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A STUDY ON ASSESSMENT OF FARMERS USAGE OF UZHAVAR APP IN THENI DISTRICT OF TAMIL NADU, INDIA

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ABSTRACT

Mobile phones have now become the obligatory tool to transfer technologies and the rate of diffusion veers to be faster and wider. Comparing the other fields, today the demand for the mobile applications in Agricultural sector is limited but it is emerging. Uzhavar app is the one of the ICT initiatives of department of agriculture, Tamil Nadu. Today Uzhavar app has shown promising effect on agricultural and rural development. Presence of ICT has provided lot of hope in the development of agriculture and reduction of poverty. Holding on to the above points a study an assessment of farmers usage of uzhavar app in theni district was formulated to study the usage pattern of uzhavar app by the farmers, to assess the effectiveness of the uzhavar app in delivering agricultural services to farmers and to identify the constraints and challenges faced by the farmers in usage of uzhavar app.

The study found that respondents were predominantly in the active age group, with 40% aged 31–45 years and about 45% of respondents had used the Uzhavar app for more than 4 years, 35% for 3–4 years, and 20% for less than 3 years, indicating strong long-term adoption. Most farmers were introduced to the app through agricultural officers, more than 85% of respondents considered the app useful, with over 90% expressing satisfaction with specific services like pest/disease advisories and officer contact details. The study also revealed that while most farmers appreciated the usefulness of the app, and technical enhancements to improve user experience. Importantly, a large portion of users expressed willingness to recommend the app to fellow farmers, indicating trust in its potential.

***Key words*:** uzhavar app, usage pattern, effectiveness

Introduction

Tamil Nadu Government launched bi-lingual (Tamil and English) Uzhavar mobile application in a bid to use technology for benefit of farmers. It was launched by Chief Minister of Tamil Nadu in the state capital Chennai on April 8, 2018. The size of the Uzhavar app was just 3.93 mb and it was made freely available to the people in Google play store and Apple store. Nearly 55,55,587 people had downloaded the Uzhavar application (AGRISNET 2020) Once a person downloaded the Uzhavar app, they had to go through the process of one-time registration and after they gained access to advance their knowledge about both current central and state subsidy schemes and even they can register in the app for availing it.

Uzhavar app users could ensure their crops by using the Uzhavar app, they could also check for fertilizer stocks and seed stocks availability in their region during the demand and kharif season. It helps to hire farm machineries and implements from top branded companies to local regional hiring center. Market price section of app provides various price rates of cereals, pulses, vegetables etc., of different markets present in Tamil Nadu. Uzhavar app users could access the daily up dated

Fig. 1: Uzhavar App and its services provides to farmers.

reservoir levels and weather forecast in real- time.

Uzhavar app would notify the recent agricultural information in its agricultural news section, Uzhavar app users could gain it by just clicking to it. Uzhavar app users could collectively see in the AAO/AHO visit section of Uzhavar app; the details such as who is their extension official for their area when does the extension official would come to their village, during what time at which place. The Uzhavar app has been frequently updated and recent updation on December, 2019 included three more sections (namely- FPO products, Farm guide and organic products) were added to enhance its quality.

Holding on to the above points a study "An assessment of farmers usage of uzhavar app in theni district" was formulated with these objectives to study the usage pattern of uzhavar app by the farmers, to assess the effectiveness of the uzhavar app in delivering agricultural services to farmers and to identify the constraints and challenges faced by the farmers in usage of uzhavar app.

