INFORMATION RELEVANCE OF AGRICULTURAL ARTICLES IN MALAYALAM NEWSPAPERS AND FARM MAGAZINES - A MULTI-DIMENSIONAL ANALYSIS

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Dedicated to my beloved brother

late Dr. S. Satheesh Kumar,

who is always a constant inspiration and

continuous stimulation to me in my life.

DECLARATION

I hereby declare that this thesis entitled "Information relevance of agricultural articles in Malayalam newspapers and Farm Magazines" is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

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CERTIFICATE

Certified that this thesis entitled "Information relevance of agricultural articles in Malayalam newspapers and Farm Magazines" is a record of research work done independently by **Mr. S. SURESH KUMAR (2005-11-110)** under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.

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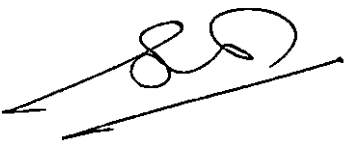

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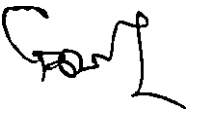

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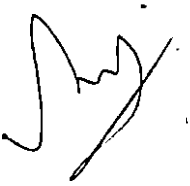

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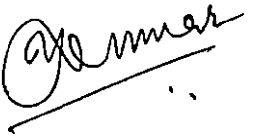

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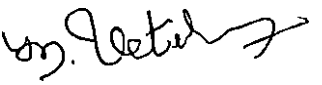

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

INTRODUCTION

1. INTRODUCTION

"One of the objectives of a newspaper is to understand the popular feelings and give expression to it; another is to arouse among the people certain desirable sentiments and the third is fearlessly to expose popular defects"

- Mahatma Gandhi

Information is power and this century is the era of information. It can be a catalyst in the agricultural development process. Effective communication of scientific information to farmers is a necessity and key to economic progress. It is also a crucial requirement for sustainable agricultural development. Being a period of information explosion, it is very important that the idea of right information to the right person at the right time in the right place and in the right context is materialized effectively. Information given to a farmer should be such that he can become a business entrepreneur. For agriculture to be pulled on as a profitable business activity, it has to be supported with a regular information flow. The prime among the agencies providing this information to the farmers is the mass media. Newspapers, magazines, radio and television are the important mass media playing a key role in information dissemination.

In the peculiar context of Kerala possessing the highest literacy rate of 90.86% (2001 census), the pivotal role of print media, over the electronic media is already well established and widely acclaimed. The print media have been playing a lead role in farm information dissemination since the 1950s. The print media communicating farm information are mainly the farm pages of newspapers and farm magazines. They play an important role in socio-economic and political development of the nation. Even today with the onset of second communication

revolution (TV, Computer, e-mail, Internet etc.), the importance of print media cannot be ignored. Increasing rural literacy throughout the developing regions of the world invites print media to unexpected corners (Trikha and Hasan, 1999).

Whether it is a farm page or a farm magazine, the printed word has a lasting power, far beyond that of the spoken word. Information through farm publications is perhaps the most favoured and widely adopted among the farmer's community (Rathore *et al.*, 2004). Agricultural science being very dynamic, the current technologies should reach the farmers in a form which is both topical and timely. Guru (2005) observed that rural communication should be more than a mere flow of information from the top to the bottom or from the bottom to the top. It must convey the information which the people need to play their part in the development process. Here there is every likelihood of enhanced reading and proper utilization of the information. Because of these reasons, the information given through print media should be very pertinent and relevant. Moreover for a communication to be effective, the information passed should be credible, useful, practicable, interesting and timely to the clients in all contexts or situations. It shows very clearly that in agricultural information dissemination, the print media such as farm magazines and newspapers play a very prominent role. Hence it is proposed to conduct a study on the information relevance of agricultural articles in Malayalam newspapers and farm magazines.

It may not be out of place to point out that agricultural information communication can also help in the mitigation of the agricultural crisis prevalent in the Kerala state. Scientific advancements in agriculture have conclusively proved that the productivity levels of major crops of Kerala could be enhanced two fold if the available technology is brought to the attention of the farmers and necessary support provided to them to translate this technology into practice. In this crucial role of appropriate technology transfer, agricultural columns in the newspapers and farm magazines have an important stake. Since this study

concerns measures for improving the efficiency of farm journalism results of the study have lot of practical significance also.

Even though researches have already been carried out to assess the effectiveness and impact of farm journals, practically no work has been done to assess the dimension of information relevance of agricultural articles so far. Through this study, it is aimed to analyse the multidimensionality of the relevance of information of agricultural articles in Malayalam newspapers and farm magazines.

Need for the study

Over the past three decades the 'Farm Pages' in malayalam dailies as a ready-to-serve, weekly reference material to the farmers of Kerala. They have been playing a vital role in the transfer of technology to the farming community. Farm Magazines in Malayalam claim a history of half a century. It is very much pertinent to know that whether the articles in the farm pages of dailies and farm magazines are relevant to the farming community, and whether the information provided is credible, useful, practicable, simple, accurate, clear, timely and interesting. The present study is aimed to answer these aspects in a systematic way.

Objectives of the study

The overall objective of the study is to assess the information relevance of agricultural articles published in Malayalam newspapers and farm magazines. The following are the specific objectives of the study.

1. To assess the information relevance of agricultural articles in Malayalam newspapers and farm magazines.

2. To assess the reader preference and readership pattern of agricultural articles.

3. To study the subject matter coverage and subject matter treatment.

4. To study the profile characteristics of readers.

Scope and limitations of the study

The farmer-subscribers who formed the respondents of the study were selected from Trivandrum, Ernakulam and Kozhikode districts, representing the three geographical regions of the State. The study was conducted through a systematic effort to collect the agricultural articles published in the selected newspapers and farm magazines for a period of one year from January 2006 to December 2006. Based on this it has been analysed and the data interpretations are attempted. Being the data for a whole year, this itself serves as a complete, sound and reliable data for a meaningful period and that too in the current season. This database stands apart with its strong accuracy and has considerably enhanced the scope of the study.

The farmer respondents are limited to 180 from all the three districts at the rate of 60 from each district. The present research, being a part of M.Sc. degree programme, had the limitations of time, money and other resources. However careful and rigorous procedures have been adopted to carry out the research systematically. It was remarkable that disaggregated data for one full year has been collected regarding the content and relevance of the agricultural information in the selected newspapers and farm magazines and presented before a group of respondents so as to analyse their expressed opinions and utmost care was taken to make this study as objective and accurate as possible.

THEORETICAL ORIENTATION

2. THEORETICAL ORIENTATION

This chapter discusses in broad outline the theoretical framework of the study, including the previous research studies conducted as the subject so as to provide a basis for operationalising the variables and quantifying them. Review of relevant literature have also been given in this chapter so as to facilitate hypotheses formulation and testing.

The contents of this chapter are presented under the following heads.

2.1 HISTORY AND DEVELOPMENT OF FARM JOURNALISM

In the olden days, news travelled by word of mouth. Kings and nobles spread news through messengers and through proclamations which were read out in public places (Chandrakandan, 2000).

In ancient India, what the government did, its law and action against citizens and generally its achievements, formed the staple diet of news. News was given in inscriptions on walls of temples and in copper plates and through victory coins and writings on rocks. There were government officials who by the beat of tomtom gathered the populace and announced the policies and decisions of the king or government.

The newspaper is of European origin and wall posters were the fore-runners of the newspaper and they first appeared in Venice in 1566. Paper, was first made by the Chinese as early as in the second century AD. The Chinese discovered the art of printing also. The newspaper came to India as an alien product. James Augustus Hicky has the distinction of launching the first newspaper in India (Chandrakandan, 2000). The development of paper is an important milestone in the spread of ideas. Centuries later when the printing press was developed, the power of the written word came to the knowledge of the people (Ravivarma, 2006). Journalism is basically the communication of news and information to a larger mass at the same time.

The development of print media as a source of farm information has given birth to a new discipline now known as agricultural or farm journalism. Journalism is defined as the profession, which concerns itself with the procurement, processing and publication of news and views. When the communication of news and information is related to the field of agriculture, it is farm or agricultural journalism. Hence, farm journalism can be defined as the communication of agriculture related information to a larger mass of audience.

Knight (1980) defined agricultural journalism as the timely reporting and editing with words and photographs of agricultural news and information for newspapers, magazines, radio and television. To cater to the needs of the rural sector agricultural journalism is inevitable, he added.

The very purpose of farm journalism is to transfer knowledge and skill; or to be precise, the package practices about various crops developed by scientists or subject experts to farmers for betterment of farming community. In short, farm journalism aims in the betterment of farming community through transfer of knowledge and skill (Kumar, 2006).

2.1.1 Pathways of farm journalism

Farm journalism in India is communicated through two ways: one through print media and the other through electronic media. Print media mainly consists of newspapers and farm magazines whereas electronic media of significance here are the radio and television. Moreover, it is an already accepted fact that these media played the crucial role of bringing the new technology in agriculture to the doors of the farmers.

Whether it is a farm journal or magazine they are periodicals, containing information related to agriculture meant for the improvement of farm and home. They can contain information related to topics of interest not only for the farmers, but also for the extension agents. It has a periodicity of publication and is generally supplied against pre-payment of subscription for a particular period.

Farm magazines are extremely useful to the literate farmers. They play a very important role in transmission of ideas, skills and technology. Even illiterate farmers can make use of them with the help of literate members in their family. Farm journals have gained additional importance in the wake of breakthrough in agricultural technology and increase in rural literacy. Today we have about 500 farm journals among the 40,000 publications in India. The readership base of present day farm magazines has expanded to a great extent in such a way that, not only the farmers, extension workers etc. relish them, but it is being continuously read and practised by a set of people who are included in the broad spectrum of those who love farming as a profession and as a part-time job also.

2.1.2. Relevance of print media

Print media is one of the important media of mass communication. The printed word in the magazines and newspapers plays a dominant role in communicating farm information. The printed word has a lasting power far beyond that of the spoken word or the visual image. Readers can refer to it again and again (Singh, 1993).

Goldstein (1940) suggested that print produces superior retention of complex factual material than does oral presentation. As compared to other media, print can be readily used to reach small and specialized audiences for which other media would be prohibitively expensive. It is traditionally associated with culture and may carry a higher prestige for some people than do the other media.

According to Klapper (1966), print alone among the media, allows the reader to control the occasion, the pace and the direction of his exposure and permits him easy re-exposure, more easily than the other media. Print allows a topic to be developed at whatever length and with whatever complexity seems desirable.

Since farm magazines and newspapers come under the category of print media the relevance of print media in the dissemination of agricultural information is worth studying. Today farm magazines and newspapers occupy a prime place in the scheme of farmers know-how exchange system. Farmers think written words are never wrong and hence the print media have more impact than any other medium. Apart from serving as an agent of reinforcement, they help the readers to refer again the information and to preserve them for future use. The definite and detailed information set forth on the printed page can be studied at leisure, reread at intervals and kept for later reference.

2.1.3 History and present status of print media

2.1.3.1 Farm magazines

Bengal famine forced the British government in India to make efforts for the development of agriculture in India. As a part of the efforts to develop agriculture, 'Bengal Agricultural Gazette' under the editorship of Polar Knight was the first published periodical in agriculture (Singh, 1993).

Another periodical was started towards the end of the nineteenth century entitled 'Plantation News', mainly for the European planters. In fact 'Indian Farming' was the first regular magazine on farming and was started in 1930. At present about 500 farm and home periodicals are produced in various languages in the country. Majority of these are in Hindi and English and are owned by government and semi-government organizations. Almost all the agricultural universities bring out farm journals apart from their other technical bulletins. But most of the farm journals published by the Agricultural Universities have a nominal circulation. Even then, the journals produced by them in regional languages have done a commendable job in communicating farm technology.

It was revealed that information through farm publications is perhaps the most favoured and widely adopted among the farmers in the country and there is every likelihood of enhanced reading and proper utilization of the information (Rathore *et al.*, 2004).

The dissemination of farm information in local language is the main aim of farm magazines (Sherief and Vasanthakumar, 1997).

The leading periodicals now in agriculture are Indian Farming, Intensive Agriculture, Agriculture Extension Review, Agriculture Today, Krishi Vistar Samiksha, Kheti, Phal Phool, Rural India etc.

2.1.3.2 Farm pages in dailies

The second way of farm journalism is through farm pages of dailies.

Newspapers enjoy more wide coverage and trust of the farmers. Newspaper is a bunch of loose printed papers, properly folded, which contain news, views, advertisements etc. It is offered for sale at regular intervals particularly daily or weekly or even monthly (Kumar, 2006).

The newspaper has now become an important part of our daily life. Newspapers are easily accessible in rural areas and farmers are inclined to look into the news papers for searching news items and stores on issues related to their farming aspects and problems.

Sharma *et al.* (2003) mentioned six ingredients which determine the news worthiness of an information. These are:

1. Timeliness : The more timely information, the greater is its news value.
2. Nearness : The closer the information seems to the reader, the greater is its news value.
3. Consequence : The more the readers are affected by the information, the greater is its news value.
4. Human interest : Information concerning human interest elements such as new programmes, personal involvement, profitability, progress etc. has more news value.
5. Prominence : People, places, things, events carry more news value.
6. Editorial policy : The editorial policy of a newspaper broadly determines the kinds and amounts of information it publishes.

Newspapers can support extension activities and achievements, extension recommendations and package of practices, science stories, market news, farmers problems, advertisements issued by extension organizations, input dealers etc.

Newspaper is a good medium of communication in times of crisis and urgent situations. Most of the Indian language daily newspapers devote a page or a part of it for agriculture and rural development on a fixed day of the week.

Newspaper is a good way of communicating to the farm people in a friendly manner. In the Indian context the concentration of media is more in urban areas. Rough statistics point out that eighty per cent of all newspapers published in our country are coming from urban areas. Content analysis studies revealed the fact that much of the content of Indian newspapers cater to the needs of the urban elite and it covers only the meagre points of rural news events (Kuttan, 2006).

A newspaper column is a good mass medium to help fulfill the goals of extension programmes. Some of these are The Hindu, The Hindustan Times, The Times of India, The Indian Express etc. and other local dailies, specially those in local languages which devote their space for farm information.

Almost all the Malayalam dailies keep apart a full page or half a page for the farm information sector with activities, features, question-answer columns etc. for more than three decades.

One of the relevant studies conducted by Prakash *et al.* (1993) regarding the content analysis of agricultural pages of leading Malayalam dailies revealed that 91.67 per cent of the farmers read 'Karshikarangam' pages regularly and had the opinion that it was useful to them. Over 53 per cent of the farmers said that they were keeping those pages for future reference.

A study conducted on the coverage and content analysis of environmental news in Indian dailies observed that newspaper is an important channel for agricultural communication (Pandey *et al.*, 2001). It has a more vivid personality than any other media for majority of the people.

Even after 59 years of independence it is disheartening to note that, Indian press has given only low priority to rural news or other farm information (Kuttan, 2006). They have not been able to devote more than five percentage of their news space or to say precisely two per cent of their total space to development journalism, he added.

According to Dosanj (1980) most of the newspapers are interested in agricultural news of the sort, which affects the price of fresh milk, wheat, rice, flour, pulses and other necessities or the birth of a freak calf etc. By giving space to such news, the urban based journalist not only plays up sensationalism, but also confirm the prevalent city notion that villages cannot make a real news, he observed.

The newspapers have the advantages of commonness and relatively low cost. In addition "the power of the press" and its very potential in technology transfer is immense. It is a bare fact that treasures of knowledge remain unexplored until they get transferred to the ultimate users. In the modern age of communication we have now reached a stand point of no option but with a single motto – "Publish or Perish". That too for an even increasing literate population, smooth transfer of message can be easily and effectively achieved through print medium (Radhakrishnan and Karippai, 2006).

2.2 FARM JOURNALISM IN KERALA

Farm journalism in Kerala is having a rich history of over half a century. This is fully relevant with regard to the print media, since Kerala is possessing the top rank in literacy level in the country. Literacy is one of the important social characteristics in which information is obtained to every individual.

