

# Adoption Of Electronic Media Among the Farmers using Data Mining Techniques in Perambalur District Of Tamil Nadu

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**Abstract** Data mining technology has been received a great progress with rapid development of computer science and Artificial intelligence. In this research the focus is to adopt electronic media among the farmers using Data mining techniques in agriculture related technologies. Data mining techniques helps the farmers to give more yield prediction."Clustering, Association techniques in data mining are handling to adopt the electronic media usage to the farmers for their better improvement in market related information. This study aims to find the suitable data models that achieve a high accuracy and a high generality in terms of electronic media usage among the farmers .For this purpose, different data mining techniques and their types were evaluated on different data sets.

**Keywords** : Data mining, Electronic media, Clustering,Agriculture.

## 1. INTRODUCTION

Data mining refers to the finding of relevant and useful information from databases. Information plays a vital role in our present day society. Developing agricultural technologies is the primary responsibilities for all the agriculture scientists. Then it will be transfer to the farmer community by using electronic media. If the technologies will be useless if the technologies are not transferred to the ultimate user (farmer).The research output of scientists can only be worth while, when they are adopted by the farming community.

Data mining is the techniques of extracting useful and important information from large data set. Nearly two-third of its population directly depends on agriculture for its livelihood.An agriculture data increases day by day. As the volume of data increases, it requires involuntary way for these data to be extracted when needed. A few farmers actually using the new technologies by using electronic media. Data mining can be used for predicting the agriculture technologies in agriculture processes.

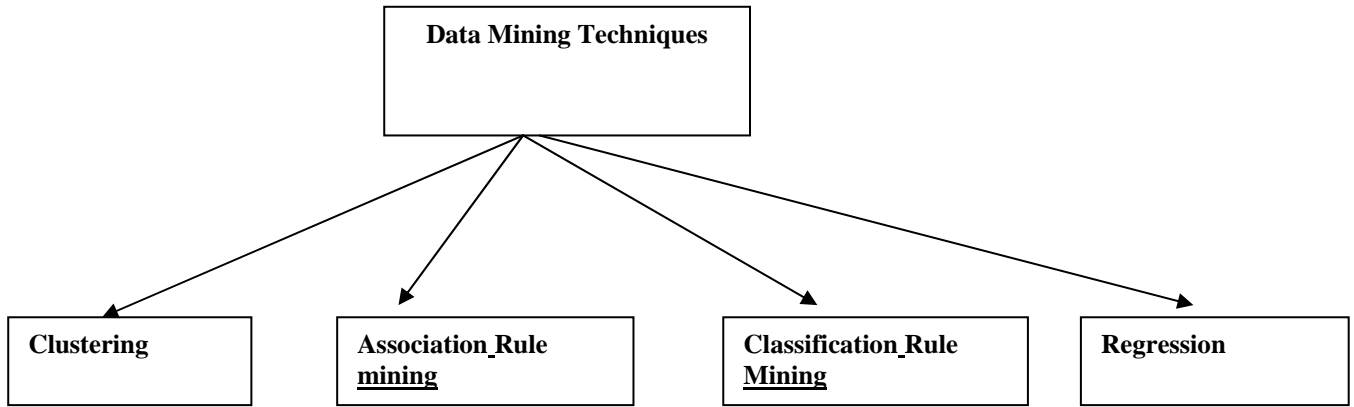
Data mining or knowledge discovery in databases, as it is also known in the non trivial extraction of implicit, previously unknown and potentially useful information from the data. Farmers are failed to get right profit because of higher middle man and high market fluctuations. Poor efficiency in marketing channels and inadequate in marketing infrastructure are believe to the cause of not only high and fluctuating product prices but also too little of consumer rupee realized by the farmer. Electronic media in the form of radio&T.V remained in use by the department as important teaching tools, for uplifting the production and marketing of crops it seems extremely imported to keep our farmers updated various production and marketing process.

## 2. DATA MINING

### 2.1 Knowledge Discovery in database (KDD) and Agriculture

Knowledge discovery in database (KDD) was formalized in 1989, with reference to the general concept of being broad and high level in the pursuit of seeking knowledge from data. Data mining is only of the many steps involved in knowledge discovery in databases.KDD process in agriculture tends to be highly interactive and interactive. The subject of KDD has evolved and continues to evolve, from the interaction of research from such field as databases, machine learning, statistics, artificial intelligence, reasoning with uncertainties for expert system.KDD system incorporate theories, algorithms and methods fro all these fields.