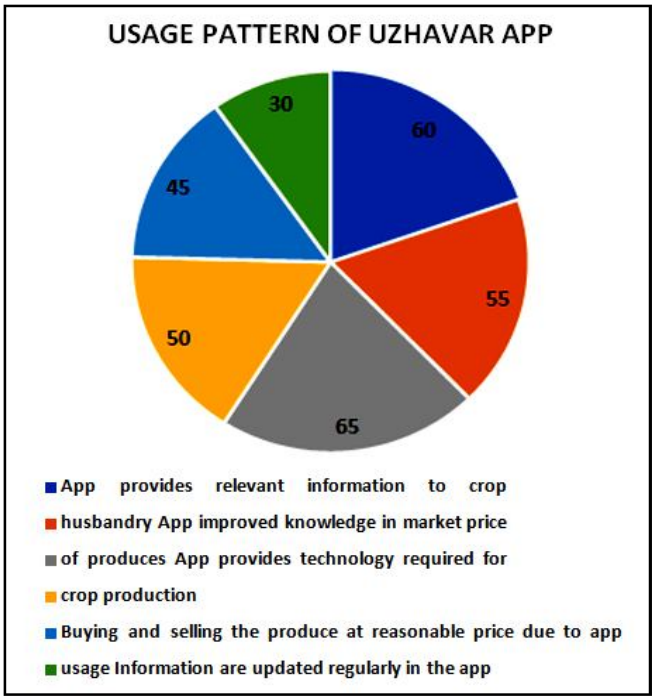

Fig. 2: Usage Pattern of Uzhavar App.

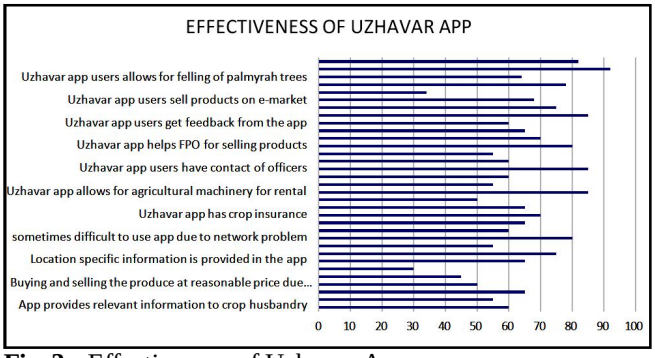

Fig. 3: Effectiveness of Uzhavar App.

Materials and Methods

Theni district of Tamil Nadu was purposively selected for the study. Theni district consists of 8 blocks, Out of eight blocks namely Andipatti, Bodinayakkanur, Chinnamanur, Kambam, Periyakulam, Theni, Utthamapalayam, Kadamalaikundu. out of which Theni block was selected for our study, based on purposive sampling method.

By means of random sampling method 60 farmers were selected randomly and contacted personally and interviewed in person. Questions were asked informally during discussions. The interview schedule was a guideline for the collection of data. The information collected through interview was transferred from interview schedule to primary tables and then to secondary tables. The information of qualitative data was converted into quantitative form and computation of Ranking/Scoring/ Percentage calculation was done.

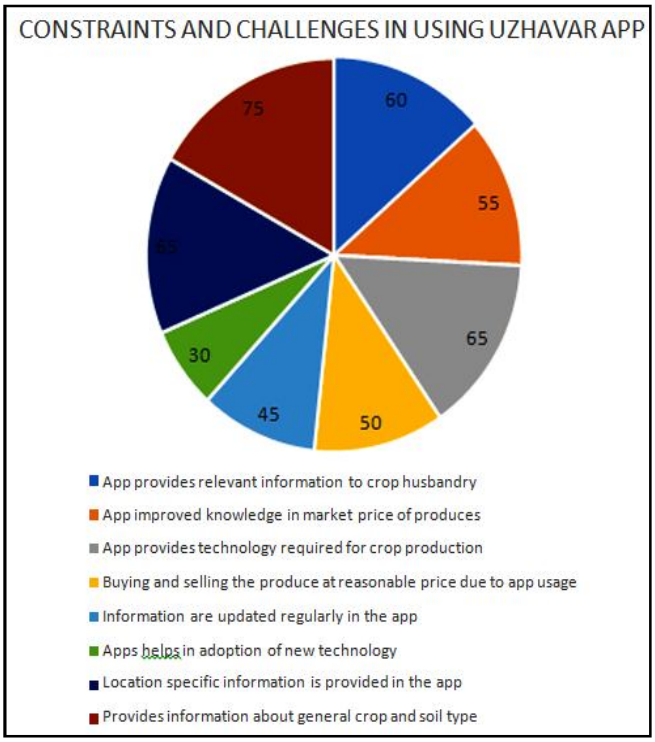

Fig. 4: Constraints and Challenges.