An analysis of the Census Report (2001) points out certain interesting facts regarding the literacy level of the State. The literacy rate which was 47.18 per cent in 1951 has almost doubled in the 2001 Census, ie., 90.86 per cent. If we analyse the literacy rate of the State and country in the various censuses from 1951 to 1971, the literacy rate of the state is double the literacy rate of the country. The gap in literacy rate between Kerala and India increased from 1961 to 1971 and 1981 to 1991 (Appendix I).

Tharoor (2007) highlights Kerala, which provides a striking example of how higher levels of literacy lead to a more aware and informed public. Adult literacy in Kerala is nearly 100 per cent, compared to the Indian average of 52 per cent. As a result, nearly half of the adult population in Kerala reads a daily newspaper, compared to less than 20 per cent elsewhere in India. One out of every four rural labourers reads a newspaper regularly compared to less than two per cent of agricultural workers in the rest of the country. These observations show the immense scope of print media to be used as one of the most effective means so as to transfer farm information to the large majority of rural folk who are literate and who are always capable of formulating their own opinion in every walk of life.

Even before the achievements in the field of literacy there was fascination for the average Keralite to be a reader of any publication. This pretty old habit is really an inevitable part and parcel of Kerala's cultural heritage, wherein several performing arts, classic literature works, ever charming paintings etc. were very common. Affinity to such art forms was always there in the blood of every Keralite and it was his inborn tendency either to take part in any of the cultural activities then and there, or be an active witness for such events. Being the main occupation of the society, farming got a very prominent position in the earlier days and the possession or ownership of farm lands was considered as a status symbol then. The importance farming had at that time, was diffused into the societal strata by way of information dissemination, that too through print media. Even if the printing technology was not that modern as we see now, it has been

reported that there were certain "Magazine Papers" started in Malayalam exclusively for giving wide publicity to agricultural news and activities among the public (Anilkumar, 2006).

A publication named "Krishikkaran" was edited and published from Ottappalam at Palakkad in January 1909 by Shri. I.C. Govindan Ezhuthachan. The emblem printed in the cover of this publication was a "Kalappa" (plough). The first page of the publication says like this:

"Recently many newspapers and magazines are brought out in Malayalam. Moreover, there are separate dailies devoted for separate subjects too. When we take into account the different occupations of the world one by one, we can see that each and every occupation has it's roots deep in agriculture. Without agriculture it is not possible for any other occupation to exist. Hence it is high time that, there should be more than one newspaper or magazine for such an important and useful field of activity. It is very unfortunate to note that at present there are no publications devoted for farming so far. But the introduction of "Krishikkaran" is now going to be a bold, new venture in this field ....".

Even if it had a good start, unfortunately this farm magazine could not sustain longer.

In 1906, another magazine by name "Lakshmi Vilasam Masika" was published from Kottakkal in Malabar which included a number of agricultural articles under the leadership of Manavikraman Raja and Kavikulaguru P.V. Krishna Warrier. Even though this was not a complete farm journal, there were articles on mechanization in paddy cultivation, forest conservation etc.

The November of 1913 witnessed the birth of a new farm magazine named "Thiruvithamkoor Karshaka Thrimasika" published by the Agriculture Department of Travancore Kingdom. The magazine which came out with a cover

depicted "Dharmosmath Kuladaivatham" and emblem of the Kingdom was printed at the Government Press, Trivandrum. Simple way of presentation, variety of subjects, large font, line drawings, good layout etc. were some of the highlights of this magazine. The Director of Travancore Agriculture Department, Dr. N. Kunhan Pillai was the editor of the magazine. 1500 copies was the circulation and as such this magazine continued publication for a period of six years without any break as a trimonthly.

In 1920, a new farm magazine came out by name "Krishi Vyavasaya Masika". This was actually a joint effort of the Travancore Agriculture Department and Industries and Co-operative Department. The very first issue which was published in 1920 September-October, highlighted that if the Agriculture, Industries and Co-operative Departments worked together there will be no poverty in the state. This magazine continued its publication for a period of five years.

Several other farm journals like Krishi Vyavasaya Darpanam (1913), Karshakan (1945), Karshakamithram (1953), Karshakanadu, Karshaka lokam, Swathantra Kerala Karshakan (1957), Karshakabandhu (1968), Indian Nalikera Journal (1947), Rubber (1965), Spice India (1967), Kalpadhenu (1973), Karshikarangam (1989) also came into existence before the farm readers of Kerala; some of them disappeared, whereas some are still continuing.

2.2.1 'Kerala Karshakan' – a complete farm journal

Even though there were farm magazines in Malayalam right from 1906, 'Kerala Karshakan' gets the credit as the first farm journal published in Malayalam 1954 by the Agriculture Department of Travancore – Cochin State as a monthly magazine, with an annual subscription of twelve annas. As mentioned in the first issue which came out in February 1954, the magazine was mainly meant for helping the farmers to solve problems, which they face daily in the farm

front. Though the printing and the contents were not of high standard, it was really a bold venture, intended to provide a flow of information on the new developments taking place in the different spheres of agriculture to the cultivator in a simple language. But it was not then published regularly due to poor printing facilities. In the early stages it was printed at the Government Press, but due to the pressure of work, two or three issues had to be linked together and released once in two or three months.

In 1956, efforts were made to get it printed in the Davidson duplicator obtained under the Technical Co-operation Mission Programme. Even then the standard of printing could not be improved as expected. Consequent to the formation of the Agricultural Information Service in 1956, it was decided by the State Agricultural Department to hand over the production of the magazine to the Information service. After the formation of Kerala State, by integrating the Travancore-Cochin States and the Malabar areas of the erstwhile Madras State, Government decided to publish 'Kerala Karshakan' in a more attractive form and for keeping more regularity in production, a full time Editor was appointed.

The first issue of Kerala Karshakan as such by the Agricultural Information Service, was brought out in October 1957 after which the magazine had a clear record of production without any break.

With the formation of Farm Information Bureau in 1969, steps were taken to transform Kerala Karshakan into a complete farm journal. A farm magazine becomes complete only when it provides all information to farmer and also his family. Besides crop culture, a typical Kerala farmer rears cattle and poultry as side business. Hence information on various aspects of crop culture, animal and poultry husbandry are a must for him. Along with this, his family needs a wide range of information on home science, child care, sewing, and last but not of least

importance, the best ways of cooking, utilizing nutrients to the maximum extent possible and also food preservation.

The Kerala farmers have welcomed 'Kerala Karshakan' with full of joy. The high literacy, the ever growing reading habit and the eagerness with which the farmers come forward to grasp the latest information and then to copy the same in their farms and homes, was exploited to the maximum for accelerating the tempo of development in the farming sector. Kerala Karshakan, thus became a useful tool to the research and extension workers also, as it provided a better link with the real cultivators.

As years passed, absorbing the changes in the field of farming as well as printing technology the layout and contents of Kerala Karshakan were changed and the totally modernized full colour issue of Kerala Karshakan was brought out in June 2004. At present 'Kerala Karshakan' is one of the leading farm magazines in Malayalam being printed and published by the Farm Information Bureau, Government of Kerala.

2.2.2 'Karshakasree' – a novel private enterprise

'Karshakasree' which began its publication in 1995 was one of the noticeable interventions in the field of farm journalism in Malayalam. This is published by one of the leading publishing houses in Kerala, the Malayala Manorama from Kottayam. Being a farm magazine produced by the private sector, 'Karshakasree' has got some of the unique advantages like enough working freedom for those who work behind it, attractively designed colour cover page with properly laid out inside colour pages, thorough field reporting, freedom of expression in opinions, a very wide and strong marketing net work etc. These added advantages made the journals more popular and closer to the farmer readers of Kerala.

2.2.3 'Farm Pages' in Dailies

Yet another way of farm journalism is through farm pages of dailies, which enjoy more wide coverage and trust of the farmers. The newspaper has now become an important part of our daily life. Newspapers are easily accessible in rural areas and farmers are inclined to look into the newspapers for searching news – items and stories on issues related to their farming aspects and problems.

The first and foremost among Malayalam newspapers to start a full farm page *viz.,* 'Karshikarangam' was the 'Mathrubhumi', one of the leading Malayalam dailies in August 1974. Very soon the other Malayalam dailies like Malayala Manorama, Kerala Kaumudi, Deshabhimani etc. also started the same farm feature page on every wednesday. Later almost all Malayalam dailies followed the same path, but as years passed there was drastic change in the allocation of space for farm page, it's regularity, contentwise presentation etc.

Among the Malayalam dailies 'Mathrubhumi' published from Kozhikode actually set apart a full page in Black and White as weekly farm page. Later on it was changed to full page colour. Now it is carried out as half a page Black and White every week. Yet another leading Malayalam daily 'Malayala Manorama', from the very beginning set apart half a page in Black and White for 'Karshikarangam', but now it is in half page colour. Deshabhimani is also printing its farm page as half a page in colour whereas Kerala Kaumudi is keeping apart half a page as Black and White for its 'Karshikarangam'.

2.3 CONCEPT OF INFORMATION RELEVANCE

Information is a message that is received and understood (Wornet.princeton.edn/ps/webson).

Information is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the person receiving it (www.ora

faq.com/glossary/faq.gloss.htm). Information is the message used as the basis for decision making (www.phs.org/wet a/my journey. home/teachers/glossary.html). Information is the quality of a message from a sender to one or more receivers (http://en.wikipedia.org). Information is an important resource in agriculture (Chandrakandan and Palanisamy, 2000). Information flow is a basic necessity of development, which is to be communicated properly. The large scale development in agriculture depends on communication (Sasikumar and Selvaraj, 1998).

According to Singh (1993), one of the basic functions of communication is the information function. It has to be admitted that information is basic to all the other applied functions of communication, because communication is not going to occur unless someone is acquiring and consuming some information. It is the necessity of transfer of information (technology) which is an important ingredient in the process of communication in rural development.

Every communicator has important information and ideas, which he wants to convey to the audience in such a way that it is received and interpreted as intended. A good information should make the individual feel a need, which he can satisfy by action and suggest ways to fulfill the same. A good information should be valid, unambiguous and of utility to the receiver.

Information is not only valuable, it should also be powerful to change individual, organization and direct the society towards development (Kumar, 2006). Manhas *et al.* (2005) observed that in this era of globalization, Indian farmers need to be updated with latest information to compete for global marketing. He must have the information like : new techniques of farming, new methods of cultivation, new crops, seeds, insecticides, pesticides, water and nutrient management and marketing of product. The farmers who access this information have a better chance of succeeding than those who do not access the same. Pailoor (2005) found that through information the farmers will be

empowered to take a decisive step for their welfare and will result in assisting them to lead a sustainable farm life.

Rajput (1993) suggested that progress can only take place in a country like India when the people know the new technology, understand it and act upon it. This requires access to accurate, relevant and reliable information through appropriate and dependable sources.

According to New Webster's Dictionary (2000) information is news or intelligence communicated by word or in writing, facts or data, knowledge derived from reading or instruction, or gathered in any way.

'Relevant' means 'bearing on or pertinent to matter in hand. Relevance is 'item that is capable of making a difference in decision making (http.//www.answers.com).

To evaluate whether an information is relevant, ask oneself the questions like – Does it cover your topics in enough depth; Is the resource format appropriate; Does it express a particular point of view; Is the information at an appropriate level; Who is the target audience etc. Relevancy relates to matching the pertinent thing to an information needed.

2.4 READER PREFERENCE OF AGRICULTURAL ARTICLES

Balachandranath (1998) found that experience story was the most preferred mode followed by process articles and feature stories.

Kavitha *et al.* (1999) found that the readers of Agricultural Extension Review, preferred scientific articles followed by feature stories, since the readers are graduates in agricultural science and specialized in agricultural extension.

Padre (2006) observed that a successful model from a familiar local area can help to overcome all mental blocks and prompt the neighbours to follow the same. For movitvation, it is even worth repeating a similar story, he noticed.

2.5 READERSHIP PATTERN

Vijayaraghavan *et al.* (1997) while studying the general reading behaviour of farm families observed 44.44 per cent of the total readers allotted less than 30 minutes per day for reading both dailies and magazines. Slightly higher than one fourth (30.95%) of them spent 31 to 60 min/day followed by 61-120 min/day (7.94%) to read both dailies and magazines.

Singh *et al.* (2002) while studying the availability and utilization pattern of information sources among farm families of selected villages of Uttaranchal noted that majority of the newspaper readers were reading newspapers regularly and majority of them were reading farm magazines sometimes. Majority of the readers devoted between 1 to 2 hours per day for reading newspapers whereas 50 per cent of total magazine readers devoted less than one hour per day for reading magazines.

Rathore *et al.* (2004) observed that majority of the respondents (73.05%) read the farm publications completely followed by partial reading (23.83 per cent). Only 3.12 per cent respondents did not read the publications at all. Over 37 per cent of the respondents devoted more than two hours for reading the farm publications followed by the one to two hours (36.33 per cent) while 26.17 per cent devoted upto an hour.

2.6 FACTORS INFLUENCING THE INFORMATION RELEVANCE

Factors influencing the information relevance of agricultural articles in newspapers and farm magazines have been selected for study based on the review of literature and help of the experts.

1. Credibility
2. Usefulness
3. Practicability
4. Simplicity
5. Accuracy
6. Reader interest
7. Clarity
8. Timeliness

The information relevance is supposed to be influenced by the following personal and socio-economic characteristics

a. Age
b. Sex
c. Religion
d. Farm size
e. Education
f. Cosmopoliteness
g. Information source utilisation pattern
h. Scientific Orientation
i. Extension Contact

2.6.1 Credibility

Hovland and Weiss (1951) explained the term credibility as the extent to which an information source is perceived as trustworthy and competent by the receivers of the message.

Choudhary (1973) reported that maximum credibility was attached to scientists in a progressive village and to demonstration in a non-progressive village.

Ravi (1979) reported that radio and newspapers were considered to be the most credible sources by tapioca growers. Prakash *et al.* (1993) observed that since the readers attach more credibility to the authentic sources of information, the newspapers are very keen in publishing articles received from such sources. Vijayaraghavan *et al.* (1997) observed that the printed matter carries an era of sanctity and authenticity which is a powerful weapon in guiding, educating, structuring and leading people for the propitious future.

Kavitha *et al.* (1999) opined that the written word has plenty of prestige and convincing power, if it is written and presented well. Sharma *et al.* (2003) observed that the written word is regarded as more authentic. The written word has power. If written well, it convinces and motivates people.

Chandrakandan (2003) found that farmers have much trust and confidence in their own sources than that of the qualified one, which may be due to their daily dealing, closeness, similar thinking and status etc. Kumar and Philip (2003) stated that one of the reasons for reading newspapers is the authenticity of information it contains. Kuttan (2005) found that for the literate people of Kerala, the print medium appeared to be more credible than the electronic media as source of news. Young people in Kerala attached a higher credibility to daily newspapers when compared to other groups. Verghese (2006) emphasized that the media remains a public trust, which alone justifies its characterization as the fourth estate. Its prime asset is credibility.

2.6.2 Usefulness

Majorie (1966) considered newspaper as a medium of much use and value due to it's characteristics like large and regular audience, high readership, low-cost communication, retention value and fast communication.

Kulkarni and Sirsat (1985) reported that 96 per cent of the readers opined the information given in Sheti Bhati to be very useful in day-to-day farming practices.

Prakash *et al.* (1993) observed that 91.67 per cent of the farmers read Karshikarangam page regularly and had the opinion that it was very useful to them.

Padre (1994) observed that the yardstick for acceptance of an article in a farm journal, is how useful or informative it is to the farmer and not who has written it.

Boniface (1996) observed that more than 60 per cent of the neo-literate farmers consulted farm pages in Malayalam dailies occasionally for specific agricultural information.

Nataraju and Perumal (1996) states that effective use of media is affected due to the lack of appropriate infrastructure in rural areas in most of the developing countries. Printed materials rarely reach the rural areas to the desired extent because of poor road, communication and transportation facilities.

