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# "ASSESSMENT OF INFORMATION NEEDS OF AGRI-MEDIA USERS"

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## ABSTRACT

The study on "assessment of information need of agri-media users" was undertaken to assess information needs of agri-media users. Three stages random sampling technique was adopted for the selection of samples. At the first stage, one district selected from the Gujarat state. At the second stage two taluka were selected from Junagadh districti.e. Visavadar and Mendarda. At the Third stage from each selected taluka 5 villages were selected randomly and then from each village 10 farmers were selected randomly for the collection of data. Therefore, 100 samples were selected for the study. The mass media users surveyed from two taluka of Junagadh district have important implications for agricultural information dissemination that public extension system and other programs carried out in developing countries. Although the impact of agri-media is very satisfactory to the extent but then also impact was very less. Five factors were extracted from 21 statements (variables) such as handling and transport needs, plant protection and growth, knowledge and technology utilization, credit and insurance, beneficial and environment and diversity and under that highest factor loading was found in variables such as storage, disease management, planting method, credit and loans, seed treatment and market and price. These factors were needed to satisfy information needs of mass media users.

**KEYWORDS:** Information Needs, Agri Media Users, Information Dissemination

## INTRODUCTION

The India is a country of diversities. The diversity particularly acute among agricultural communities varies from well mechanism and resourceful farmers to landless tribal farmers. Transfer of recommended crop technology from research stations to farmers is very important for developing these farming communities.

Communication plays key role in development process. The sole purpose of communication is to influence. People communicate to influence to effect with intent. All communication behaviour has its purpose, its goal, as production of response. The dissemination of any improved technology depends on how best the information regarding the particular technology is communicated.

Today is the era of information explosion. Innumerable information is generated, synthesized and disseminated in each and every moment. Information technology has revolutionized the transfer of information through new ways, i.e., internet, e-mail etc.

Communication, especially human communication can be categories into many levels. There are at least four levels of communication i.e., (i) Intra personnel, (ii) Inter personnel, (iii) Intra organizational, (iv) Inter organizational

communication (Kumar *et al*, 2013).

Farmers use many information sources and channels for seeking agricultural information on improved farm practices. They may come across large number of information sources and channels but pursue only few of them. Credibility of information sources and channels affects the adoption of farmers.

No one can categorically claim to know all the information needs of farmers especially in an information dependent sector like agriculture where there are new and rather complex problems facing farmers every day. It is safe to assert that the information needs of Nigerian small scale farmers revolve around the resolution of problems such as pest hazards, weed control, moisture insufficiency, soil fertility, farm credit, labor shortage, soil erosion and so forth.

The information needs may be grouped into five headings: agricultural inputs; extension education; agricultural technology; agricultural credit; and marketing. Modern farm inputs are needed to raise small farm productivity. These inputs may include fertilizers, improved variety of seeds and seedlings, feeds, plant protection chemicals, agricultural machinery, and equipment and water. An examination of the factors influencing the adoption and continued use of these inputs will show that information dissemination is a very important factor. It is a factor that requires more attention than it now gets. (Ozowa, 1997)

## WHAT IS MEANT BY THE MEDIA?

The media' refers to the different channels we use to communicate information in the everyday world. 'Media' is the plural of medium (of communication), and the main media are:

- Internet (online media)
- Television/Radio (broadcast media)
- Magazines/Newspapers (print media)
- Film
- Music

Advertising is also considered a medium, as it is a separate channel of communication of messages within other broadcast, print and online media.

An Introduction to mass media, newspaper was the first mass media available to deliver news and information from 1690 until the introduction of radio in 1920. Newspaper has already become the only source of information and news to get from during the past century. It was the only way for a large number of people to get the news. Eventually, people relied on newspaper to receive news happens around the world. Even though there are many other media introduced such as internet social network. Newspaper has a great impact among the public to spread message.

The development of knowledge and technology are becoming advance rapidly. Elite group is knowledgeable enough to think critical. (Anon., 2015a)

The function of mass media is to primarily reach out to the masses and equip them with information. The latest news updates keep the masses posted about the happenings in not just their own land but around the world as well. The

media also helps to disseminate and interpret information. For example weather forecasts allow farmers to plan ahead. (Anon., 2015b)

## ABOUT THE STUDY AREA

The present study is carried out in Visavadar and Mendarda talukas of Junagadh district of Gujarat State. Junagadh district is located on 20.44-21.40 north latitude and 69.4-71.05 east longitude. This districts total area as per new district division is 8881.8 sq.km. As per administrative view this district is divided in three divisions Junagadh, Keshod and Veraval. It is made-up of 14 talukas. Total rural population is 17.36 lakh, while urban population is 7.12 lakh. Major crops are oil seeds, arenda, juvar, mililet, cotton seeds, sugarcane, wheat, shingoda, jeera etc.

