Communication Behavior of the Farmers in Gwalior District (M.P.)

THESIS

Submitted to the

Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya

In partial fulfillment of the requirements for the Degree of

MASTER OF SCIENCE

In

AGRICULTURE

EXTENSION EDUCATION

by

PRAMOD KUMAR PATEL

Department of Extension Education

Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya

College of Agriculture, Gwalior (M.P.)

2017

CERTIFICATE – I

This is to certify that the thesis entitled **"Communication behavior of the farmers in Gwalior district (M.P.)"** *submitted in partial fulfillment of the requirements for the Degree of* **MASTER OF SCIENCE** *in* **Department of Extension Education and Rural Sociology** *of Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior is a record of the bona-fide research work carried out by* **Mr. PRAMOD KUMAR PATEL** I.D. No. RA/GW/054/2011 *under my guidance and supervision. The subject of the thesis has been approved by the student's Advisory Committee and the Director of Instructions.*

No part of the thesis has been submitted for any other degree or diploma or has been published. All the assistance and help received during the course of this investigation has been acknowledged by the scholar.

(Dr. M.M. Patel)
Chairman of the Advisory Committee

MEMBER OF STUDENT'S ADVISORY COMMITTEE

Chairman	(Dr. M.M. Patel)	……..
Member	(Dr. O.P. Daipuria)	……..
Member	(Dr. A.M. Jaulkar)	……..
Member	(Dr. V.B. Singh)	……..

CERTIFICATE - II

This is to certify that thesis the entitled **"Communication behavior of the farmers in Gwalior district (M.P.)"** *submitted by* **Mr. PRAMOD KUMAR PATEL** I.D. No. RA/GW/054/2011 *to the Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior in partial fulfillment of the requirements for the degree of Master of Science in* **AGRICULTURE** *in the department of* **Extension Education and Rural Sociology** *has been accepted after evaluation by the External Examiner and approved by the Student's Advisory Committee after an oral examination of the same.*

(Dr. M.M. Patel)
Chairman of the Advisory Committee

MEMBERS OF THE ADVISORY COMMITTEE

Chairman (Dr. M.M. Patel) ……..

Member (Dr.O. P. Daipuria) ……..

Member (Dr.A. M. Jaulkar) ……..

Member (Dr. V.B. Singh) ……..

Head of Department ……..

Dean of the college ……..

Director of Instructions ……

Contents

List of Tables

List of Figures

ACKNOWLEDGEMENT

I feel proud to express my deep sense of gratitude to my beloved and respected Chairman **Dr. M.M. Patel** Professor & Head, Department of Extension Education, RVSKVV, Gwalior for his valuable guidance encouragement, interest, and constructive criticisms and ideas throughout the course of my study which helped me executing my research work.

I am delighted to acknowledge the help rendered by the members of the advisory committee, Dr. O. P. Daipuriya Professor, Department of Extension, RVSKVV, Gwalior, Dr. A. M. Jaulkar Professor, Department of Agricultural Economics & F.M., and Dr. V.B. Singh, Professor and Head Department of Statistics, for their ingenious suggestions and guidance throughout my research work.

I am very happy to mention the names of the elite people of our university Professor A. K. Singh Vice chancellor, RVSKVV, Gwalior, Dr. B. S. Baghel, Director of Instructions, RVSKVV, Gwalior, Dr. J. P. Dixit Dean, College of Agriculture, RVSKVV, Gwalior.

I offer my sincere thanks and appreciation to entire staff of extension and expressly thank Dr. Prabhakar Sharma, Asst. Professor, Department of Extension Education and Dr. Prashant Sharma, contractual teacher, Department of Extension, RVSKVV, Gwalior, for their timely assistance during the course of investigation.

I gratefully express my thanks to my batch mates Miss Lalita Nargawe and Mr. Vikas Mandloi, Mr. Manoj Kumar, and Manish Kumar Yadav for their supportive encouragement and pleasant association showed to me.