Kavitha *et al.* (1999) found that if the information is presented in accordance with the liking of the target audience there would be a better utilization of the information being published in it.

Pahad (2001) noted that printed material facilitates analytical thought. It functions as a source of information rather than as a teacher substitute. So while preparing printed material care should be taken for disseminating knowledge at the level of understanding the target group.

Chandrakanta (2003) in his study regarding the role of different formal information media and interpersonal means in hill agriculture, came to the

conclusion that of the information given in the media like radio, TV, newspapers, magazines etc. was not related to the farmer's areas and are not available nearby it was not affordable.

Kumar and Bharadwaj (2005) found that the respondents, interestingly stated that they read newspaper, because they wanted to know what was happening in their area.

Pailoor (2005) opined that articles appearing in farm journals are run of the mill, library borne and of no purpose for the community which is purportedly intended.

Sridevi and Babu (2005) found that the farmers treat an information as 'not useful' in the sense that it is not need based.

2.6.3 Practicability

Oliver *et al.* (1974) found that the agricultural articles published in the newspaper 'Dinamani' were reported as practicable by the farmers.

Balachandran (1983) observed that among information regarding articles in the two farm magazines 'Kerala Karshakan' and 'Kalpadhenu', 32 per cent felt information on crop production was most practicable whereas 28 per cent found it was not practicable. Majority of the subscribers of 'Kalpadhenu' found the information on crop production, animal husbandry, dairy and poultry as relevant and practicable.

Sarkar *et al.* (1986) reported that all the farm periodicals covering different subjects were practical and suitable to the readers.

Sherief and Vasanthakumar (1997) concluded that encouraging efforts are taken by the farm magazines in Malayalam in addressing the farmers in low-cost farming techniques using locally available resources.

Padre *et al.* (2003) say that an agricultural publication like many other profession based journals has three possible expectations from its consumer. Buying, reading and most important implementing. We get a feedback of considerable amount of implementation of practical ideas carried in our magazine. By way of diffusion, there are instances, where it has extended to non-readers too.

Pailoor (2005) observed that the farm journals published by the Agricultural Universities and government departments continue to be extension oriented, academic exercises. They lay emphasis on empirical data, wherein, facts are presented as revealed by research findings. Also they limit themselves to one way communication thereby missing the feedback from the beneficiary.

2.6.4 Simplicity

Rogers (1983) reported that innovations that are perceived by receivers as having less complexity would be adopted more rapidly than other innovations.

Sherief and Vasanthakumar (1997) observed that the farm magazines adopted the popular style of presentation which the farmers can easily read and understand without much difficulty as reported by Mathur *et al.* (1978).

Blum and Katz (2000) found that the dairy farmers like to read their specific Dairy farmer Magazine, which is published bi-monthly do not find any comprehension difficulties.

Mishra (2001) observed that coverage in Indian dailies is not simple, pliable and conductive to the need of farming community.

Singh and Mishra (2002) opined that print media should use simple words and local terminology in publishing materials or information for rural farmers and farm families.

Suresh and Vasanthkumar (2002) observed that one third of the articles in both the newspaper and the farm magazine fell under very easy category of readability.

Sharma *et al* (2003) suggests that the information in the newspaper should be helpful for solving farmer's problems and keep it simple, otherwise the readers will simply discard it.

Kumar *et al* (2004) while studying the content coverage of 'Kalnadai Kathir', a TANUVAS farm journal observed that popular form of articles was published more as it could be easy to read and understand by the farmers.

Meenambigai and Seetharaman (2004) while studying the role of media in rural communication suggested that the language of a rural newspaper must be the language spoken by the people and it should be the reading material for the neo-literates. It can help the language become literacy language.

Radhakrishnan and Karippai (2006) found that simplicity of the message have positive and significant influence on reading comprehension of agricultural articles by farmers.

A newspaper that covers topics of rural matter and farm information items should have its text simple, pliable, readable, conductive and easily understood by the farmer readers (Sawant, *et al.* 1986 and Mishra and Verma, 1996).

2.6.5 Accuracy

Prakash *et al.* (1993) found that the articles in Karshikarangam page should be topical and specific in nature.

Nandapurkar (1998) observed that in order to make reading material more valid, reliable and accurate, the writer must obtain information about the capabilities, needs and interests of the readers.

Nimbalkar (1998) reported that the written material which is inaccurate loses its credibility, and ultimately it is readers.

No further reviews were found to pertaining to accuracy of the information given through newspapers and farm magazines. However, this variable has been included in this study.

2.6.6 Reader interest

Prakash *et al.* (1993) found that the question and answer column on agricultural topics should be regularly published in the 'Karshikarangam' page. Farmers are interested in reading question and answer pertaining to crop production, success stories of farmers etc.

Nataraju and Perumal (1996) observed that the editors of farm journals and magazines do not get themselves identified with the readers because they do not have the language of readers. They tend to formalize their writings and then they are not able to get the desired effect.

Vijayaraghavan *et al.* (1997) found that majority of the respondents gave importance to read the current events in dailies. Slightly less than one-third of them had given emphasis importance to read agricultural news in dailies followed by politics.

Supe (1998) found that the literature liked by the people which has 'human interest' has a powerful appeal to readers which depend primarily on their power to bring tear, or laughter or to excite anger or some other emotion.

Padre *et al.* (2003) observed that farmers are more interested in reading articles by fellow farmers than the formulaic recommendations of experts..

Sharma, *et al.* (2003) found that information concerning human-interest elements such as new programmes, personal involvement, profitability, progress etc. have more news value.

Kumar *et al* (2004) found that a wide range of modes could be used to bring out variety and to sustain the interest of large number of readers particularly farmer's experiences.

Radhakrishnan and Karippai (2006) observed that the experience stories, either of success or failure, have increased human element and interest.

If the material is published in a form which is neither accessible nor liked by readers, it is of no use.

2.6.7 Clarity

Nataraju and Perumal (1996) found that problems in agricultural news published in the farm journals like lack of clarity, inadequacy, lack of need based and situational information, may affect the effectiveness of farm journals. They also stated that posters, leaflets, newsletters etc. convey accurate and clear information through pictures, diagrams and words.

Radhakrishnan and Karippai (2006) opined that column writers in newspapers are to be sure about the completeness and unambiguity of the given message and never perceive that the readers might already know it.

2.6.8 Timeliness

Trikha (1986) reported that regarding farm magazines, merely an attractive cover page and layout will not suffice. The content must be timely, need based and locally relevant.

Prakash *et al.* (1993) suggested that stress should be given on the seasonal cultivation practices of major crops and post harvest handling and storage of agricultural products.

Nataraju and Perumal (1996) while studying the critical factors determining effectiveness of farm journals found that relevancy of the message to the season and region was ranked first and second by the respondents.

Vijayaraghavan *et al.* (1997) observed that the men respondents in the study regarding the general reading behaviour of farm families reported that one of the main restraining factors as non season-wise or untimely information in the farm magazines.

Chauhan *et al.* (2002) found that in India we have developed sufficient technology and how it is important that the developed technology is to be communicated and transferred effectively and efficiently to the actual users in time so that they can use these developed techniques on their own farms for increasing their farm produce.

Sharma *et al.* (2003) found that more timely the information the greater is its news value. Communication of information has to be timely, if one wants the reader to make use of it. Information can be made best use of, only if it is communicated at proper time. If any information, however interesting or useful it may be, if given late, will loss its utility. The very purpose of communication is then defeated.

Pailoor (2005) reported that most of the farm journals published by the agricultural universities have very meagre circulation and they are 'regularly irregular'.

Sridevi and Babu (2005) found that the farmers stated programmes in farm broadcast through radio was not useful since they were not timely.

Radhakrishnan and Karippai (2006) observed that the how-to-do-type article gives the recommendation directly narrating the procedure to be followed, which often has timely relevance among the readers.

Radhakrishnan and Karippai (2006) found that untimely reach of message to the audience has been identified as the most prominent limitation during the transmission level. Late news becomes stale and can never cater the needs of anxious reader. So proper care must be taken so that the given message is relevant and coincides with season and the cultural operations going on in the field.

Swaminathan (2006) opined that what our farm families need is the right information at the right time and at the right place.

2.7 PROFILE CHARACTERISTICS OF FARMERS

Studies on the relationship of each of the farmer personal and socio-economic characteristics selected namely age, sex, religion, farm size, education, cosmopoliteness, information source utilization pattern, reading habit, scientific orientation and extension contact with information relevance are given below.

a. Age

Oliver *et al.* (1975) reported that 76.7 per cent of the farmers subscribers surveyed read agricultural articles published in 'Dinamani'.

Balachandran (1983) reported that age was having no significant association with reading habit of Kerala Karshakan subscribers.

Boniface (1996) reported that majority of the farmer readers belonged to the age group of 35-44 years. It is informed that mostly the young people are having more reading tendency than aged people.

Nataraju and Perumal (1996) found that farmers with old age possess favourable attitude towards print media and farm magazines.

Balachandranath (1998) found that there was no association between reading behaviour and age.

Rathore *et al.* (2004) suggested that there is positive and significant relationship between age and utilization of farm publications.

Kuttan (2005) observed that young people in Kerala attached a higher credibility to daily newspapers when compared to other group.

b. Farm size

Gwyn and Hodge (1968) observed that large farmers felt the usefulness of publications more than small farmers and were also heavier readers.

Rajan (1982) observed no significant relationship between reading habit of farmers and their farm size. Balachandran (1983) also reported the same.

c. Education

Mariol (1959) observed that education was significantly related with reading of farm publications. Wilson's study (1963) showed that the amount of reading by farmers increased with education.

Studies by Kidwai (1965), Marsh and Knox (1966), Mishra (1969) and Zalaki (1973) also revealed positive relationship between readership of publication and level of education. Balachandran (1983) found significant relationship between the reading habit and education level of the farmers. Nataraju and Perumal (1996) observed that there is significant relationship between the educational status and regularity in reading of the farmer subscribers.

d. Cosmopoliteness

Rajan (1982) reported significant relationship between cosmopoliteness and reading habit. The farmer subscribers who frequently visit urban centres are more prone to reading agricultural information published in newspapers. This is in conformity with the reports of Rogers and Svenning (1969) who found a positive correlation between cosmopoliteness and mass media exposure.

Balachandran (1983) observed that cosmopoliteness was significantly associated with knowledge, in the case of both subscribers and non-subscribers. Findings by Knight and Singh (1975) and Kamarudeen (1981) support this.

e. Information source utilization pattern

Selvakumar (1988) observed that leaflets are the most utilized source for receiving information for the control of white fly in cotton.

Singh and Mishra (2002) reported that newspapers are utilized by large percentage of farm families, even if T.V. was found to be maximum utilized mass-media among all the other media. This is in confirmation with the finding of Balachandranath (1998).

Kumar and Philip (2003) observed that majority of the respondents preferred newspaper because of its availability in places like teashops, libraries and other common places and also due to its accessibility from friends, relatives and neighbours.

Suriyanarayanan and Tamilselvi (2003) found that an entrepreneur with high information sources utilization behaviour can contact rich information sources frequently which enables him to gain knowledge about his enterprise and to take rational decisions.

Suriyanarayanan and Tamilselvi (2003) found that as majority of the entrepreneurs were educated, they preferred leaflets and newspapers. They felt the published materials could be preserved and referred whenever they need information. This finding is in conformity with the findings of Govind and Perumal (2002).

Rathore *et al.* (2004) reported that majority of the respondents in a study regarding the utilization pattern of farm publications read farm publications for adoption of practices in their own field.

Ahire and Shenoy (2005) found that newspapers, television and agricultural magazines were frequently used mass media channels by the mango growers to seek the information regarding mango production technologies.

Pandey *et al.* (2005) inferred that friends/relatives were used by the poor farmers for social information and agricultural information. Shopkeepers were used most for economic information. Radio for political information and fellow farmers mostly for agricultural information.

Loganadhan and Singh (2005) found that organic farmers use non-traditional sources like books, magazines and neighbours..

f. Scientific orientation

Balachandran (1983) reported positive and significant relationship between scientific orientation and reading habit. This might be due to the fact that, the higher scientific orientation of a farmer makes him more interested in getting new information which contributes to more reading.

g. Extension contact

Balachandran (1983) found that extension contact had significant association with reading habit.

Nataraju and Perumal (1996) reported that farmers with work extension participation has a favourable attitude towards print media and farm magazines.

Blum and Katz (2000) in a survey conducted on the extent of utilization of written and verbal information sources among the dairy farmers of Israel found that the most important written source of information was the Dairy farmers' Magazine. Especially the better educated farmers have access to a wide range of knowledge sources, above all a wide range of publications.

Kashem and Poddar (2000) observed that the Mehersagar banana growers had the highest contact with the seed/fertilizer dealers closely followed by local dealers and group discussion. Kashem and Halim (1991) and Kashem and Mikuni (1998) also found almost the similar findings in their studies.

Manohari (2002) while studying the utilization of information sources by the tribal farmers in Rampachodavaram Agency Area observed that majority of the respondents were using friends, neighbors and local leaders as their main source of information. Negligible amount of farmers are utilizing newspaper and information material as their source of information. This finding is in line with the findings of Kulkarni (1985).

Gupta *et al.* (2003) found that electronic media like TV and radio are mostly used and preferred for seeking information on agriculture and development.

Meena and Babel (2003) observed that friends, neighbours, local leaders and progressive farmers were frequently used among personal local sources of information and among personal cosmopolite VLWs and AAOs were mostly used. Radio and farm literature were frequently used among impersonal cosmopolite sources of information.

Padre (2003) found that the farmer is an unavoidable source of information because he is the real performer.

Rathore *et al.* (2004) while studying the utilization of the farm publications found that information through farm publications are the most favoured and widely adopted among the farmer's community.

Ahire and Shenoy (2005) in their study regarding the utilization of communication channels by mango growers of Andhra Pradesh observed that newspapers, television and agricultural magazines were the most important communication sources among the mass media channels.

Pandey *et al.* (2005) observed in his study about the information sources of poor farmers' of U.P., that friends/relatives figure at the top for both family and social information and at the second place in agricultural information. Radio is used most in case of political information. Fellow farmers were used more than any other source for agricultural information.

2.8 CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework the study, developed based on the review of literature and discussion with experts is diagrammatically represented in Fig. 1.

The model consists of two concentric circles showing the independent and dependent variables. The inner circle represents the dependent variable information relevance. The outer circle subsumes the information relevance components such as credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness.

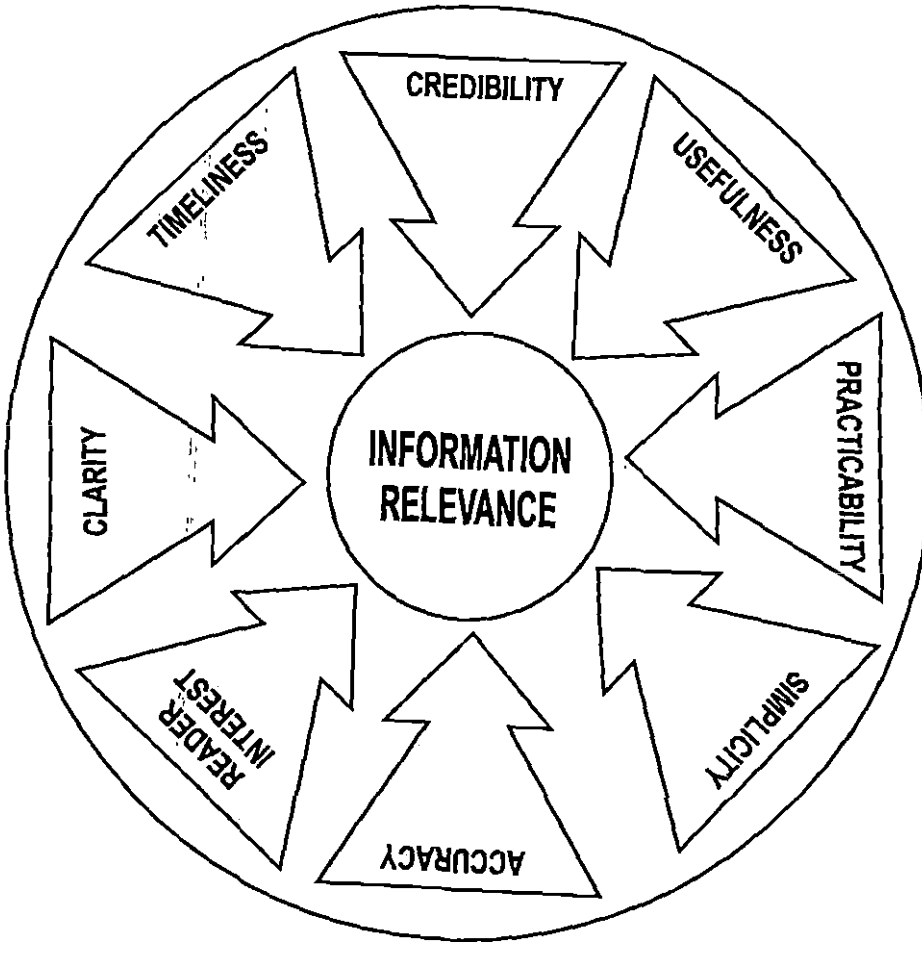


Fig. 1. Conceptual framework of the study

METHODOLOGY

3. METHODOLOGY

In this chapter, the research methods and procedures employed in this study are presented under the following heads.