Visavadar is a taluka in Junagadh district of Gujarat State, India. It is located 42 km towards east from district headquarters Junagadh and 336 km from state capital Gandhinagar towards north. Visavadar taluka is bounded by Bhesan taluka towards north, Bagasara taluka towards east, Dhari taluka towards east, Mendarda taluka towards west. Junagadh city, Keshod city, Amreli city, Savarkundla city are the nearby cities to Visavadar. It is in the 144 m elevation (altitude). Total population of Visavadar taluka is 132,853 living in 24,597 houses, spread across total 91 villages and 77 panchayats. Total 18,061 people's lives in town and 114,792 lives in rural. It is hot in summer. Mendarda is a taluka in Junagadh district of Gujarat State, India. Mendarda taluka headquarters is Mendarda town. It is located 28 km towards south from district headquarters Junagadh and 363 km from state capital Gandhinagar towards east. Mendarda taluka is bounded by Keshod taluka towards west, Vanthali taluka towards north, Junagadh taluka towards north, Malia taluka towards south. Keshod city, Junagadh city, Manavadar city, Mangrol city are the nearby cities to Mendarda. It is in the 47 m elevation (altitude). Total population of Mendarda taluka is 66,068 living in 12,892 houses, spread across total 52 villages and 40 panchayats. Mendarda highest day temperature is in between 30 Â° C to 41Â° C. (Anon., 2015c)

### Practical Utility of the Research Study

The study was helpful to the company in understanding the socio-economic characteristics of mass media users. Through correlation analysis, they can understand about mass media users. It was also helpful to formulate policies for adoption of new farming practices and overall impact of mass media in the study areas. It can also helpful to formulate policies for development in marketing strategies.

### Objectives of the Study

To study the farmer's information needs

### Limitations of the Study

- The sample size that has to selected will be small in size due to the limited time as well as financial condition.
- Some secondary quantitative data will be used.
- There are many problems directly or indirectly related to the study area but only few problems are taken in to the consideration for the study.

## METHODOLOGY

### Factor Analysis

For analyze search behaviors, Factor Analysis Technique was adopted which helps to load the number of variables on few factors and reduced the numbers of variables into more manageable factors. Principal Component Analysis (PCA) was adopted to rotate the variables followed by Varimax rotation. Statistical software SPSS will be used.

Mathematically, factor analysis is somewhat similar to multiple regression analysis. Each variable is expressed as a linear combination of the underlying factors. The amount of variance shares with all the other variables included in the analysis is referred to as communality. The co-variation among the variables is described in terms of a small number of common factors, plus a unique factor for each variable. These factors are not over observed. If the variables are standardized, the factor model may be represented as:

$$X_i = A_{i1} F_1 + A_{i2} F_2 + A_{i3} F_3 + \ldots\ldots\ldots + A_{im} F_m + V_i U_i$$

Where,

$X_i$ = $i^{th}$ Standardized Variable,

$A_{ij}$ = Standardized Multiple Regression Coefficient of Variable i on Common Factor j

$F$ = Common Factor

$V_i$ = Standardized Regression Coefficient of Variable i on Unique Factor i

$U_i$ = The Unique Factor for Variable i

$m$ = Number of Common Factors

The unique factors are uncorrelated with each other and with the common factors. The common factors themselves can be expressed as linear combination of the observed variables.

$$F_i = W_{i1} X_i + W_{i2} X_2 + W_{i3} X_3 + \ldots\ldots + W_{ik} + X_k$$

Where,

$F_i$ = Estimate of $i^{th}$ factor

$W_i$ = Weight or Factor Score Coefficient

$K$ = Number of Variables

It is possible to select weight or factor score coefficients so that the first explains the largest portion of the variance. Then, a second set of weight can be selected, so that the selected factor accounts for most of the residual variance, subject to being uncorrelated with the first factor. This same principle could be applied to selecting additional weight for the additional factors. Thus, the factors can be estimated so that the scores of their factors, unlike the value of the original variables, are not correlated. Furthermore, the first factor accounts for the highest variance in the data, the second factor the second highest, so on.

The factor analysis model assumes that variables are determined by common factors and unique factors. All unique factors are assumed to be uncorrelated with each other and with the common factors (Kumar, 2013).