With eternal pleasure, I offer my salutations at the feet of two lovable hearts Mr. Heeralal Patel and Mrs. Malti Patel, who gave life and introduced me to this world. I gratefully submit my special ardency and love to my beloved brother Mr. Pramchandra Patel. Their blessings, mellifluous love, meticulous care, and everlasting encouragement nourish me in each and every phase of life. This dissertation is simply impossible without them.

I give all the glory to god for giving me the strength to complete this research work successfully.

Place: Gwalior

Date: …./ …./ 2017 **(Pramod Kumar Patel)**

Chapter-I
INTRODUCTON

Technology and its communication are the key elements in the growth and development of societies that predominantly depend on agriculture. As noted by shiefer *et al.* (1999), the availability of appropriate information and communication system is a critical success factor in the agricultural sectors global responsibility of the production and distribution of food and preservation of natural environments. Various communication media are utilized for the transfer of technology from the laboratory to the fields of farmers and the mass media channels are the most important among them. Among various mass media systems, news paper, television, radio and agricultural publications including farm magazines have a vital role to play in knowledge transfer. Tothova *et al.* (1999) reported that availability of information at a minimized cost is one of the key factors in the success of communication strategies for agricultural subjects.

Agriculture technology is changing fast from conventional methods and techniques to modern technology. One of the major problems of the agricultural development is not the availability of improved agricultural technologies, but the problem is transfers of technologies to the farmers' field in correct time. There is a vast gap. Between knowledge generalized and knowledge utilization (Gunawardana & Sharma, 2004). There is a need for rapid transfer of agricultural technologies to the farmers, but to carry information to the farmers through and the country is gigantic task.

Communication is an integral part of development and this is more so in the context of India, where large population still lives in villages and may not be able to take active part in the development process due to illiteracy, shortage of resources, poor infrastructure facilities and low bargaining power etc. (Vittal, 1982). Development refers to, social and economic development, which is possible only through |information, education and communication. The development of farmers depends largely on agricultural development and communication facilitates the benefits of agricultural developments to the farmers. There are many sources through which farmers or agricultural input users seek or get information about the technological changes in farming.

New communication technologies, like e-chaupal, information communication technology (ICT) and teleconferencing are engaged in providing information to the farmers. A new approach, popularly known as the agri-clinic and agri-business were adopted by the Government to transfer the new information to modifying the farmers' information seeking behaviour or communication behaviour. It has been also reported that even after the sixty six years of independence, farmers are still traditionalists, hardliners, shy and ignorant about the agricultural and overall development of the country (Diapk *et al.,* 2003). The communication behaviour refers to the extent to which the farmers are exposed to the different messages from the various communication sources for the sake of adopting messages for proper utilization in their practices. The behaviour of an individual in broad sense refers to, anything the individual does, while in restricted sense, it refers to the activity that can be observed and rewarded. It is an established fact that communication is the backbone of the development of the society. Effective communication from different sources and channels are the essence of extension, which provides knowledge and information for rural people to modify their behaviour in the ways that provide sustainable benefits to them and to the society (Gunawardana *et al.*, 2005). The lack of interest in extension machinery and some social and personal constraints of the farmers make them unable to plasticizing new and improved agricultural practices at their farm. Thus, keeping in view this study is carried out to find the social, personal and existing constraints which intervene in production potential of the farmers.

Objectives of the study

1. To study the communication behaviour of farmers.
2. To study the socio-personal, socio-economic, psychological and communication characteristics of farmers.
3. To examine the communication source credibility as perceived by the farmers.
4. To assess the influence of socio-personal, socio-economic, psychological and communication characteristics of farmers on their communication behaviour.
5. To assess the communication related constraints of the farmers.

Significance of the Study:-

The findings of the investigation was provide overall picture about the communication behaviour of farmers in terms of their socio-psychological and economic traits. In further, the results can be utilized to plan and execute the programmes for transfer of agricultural technology which has been the focal point in the current year plan. In short, this study may be of great value not only to extension workers but also to scientists, administrators, planners and policy makers towards attainment of notional objectives of raising the levels of agricultural production. The findings of the investigation will also be helpful to the planners as well as administrator in formation of plans to tailor communication strategies for agricultural development and prevail over the constraints perceived by the farmers.