3.1 Location of the study

3.2 Selection of newspapers

3.3 Selection of farm magazines

3.4 Selection of sample

3.5 Delineation of factors influencing the information relevance

3.6 Operationalisation and measurement of the dependent variable : Information relevance

3.7 Operationalisation and measurement of reader preference

3.8 Operationalisation and measurement of readership pattern

3.9 Operationalisation and measurement of subject matter coverage

3.10 Operationalisation and measurement of subject matter treatment

3.11 Measurement of personal and socio-economic characteristics

3.12 Other definitions in the study

3.13 Data collection procedures

3.14 Statistical tools used for the study

3.1 LOCATION OF THE STUDY

The districts of Thiruvananthapuram, Ernakulam and Kozhikode were randomly selected for the study representing the south, central and north zones of Kerala State respectively. From each district, one panchayath which is having the maximum number of subscribers of the farm magazine "Kerala Karshakan", which is having the highest circulation among the farm magazines in Malayalam and which is being published by the Farm Information Bureau, Government of Kerala, was selected.

These three panchayaths were Vattiyoorkavu Panchayat from Thiruvananthapuram district, Thuravoor Panchayat from Ernakulam district and Mukkom Panchayat from Kozhikode district (Fig. 2).

3.2 SELECTION OF NEWSPAPERS

The four newspapers selected for the study were Mathrubhumi, Malayala Manorama, Kerala Kaumudi and Deshabhimani. These were selected for the following reasons.

1. These four newspapers are considered to be the most popular among the farmers of Kerala.
2. These newspapers are publishing farm page (Karshikarangam) regularly every week.

3.3 SELECTION OF FARM MAGAZINES

The two farm magazines selected for the study were "Kerala Karshakan" and "Karshakasree". These were selected for the following reasons.

1. Accurate information pertaining to subscribers is easily accessible with these two magazines.
2. These two are considered to be the most popular among the farmers.

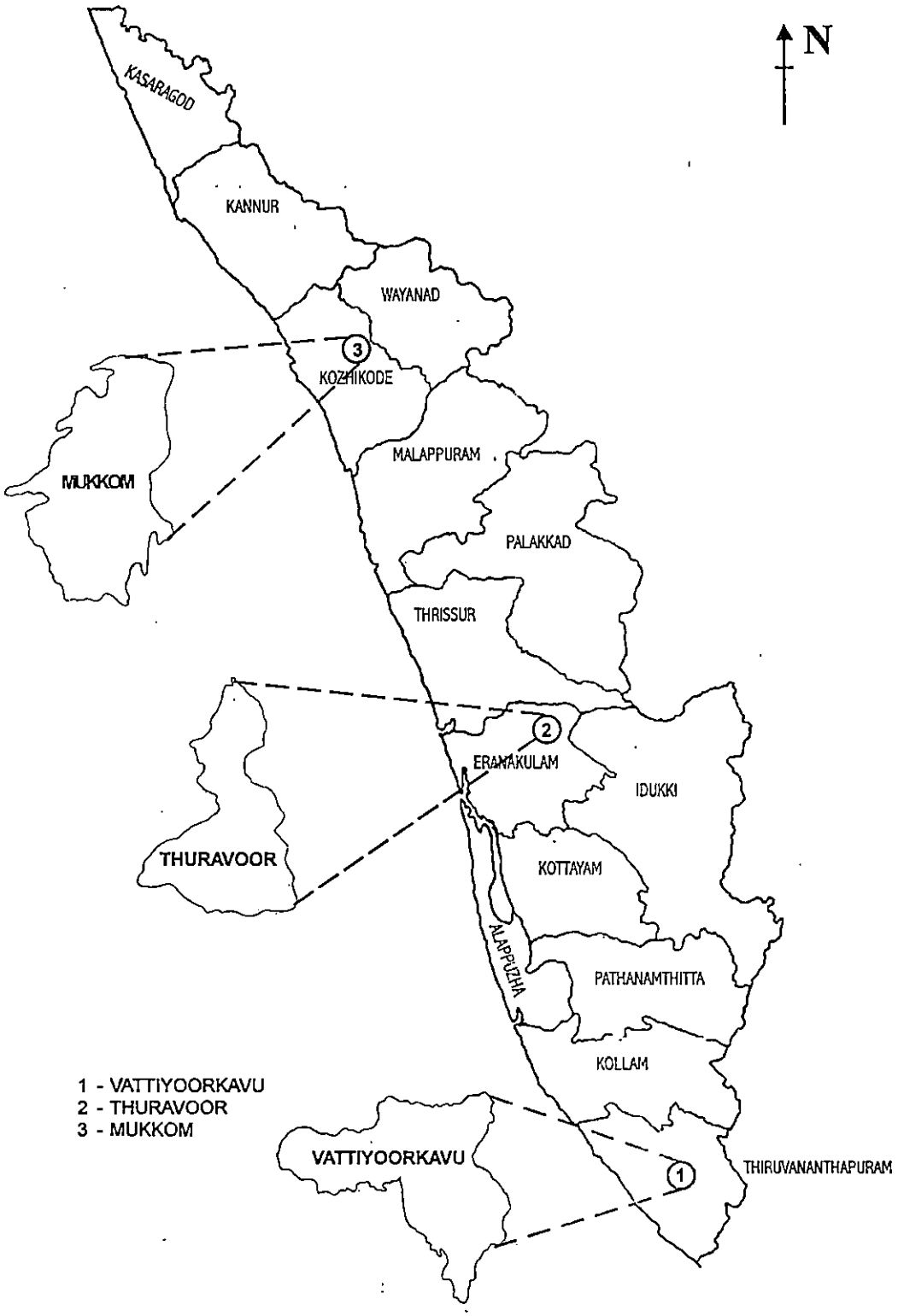


Fig. 2. Map of Kerala state showing the locale of the study

3. Out of these two farm magazines, "Kerala Karshakan" represents the magazine from the public sector and "Karshakasree" represents the magazine from the private sector.

3.4 SELECTION OF SAMPLE

A list of the subscribers of 'Kerala Karshakan' which is the official farm publication of the Government of Kerala, was first prepared for each of the three Panchayats. From these a list of readers of the 'Karshakasree', a leading farm magazine from the private sector was also prepared. From this list of each Panchayat, 60 respondents were randomly selected for the study. These respondents were also readers of any of the four leading Malayalam newspapers ie., Mathrubhumi, Malayala Manorama, Deshabhimani and Kerala Kaumudi. Thus, the total number of respondents for the study was 180.

Measurement of variables

The methods followed for measuring the different variables under study are presented in the following pages.

1. Selection of variables
2. Operation of variables
3. Measurement procedure of variables

3.5 DELINEATION OF FACTORS INFLUENCING THE INFORMATION RELEVANCE

Information relevance is the main dependent variable. A list of factors influencing information relevance was prepared based on the review of literature. The list of factors was sent to judges comprising of extension specialists, senior journalists, editors of newspapers and farm magazines and subject matter experts. They were asked to examine the factors critically and to rate the relevancy on a five point continuum ranging from most relevant, more relevant, relevant, less

relevant and least relevant with weightages of 5, 4, 3, 2 and 1 respectively (Appendix II). The final factors were selected based on the mean relevancy scores for the study. Accordingly, eight factors having the highest score were selected and are presented below.

Factors influencing information relevance

1. Credibility
2. Usefulness
3. Practicability
4. Simplicity
5. Accuracy
6. Reader interest
7. Clarity
8. Timeliness

3.6 OPERATIONALISATION AND MEASUREMENT OF THE DEPENDENT VARIABLE : INFORMATION RELEVANCE

The very objective of the study necessitated the selection of the dependent variable : information relevance.

Keeping in view of the review of literature and the specific objective of the present investigation, information relevance, the dependent variable, was operationally defined as the extent to which the technological and other innovations in the field of agriculture are perceived by the respondent as pertinent and useful to him.

For the present study, information relevance was measured by using an evaluation table comprising of all dimensions of the dependent variable and given to the respondents. The respondents were asked to indicate their response pattern on each dimension by giving a score between 1 to 10 for each newspaper as follows.

Dimension	Response pattern (Please indicate your score for each dimension with regard to each newspaper mentioned below by giving a score ranging between 1 to 10)			
	Malayala Manorama	Mathrubhumi	Deshabhimani	Kerala Kaumudi
Credibility				
Usefulness				
Practicability				
Simplicity				
Accuracy				
Reader interest				
Clarity				
Timeliness				
Total				

The same evaluation procedure was adopted for the two farm magazines also in the following manner.

Dimension	Response pattern (Please indicate your score for each dimension with regard to each farm magazine mentioned below by giving a score ranging between 1 to 10)	
	Kerala Karshakan	Karshakasree
Credibility		
Usefulness		
Practicability		
Simplicity		
Accuracy		
Reader interest		
Clarity		
Timeliness		
Total		

The scores obtained in respect of four newspapers and two farm magazines were added up separately for further analysis of information relevance. Similarly the total scores given by each respondent was also worked out to be considered as the dependent variable for correlation analysis with the personal and socio-economic characteristics of the respondent.

Definition of Concepts

In this section, the concepts used in this study are defined.

Credibility

Credibility of the information is operationally defined as the degree to which the respondent considers a farm information as trustworthy, competent and reliable.

Usefulness

Usefulness is operationally defined as the property of serving or capable of serving a useful purpose to the respondent.

Practicability

Practicability is operationally defined as the degree to which the information given through the farm magazines and newspapers can be put to use by the respondents.

Simplicity

Simplicity of the information is operationally defined as the degree to which the information is relatively simple to understand.

Accuracy

Accuracy is operationally defined as the extent to which the information has conformity to the fact.

Reader interest

Reader interest is operationally defined as the extent to which the information creates interest and gratification to the respondent.

Clarity

Clarity is operationally defined as the property of the information which readily perceived or easily understood.

Timeliness

Timeliness is operationally defined as the extent to which the information is provided to the respondent at a suitable time.

3.7 OPERATIONALISATION AND MEASUREMENT OF READER PREFERENCE

Another objective of the study was to assess the reader preference. Keeping in view the review of literature, reader preference was operationally defined as the choice of the respondent, in reading certain topics over the other. Reader preference was studied with respect to two aspects; one is preference of the readers with regard to format of presentation and the other is the subject matter preference

a. Identification of formats

After analyzing the formats of presentation of topics in the newspapers and farm magazines, the following formats were identified as the areas for assessing reader preference.

1. Scientific articles
2. Feature articles
3. News items

4. Farmers' experiences
5. Questions and answers
6. Interviews

b. Ranking of the formats

The ranking of the formats identified, according to readers' preference was done by using the method of paired comparison as suggested by Edwards (1957).

The six formats were given in pairs in all possible combinations in the interview schedule. The maximum number of pairs possible is given by the formula,

$$\frac{n\,(n-1)}{2}$$

where 'n' is the number of items to be given in pairs. Thus there were 15 pairs of items for the formats.

The respondents were asked to indicate the item which they prefer more to read over the other item in each pair, for all the pairs. From the judgment of the respondents, F, P and Z matrices were developed and scale values derived as explained below.

F matrix

From the judgment of the respondents the F matrix was constructed using the frequencies, where the cell entries correspond to the frequency with which the column stimuli were judged more favourable than row stimuli.

P matrix

For each cell entry in the F matrix, proportion entries were made in the P matrix by dividing them by N, where N was the total number of respondents who

made the judgments. The entries of P matrix gave the proportion of times the column stimuli were judged more favourable than the row stimuli.

Z matrix

The entries of Z matrix were obtained from the table of normal derivates, which gives the Z values corresponding to the proportion in the P matrix. The sum of normal deviates entered were calculated for each column and the arithmetic means were found out. In order to get a positive scale, a constant was added to the scale value. The scale was taken as the score of preference of the formats by the respondents.

c. Identification of the subject matter

After examining the contents of the newspapers and farm magazines for the period under study, the following subjects have been identified as covered in them regularly and for assessing the readers' preference.

1. Cereals
2. Pulses
3. Tubers
4. Cash crops
5. Oil seeds
6. Spices
7. Vegetables
8. Fruits
9. Flowers
10. Medicinal plants
11. Fodder crops
12. Green manure crops
13. Agro-forestry
14. Plant protection

15. Irrigation
16. Organic farming
17. Mushroom growing
18. Beekeeping
19. Sericulture
20. Agricultural marketing
21. Agro-based enterprises

d. Ranking of the subject matter

Regarding the subject matter preference of readers, the 21 subject areas were given to the respondents and they were asked to indicate their preference of reading on a four-point continuum as follows.

Subject	Most preferred	Preferred	Least preferred	Not at all preferred
	(3)	(2)	(1)	(0)

3.8 OPERATIONALISATION AND MEASUREMENT OF READERSHIP PATTERN

Based on the review of literature readership pattern was operationally defined as the readership behaviour of respondents in terms of time spent for reading like reading upto to half an hour, half to one hour and above one hour; and also the nature of reading like complete reading, partial reading or bare minimum reading. Readership pattern of the respondents with regard to the selected newspapers and farm magazines was assessed separately with respect to two main aspects

(i) time spent for reading.
(ii) nature of reading

(i) Time spent for reading

The time taken for reading newspapers and farm magazines was collected separately on three ranges such as up to one hour, one to two hours and above two hours per day. They were given a score of 1, 2 and 3 respectively.

(ii) Nature of reading

In this study, nature of reading means whether the respondent is reading the newspaper and farm magazine completely, partially or to a bare minimum level. For this a score of 3, 2 and 1 were given respectively.

3.9 OPERATIONALISATION AND MEASUREMENT OF SUBJECT MATTER COVERAGE

Keeping in view the review of literature, subject matter coverage was operationally defined as the number of articles that have appeared in the newspapers and farm magazines during the period of study. Subject matter coverage in the farm pages of newspapers and farm magazines were assessed separately. For this the farm pages of newspapers viz. Mathrubhumi, Malayala Manorama, Kerala Kaumudi and Deshabhimani were analysed in detail for the period under study in the following general categories.

i) Agriculture
ii) Horticulture
iii) Animal Husbandry
iv) Fisheries
v) Dairy
vi) Agricultural Engineering
vii) Home Science
viii) Miscellaneous

The number of articles falling under each category were listed and were ranked based on the number of articles published under each.

This was done for the two farm magazines Kerala Karshakan and Karshakasree also.

3.10 OPEATIONALISATION AND MEASUREMENT OF SUBJECT MATTER TREATMENT

Whatever be the subject matter, the way it is presented in a newspaper or farm magazine is the most critical factor which catches the attention of the reader to read it or not. In this study subject matter treatment was operationally defined as whether the subject matter is presented as a scientific article, feature article, news item, farmer experience, question-answer, interview etc. Readers, of course, differ in their liking towards each type of treatment also.

