims that middle-aged individuals are more active in research than young and elderly individuals.

Table-2. Educational Qualification of the Respondents

Sl. no.	Qualification	No. of Respon-dents	Percen-tage
1.	Illiterate	21	9.55
2.	Primary	81	36.82
3.	Secondary	58	26.36
4.	Hr. Sec	31	14.09
5.	Graduate	29	13.18
	Total	220	100.0

Source: Primary Data

Just 13.18% of the respondents had pursued a degree, compared to about 36.82% who had finished primary school, 26.36% who had finished high school, and 14.09% who had finished higher secondary school.

Table-3. The number of respondents and their family size

Sl. no.	Family Size	No. of Respon-dents	Percen-tage
1.	Low(1-3)	49	22.27
2.	Medium (4-5)	125	56.82
3.	Large (Above 5)	46	20.91
	Total	220	100.0

Source: Primary Data

Most respondents consider households with four to five people medium size (56.82 percent).

Table-4. Family members involved in agriculture

Sl. no.	Family members in agriculture	No. of Respon-dents	Percen-tage
1.	1-2	65	29.55
2.	2-3	104	47.27
3.	3-4	37	16.82
4.	Above 4	14	6.36
	Total	220	100.00

Source: Primary data.

According to Table-4 above, 29.55 percent of respondents' families with one or two members are employed in agriculture, compared to 47.27 percent of farmers' families with two or three members. 6.36 percent of respondents with four or more members and 16.82 percent of families with three to four members work in agriculture.

Table-5. Land used for cultivation

Sl. no.	Acre used	No. of Respon-	Percen-tage
1.	Below 1 Acre	124	56.36
2.	1- 2 Acre	65	29.55
3.	2-5 Acre	19	8.64
4.	Above 5 Acre	12	5.45
	Total	220	100.00

Source: Primary data.

Table-5 Shows that 29.55% of survey respondents grow between one and two acres, while 56.36 percent of farmers cultivate less than one acre.

Table-6. Monthly Income of the family

Sl. no.	Monthly Income (Rs)	No. of Respon-dents	Percen-tage
1.	Below 10000	17	7.73
2.	10000-15000	31	14.09
3.	15000-20000	47	21.36
4.	20000-25000	71	32.27
5.	Above 25000	54	24.55
	Total	220	100

Source: Primary data

The report states that 14.09% of respondents earn between Rs. 10,000 and Rs. 15,000 per month, while 7.73% earn up to Rs. 10,000. 32.27% of respondents earn between Rs. 200,000 and Rs. 25,000 per month, 21.36% earn between Rs. 15,000 and Rs. 20,000 per month, and 24.55 percent earn more than Rs. 25,000 per month. The monthly income of the typical farmer's family is Rs. 20090.91.

Table-7. Preliminary processing operation

Sl. no.	Preliminary processing operation	No. of Respon-dents	Percen-tage
1.	Tractor	78	35.45
2.	Manual	112	50.91
3.	Both tractor & manual	30	13.64
	Total	220	100.00

Source: Primary data.

Table 7 shows that for the preliminary processing step, 35.45% of sample farmers use tractors, 50.91% use manual work, and 13.64% use both tractors and manual labour.

Table-8. Types of Energy Used by the Respondents

Sl. no.	Types of Energy	No. of Respon-dents	Percen-tage
1.	Generator	41	18.64
2.	Electricity	179	81.36
	Total	220	100.00

Source: Primary Data

The government provides free electricity for agriculture, which most farmers use (81.36%). The power outage was brought on by 15% of them using generators.

Table-9. Social Participation

Sl. no.	Social Participation	No. of Respon-dents	Percen-tage
1.	Yes	164	74.55
2.	No	56	25.45
	Total	220	100.00

Source: Primary Data

It is clear from the preceding table that 74.55 percent of the respondents were involved in social activities.

Table-10. Extension Agency Contact

Sl. no.	Extension Agency Contact	No. of Respon-dents	Percen-tage
1.	Yes	173	78.64
2.	No	47	21.36
	Total	220	100.00

Source: Primary Data

The accompanying table demonstrates that 78.64 percent of respondents dealt with an extension agency.

Table-11. Mass Media Exposure

Sl. no.	Mass Media Exposure	No. of Respon-dents	Percen-tage
1.	Yes	158	71.82
2.	No	62	28.18
	Total	220	100.00

Source: Primary Data

The data indicates that 71.82 percent of those surveyed had seen media coverage of the agriculture sector.