Need and Importance of the Study

Problems related to communication of new farm technology have become considerable matter for social researchers during previous few decades. Some of the previous researches have also shown wide gap between information available on improved farm practices and its dissemination to ultimate users i.e., farmers. So, we have to search better and faster means of communication which will bridge the gap between available knowledge and its application. So this study will provide an essential back-ground experience and information for tackling the communication problems in actual field condition. It will also provide comprehensive knowledge about effectiveness and credibility of available communication sources and channels. The findings of the research reveal the existing constraints on communication of improved farm practices in the study area. The results of this study will be of great use to planners, researchers and extension workers as it will enable to use right method, at right time and in proper way which will lead to more adoption of new information by the ultimate i.e., farmers.

Organization of dissertation:

1. The study is organized into six chapters. Chapter I deal the problems and set some objectives, its significance and limitation of the work.
2. A review of work done in this direction been presented in few sections under chapter II had direct relevance to result and discussion.

3. The methodology adopted being elaborated in chapter III, present brief account of research design using procedure of sampling, technique of research used to collect the facts and required analysis of raw data to draw the conclusion.
4. The chapter IV presents the results and cases observed in communication behaviour of the farmers.
5. The discussion run through the chapter V that provides on as it communication behaviour of the farmers in terms of their socio-psychological, economic traits, and experience of farmers.

Chapter- II

REVIEW OF LITERATURE

The brief reviews of previous studies conducted on communication behaviour of the farmers have been chronologically arranged here. As the literature on communication behaviour of the farmers and its linkage aspects are very few, review of other communication behaviour of the farmers and linkage aspects are also included in this chapter. The reviews are presented under various headings in accordance with the objectives of the study.

2.1. Profile of the farmers.

2.2. Communication behaviour of the farmers.

2.3. Credibility of communication source as perceived by the farmers.

2.4. Relationships between profile of the farmers and their communication behaviour.

2.5. Communication related constraints of the farmers.

2.6. Communication related suggestion of the farmers.

2.1. Profile of the farmers:

Kardak *et al. (*2004) indicated that the area under sorghum in vidharbha region (Maharashtra, India) is decreasing due to the socioeconomic, communication and psychological characteristics of the sorghum growers, only 90 percent of the respondents were found to be educated up to high school level. More than one third of the respondents (39.33 per cent) belong to the medium land holding category of 10.01 to 25.01 acre. The majority of the respondents were found to be of lower-middle and upper-middle socio-economic status. Exposure of respondents to sources of information in general was noted to be of medium level. The majority of the respondents (72.67per cent) had medium level of scientific orientation.

Kumar *et al. (*2008) revealed that a majority of the respondent (64.29%) paddy growers were in the middle age group (36 to 50 years) category, about one third (33.81 per cent) of the respondents were educated up to secondary school level. Majority of the respondents' paddy growers (67.14 per cent) had medium size of family (6 to 8 members). More than half (55.71 per cent) of the respondents had medium level of social participation.

Hanumanaikar *et al*. (2009) reported that majority (60.83%) of the respondents had medium level of knowledge followed by 25.85 per cent and 13.33 per cent of the respondents had high and low level knowledge respectively. Majority of respondents were literate (80.84%) of middle age (53.33%) and having medium annual income (61.66%).

Kumar and Singh (2010) revealed that a majority of the respondents (62%) exhibited low level of TV advertisement viewing behavior followed by 23 per cent under medium level and 15 per cent respondents falling under high level.

Darandale and Soni (2011) reported that majority of the tribal maize growers were in the middle age group with more than five family member, small to medium size of land holding, literate and were found with medium to high income and had medium level of economic motivation, scientific orientation, risk orientation, market orientation, knowledge level, extension contact and mass media exposure.