In this study, the percentage of treatment of subject matter was assessed both in the farm pages of the four Malayalam newspapers and the two farm magazines in the following formats or modes.

i) Scientific Articles
ii) Popular Articles
iii) Feature Articles
iv) News items
v) Farmers' experiences
vi) Questions and answers
vii) Interviews
viii) Miscellaneous

3.11 OPERATIONALISATION AND MEASUREMENT OF PERSONAL AND SOCIO-ECONOMIC CHARACTERISTICS

The procedures adopted for measuring the personal and socio-economic characteristics of the respondents namely age, sex, religion, education, farm size,

cosmopoliteness, information source utilization pattern, scientific orientation and extension contact, are described below.

1. Age

Age is defined operationally as the number of years completed by the respondent at the time of enquiry. For the study it was measured by directly asking them the number of years the respondents had completed at the time of interview.

The respondents were asked to give the number of years completed since their birth upto the time of interview. Depending upon the age they were grouped into the following three categories as suggested by Parvathy (2000).

Category	Age	Score
Young	Below 35	1
Middle	35 – 50	2
Old	Above 50	3

2. Sex

The respondents were asked to note their sex in the interview schedule for which the following scores were given.

Sex	Score
Male	1
Female	2

3. Religion

The respondents were asked to note their religion and the following scoring procedure was adopted.

Religion	Score
Hindu	1
Christian	2
Muslim	3

4. Education

Balachandran (1983) defined the term "Education" as identical with the level of literacy and refers to the ability of the individual to read and write and the extent of schooling. In this study also education is operationally defined in the same manner.

The respondents were asked to indicate the literacy level or extent of formal education undergone by them and scoring was done as per the procedure of Trivedi's (1963) socio-economic scale.

Category	Score
Illiterate	0
Can read only	1
Can read and write	2
Primary school	3
Middle school	4
High School	5
College	6

5. Farm size

Farm size refers to the total land owned by the respondent at the time of conducting the survey.

The respondents were asked to give the total area of their farm and were given scores as suggested by Fayas (2003).

Farm size	Score
Upto 25 cents	1
26 to 50 cents	2
51 cents to 1 acre	3
1.01 to 2 acres	4
Above 2 acres	5

6. Cosmopoliteness

Rogers and Svenning (1969) defined cosmopoliteness as the extent of contact outside the village, such as visiting the nearest town and membership in organizations outside the village.

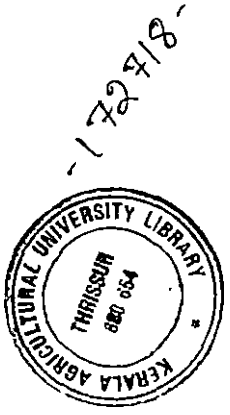
Balachandran (1983) defined cosmopoliteness of an individual in terms of the individual's frequency of visit to the nearest town, the purpose of visit and his membership in any organizations in the town.

For this study, cosmopoliteness of an individual was operationalised in terms of the individual's frequency of visit to the nearest town, the purpose of visit and his membership in any organization in the town.

In this study cosmopoliteness was measured on the lines of Balachandran (1983). The response categories and scores were as follows:

(i) Frequency of visit to the nearest town

Frequency	Score
Never	0
Once in a month	1
Twice in a month	2
Once in a week	3
Twice or more a week	4



(ii) Purpose of visit

Purpose	Score
Agricultural	3
Personal	2
Other purpose	1

(iii) Membership in organizations in town

Membership	Score
Yes	2
No	1

7. Information source utilization pattern

Prasad (1978) defined information sources as the sources through which farmers get information about improved practices in farming. This has been classified into the following three categories.

1. Mass media
2. Interpersonal sources
3. Institutions

Information source utilization pattern was operationalised in this study as the pattern of utilizing information sources through which farmers get information about improved practices in farming.

In this study, the extent of use of information sources was measured for each respondent in the following way as suggested by Prasad (1978). The sources of information for agricultural technology were listed and they were grouped into the following three categories

i. Mass media

a) Newspaper
b) Radio
c) Television

ii. Interpersonal sources

a) Agricultural Officer
b) University Scientist
c) Fellow farmer

iii. Institutions

a) Krishi Bhavan
b) Research Station

The respondents were asked to record their nature of utilization on a four point continuum and the score was given as 3 (for regular use), 2 (for occasional use), 1 (for rare use) and 0 (for not using at all).

The response scores were summed up to form the information source utilization pattern index of the respondent.

8. Scientific orientation

According to Balachandran (1983) scientific orientation is the degree to which the respondent is oriented to the use of scientific methods in decision making. This definition was adopted in this study also.

Scientific orientation of the respondents was assessed by using the scale developed by Balachandran (1983) with partial modification. The responses were collected on a three point continuum as shown below.

Responses	Score
Agree	3
Undecided	2
Disagree	1

9. Extension contact

Extension contact is operationalized as the frequency of the respondent visiting the extension agencies like the Agricultural Officer and University scientist in connection with the agricultural activities.

To measure the respondent's contact with extension agencies the scoring technique developed by Jaiswal *et al.* (1971) was used. It is based on the frequency of meeting by the respondents, with Agricultural Officer, University Scientist etc. in connection with agricultural activities. The respondents were asked to indicate their frequency of visiting these personnel in connection with agricultural purposes. Scores were given as follows.

Frequency	Score
Never	0
Once in a month	1
Once in a fortnight	2
Once in a week	3
Twice or more a week	4

3.12 OTHER DEFINITIONS IN THE STUDY

i) Agricultural columns

The New Webster's Dictionary (2000) defined Column as 'vertical rows of lines of typed or printed matter in a page, separated by a rule of blank space' and 'a special page of a newspaper which focuses on certain topic'.

Agricultural columns are also referred to as farm columns. In this study agricultural column indicates sections in newspapers set aside exclusively for publication of articles, news items, farmer experience, question-answers etc. on agriculture and allied fields.

ii) Farmer subscriber of farm magazine

The farmer subscriber of the farm magazine was operationalised as a decision making member of any family which owns some landed property and have been subscribing the farm magazine under study during the period of interview.

iii) Scientific articles

The New Webster's Dictionary (2000) defines the term 'Scientific' as 'endowed with a knowledge of science' or 'according to the rules or principles of science'.

Scientific article in this study was operationalised as a prose contribution to a newspaper or a farm magazine which is endowed with the knowledge of agricultural science and which is written according to the rules or principles of agricultural science.

iv) Feature article

Feature is not only news, but also is a fact based presentation that connects reader's arguments with emotions thereof it has imagination on it (Kumar, 2006).

Feature article in this study was operationalised as an article which is a fact based presentation that connects reader's arguments with emotions and imagination.

v) News item

The New Webster's Dictionary (2000) defines the term news as 'current information about something that has taken place, or about something not known before'.

News item in this study was operationalised as 'a separate or distinct piece of news of agricultural importance' which helps the respondent in gaining new information which in turn is helpful for him in his farming activities.

vi) Questions and answers

'Questions and answers' refers to the querries or inquiries in agriculture put forward by farmers and the answer or reply or response is given through the newspaper or farm magazines.

vii) Interview

Interview is the meeting between a representative of the press and a person from whom information is sought for publication.

Interview is operationlised in this study as the matter printed in the newspaper or farm magazine, which is a result of meeting between the representative of the press and a policy maker, master contact farmer, opinion leader, extension worker etc.

viii) Farmer Experience

Experience is the knowledge or skill based on this; it is the observing, encountering, or undergoing of things generally as they occur in the course of time;

Farmer Experience is the knowledge or practical wisdom of the farmer gained from what he has observed, encountered or undergone in farming.

3.13 DATA COLLECTION PROCEDURES

A draft interview schedule was prepared incorporating all the variables included in the study and tested by administering to twenty farmers, who were not included in the main sample. In the light of the results of the pretest, suitable modifications were made and the schedule was finalized. The schedule in its finalised form is given in Appendix II.

The data were collected from the respondents by personal interview with them. The questions were asked in Malayalam during the interview.

3.14 STATISTICAL METHODS USED

The following statistical tests were used in the analysis of the data collected.

1. Percentage analysis

Percentage analysis was done to make comparisons.

2. The paired comparison technique

The paired comparison technique, as explained by Edwards (1957), was adopted to find out the farmer's preference regarding different formats or modes of presentation.

3. Mean, Standard deviation and Quartiles

Mean, standard deviation and quartiles were found to study the variability in the socio-economic characters.

4. Correlation analysis

Correlation coefficient is a measure of the association between two variables. The correlation coefficient was worked out to measure the relationship between the dependent and independent variables.

5. Rank correlation coefficient

Rank correlation coefficient was calculated to measure the association between the variables regarding the subject matter treatment and mode of presentation of articles in newspapers and farm magazines.

6. Principal component analysis

Principal component analysis determines values that account for the majority of variability. It analyses the structure of a single set of inter-related, but independent variables and summarises data extracted from them. This is calculated based on the dispersion and correlation matrices.

7. Chi-square analysis

Chi-square analysis was done to find the percentage of linkage between the parameters connected with reading pattern of newspapers and farm magazines.

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

The results of the study are presented in this chapter under the following heads.

4.1. Information relevance of agricultural articles in Malayalam newspapers

4.2. Information relevance of agricultural articles in Malayalam farm magazines

4.3. Reader preference of agricultural articles

4.4. Readership pattern of agricultural articles in Malayalam newspapers and farm magazines

4.5. Subject matter coverage regarding agricultural articles of Malayalam newspapers and farm magazines

4.6. Subject matter treatment regarding agricultural articles of Malayalam newspapers and farm magazines

4.7. Relationship of profile characteristics of the respondents with information relevance

4.1 INFORMATION RELEVANCE OF AGRICULTURAL ARTICLES IN MALAYALAM NEWSPAPERS

Information relevance of agricultural articles published in the 'Karshikarangam' pages (farm pages) of the selected four Malayalam dailies *viz.*, Mathrubhumi, Malayala Manorama, Kerala Kaumudi, Deshabhimani was studied and the results are given in Tables 1 and 2.

Table 1.. Principal component analysis of factors of information relevance in farm pages of newspapers

DIMENSION	Latent vectors in descending order							
	Principal components							
	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5	COMP 6	COMP 7	COMP 8
Clarity	0.424	-0.078	-.0.682	-0.328	0.073	0.042	0.405	-0.264
Timeliness	0.423	-0.127	-0.221	0.240	-0.423	-0.581	-0.368	0.216
Accuracy	0.407	-0.195	0.301	-0.622	0.347	0.041	-0.393	0.208
Practicability	0.364	-0.170	0.300	0.217	-0.033	0.112	0.621	0.549
Reader interest	0.352	-0.009	0.538	0.043	-0.186	-0.156	0.160	-0.707
Simplicity	0.352	0.105	-0.081	0.249	-0.286	0.773	-0.340	-0.045
Usefulness	0.275	0.237	-0.069	0.524	0.746	-0.113	-0.113	-0.084
Credibility	0.141	0.918	0.063	-0.250	-0.147	-0.109	0.084	0.173

Table 2. Percentage and cumulative variance of principal components of the factors of information relevance in newspapers

Principal components	Latent roots	Percentage variance	Cumulative variance
COMP 1 (Clarity)	3427.450	52.665	52.665
COMP 2 (Timeliness)	952.758	14.640	67.304
COMP 3 (Accuracy)	528.325	8.118	75.422
COMP 4 (Practicability)	439.525	6.754	82.176
COMP 5 (Reader interest)	365.276	5.613	82.788
COMP 6 (Simplicity)	337.056	5.179	92.967
COMP 7 (Usefulness)	245.388	3.771	96.738
COMP 8 (Credibility)	212.298	3.262	100.00

The data furnished in Tables 1 and 2 reveal that information relevance was influenced by the components such as credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness. The extent to which these components account for the majority of variability is also shown in the Tables. All these variables are inter-related.

The Tables 1 and 2 indicate that there was varying degrees of influence with regard to the components that constitute information relevance. The components are arranged in the descending order of influence in Table 1.

It is evident from the Tables that the first and foremost important component which influences information relevance is 'clarity'. It alone made around 53 per cent variance followed by 'timeliness', which made around 15 per cent variance and 'accuracy' which makes around 8 per cent variance. This means that the first three variables namely clarity, timeliness and accuracy alone explained 75 per cent of variance, which formed lion's share of the components. This shows very clearly that any information, particularly farm information, would become relevant only when the content presented is clear, timely and accurate. Among the set of variables, these three variables can be short-listed as the most relevant variables influencing the relevance of any farm information. This also means that whatever be the bit of farm information to be transferred to the farming folk, it should be transmitted clearly and at the proper time with accurate description. Then only it will be of any relevance to the end users.

The fourth variable was 'practicability' which contribute to a variance of 7 per cent. The remaining variables in their order of contribution were reader interest, simplicity, usefulness and credibility which contributes to around 6, 5, 4 and 3 per cent variance, respectively.

Thus the principal component analysis identified, clarity, timeliness, accuracy and practicability as the major factors contributing to information relevance of agricultural articles in Malayalam newspapers.

4.2 INFORMATION RELEVANCE OF AGRICULTURAL ARTICLES IN MALAYALAM FARM MAGAZINES

Information relevance of agricultural articles published in the selected two Malayalam farm magazines 'Kerala Karshakan' and 'Karshakasree' was studied. The results are given in Tables 3 and 4.

The data furnished in the Tables 3 and 4 revealed that information relevance was certainly influenced by the components such as credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness. The extent to which these components accounted for the majority of variability is made clear in the Table 4. All these variables were inter-related also.

Table 3. Principal component analysis of factors of information relevance in Malayalam farm magazines

DIMENSION	Latent vectors in descending order				
	Principal components				
	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5
Credibility	0.847	-0.036	-0.243	-0.406	-0.240
Simplicity	0.387	-0.264	0.018	0.339	0.816
Practicability	0.268	0.031	-0.019	0.842	-0.467
Timeliness	0.245	0.385	0.887	-0.063	0.016
Clarity	0.035	0.883	-0.391	0.083	0.244

The Tables 3 and 4 indicated that there was varying degrees of influence with regard to the components that constitute information relevance. The components are arranged in the decreasing order of influence in Table.

When the whole variables were taken for principal component analysis regarding the information relevance of articles in farm magazines no convergence was noted by including variables like usefulness, accuracy and reader interest. Among the remaining factors credibility, simplicity, practicability, timeliness and clarity has got major contribution and contributed maximum to the total variance. Among them the maximum variability was observed by credibility and simplicity giving 35 per cent and 21 per cent variability respectively, and thus making a total of 56 per cent of the total variability. This means that as far as farm magazines were concerned the most important factors influencing the information relevance were credibility and simplicity.

From this it can be inferred that there was difference in the case of newspapers and farm magazines regarding information relevance from the point of view of the readers. In the case of newspapers the most important factors were 'clarity' and 'timeliness', whereas in the case of farm magazines it was 'credibility' and 'simplicity'. It can also be inferred that newspapers are meant for creating interest and awareness among the readers where clarity and timeliness has to play a dominant role; whereas the main purpose of farm magazines is to serve as a permanent reference or reading material. So farm magazines should contain information which are clear as well as timely, which helps in motivating the readers for adoption of various agricultural practices and also it should serve the purpose and timeliness, whenever it is read as and when time permits.

Table 4. Percentage and cumulative variance of principal components of the factors of information relevance in Malayalam farm magazines

Principal components	Latent Roots	Percentage Variance	Cumulative Variance
COMP 1 (Credibility)	776.061	34.901	34.901
COMP 2 (Simplicity)	462.434	20.797	55.698
COMP 3 (Practicability)	395.619	17.792	73.490
COMP 4 (Timeliness)	333.615	15.003	88.493
COMP 5 (Clarity)	255.883	11.508	100.001

The Tables 3 and 4 indicate the variability of components, constituting information relevance of agricultural articles published in farm magazines. From the table it is clear that the first component which created maximum variation was variable 1 *ie.*, 'credibility' followed by variable 4 ie, 'simplicity'. This means that with regard to the information relevance of farm magazines the component that contributed most was 'credibility'. The component of 'credibility' with a percentage variance of about 35 and the component 'simplicity' with a percentage variance of about 21 made a total of 56 percentage variance. This means that these two components explained 56 per cent of variance showing their high degree of influence on the information relevance.