Table 1: Socio Economic Profile of the Farmers. (n 60).

S.	Particulars/ Classification	Number	Percent
1	**Age**		
	• Young (Up to 30 years)	15	25.00
	• Middle (31 - 45 years)	24	40.00
	• Old (Above 45 years)	21	35.00
2	**Education**		
	• Illiterate	6	10.00
	• Primary	8	13.00
	• High school	14	24.00
	• Higher secondary	18	30.00
	• Graduate and above	8	13.00
	• Diploma	6	10.00
3	**Experience in agriculture**		
	• Low (< 18 years)	9	15.00
	• Medium (19 to 31 years)	18	30.00
	• High (> 31 years)	33	55.00
4	**Occupational status**		
	• Agriculture alone	18	30.00
	• Agriculture +Business	30	50.00
	• Agriculture + Govt. / Private Jobs	12	20.00
5	**Farm size**		
	• Marginal (< 1 hac)	18	30.00
	• Small (1 - 2 hac)	12	20.00
	• Semi medium (2 - 4 hac)	15	25.00
	• Medium (4 - 10 hac)	9	15.00
	• Big (> 10 hac)	6	10.00
6	**Annual income**		
	• Very low (Rs. 60,000 - 4 lakhs)	15	25.00
	• Low (Rs. 4 - 8 lakhs)	21	35.00
	• Medium (Rs. 8 - 12 lakhs)	9	15.00
	• High (Rs. 12 - 16 lakhs)	6	10.00
	• Very high (Rs. 16 - 20 lakhs)	9	15.00
7	**Social participation**		
	• Low	15	25.00
	• Medium	36	60.00
	• High	9	15.00
8	**Extension agency contact**		
	• Low	6	10.00
	• Medium	15	25.00
	• High	39	65.00
9	**Mass media exposure**		
	• Radio	12	20.00
	• Television	18	30.00
	• Social Media	15	25.00
	• Farm journalism	3	5.00
	• Newspaper	12	20.00
10	**Years of uzhavan app usage**		
	• Less than 2 years	27	45.00
	• 3 to 4 years	21	35.00
	• Above 4 years	12	20.00

Table 2: Usage Pattern of Uzhavar App. (n=60)

Sr.	Particulars/Category	Number	Percent
1.	Which features of the Uzhavar app do you use the most?		
	• Weather updates	9	15.00
	• Crop advisories	15	25.00
	• Market prices	6	10.00
	• Crop insurance	12	20.00
	• Fertilizer and pesticide	12	20.00
	• recommendations e-velanmai services	6	10.00
2.	How did you come to know about the app?		
	• Agricultural officer	33	55.00
	• Friends/relatives	3	5.00
	• TV/Radio	9	15.00
	• Social media	9	15.00
	• News paper	6	10.00
3.	How long have you been using the app?		
	• Less than 3 months	6	10.00
	• 3-6 months	12	20.00
	• 6 months to 1 year	33	55.00
	• More than 1 year	9	15.00
4.	Have you availedany scheme through app ?		
	• Yes	33	55.00
	• No	27	45.00
5.	Have you used the farm guidance given by Uzhavar app inyour field?		
	• Yes	39	65.00
	• No	21	35.00
6	Have you benefited from agri budget provided by Uzhavar app?		
	• Yes	33	55.00
	• No	27	45.00
7	Have you used agricultural machinery for rental option in Uzhavarapp?		
	• Yes	45	75.00
	• No	15	25.00
8	Have you gained any knowledge by using organic farming in Uzhavar app?		
	• Yes	36	60.00
	• No	24	40.00
9	How would you rate the overall usefulness of the app?		
	• Very useful	21	35.00
	• Useful	39	65.00
	• Neutral	-	-
	• Not useful	-	-
10	How satisfied are you with the various features of the app?		
	• Very satisfied	12	20.00
	• Satisfied	39	65.00
	• Neutral	6	10.00
	• Dissatisfied	3	5.00

Table 3: Effectiveness of Uzhavar App.