Hossain *et al.* (2011) reported that the majority of the respondents (85.83%) belonged to middle and young aged categories except a few (14.17%), among which 53.33 per cent education had ranged from primary to secondary, far below the national average. Highest proportion (83.33%) of the farmers had low annual income whereas only 3.33% farmers had high annual income. 39.17 per cent of the respondents had no organizational participation but rest of them maintained low to high organizational participation. Most of the respondents (75%) belonged to medium to high cosmopoliteness category while only 25 per cent had low cosmopoliteness habit. More than two-thirds of the respondents (70%) had low to medium innovativeness while only 30 per cent of them had high innovativeness, more than three-fourths (75.5%) of the farmers in the study area formed moderate favorable to favorable attitude towards agricultural technologies while only 22.5 per cent of them had low favorable attitude. whereas only 6% faced high problem confrontation. The tabulated data indicates that most of the respondents (76%) had low to medium agricultural knowledge while only 24 per cent of them had high agricultural knowledge.

Mishra e*t al*. (2012) reported that majority of the tribal farmers were belonging to the middle age group (40%).Whereas 30 percent each were falling in the young and old category of age, respectively. Education is very important determinant of individual personality. As it can be observed from the data, 46.25 percent of the respondents did not have any formal education. As much as (40%) of the respondents had formal education, that is, middle and high school level, whereas 13.75 per cent of the respondents could read and write only. It was observed that majority 65 percent of the respondents had nuclear family, whereas 35 per cent of them were having a joint family. In general it shows a trend towards disintegration of the age old family structure. It clearly indicates of the respondents (52.5%) were having medium family size. About 31.25 percent had small family, whereas only (16.25%) of the respondents belonged to a large family size in the study area.

Mohapatra and Sahu (2012) found that 43.75 per cent of ST entrepreneurs belonged to middle age group of 35-50 years, whereas 32.5 per cent of them belonged to young age group less than 35 years. Thus, only 23.75 per cent of ST entrepreneurs belonged to old age group. 20 per cent of the tribal entrepreneurs were educated up to primary school whereas, 15 per cent them had middle school education. Thus, 11.25 per cent of the tribal entrepreneurs had education up to high school level, while 10 per cent of them had college education. Thus, majority of the respondents (43.75%) were illiterates. 40 per cent of the respondents belong to low farm decision making ability, whereas, 32.5 per cent of them belonged medium farm decision making ability and remaining 27.5 per cent belonged to high farm decision making ability category. 42.5 per cent of the respondents belong to medium level of management orientation, followed by high 31.25 per cent. Only 26.25 percent of them belong to low management orientation category. 38.75 per cent of the respondents belong to low innovativeness, 36.25 per cent of the respondents belong to medium innovativeness and 25 per cent belong to high innovativeness categories. 52.5 percent of the respondents had medium level of economic motivation followed by 28.75 percent and 18.75 percent of the respondents with high and low level of economic motivation respectively.

Sanjay Kanti Das (2012) stated that the maximum numbers of the Tribal respondents (64%) were found in age group of 25-45 years. Nuclear

families (52%) were observed maximum with agriculture as their main occupation (82%). The economic motivation (54%), value orientation (66%), and scientific orientation (51%) were observed to be of medium level.

Phukan *et al.* (2013) revealed that majority (69.17%) of the respondents were 34-55 years of age who had primary (19.17%) and high School (19.17%) level educational qualification and majority (80.83%) of respondents were male. Majority (79.16%) of respondents had medium level of mass media exposure, while (40%) of them had no training exposure. Most of the respondents had medium level of marketable surplus (70%), market intelligence (79.16%), risk preference (80%), scientific orientation (77.5%), economic motivation (68.33%) and marketing orientation (81.67%).

Rokonuzzaman (2013) stated that the average age of the tribal people was 34.67 years and majority (96%) of them was young to middle aged. Their average educational qualification was 37 years of schooling and most of them (67%) were literate but 43 per cent of them could not exceed primary level, while rest of them were illiterate. Average family size of the tribal people was 4.77 and most of them were belonged to medium to small category. Average farm size of them was 0.28 ha and almost all (98%) of the tribal people were marginal to small category. Their average annual income was 22.79 thousand taka and most of them (77%) were placed in low to very low income category.