4.3 READER PREFERENCE OF AGRICULTURAL ARTICLES

Reader preference of agricultural articles published in the farm pages of newspaper and farm magazines was studied in two dimensions; The first aspect considered was format or mode of presentation and the second aspect was subject matter. Subject matter includes major crops grown in Kerala and also modern trends in the present farming system.

4.3.1 Reader preference of the different formats or modes of presentation

The following matrix (Table 5) gives the frequency with which each format given in the columns was preferred over each format given in the rows.

Table 5. Frequency matrix for six formats of subject matter presentation judged by the respondents

	Scientific article	Feature article	News item	Farmer experience	Questions and Answer	Interview
Scientific article	-	81	106	61	104	113
Feature article	99	-	85	82	114	110
News item	74	95	-	45	108	118
Farmer experience	119	98	135	-	86	96
Questions and answers	76	66	72	94	-	89
Interview	67	40	62	84	91	-

From this matrix, a proportion matrix and from the proportion matrix, a Z-matrix were prepared. From the Z-matrix the scale values indicating the preference of the readers were obtained. The derived scale values and the ranking of the six formats are given in Table 6 and presented as Fig. 3. The P and Z matrices are given in Appendix IV.

Table 6. Scale values and ranks of six formats of presentation

No.	Format of presentation	Scale value	Rank according to readers preference
1.	Interview	0.356	1
2.	Agricultural news item	0.340	2
3.	Questions and answers	0.297	3
4.	Scientific article	0.251	4
5.	Feature article	0.177	5
6.	Farmer experience	0.001	6

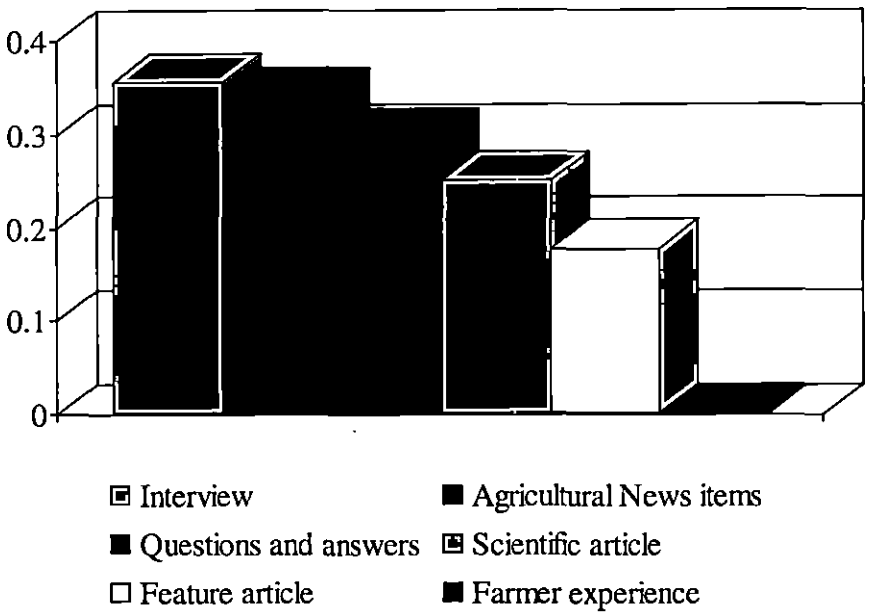


Fig. 3. Reader preference of the different formats of presentation

Table 6 shows very clearly that the most preferred formats of presentation occupying the first three positions were interview followed by agricultural news items (Krishivarthakal) and Questions and answers. The fourth position of preference was for scientific article. The fifth and sixth positions went to feature article and farmer experience. It is interesting to note that interview with the policy makers, extension personnel, progressive farmers and master farmer leaders were preferred by the readers of both newspaper and farm magazines. It was very striking to note that timely news items are preferred next to interview. This may be due to the reason that news items which are of timely importance regarding various agricultural development schemes, beneficiary programmes, subsidies, distribution of inputs including planting materials, minikits, fertilizers, pesticides, agricultural implements, crop loss insurances, pest outbreaks etc. were treated by the farmer readers as most important than any other time since they were very essential for their survival and existence. If such news items are not reaching them in time they are of no use and value for them. Late news will always be stale news as far as the concept of farming is concerned. This may be the main reason why the readers preferred news items just after interviews.

The third preference was for question-answer columns. This may be due to the reason that question-answer is more specific and cater directly to the queries of farmers and requires only less time to read. This finding is in confirmation with the findings of Boniface (1996) wherein question-answer is given the second place in the order of preference by neo-literate readers. The reasons mentioned are that the farmers are always curious about the latest information in agriculture. They are eager to know more about different crops and they are the persons who spend most of the time in the field itself. So naturally more doubts may arise. Therefore, questions and answers was preferred by majority which served as a ready reckoner to solve their problems related to farming. Scientific articles got the fourth preference.

The least preferred modes of presentations were feature articles and farmer experience. This may be due to the reason that in such modes the writers usually make a twist from the reality and may exaggerate the facts so as to make it more sensational, attractive and readable. Moreover this is a usual complaint heard from the part of farmer readers who point out that whether it is a feature article based on the success story of a farmer or a crop or a farming system there exists an unhealthy practice by the writers to make it more colourful by adding unnecessary adjectives and adverbs so that the reader who read such items actually 'fell into it'. Since farming is a time taking and risk oriented process always such unnecessary descriptions can mislead the readers who may jump into certain huge losses later.

Regarding farmer experience, if it is written by the farmer who really practices it, it will be within the limits. But again if it is written by somebody else then also there is the danger of over-description which ultimately leads to misinformation rather than proper information.

4.3.2 Reader preference with respect to subject matter relating to various crops/farming systems

Reader preference with respect to the major crops grown in Kerala and also modern trends in farming system were studied based on the response of the respondents and percentage analysis was done. The results regarding the preferential pattern of respondents subject matter wise are given in Table 7.

The Table revealed the rate of preference of the respondents towards the subject matter published in the farm pages of newspapers and farm magazines. Among the subjects, the rate of preference was most for 'fruits' ie., 62.8%. This may be due to the reason that post harvest technology in fruits can provide ample self-employment opportunities to the educated and unemployed youth of Kerala; even if Kerala is known as the 'fruit basket' of India' where a wide variety of fruits grown, due to lack of proper and timely post harvest technologies majority

of the produce is lost in the field itself. Value addition, if incorporated suitably in this sector, will increase the income of farmers and also will open up new avenues in self employment.

The second most preferred crop by the respondents was oil seeds. Here oil seeds represent coconut, which is one of the major crops grown in Kerala. Moreover, one of the most affected crops in the globalization era was coconut and its products. It may be the reason why cultivators were eager to know the various aspects in production, procuring, marketing and processing of coconut.

Irrigation with a most preferred score of 49.6 per cent got the third position, which itself is an indicator towards the inclination of the farmers towards adopting scientific irrigation practices which in turn is helpful increasing the production and productivity of crops. It is quite interesting that the respondents showed keen interest in the irrigation practices especially in the present era where there is the problem of fearful spell of drought and also topics like rain after harvesting which gain importance of late.

Similarly 48.33 per cent preferred most to read the subject matter on cereals, particularly about rice. Even if there are problems like conversion of paddy land for other purposes, dwindling production and productivity of paddy cultivation etc. it is very clear that paddy cultivation is not merely a farming technique for Keralities; instead it is a way of life and part of a rich heritage as far as Keralites are concerned. That may be the reason why they are always interested to read subject matter on rice cultivation in newspapers and farm magazines.

Tuber crops came in a preference range of 41.7 per cent whereas mushroom cultivation was preferred by 45.5 per cent of the respondents.

Among the 'not at all preferred' category, maximum score was obtained for Agroforestry (34.5%) followed by fodder crops (28.3%). This revealed that readers did not like to read articles on agro-forestry and fodder crops. The preferential pattern of readers towards the first five subjects are given in Fig. 4.

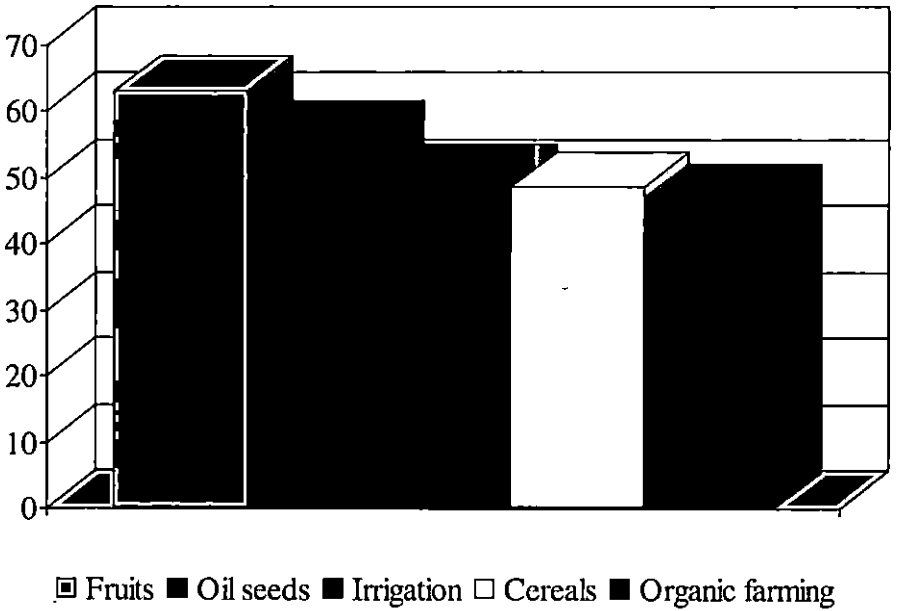


Fig. 4. Subject matter preference of respondents

Table 7. Subject matter preference of respondents

(n = 180)

Crop/Subject	Most preferred	Preferred	Least preferred	Not at all preferred
CEREALS (Rice)	87 (48.33)	70 (38.9)	15 (8.3)	8 (4.4)
PULSES	29 (16.1)	63 (35)	63 (35)	25 (13.9)
TUBERS	75 (41.7)	75 (41.7)	17 (9.4)	13 (7.2)
CASH CROPS (Rubber/Cashew)	65 (36.1)	73 (40.5)	22 (12.2)	20 (11.7)
OIL SEEDS (Coconut)	101 (56.1)	65 (36.1)	7 (3.9)	7 (3.9)
SPICES	84 (46.7)	59 (32.8)	18 (10)	19 (10.5)
VEGETABLES	73 (40.5)	69 (38.3)	17 (9.5)	21 (11.7)
FRUITS	113 (62.8)	50 (27.8)	4 (2.2)	13 (7.2)
FLOWERS	70 (38.9)	51 (28.3)	14 (7.8)	45 (25)
MEDICINAL PLANTS	52 (28.9)	71 (39.4)	21 (11.7)	36 (20)
FODDER CROPS	21 (11.7)	69 (38.3)	39 (21.7)	51 (28.3)
GREEN MANURE CROPS	27 (15)	70 (38.9)	29 (16.1)	54 (30)
AGRO-FORESTRY	46 (25.5)	50 (27.8)	20 (11.2)	64 (34.5)
PLANT PROTECTION	64 (35.5)	67 (37.3)	7 (3.9)	42 (23.3)
IRRIGATION	89 (49.6)	65 (36.5)	8 (3.9)	18 (10)
ORGANIC FARMING	84 (46.7)	63 (35)	15 (8.3)	18 (10)
MUSHROOM GROWING	28 (15.5)	82 (45.5)	32 (17.8)	38 (21.2)
BEEKEEPING	38 (21.2)	54 (30)	41 (22.7)	47 (26.1)
SERICULTURE	19 (10.5)	48 (26.7)	66 (36.7)	47 (26.1)
MARKETING	52 (28.9)	64 (35.5)	30 (16.7)	34 (18.9)
AGRO-BASED ENTERPRISES	41 (22.8)	55 (30.5)	37 (20.5)	47 (26.2)

* n = number of respondents

4.4 READERSHIP PATTERN

Readership pattern of the respondents with regard to newspapers and farm magazines were assessed separately with respect to two aspects

i) time spent for reading
ii) nature of reading

4.4.1 Readership pattern of newspapers

Readership patterns of newspapers were assessed based on the two attributes viz. time spent for reading and nature of reading and it was also tested whether these were independent or dependent in nature (Table 8).

From the table it is clear that the two parameters viz. time spent for reading and nature of reading with regard to newspaper had good link between them and are highly significant and dependent. The chi-square test proved that there was high dependence between the two parameters such as time spent for reading and nature of reading. This is a clear indication that the respondents who spend more time for reading exhibited the habit of reading more or they adopt to a style of complete reading rather than partial reading or bare minimum of the newspaper.

Table 8. Relationship between time spent for reading and nature of reading of newspaper

Nature of reading	Time spent for reading			
	1 hr.	1-2 hrs.	Above 2 hrs.	Total
Minimum reading	--	--	--	--
Partial reading	90	12	5	107
Complete reading	6	48	16	70
Total	96	60	21	177

4.4.2 Readership pattern of farm magazines

Readership pattern of farm-magazines was assessed based on the two attributes viz., time spent for reading and nature of reading and it was tested whether these two were independent or dependent in nature (Table 9).

Table 9. Relationship between time spent for reading and nature of reading of farm magazines

Nature of reading	Time taken for reading		
	1 hr	1-2 hrs	Total
Minimum reading	5	6	11
Partial reading	87	43	130
Complete reading	10	18	28
Total	102	67	169

The Chi-square test proved that there was high dependence between the two parameters viz. time taken for reading and nature of reading of farm magazines. They had good dependence indicating that the respondents who take more time for reading had the habit of complete reading.

4.5 SUBJECT MATTER COVERAGE

Subject matter coverage was assessed in terms of frequency of articles published on agricultural areas in farm pages of the four selected newspapers, ie., Mathrubhumi, Malayala Manorama, Kerala Kaumudi, Deshabhimani and twelve issues each of the selected farm magazines 'Kerala Karshakan' and 'Karshakasree' during the period of January 2006 to December 2006.

The articles were grouped into the following six categories based on the subject matter covered.

1. Agriculture
2. Horticulture
3. Animal husbandry
4. Fisheries
5. Dairy
6. Agricultural engineering

4.5.1 Subject matter coverage in the farm pages of Malayalam newspapers

The number of articles falling under each of the above six areas were ranked based on the number of articles published under each category and the correlations among these ranks were calculated.

Table 10. Ranking of the areas of agriculture based on the number of articles published in the four newspapers

	Mathrubhumi	Malayala Manorama	Kerala Kaumudi	Deshabhimani
Mathrubhumi	1			
Malayala Manorama	0.8857*	1		
Kerala Kaumudi	0.5429^{NS}	0.4286^{NS}	1	
Deshabhimani	0.4857^{NS}	0.2572^{NS}	0.3714^{NS}	1

* Significant at 5% level NS Not significant

The Table 10 revealed that there was high correlation only among the two newspapers Mathrubhumi and Malayala Manorama in dealing with subject matters on Agriculture, Horticulture, Animal husbandry, Fisheries, Dairy and Agricultural engineering. This means that these newspapers handled the above subjects more or less in a same manner and gave equal importance to major areas in their weekly farm pages taking into consideration the preference of readers towards these areas. The other newspapers did not show any significant correlation in this regard.

4.5.2 Subject matter coverage in the farm magazines

Subject matter coverage in the two selected Malayalam farm magazines 'Kerala Karshakan' and 'Karshakasree' was assessed by grouping the number of articles into the following eight areas.

1. Agriculture
2. Horticulture
3. Animal husbandry
4. Fisheries
5. Dairy
6. Agricultural engineering
7. Home science
8. Miscellaneous

The number of articles falling under each of the above eight areas were ranked based on the number of articles published under each category and the correlations among these ranks were worked out.