S.no	Particulars	Agree (%)	Disagree (%)
1.	App provides relevant information to crophusbandry	60.00	40.00
2.	App improved knowledge in market price ofproduces	55.00	45.00
3.	App provides technology required for cropproduction	65.00	35.00
4.	Buying and selling the produce at reasonable price due to app usage	50.00	50.00
5.	Information are updated regularly in the app	45.00	55.00
6.	Apps helps in adoption of new technology	30.00	70.00
7.	Location specific information is provided in theapp	65.00	35.00
8.	Provides information about general crop and soiltype	75.00	25.00
9.	App develops social participation through training programs	55.00	45.00
10.	Sometimes difficult to use app due to network problem	80.00	20.00
11.	Uzhavar app has many subsidy schemes	60.00	40.00
12.	Uzhavar app has Benefit Registration	65.00	35.00
13.	Uzhavar app has crop insurance	70.00	30.00
14.	Uzhavar app has data of fertilizer stock status	65.00	35.00
15.	Uzhavar app helps to locate the seed stock position	50.00	50.00
16.	Uzhavar app allows for agricultural machinery forrental	85.00	15.00
17.	Uzhavar app allows the farmers to know the marketprice of their produce	55.00	45.00
18.	Uzhavar app gives weather advisory	60.00	40.00
19.	Uzhavar app users have contact of officers	85.00	15.00
20.	Uzhavar app users know about farm guide	60.00	40.00
21.	Uzhavar app helps in producing organic products	55.00	45.00
22.	Uzhavar app helps FPO for selling products	80.00	20.00
23.	Uzhavar app gives the data of day to day reservoirlevels	70.00	30.00
24.	Uzhavar app users read agriculture news	65.00	35.00
25.	Uzhavar app users get feedback from the app	60.00	40.00
26.	Uzhavar app users get pest/disease monitoringremedial	85.00	15.00
27.	Uzhavar app users have training on ATMA anddemonstration	75.00	25.00
28.	Uzhavar app users sell products on e-market	68.00	32.00
29.	Uzhavar app users have awareness aboutSericulture	34.00	66.00
30.	Uzhavar app users knows current agriculturebudget	78.00	22.00
31.	Uzhavar app users allows for felling of palmyrahtrees	64.00	36.00
32.	Uzhavar app users knows the KalaignarAgriculture Development Programme (KAVIADP)	92.00	8.00
33.	Uzhavar app users knows the TN Green Missiontree seedlings	82.00	18.00

Results and Discussion

Socio Economic Profile of the Farmers

The study found that respondents were predominantly in the active age group, with 40% aged 31–45 years and 28% between 46–60 years. Farming experience was considerable, as 55% had over 10 years of practice, enhancing skill acquisition. Farm sizes were mostly smallholdings, with 45% cultivating less than 1 ha and 35% between1–3 ha, indicating land constraints. Extension agency contact was moderate, with 60% reporting at least one visit per season, which plays a vital role in technology adoption. About 45% of respondents had used the Uzhavar app for more than 4 years, 35% for 3–4 years, and 20% for less than 3 years, indicating strong long-term adoption.

This study is similar to the findings of the study by Srivara Buddhi Bhuvaneshwari and Shibi Sebastian (2025) who also reported that three-fourths of the respondents were young to middle –aged. The majority of respondent were male. Their farming experience stands in between low to medium level, with half of the respondent alone practicing agriculture as their main occupation.

Usage Pattern of Uzhavar App

The findings of the present study indicate that the most commonly used features of the app were weather updates, fertilizer stock information, market prices, and crop insurance details. Most farmers were introduced to the app through agricultural officers, and a significant number had been using it for 3 to 6 months. More than 85% of respondents considered the app useful, with over 90% expressing satisfaction with specific services like pest/disease advisories and officer contact details.