Table-12. Training Programmes Attended

Sl. no.	Training Programmes Attended	No. of Respon-dents	Percen-tage
1.	Yes	166	75.45
2.	No	54	24.55
	Total	220	100.00

Source: Primary Data

According to the data above, most respondents (75.4%) participated in more training programs.

Table-13. Scientific Orientation

Sl. no.	Scientific Orientation	No. of Respondents	Percentage
1.	Yes	156	70.91
2.	No	64	29.09
	Total	220	100.00

Source: Primary Data

According to the findings, 70.91% of the participants preferred science.

Table-14. Association between age and enterprise involvement of agricultural entrepreneurs

S. no.	Enterprise Involvement Variables	Group Mean			'F' Statistics
		Age of Entrepreneurs			
		15-30	**30 – 45**	**45-60**	
1.	Innovativeness	2.7818	2.8819	1.7511	1.2416*
2.	Farm decision-making pattern	3.6222	2.6819	2.6918	3.6443*
3.	Scientific orientation	3.1911	3.4016	2.8713	3.7514
4.	Achievement motivation	3.5263	2.7311	3.1314	1.3346
5.	Risk-taking ability	2.7219	2.3716	2.4316	1.6222
6.	Manageability	3.2316	3.1717	2.9861	1.2819
7.	Market orientation	3.4318	3.1415	3.7919	3.6214*
8.	Ability to coordinate available resources	3.6728	3.4262	2.8516	1.4243
9.	Planning ability	1.5891	3.3516	2.4223	3.6362*
10.	Opportunity detector	2.5415	2.1113	1.8364	3.7522*
	Overall involvement	3.2816	1.4616	2.9264	3.1992*

Source: Computed Data.

*Significant at 5 per cent level.

According to Table-14, market orientation, scientific orientation, and farm decision-making pattern are the three most essential aspects of enterprise involvement among the agricultural entrepreneurs in the Thoothukudi district. In that order, the typical scores for these business owners are 3.7919, 3.4016, and 3.6222. The 15–30 age group has a higher level of enterprise involvement than the 45–60 age group, as seen by their 3.2816 aggregate score. There are considerable disparities between the different age groups of entrepreneurs since each enterprise involvement variable—innovativeness, agricultural decision-making pattern, market orientation, planning capacity, and opportunity detector—has a significant "F" value at the five percent level. Regarding their overall enterprise engagement, entrepreneurs of different ages differ significantly.

Correlation Analysis Between Farmer Engagement and the Development of Entrepreneurship Competencies :

The study also examined how farmer engagement in the training program and the development of entrepreneurship competencies relate.

Table-15. Correlation between farmer engagement and competency development

Competency Area	Pearson Correlation Coefficient (r)	p-value
Economic motivation	0.41	<0.01
Persuasion ability	0.38	<0.01
Identify new opportunities	0.49	<0.01
Managing various functions	0.40	<0.01

Note: All p-values are significant at the 0.01 level.

Improvements in all areas of entrepreneurial competency showed a statistically significant positive correlation with farmer participation, with the highest correlation being in the ability to identify new possibilities (Table 15). These findings highlight the importance of training engagement and its impact on the effectiveness of competency development.

Table-16. Problems faced by farmers

Sl. no.	Problems faced	No. of boat workers	Percentage
1.	Low income	132	60.00
2.	Price fluctuations	174	79.09
3.	Lack of capital	98	44.55
4.	Climatic conditions	81	36.82

Source: Primary data.

*Multiple responses

According to the statistics, 60% of the sample respondents said they had a low income. Price fluctuations were cited as a significant issue by 79.09 percent of the sample respondents, lack of cash and credit availability by 44.55 percent, and weather pattern changes by 36.82 percent.

India's primary source of income is agriculture. The two primary issues facing Indian agriculture are low production and a high hidden unemployment rate. Agricultural entrepreneurship aims to solve these problems. Furthermore, effective agricultural entrepreneurship programs can address long-term economic problems like poverty, unemployment, and urbanisation. Agricultural entrepreneurship is a strategic development initiative that could promote rural development. Agricultural entrepreneurship plays a significant role in

raising people's earnings and creating jobs in rural areas.

Conflicts of Interest

The author does not have any conflict of interest.

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