A good overview of KDD can be used in among the farmers in electronic media to know the technologies about pesticides, fertilizer and many things for their upliftment. So the farmers should understand what types of information are useful? and how they used in their farm?KDD refers to the overall process of discovering useful knowledge from the databases.



**2.2 Clustering**

Clustering is a method of grouping data in different group. So the data in each group share similar trends and patterns. In this research the farmers are grouped in the usage level of electronic media. Data mining aims at sifting through large volume of data in order to reveal useful information in the form of new relationship, patterns of clusters. so that the user can get appropriate information (or) data by using electronic media to uplift this agriculture technologies.

**2.3 Association Rule**

The association with a very high support and confidence is a pattern that occurs often in the database that should be obvious to the agri farmers. An association rule describes an interesting association relationship among different kind of farmers in the usage of electronic media related to different kinds of farmers in perambalur district.

**2.4 Classification rule:**

It involves finding rules that partition the data into disjoint groups. The input for the classification different types of farmers in the usage level of electronic media is the training data set. By using this technique it focuses on the future data and develops knowledge in understanding of electronic media in the data base. There are several classification models they are decision tree, neural networks, genetic algorithms and the statistical models like Linear/geometric discriminates.

**2.5 Data Summarization**

Summary discovery is one of the major components of knowledge discovery in the databases. Data summarization provides the farmers with comprehensive information for grasping the essence from a large amount of information in a database. An electronic media play as vital role in agriculture. Electronic media among the farmers is very big field, so comprehensive information much required to grasping data in electronic media about new agriculture technologies.

**3. APPLICATION**

There are several application of data mining techniques in the field of agriculture to the farmers. The techniques related to weather conditions and short term forecasting of air pollution in the atmosphere. Data mining techniques applied for Meteorological data analysis to classify the sounds of birds. To identify buying patterns from

customers, to find associations among customer demographic characteristics and to predict the response to mailing campaigns. Data mining techniques provides with a level of confidence of prediction and in terms of the frequency of correct predictions. “Clustering by recursive Noise Removal” technique to the pest scouting, pesticide usage and metrological data from Pakistanis cotton fields.

**4. ANALYSIS DATA:**

Excel software is used to conduct the Qualitative analysis and to create a benchmark for the analysis is of the research data set. Nearly 60 farmers were selected for the study by using simple random sampling method. Percentage analysis used for the study. Nearly 37 percent of the sample farmers were using electronic media to get more information on price fluctuations and market related information using databases.

**5. STATISTICAL RESULT ANALYSIS AND OVERVIEW**

The data available for the statistical analysis from the month of December 2014-Jan2015 in perambalur district of Tamil Nadu in India. The data is taken for three input variables; they are print media, TV and radio. From the below table 1 it could be concluded that most of them were not using electronic media for the agriculture technology.

**Table 1. Usage Level of Electronic Media**

Usage	Number of responds	Percentage of Total
Yes	22	36.66
No	38	63.33

This gives the analysis and detailed pattern about the electronic media understanding of farmers and it easily used by the farmers.

**Table 2. Type of Media using to get agri related information (n=22)**

S.No	Type of Media	No of respondents	% to total
1	Television	2	9.09
2	Radio	6	27.27
3	Printed Media	14	63.63
<b>Total</b>		<b>22</b>	<b>100.00</b>

It could be concluded that most of them were using printed media following by listening agri information from radio and watching agricultural programmes on TV.

### CONCLUSION:

Agriculture is the most important application area in Tamil Nadu. Use of Data mining technique in agriculture can change the scenario of decision making and farmers can yield in better way. In this study we discussed about the data mining techniques to adopt the electronic media among the farmers in perambalur district. Most of the sample respondents were belongs to old aged persons and educated inferred that they have a greater experience in farming and they well known about agri related information. Hence, necessary steps to be taken to using data mining techniques to adapt to the farmers. They were using electronic media only to know about the price status and any market related information.

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