Table 4: Constraints and Challenges. (n=60)

Sr.	Particulars	Number	Percent (%)
1	Poor network problem registering in various Services.	48	80.00
2	Lack of price details like Cotton, Coconut Copra and Fruits prices.	45	75.00
3	Difficult in Custom Hiring Centre feature usage.	33	55.00
4	Lack of knowledge to register for cropinsurance and benefit registration.	36	60.00
5	Time consumption to use all services.	51	85.00
6	Difficult to use due to lack of trainingon usage.	54	90.00
7	Content Visibility is lacking	42	70.00
8	Do you think the government should provide training sessions to use the app?		
	• Yes	33	55.00
	• No	27	45.00
9	Have you stopped using the app due to major issue?		
	• Yes	39	65.00
	• No	21	35.00
10	Would you recommend Uzhavar app to other farmers?		
	• Yes	36	60.00
	• No	24	40.00

This study is similar to the findings of the study by Aravindh Kumar and Karthikeyan (2020) who reported that over half of users (53.34%) rated the app's utility as medium, while 25.56% rated it high. The most commonly perceived benefits were gaining agricultural knowledge (85.56%), reduced information-search time (78.89%), and increased awareness of subsidy schemes (74.44%). More than half of users (56.67%) frequently used the subsidy section and reported daily usage, indicating regular engagement with the app. Nandhini and Rohini (2022) also reported that 22.22% of users accessed all seven sections of the Uzhavar app. Additionally, 56.67% of users habitually used the app daily, with a significant portion frequently accessing the subsidy section.

Effectiveness of Uzhavar App

The study also revealed that while most farmers appreciated the usefulness of the app, there was a strong need for targeted awareness campaigns, on-ground training programs, and technical enhancements to improve user experience. Importantly, a large portion of users expressed willingness to recommend the app to fellow farmers, indicating trust in its potential.

This study is similar to the findings of the study by Nandhini and Rohini (2020) who reported that 72% of farmers said the app is user-friendly, 68% agreed the app improved awareness of market price and 60% expressed satisfaction with crop advisory services. Arun Kumar and Murugan (2023) also reported that the app effectively provides detailed information about subsidy schemes and agricultural inputs, helping farmers make informed choices.

Constraints and Challenges

Despite many positives, major constraints hindered optimum usage. Network issues were the most frequently reported problem (99%), followed by difficulties with app navigation, lack of training, incomplete market data, and limited understanding of certain features like benefit registration and crop insurance. Many farmers were also unaware of newer sections like FPO product listings, organic farming modules, and reservoir level data.

This study is similar to the study by Nandhini and Rohini (2022) who reported that the main challenges faced by the farmers are network issues during ATMA training registration, lack of price details for certain commodities, time-consuming to use certain services and poor content visibility in the app interface. Sherin Neya *et al*., (2025) also reported the challenges experienced by farmers in Dindigul district while using the Uzhavar app. The most significant constraints reported were the absence of a video and photo gallery feature (73.33%), the lack of a voice assistant (68.33%), and the high cost of internet data (60.83%). These issues highlight major barriers related to user experience and digital accessibility, limiting the app's effectiveness, especially for farmers in rural or low-connectivity regions.

Conclusion

The Uzhavar App represents a significant step towards the digital empowerment of farmers in Tamil Nadu, serving as a bridge between technology and agriculture. The results of this study clearly show that the app is beneficial, particularly for providing timely information, enhancing productivity, and facilitating access to government schemes. It has brought multiple services

to the fingertips of farmers, thereby reducing their dependency on middlemen and traditional, time-consuming information sources. While the Uzhavar app has made commendable progress in revolutionizing agriculture through ICT, its impact can be magnified through holistic integration of technical, educational, and infrastructural support systems. With the right interventions, the app can serve as a model digital platform for agricultural development not only in Tamil Nadu but across India.

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