Tochhawng and Rewani (2013) revealed that majority of the tribal farmers (54.44%) belonged to middle age group of 36-45 years and more than one third of the farmers were educated up to primary level. Majority of the farmers had piggery as secondary occupation (86.67%) with small herd size of 1-3 pigs (47.78%) and had low annual income of less than Rs 31,000 (53.33%). Nearly half of the respondents had marginal land holding with a farming experience of above 10 years. More than one-third of the farmers had low extension contact and mass media exposure, while nearly half of the respondents had high social participation. More than one-half of the farmers had low level of innovativeness and scientific orientation while 44.44 per cent had high level of economic motivation.

Inavati *et al.* (2014) found that the higher percentages of tribal farmers (62.5%) were middle age and formally educated (80.84%). The considerable

proportion (43.33%) had small size of land holding, remaining had medium and large size of land holding. The majority (71.66%) had medium level of material possession. Thirty three percent had low income and others were of very low and medium level. The majority (62.51%) of respondents had low extension participation and majority of the respondents (69.16%) shown low contact with developmental agencies. The higher percentage (76.67%) of respondents showed low cosmopoliteness, whereas majority (76.67%) had shown higher scientific orientation, low training experience (70%), and low adoption behavior (66.67%).

Patel (2014) reported that 36 per cent tribal belong to the age group of 31-40 years and 30 per cent are in the age group of 41-50 years, only 29 per cent are from the age group of 51 to more years. This shows that younger respondents are very less. The analysis carried out that majority of the respondents (73%) are from nuclear family whereas 27 per cent respondents are from joint family. 60.33 per cent of the respondents live interfaced or Terraced houses compared to 27 per cent living in Tiled house. The type of house is related to the economic conditions of the dwellers. It also tells upon the social status of the resident. 31 per cent are found as the literate, 26 per cent illiterate, 16 per cent up to the primary level, 12 per cent up to the secondary level and higher educated 7 per cent whereas others 7.67 per cent education (Diploma, Training Course- P.T.C, and B.P.Ed.) are very few. 37 per cent respondents engaged in Agriculture, 20 per cent in labour, 14 per cent are job while Animal husbandry and Home industry (07%, 12%) are very few respondents. 6.34 per cent of the respondents belonging to the annual income group of less than Rs. 11,000, 8.66 per cent earn between Rs. 11,000 to 21,000, 26.66 per cent earn between Rs. 31,001 to 41,000 and A few respondents (26.66%) earn Rs. 31,000 while 40 per cent earn Rs. 41,000 above.

Rastogi and Hasan (2014) revealed that the majority of the respondents were from general (57.5%) caste followed by other backward class (40%) and SC/ST (2.5%). 73.75 percent respondents were in the middle age group followed by young (13.75%) and old (12.5%). Majority of the respondents literate (78.75%) followed by illiterate (21.27%). The income level of respondents depicts that 48.75 per cent were having medium level of

income (0.8-1.2 lac.) followed by high (33.75%) and low (17.5%). In spite of commercialization and industrialization in the areas, the farming (58.75%) was still major occupation followed by the business (28.75%) and labourer (7.5%). The majority (66.25%) of respondents were having the nuclear family followed by joint family (33.27%). Most of the respondents (53.75%) were having small family size followed by medium (31.25%) and large (15%). The majority (56.25%) were possessing small land holding size followed by medium (36.25%) and large (7.5%). 83.75 per cent respondents were not associated with any membership in their social system followed by membership at least one organization (16.25%). Only 61.25 per cent respondents were having medium attitude to use new agricultural technology and inputs at their farm.

Singh *et al.* (2015) reported that the communicational source like RAEOs, friends, progressive farmers etc. were found as the most utilized information source used by the farmers, maximum number of the respondents used 4-7 sources of information, and maximum number of farmers had medium level of overall contact with extension agencies.