Table 11. Ranking of the areas of agriculture based on the number of articles published in two farm magazines

	1	2	3	4	5	6	7	8
Kerala Karshakan	2	1	7	5	4	6	8	3
Karshakasree	3	2	7	5	4	6	8	1

The rank correlation coefficient between the two farm magazines for the subject matter coverage is 0.9286 which is highly significant at 5% level.

Table 11 revealed that there was high correlation among the two farm magazines in dealing with subject matters on Agriculture, Horticulture, Animal husbandry, Fisheries, Dairy, Agricultural engineering, Home science and

Miscellaneous items. The two farm magazines 'Kerala Karshakan' representing the public sector and 'Karshakasree' representing the private sector, handled the above subjects in a similar pattern. It shows very clearly that the government machinery was performing on par with the private sector with regard to subject matter coverage of farm magazines recognizing the table of the readers. It further showed that the Government is committed to provide timely and relevant information to the farmers in the field of agriculture and allied sector.

4.6 SUBJECT MATTER TREATMENT

Treatment of the subject matter is very much important from the point of view of readers, whatever be the subject matter it is. The way the subject matter treated makes it worthy of reading and attractive for the reader, however dry the subject may be. Subject matter treatment was assessed in terms of frequency of articles published in agricultural areas in the farm pages of one year issues of the four newspapers Mathrubhumi, Malayala Manorama, Kerala Kaumudi, Deshabhimani and twelve issues of each of the farm magazines 'Kerala Karshakan' and 'Karshakasree'.

4.6.1 Subject matter treatment in newspapers

The subject matter treatment was grouped into the following five formats based on the mode of presentation.

1. Scientific articles
2. Popular articles
3. Feature articles
4. News items
5. Farmer experience

The number of articles falling under each of the above five formats were ranked based on the number of articles published under each format and rank correlation coefficient (Table 12) was assessed.

Table 12. Correlation among the newspapers in the format of presentation (subject matter treatment) of various types of articles

	Mathrubhumi	Malayala Manorama	Kerala Kaumudi	Deshabhimani
Mathrubhumi	1			
Malayala Manorama	0.9301*	1		
Kerala Kaumudi	0.7341 NS	0.2774 NS	1	
Deshabhimani	0.8821*	0.9000*	0.8501*	1

* Significant 5% level NS Not significant

Table 12 revealed that there was a uniform pattern among the newspapers Mathrubhumi and Malayala Manorama in publishing the various formats of subject matter treatment. The newspaper Kerala Kaumudi is showing high correlation with Deshabhimani with regard to format of presentation. Deshabhimani keeps a similar trend in publishing the various formats with Mathrubhumi and Malayala Manorama.

4.6.2 Subject matter treatment in farm magazines

Subject matter treatment in the two Malayalam farm magazines ' Kerala Karshakan' and 'Karshakasree' was assessed by grouping the number of articles into the following eight formats.

1. Scientific articles
2. Popular articles
3. Feature articles
4. News items
5. Farmer experience
6. Question and answers
7. Interview
8. Miscellaneous

The number of articles falling under each of the above eight formats were ranked (Table 13) based on the number of articles published under each format and rank correlation coefficient was assessed.

Table 13. Correlation among the farm magazines in the mode of presentation (subject matter treatment) of various types of articles

	1	2	3	4	5	6	7	8
Kerala Karshakan	2	1	7	5	4	6	8	3
Karshakasree	3	2	7	5	4	6	8	1

Rank correlation coefficient = 0.9286**

** Significant at 0.01 level

Table 13 indicated that there was high correlation between the two farm magazines 'Kerala Karshakan' and 'Karshakasree' with regard to the subject matter treatment or mode of presentation of articles under various formats. Their way of treatment was also more or less of the same pattern which explains that such a pattern was relished by the readers of farm magazines, whether it was from the public sector or private sector.

4.7. RELATIONSHIP OF PROFILE CHARACTERISTICS OF THE RESPONDENTS WITH INFORMATION RELEVANCE

Table 14 gives the magnitude of relationship between information relevance and the selected personal and socio-economic characteristics of the respondents.

The Table revealed that except cosmopoliteness, information source utilization pattern and extension contact – Agricultural Officer, all other characteristics were not having any significant relationship with information relevance.

Table 14. Relationship of Information relevance with personal and socio-economic characteristics

(n = 180)

Sl. No.	Personal and socio-economic characteristics	Correlation Coefficient (r value)	
		Newspapers	Farm Magazines
1.	Age	-0.0596^{NS}	-0.0238^{NS}
2.	Sex	-0.0088^{NS}	-0.0745^{NS}
3.	Religion	-0.0142^{NS}	-0.1433^{NS}
4.	Education	0.1065^{NS}	-0.025^{NS}
5.	Farm size	0.0279^{NS}	-0.1370^{NS}
6.	Cosmopoliteness	0.4285**	0.3909**
7.	Information Source Utilisation Pattern	0.4345**	0.2329*
8	Scientific Orientation	-0.0224^{NS}	0.0162^{NS}
9.	Extension Contact – Agrl. Officer	0.4159**	0.3087**
10.	Extension Contact – University Scientist	0.0517	0.0609

NS = Not significant

* Significant at 0.05 level ** Significant at 0.01 level

Cosmopoliteness with regard to newspapers and farm magazines was having positive relationship with information relevance which means that as cosmopliteness of the respondent increases he/she will have more relevance for the information obtained from the agricultural articles published in newspapers and farm magazines. This may be mainly due to their willingness to associate with the outside society, wherein new happenings always play a very dominant role in daily life especially in an area like farming where innovations greatly influence day to day activities helpful both in subsistence as well as commercial farming.

The Box plot in Fig. 5 explains the cosmopoliteness of the selected Panchayats viz., Vattiyoorkavu (Thiruvananthapuram), Thuravoor (Ernakulam) and Mukkom (Kozhikode). From this graph it is clear that between score 5 and 7 comes 50 per cent of the respondents. 25 per cent of the higher group has got a score of more than 7.

For Thravoor Panchayath, the minimum score is 3 whereas in the other two Panchayaths it went to zero indicating that variation in Vattiyoorkavu and Mukkom for cosmopoliteness was very high compared to Thuravoor.

Information source utilization pattern got a minimum score of 6 in all the three Panchayaths ie., Vattiyoorkavu, Thuravoor and Mukkom. The first quartile at all the three Panchayaths was 12 indicating that 75 per cent of the respondents at all the three secured information source utilization pattern index of half of the maximum attainable score ie., information source utilization pattern was more. The median and quartile 3 also showed the same trend at all the three places.

Information source utilisation pattern was having a significant relationship with information relevance of both newspapers and farm magazines. This may be due to the fact that the more the information source utilization pattern more will be the information relevance. A respondent with more exposure to information sources naturally will seek relevance in information which he gets from the articles in newspapers and farm magazines. This shows very clearly that non-adoption of farming practices is not because of lack of awareness or lack of utilization of various information sources. More information is generated in the farm sector and different information sources play their role in transmitting this information to the farmers. But the information is not properly utilized in increasing the production and productivity of agricultural crops. The reason for this has to be further studied and rectified. Information source utilization pattern of the respondents of the three Panchayaths is given in Fig. 6.

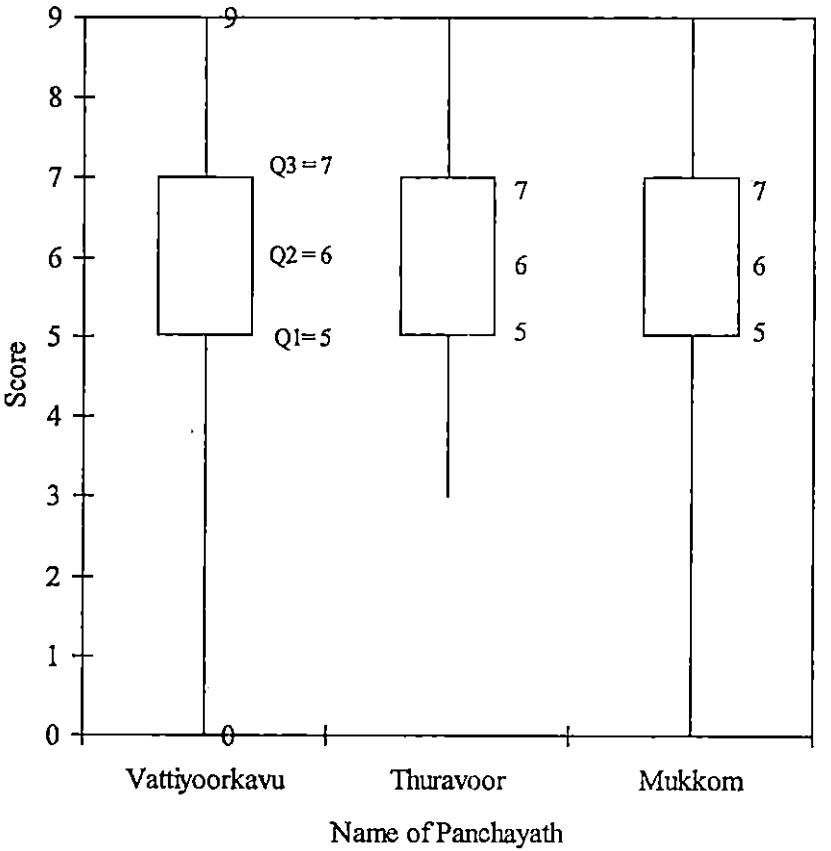


Fig. 5. Box plot of Cosmopoliteness of the three selected Panchayats

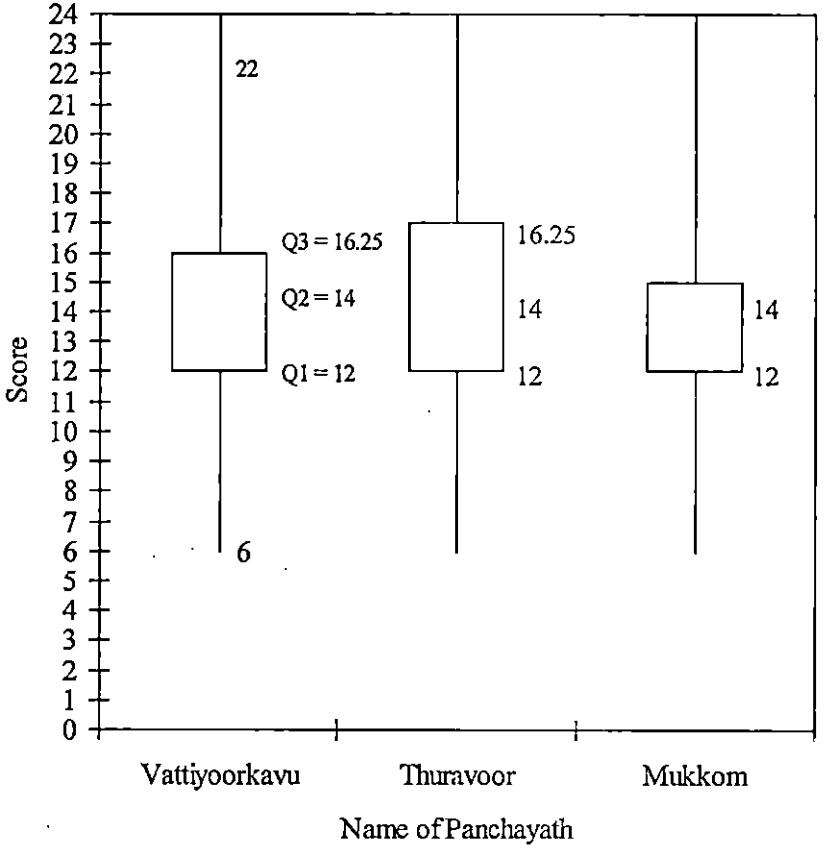


Fig. 6. Box plot of information source utilization pattern of the three selected panchayats

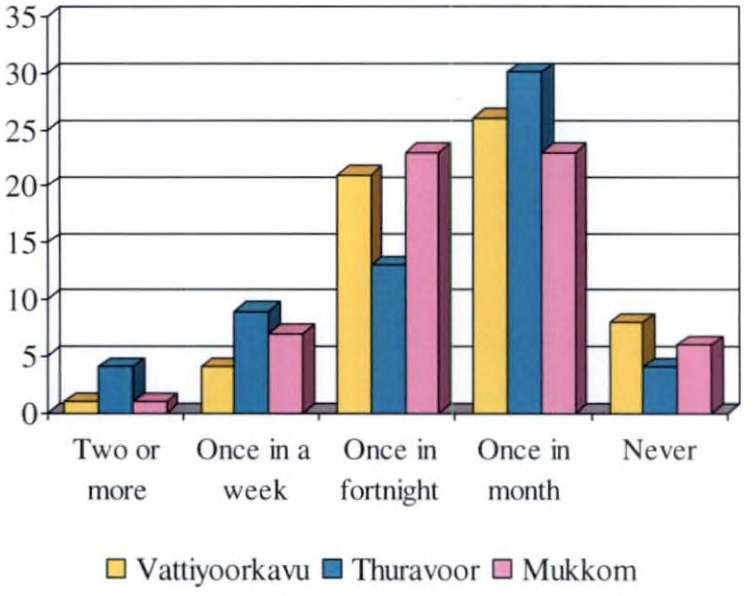


Fig. 7. Frequency of extension contact of the respondents with Agricultural Officer

Extension contact is another variable which showed a significant relationship with information relevance, that too the extension contact with Agricultural Officer. As extension contact of the respondent increases, information relevance also increases significantly with respect to both newspapers and farm magazines which is illustrated in Fig. 7.

These three factors had very strong relation with information relevance and these characters were inter-related also. It could be very well inferred that these characteristics were one way or the other contributing to the overall better performance of the respondents. Unfortunately the readers are not practising the information gained in such a way not because of the lack of cosmopoliteness, information source utilization or extension contact. Hence the reasons behind this are to be identified and corrected so that the present stagnation in the field of agriculture and allied sectors could be overcome.

SUMMARY

5. SUMMARY

The significance of information communication on today's society is apparent. Communication of useful and practical information, ideas and technology is an integral part of rural transformation. Proper flow of information not only minimizes the communication gap but also opens avenues for people to get well informed. Progress-especially in the farm sector-can only take place when the people know the new technology, understand it and act up upon it. This warrants access to accurate and reliable information through appropriate and dependable sources.

Today we are on the threshold of an information revolution with print and electronic media making us all available facilities to quickly and effectively transfer ideas to a large section of people. In the present scenario, the information dissemination process is undertaken by the mass media like newspapers, magazines, radio and television. But in Kerala with the highest literacy rate, print media have acquired greater significance. The print media have been accepted as an important means of communication by specialists in the field of agriculture and rural development. They provide very good opportunity for communicators to convey precise and timely information to a large section of their clientele. Now it is high time to assess whether the information passed on to the farming folk, who are the ultimate end users or stakeholders are relevant to them under all context and whether it suits their needs to make farming a profitable venture.

The underlying intention of the present study was to assess the information relevance of articles in Malayalam newspapers and farm magazines.

The specific objectives of the present study were :

1. To assess the information relevance of agricultural articles in Malayalam newspapers and farm magazines.

2. To assess the reader preference and readership pattern of agricultural articles.

3. To study the subject matter coverage and subject matter treatment.

4. To study the profile characteristics of readers.

The Malayalam newspapers Mathrubumi, Malayala Manorama, Kerala Kaumudi and Deshabhimani, who were publishing the farm page regularly were selected for the study. The farm magazines selected for the study were 'Kerala Karshakan' and 'Karshakasree'.

A list of the subscribers of Kerala Karshakan, which is the official farm publication of the Government of Kerala, was first prepared for each of three Panchayats. From this a list of readers of the Karshakasree, a leading farm magazine from the private sector was also prepared. From this list of each Panchayat, sixty respondents were randomly selected for the study. These respondents were also readers of any of the four leading Malayalam newspapers Mathrubumi, Malayala Marorama, Kerala Kaumudi and Deshabhimani. Thus the total number of respondents for the study was 180.