## RESULTS AND DISCUSSIONS

The Rotated Factor Matrix for the variables relating to the attitude toward information is presented in table 1. It includes Eigen value, % of variance and cumulative variance. Eigen value means the variances of the factors. Because of conducted factor analysis on the correlation matrix, the variables are standardized, which means that the each variable has a variance of 1, and the total variance is equal to the number of variables used in the analysis, in this case, 21. % of variance indicates the percent of total variance accounted for by each factor and cumulative variance is the cumulative percentage of variance accounted for by the current and all preceding factors

**Table 1: Rotated Component Matrix**

| Variables | Component | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Storage | **.939** | -.042 | .069 | .054 | .051 | -.089 |
| Grading | **.938** | -.020 | .082 | .061 | .061 | -.082 |
| Harvesting | **.909** | .037 | .128 | .022 | .028 | .035 |
| Transport | **.852** | -.024 | .076 | -.006 | .032 | -.078 |
| Weeding | **.783** | .033 | .121 | .007 | .165 | .266 |
| Disease management | -.045 | **.963** | -.004 | .017 | .125 | .002 |
| Pest management | -.036 | **.961** | .002 | .024 | .085 | -.012 |
| Pesticide | .050 | **.928** | .027 | .059 | .125 | .029 |
| Fertilizer | .022 | **.724** | .120 | .274 | .036 | -.009 |
| Planting method | -.014 | .139 | **.836** | .021 | -.205 | .084 |
| Best time to plant | .015 | .031 | **.772** | .128 | .136 | .193 |
| Soil fertility | .222 | .012 | **.719** | .004 | .281 | -.224 |
| Agri. Machinery | .159 | -.006 | **.683** | .219 | .202 | .072 |
| Water management | .214 | -.041 | **.568** | -.093 | .420 | -.034 |
| Credit and loans | .024 | .069 | .084 | **.945** | .030 | .068 |
| Crop insurance | .103 | .148 | .132 | **.903** | .038 | .108 |
| Seed varieties | -.042 | .124 | .029 | **.732** | .392 | .025 |
| Seed treatment | .058 | .204 | .186 | .170 | **.826** | -.045 |
| Weather | .192 | .213 | .254 | .257 | **.685** | .136 |
| Market and price | -.135 | -.057 | .127 | .239 | -.075 | **.714** |
| Other crops to plant | .471 | .123 | -.010 | -.128 | .330 | **.589** |
| **Eigen values** | **5.547** | **3.858** | **2.551** | **1.962** | **1.154** | **1.006** |
| **% of variance** | **26.414** | **18.371** | **12.147** | **9.345** | **5.497** | **4.789** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Cumulative variance** | **26.414** | **44.785** | **56.932** | **66.277** | **71.774** | **76.564** |

Extraction Method: Principle Component Analysis

Table 1 exhibits the rotated factor loading for 21 statements of farmer's information needs. The statement were grouped using factor analysis, six factors emerged from the analysis and were named handling and transport needs, plant protection and growth, knowledge and technology utilization, credit and insurance, beneficial and environment, diversity and market.

**Handling and Transport Needs**

In this factor the number of variables included like, storage, grading, harvesting, and transport and weeding. Eigen value for these factors is 5.547 and percentage of variance is 26.414. It can be conclude that storage and grading related information needs is highlyloaded in first factor.

**Plant Protection and Growth**

This factor indicates that 18.371 per cent of variance of all the factors. This factor includes different variables like, disease management, pest management, pesticide and fertilizer. This all four variables highly loaded in plant protection and growth factor from which disease management is highly loaded from all the four variables.

**Knowledge and Technology Utilization**

The variables of farmers information needs such as planting method, best time to plant, soil fertility, agri. Machinery and water management are highly loading on factor 'knowledge and technology utilization'. The Eigen value of this factor is 2.551 and percentage of variance is 12.147. It is to be concluded that needs relating to planting methods is important on this factor.

**Credit and Insurance**

9.345 is the percentage of variance in the fourth factor of analysis. It includes three variables which were highly loaded in this factor like, credit and loans, crop insurance and seed varieties. It can be concluded that credit and loans related information needs is important factor for attitude toward information.

**Beneficial and Environment**

This factor includes the variables like, seed treatment and weather. Its Eigen value is 1.154 and percentage of variance is 5.497. It can be conclude that seed treatment variable is important for this factor.

**Diversity and Market**

The sixth factors of analysis consists of variables namely, market and price and other crops to plant which is highly loaded on this factors. From which market and price related information needs is important in this sixth factors.

## CONCLUSIONS

No one can categorically claim to know all the information needs of farmers especially in an information dependent sector like agriculture where there are new and rather complex problems facing farmers every day. In the recent decades, the value of information has increased considerably as the agricultural systems in developing countries become

knowledge intensive. Access and use of current information is critical for not only financial success of farmers, but to support sustainable agricultural systems. Yet farmers are rarely consulted before the design of extension services about their needs and preferences. But by understanding farmers access to and use of agricultural information, their agricultural information needs, and the factors that influence this behavior, programs disseminating agricultural information could better target farmers. The findings from this study have important implications for agricultural information dissemination that the public extension system and other programs carried out in developing countries.

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