Boruah *et al*. (2015) shows that most of the tibal vegetable growers (41.66 per cent) were in the young age group (between18-35 years); while 35.84 per cent were middle aged (36-50 years) and the old farmers were only 22.50 per cent (above 50 years) in Jorhat district. Reported that 52.50 per cent of the respondents had medium level of education, 27.50 per cent had low educational level, 13.33 per cent had no education and only 6.67 per cent had high level of education. The majority (50.84%) of the respondents belonged to medium sized family, followed by small sized family (34.16%) and large sized family (15.0%) in overall sample. Majority (51.67%) of the respondents belonged to group with annual income ranging from Rs 25001-50000 followed by 25 per cent with annual income between Rs. Rs.75001 and above, 20.83 percent had income level between Rs. 50001-75000 and only 2.5 percent of the respondents were found income level up to Rs.25000 in overall sample.

Bhanotra *et al.* (2016) reported that the majority (65%) of the farmers belonged to old age group followed by middle age group (31.67%). The minimum and maximum age was 35 and 89 years respectively. Only 31.67 per cent of the respondents were illiterate and remaining 68.33 per cent were

literate. Among literates 24.16 percent were educated up to secondary level followed by 20 per cent having middle level education. Maximum number of the respondents (48.33%) was in the category of marginal land holding followed by 39.17 per cent in small holding. Most of the respondents (41.67%) had annual income less than Rs 50000 followed by medium (Rs 50000-150000) and high (Rs >150000) income category farmers comprising of 40 and 18.33 per cent respectively. Maximum numbers of the respondents (49.17%) were involved in low social participation followed by 43.33 and 3.33 per cent having medium and high social participation respectively. Majority of the respondents (65%) used information source to medium extent whereas 35.00 per cent used at low and only 20 per cent at high level.

Prasad *et al.* (2017) found that majority (67.5%) of the respondents had medium level of extension contact, followed by 17.5 per cent respondents who had high level of extension contact while only 15 per cent respondents had low level of extension contact. Majority (59.38%) of the respondents utilized medium level of information sources, followed by 28.12 per cent of the respondents who utilized high level of information sources, 12.5 per cent of the respondents who utilize low level of information sources

2.2. Communication behaviour of the farmers:

Das, E. P .K. (2008) found that as far as output or dissemination of information is concerned 32.0 percent farmers of progressive villages disseminate recent technical information on agriculture always by organizing farmers meeting. 50.0 percent disseminate sometimes. In non-progressive villages 48.0 percent farmers disseminate information sometimes whereas 52.0 percent farmers never disseminate information. 58.0 percent farmers of progressive village disseminate information sometimes by discussion with fellow farmers and 30.0 percent disseminate always. In non progressive villages 48.0 percent farmers disseminate recent information sometimes by discussion with fellow farmers whereas 34.0 percent never disseminate any information. 50.0 percent farmers of progressive village's dissemination recent information sometimes by visiting neighbours field, 38.0 percent disseminate always. In non-progressive villages 42.0 percent farmers disseminate information sometimes by visiting neighbours field whereas 42.0 percent farmers never disseminate recent information. 52.0 percent farmers of

progressive village's dissemination sometimes recent information by organizing method demonstration and inviting other farmer to their own field. 30.0 percent disseminate always. In non-progressive villages 46 percent farmers disseminate information sometimes by organizing method demonstration and inviting other farmers to his field whereas 50 percent farmers never disseminate information.

Kumar *et al.* (2012) indicated that 75 per cent of the NAIP farmers were in medium group whereas, 15.83 per cent and 9.16 per cent of them were in high and low level of communication behaviour respectively.

Lal and De (2012) found that 55 per cent respondents had medium level of communication behaiour followed by high level (43%) and low level (16%) communication behaviour towards farm education programmes of television.

Phukan *et al.* (2013) found that 70 per cent of the respondents had medium level of communication behaviour followed by low (16.66%) and high (13.33%) communication behaviour .

Hakeem *et al.* (2014) found that majority of the respondents (64.56%) had medium communication behaviour, followed by low communication behaviour (22.78%). A very few respondents (12.66%) had high communication behavior.

Bhanotra *et al.* (2016) found that the under communication behaviour majority (55%) of the farmers were having low access to mass media sources followed by 35.83 per cent having medium exposure. Majority (60.83%) of the farmers had low extension contact, 30.83 per cent were in medium and 8.34 were in high category of extension contact.