The very objective of the study necessitated the selection information relevance as the main dependent variable and it was operationally defined as the extent to which the technological and other innovations in the field of agriculture are perceived by the respondent as pertinent and useful to him.

To delineate the components influencing the information relevance, a list of variables was prepared based on the review of literature. This list was given for

relevancy rating and based on their response, eight components were selected which included credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness. The personal and socio-economic characterizations studied were age, sex, religion, farm size, education, cosmopoliteness, information source utilization pattern, scientific orientation and extension contact.

Pre-tested, structured and standardized questionnaire was used for data collection. Analysis of data was carried out using appropriate statistical procedures like frequencies, percentages, correlation analysis, principal component analysis, chi-square analysis and rank correlation co-efficient.

The salient findings of the study are summarized below.

1. Information relevance of agriculture articles published in Malayalam newspapers and farm magazines was definitely influenced by the components named credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness in varying degrees.

2. There was significant difference in the degrees of influence of these components between newspapers and farm magazines.

3. Clarity, with a percentage variance of 53 was the first and foremost important component among the lot, which influences information relevance of agriculture articles in the newspapers followed by timeliness (15 per cent variance) and accuracy (8 per cent variance).

4. The information in newspapers would become relevant only when the content presented is clear, timely and accurate.

5. Credibility which created a maximum variation of 35 per cent variance was the most influential component regarding information relevance of agricultural articles in farm magazines followed by simplicity (21 per cent variance) and practicability (18 per cent variance).

6. There was clear-cut difference between the priority of components affecting information relevance in newspapers and farm magazines. This is due to the fact that newspapers are meant for creating awareness and interest among the readers whereas farm magazines serve as a permanent reading material motivating the reader for adoption.

7. With regard to the reader preference of agricultural articles, the most preferred format of presentation was interview with policy makers, extension personnel, progressive farmers and master farmer leaders, followed by agricultural news items which are very essential for the survival of the farmer as well as farming. The least preferred formats were feature articles and farmer experience, where the writers usually make a twist from the reality and may exaggerate the facts so as to make it more sensational, attractive and readable.

8. With respect to the reader preference to subject matter the readers preferred most articles on fruits (62.8 %) followed by coconut (56.1 %), irrigation (49.6 %) and rice (48.33 %). The least preferred subjects were agro-forestry and fodder crops.

9. Rank correlation coefficient of the subject matter coverage in the farm pages of Malayalam dailies was assessed and found that there was significant and high correlation among the two newspapers Mathrubhumi and Malayala Manorama in dealing with the subject matter. These two handle the subjects more or less in a same manner,

giving equal importance. The other newspapers did not reveal any significant correlation.

10. Regarding the subject matter coverage in the farm magazines correlation analysis revealed that there was high correlation between the farm magazines. The magazines handled the subjects in a similar pattern too. The magazine representing the public sector and the magazine representing private sector were performing on par.

11. Correlation analysis of subject matter treatments among the newspapers in the format of presentation revealed that there was uniform pattern among the newspapers in publishing the various formats.

12. Regarding the subject matter treatment among the two Malayalam farm magazines in the format of presentation there was high correlation between them which indicated that the two farm magazines way of treatment of subject matter was more or less the same.

13. Chi-square analysis regarding the readership pattern of newsapaper and farm magazines proved that there was a good link between the two parameters *viz.*, time taken for reading and nature of reading. Both of them were highly significant and dependent. This indicates that the respondent who takes more time for reading, exhibits the habit of reading more or adopt to a style of complete reading.

14. The relationship of information relevance with personal and socio-economic characteristics revealed that the independent variables viz., cosmopoliteness, information source utilization pattern and extension contact were the only variables having positive and significant relationship. This indicated that as cosmopolitensss, information

source utilization and extension contact – Agricultural Officer of the respondent increased, their perceived relevance of information received through newspapers and farm magazines also increases.

Implications

1. The study has revealed that the farmers prefer to read agricultural information presented in the farm magazines and newspapers in the form of interviews with policy makers, extension workers, progressive farmers and master farmer leaders. It implies that the newspaper and farm magazines catering to the agricultural information requirements of the farmers have to include more number of interviews than straight articles. Similarly the results also proved that farmers now prefer to have more agricultural information on cultivation and processing aspects of fruits and coconut and methods of irrigation. All these aspects should also be given consideration by the mass media in their agri-information support pursuits.

2. The performance of the four leading newspapers and two farm magazines in the matter of agro-information provision was perceived as appreciable by majority of the farmer respondents of the study. In spite of this information support agriculture in Kerala is facing an acute crisis indicating that other policy support measures are required, along with information support to revive agriculture in Kerala.

Suggested lines of future work

The present study has been undertaken only to assess the information relevance of agricultural articles in Malayalam newspaper and farm magazines.

Even if the factors like cosmopoliteness, information source utilization pattern and extension contact had positive and significant relationship with

information relevance it can be inferred that in the present era of information explosion there may be some other factors which prevent the readers from adopting or practising the information they gain from various sources in their field or farm land. Why they are not practising or why they are reluctant to practise the information received has to be studied separately so as to overcome the present stagnation in the field of agriculture and allied sectors.

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* Originals not seen

APPENDICES

Appendix I

Comparative analysis of the literary rate of India and Kerala from 1957 to 2001 Censuses

Year	India	Kerala	Gap in literacy rate between India and Kerala
1951	18.33	47.18	29
1961	28.30	55.08	27
1971	34.45	69.75	36
1981	43.57	78.85	35
1991	52.21	89.81	38
2001	65.38	90.86	25

Appendix II

SELECTION OF VARIABLES FOR THE STUDY

KERALA AGRICULTURAL UNIVERSITY

From

Dated :

Dr. S. Mothilal Nehru
Associate Professor

Department of Agricultural Extension
College of Agriculture
Vellayani, Thiruvananthapuram

Sir/Madam,

Subject : M.Sc. (Agri.) – Agricultural Extension Students Research – variable selection – Judge's opinion requested – regarding

I am pleased to inform that Mr. S. Suresh Kumar, Post Graduate student of Department of Agricultural Extension, College of Agriculture, Vellayani, has taken up the research study entitled "Information Relevance of Agricultural Articles in Malayalam Newspapers and Farm Magazines – a multi dimensional analysis" for his thesis programme.

The objective of his study is to assess the information relevance, readership pattern and reader preference of agricultural articles published in Malayalam newspapers and farm magazines. In order to know the relevancy of the variables mentioned he seeks your expert guidance.

Hence I request you to kindly spare your valuable time to rate the relevancy of the variables by making a tick (✓) mark on the 5 point continuum and kindly send the same to the student researcher at the earliest.

Thanking You

Yours faithfully,

Dr. S. Mothilal Nehru

Components of "Information Relevance"

Sl. No.	Component	Most Relevant	More Relevant	Relevant	Less Relevant	Least Relevant
01	Credibility					
02	Usefulness					
03	Practicability					
04	Profitability					
05	Adequacy					
06	Simplicity					
07	Accuracy					
08	Proximity to information					
09	Proximity to the information source					
10	Reader interest level					
11	Market information					
12	Lay out					
13	Clarity					
14	Timeliness					
15	Consequence					

* Please mark your valuable response by making a tick (✓) mark in the appropriate column.

Name :
Signature :
Designation :

Appendix III

INTERVIEW SCHEDULE

1. Name :

2. Address :

3. Age (completed years) :

4. Sex (Male / Female) :

5. Religion :

6. Education (Mark appropriate category to which the respondent belongs)
   a) Illiterate
   b) Can read only
   c) Can read and write
   d) Primary school
   e) Middle school
   f) High school
   g) College

7. Farm size
   a) upto 25 cents
   b) 26 to 50 cents
   c) 51 cents to 1 acre
   d) Between 1 acre and 2 acre
   e) Above 2 acre

8. Cosmopoliteness

   a) How often do you visit the nearest town?
      i) Never
      ii) Once a month
      iii) Twice a month
      iv) Once a week
      v) Two or more times a week

b) Why do you visit the town?
   i) For agricultural purposes
   ii) For personal purposes
   iii) For other purposes

c) Are you a member / office bearer of any organization in the town?
   i) Yes
   ii) No

9. Information source utilization pattern

Source	Regular	Occasional	Rarely	Never
1. Mass media				
a) News paper				
b) Radio				
c) Television				
2. Interpersonal				
a) Agricultural Officer				
b) Scientist				
c) Fellow farmer				
3. Institutions				
a) Krishi Bhavan				
b) Research Station				

10. Scientific orientation

Please indicate your degree of agreement or disagreement to each of the following statements

Sl. No.	Statements	Agree	Undecided	Disagree
1.	Modern farming methods give better results to a farmer than the traditional methods			

2.	A progressive farmer should take decisions after consulting the merits and demerits of the traditional practices also.			
3.	A progressive farmer should always try new ideas of farming			
4.	The time taken to learn new methods in farming is worthwile			
5.	Modern farming practices have to raise standard of living of a farmer			

11. Extension contact

Please indicate how often you visit the following personnel in connection with agricultural activities\

Sl. No.	Personnel	Two or more times a week	Once in a week	Once in a fortnight	Once in a month	Never
1.	Agricultural Officer					
2.	University Scientist					

12. Reader Preference (format / mode)

a) Below are given in pairs the various methods of presentation of subject matter in the farm magazines and newspapers. In each pair indicate the one area which you prefer to read over the other.

I. 1. (a) Scientific article
(b) Feature article
2. (a) Scientific article
(b) News item

3. (a) Scientific article
(b) Farmer experience

4. (a) Scientific article
(b) Question-Answer

5. (a) Scientific article
(b) Interview

II.1. (a) Feature article
(b) News item

2. (a) Feature article
(b) Farmer experience

3. (a) Feature article
(b) Question-Answer

4. (a) Feature article
(b) Interview

III.1.(a) News item
(b) Farmer experience

2.(a) News item
(b) Question-Answer

3.(a) News item
(b) Interview

IV.1.(a) Farmer experience
(b) Interview

2.(a) Farmer experience
(b) Question-Answer

3.(a) Farmer experience
(b) Interview

V. 1.(a) Question-Answer
(b) Interview

13. Reader Preference (subject matter)

Below are given the subject wise presentation of agricultural articles in newspapers and farm magazines. Rank them according to your preference.

Sl. No.	Subject	Most preferred	Preferred	Least preferred
1.	Cereals (Rice)			
2.	Pulses			
3.	Tuber crops			
4.	Cash crops (Rubber, cashew etc.)			
5.	Oilseeds (coconut)			
6.	Spices			
7.	Vegetables			
8.	Fruits			
9.	Floriculture			
10.	Medicinal plants			
11.	Fodder crops			
12.	Green manure crops			

13.	Agro-forestry			
14.	Plant protection			
15.	Irrigation			
16.	Organic farming			
17.	Mushroom growing			
18.	Beekeeping			
19.	Sericulture			
20.	Marketing			
21.	Agro-based enterprises			

14. Components influencing the information relevance of Farm pages in Newspapers

The following are the few important components influencing the information relevance. Kindly indicate your response by giving a score ranging from one to ten.

Sl. No.	Components	Response pattern (Please indicate your score by giving a score between one to ten) for each item for the newspaper you read			
		Mathrubhoomi	Malayala Manorama	Kerala Kaumudi	Deshabhimani
1.	Credibility				
2.	Usefulness				
3.	Practicability				
4.	Simplicity				
5.	Accuracy				
6.	Reader interest				
7.	Clarity				
8.	Timeliness				

15. Components influencing the information relevance of farm magazines

Sl. No.	Components	Kerala Karshakan	Karshakasree
1.	Creditability		
2.	Usefullness		
3.	Practicability		
4.	Simplicity		
5.	Accuracy		
6.	Reader interest		
7.	Clarity		
8.	Timeliness		

16. Reading Pattern

Please indicate your response by making a tick (✓) mark in the appropriate column applicable to you.

(a) Time taken for reading

Item	Time taken for reading		
	Up to 1 hour	1 to 2 hours	More than 2 hours
News paper			
Farm Magazine			

(b) Nature / Type of reading

Item	Nature of reading		
	Complete	Partial	Rare, minimum reading
News paper			
Farm Magazine			

Appendix IV

Paired comparison analysis of reader preference of the different formats of presentation

P matrix

Format	Farmer experience	Feature article	Scientific article	Question answer	News item	Interview
Farmer experience	-	0.544	0.661	0.477	0.750	0.533
Feature articles	0.455	-	0.550	0.633	0.472	0.611
Scientific article	0.338	0.450	-	0.577	0.588	0.627
Question answer	0.522	0.366	0.422	-	0.400	0.494
News item	0.250	0.527	0.411	0.600	-	0.655
Interview	0.533	0.611	0.627	0.494	0.655	-

Z matrix

Format	Farmer experience	Feature article	Scientific article	Question answer	News item	Interview
Farmer experience	-	0.111	0.415	-0.058	0.674	0.083
Feature article	-0.113	-	0.126	0.340	-0.070	0.282
Scientific article	-0.418	-0.126	-	0.194	0.222	0.324
Question-answer	0.055	-0.342	-0.197	-	-0.253	-0.015
News item	-0.674	0.068	-0.225	0.253	-	0.399
Interview	0.083	0.282	0.324	-0.015	0.399	-
Sum	-1.067	0.007	0.443	0.714	0.972	1.073
Mean	-0.177	0.001	0.073	0.119	0.162	0.178
Mean +0.178	0.001	0.177	0.251	0.297	0.340	0.356

INFORMATION RELEVANCE OF AGRICULTURAL ARTICLES IN MALAYALAM NEWSPAPERS AND FARM MAGAZINES - A MULTI-DIMENSIONAL ANALYSIS

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Abstract of the
Thesis submitted in partial fulfillment of the requirement
for the degree of

Master of Science in Agriculture

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2007

DEPARTMENT OF AGRICULTURAL EXTENSION
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ABSTRACT

The study entitled "Information relevance of agricultural articles in newspapers and farm magazines" was undertaken to assess the relevance or pertinence of information passed on to farmers through the farm pages of selected Malayalam newspapers and farm magazines. It was also aimed to delineate the factors that influence the information relevance and to identify which of them were influencing the relevance of information to a greater extent.

Information relevance was the main dependent variable wherein the components constituting information relevance were identified as credibility, usefulness, practicability, simplicity, accuracy, reader interest, clarity and timeliness. The personal and socio-economic characteristics were age, sex, religion, education, farm size, cosmopoliteness, information source utilization pattern, scientific orientation and extension contact.

The study was conducted in three purposively selected Panchayaths representing the north, south and central regions of Kerala. A sample of 180 respondents was selected based on random sampling. Data were collected through well structured questionnaire.

The study revealed that the information relevance of agricultural articles published in Malayalam newspapers and farm magazines was influenced by two factors to the most namely clarity with regard to newspapers and credibility with regard to farm magazines.

Hence those who are engaged in the production and preparation of agricultural articles of newspapers and farm magazines should remember these

points. For enhancement of the information relevance of agricultural articles such factors should be taken into account in their order of importance.

Regarding the reader preference of the different formats of presentation the most preferred formats were interview, agricultural news items and questions and answers in their order of ranking.

Analysis regarding the subject matter coverage of farm page among the four newspapers revealed that all of them handled the subject matters on agriculture, animal husbandry, fisheries, dairy and agricultural engineering more or less in a same manner. The two farm magazines also exhibited similarity in dealing the same.

The analysis of subject matter treatment among the four newspapers and two farm magazines revealed that there was a uniform pattern among them in the treatment of subject matter.

The profile characteristics of readers like cosmopoliteness, information source utilization pattern and extension contact were found to have positive and significant relationship with information relevance.

Even if the newspapers and farm magazines provide with enough information the ultimate users ie., farmers, it alone is not sufficient to increase the agricultural production and productivity so as to overcome the present stagnation. For this, policy intervention is also highly essential. Hence even if it is a fact that there is a flow of farm information taking place in the present scenario, the reasons for non-adoption of such information for the enhancement of agricultural production and productivity has to be studied separately.