2.3. Credibility of communication source as perceived by the farmers:

Gunawardana and Sharma (2004) reported that the friends (MPS 73.33) and neighbor (MPS 70.83) were the major personal localite sources of agricultural information; agricultural supervisor (MPS 78.3) was the major personal cosmopoliteness sources of agricultural information, input dealers (MPS 42.5) and subject matter specialist (MPS 30) were accorded second and third rank respectively. Kissan Mandal Meeting (MPS 60.83) was the

most popular personal cosmopolite channel of agricultural information followed by farmers fair (MPS 59.66) and local kissan seva kendra (MPS 41.66). Radio (MPS 63.33), news paper (MPS 47.5), television (MPS 32.5) and farm publication (MPS 29.16) were the most preferred impersonal cosmopolite channel of agricultural information.

Das (2008) found that as far as contact with other persons is concerned 48 per cent farmers of progressive villages meet with local leaders weekly and 26 per cent daily. In non-progressive villages 34 per cent farmers meet with local leader fortnightly and 52 per cent monthly 24 per cent farmers of progressive village meet with progressive farmers weekly and 72 per cent daily. As far as mass contact is concerned 58 per cent farmers of progressive villages read Agricultural Magazines and Journals monthly, 28 per cent fortnightly. In non-progressive villages 28 per cent farmers read Agricultural Magazines and Journals monthly whereas 72 per cent farmers never read agricultural magazines and journals. For news paper reading 78 per cent farmers of progressive villages read news paper daily and 12 per cent weekly. As far as collection of information through mass contact is concerned 52 per cent farmers of progressive villages listen radio always and get recent information on agriculture. 40 per cent listen sometimes. In non-progressive villages 46 per cent farmers listen radio sometimes and get information whereas 40 per cent farmers never listen radio. As far as television viewing is concerned 28 per cent farmers of progressive villages watch T.V. always and get recent technical information on agriculture. 40 per cent watch sometimes.

Hossain *et al.* (2011) determine the extent of use of each communication media for all the rice production technologies, combined media use index (CMUI) was calculated and based on those CMUI, communication media were ranked reported that the progressive farmers were used as the communication media to the highest extent (1220) and it was closely followed by neighbor (1218), friend (1064), Sub Assistant Agriculture Officer (924) and relatives (620). On the other hand, news paper (113), agricultural fair (82) and NGO workers (51) were used relatively to a lower extent.

Kumar *et al*. (2013) revealed that there was found that friends and neighbors and progressive farmers were the major personal contact sources

of agriculture information utilized. It was also found that training programmes were the major group contact sources of agriculture information utilized and radio, television and krishi mahotsav were the major mass media contact sources of agriculture information utilized by the NAIP beneficiary farmers for seeking information.

Punitha *et al.* (2013) revealed that the most preferred source is the Assistant Agriculture Officer, Agriculture officer in personal cosmopolite, neighbors and friends in personal localite and television in impersonal localite channel. Discussion with fellow members revealed that memorizing was the most preferred channel for information processing and information storing respectively. The interpersonal contact and informal chat during social functions was exhibited with regard to the information dissemination behavior.

Singh *et al.* (2014) revealed that most of the dairy farmers used friend, progressive milk producers, veterinary officers and neighbors as information sources. Group discussion, group meeting, news paper and dairy cooperative society (DES) were important channels for information seeking about proper cattle shed and milking procedure however milk DES. Educational tour and group discussion were important channels for information used by the dairy farmers for information seeking about cleaning of post milking practices.

Sahu *et al.* (2014) revealed that most potential information source were personal localite channels as the extent use of these channels was 59.6 per cent. Whereas, farmers used mass media and personal cosmopolite channels up to 47.55 and 44.33 per cent. Respectively for obtaining the information on recommended dairy technology. Over all data show that among the various sources of information, neighbors (75%), progressive farmers (73.33%), television (71.66%), local leader (60%), SMS/ Scientist (58.33%) and radio (56.66%) were mostly used by the farmers to obtain information for betterment of dairy farming and found that the personal cosmopolite source utilized, SMS/ Scientist attended by dairy farmers and their percentage was maximum *i.e.,* 60 per cent in the category often followed by Veterinary officer (47.50%), VLWs (34.16%), NGO (20.83%) and BDO/AEO (12.50%).In case of' some times out of different source of information attended BDO/AEO (56.66%), NGOs (55.%), VLW (49.16%), Veterinary officer (30.83%) and SMS /Scientists (29.16%). The different source of information BDO/AEO NGOs,

Veterinary officer, VLWs and SMS/Scientists were never by 30.83 per cent, 24.16 per cent, 21.66 per cent, 16.66 per cent and10.83 per cent of dairy farmers respectively.

Singh *et al.* (2014) reported that the dairy farmer used friends, progressive milk producer, veterinary officer and neighbors as information source; group meetings, news paper and DCS were important channels for information seeking about proper cattle shed and milking procedure. However, milk route supervisor were found as major information source; whereas, DCS educational tour and group discussion were important channels for information used by the dairy farmers for information seeking about cleaning of uttering and post milking practices.

Singh *et al.* (2014) reported that the most important communication channels used by small farmers were training, method demonstration, result demonstration and field days. The important and prominent personal localite channels being preferred were KVK/ATC, Agricultural Supervisor and progressive farmers whereas, important impersonal localite channels were radio, film show and printed materials.

Prasad *et al.* (2017) concluded that 85.63 per cent of respondents were receiving the agricultural information related with groundnut production technology from Rural Agriculture Extension Officer (RAEO), followed by Farmers friend (80%), Progressive farmers (61.87%), T.V. (46.25%), Friends (43.13%), Radio (28.12%), A.D.O. (23.75), Neighbours (23.13%), Agriculture scientist (20%), Training /Visit (18.12%), Agriculture magazines (15.62%), Others *i.e.* internet, sales agent etc. (16.25%), Farmers fair (14.37%), Sarpanch (10%), Relatives (8.75%), and Newspaper (3.13%) respectively.

2.4. Relationships between profile of the farmers and their communication behaviour:

Kumar *et al.* (2009a) revealed that majority of the sampled R&E personnel had nil to moderate extent of C&C between them. The status was found better when research and extension operated from same organization. Further, research personnel from HAU outperformed NDRI regarding their extent of C&C with extension personnel both within the organization as well as with SDAH. The factors significantly predicting the extent of C&C between

them were identified as the cadre of the personnel (9.78%), their educational qualification (18.22%) and job satisfaction (20%).

Kumar *et al.* (2009b) found that better when research and extension operated from same organization. Further, research personnel from HAU outperformed NDRI regarding their extent of C&C with extension personnel both within the organization as well as with SDAH. The factors significantly predicting the extent of C&C between them were identified as the cadre of the personnel (9.78%), their educational qualification (18.22%) and job satisfaction (20%).

Hossain *et al.* (2011) revealed that out of 11 selected characteristics of the respondents only 5 namely education, cosmopoliteness, innovativeness, attitude towards technology, agricultural knowledge had significant positive relationship, while age of the respondents had significant negative relationship at 0.01 levels with communication behavior in receiving information on improved rice production technologies. On the other hand, family size, farm size, annual income, organizational participation and problem confrontation had no relationship with communication behavior in receiving information on improved rice production technologies.

Punitha *et al.* (2013) revealed that material status, social participation, contact with extension agency indicated a positive and significant influence on communication behavior. Constant follow up by the subject matter specialists of KVKs with the farmers, club will ensure more involvement and organizational commitment.

Singh *et al.* (2013) found that the positive significant correlation exists between the knowledge and attitude of the farmers and that of communication behaviour, although it is non-significant in one aspect i.e., *Impersonal* cosmopolite channels and attitude.

Phukan *et al.* (2013) revealed that relationship of annual income, mass media, market intelligence, marketable surplus, market intelligence with communication behaviour of respondents had positive significant relationship which indicate that if the annual income, mass media, market intelligence, marketable surplus, market intelligence is higher than communication

behaviour will be higher and vice-versa. In case of gender of the respondents is not significantly associated with communication behaviour.

Singh *et al.* (2014) found that communication behaviour of the farmers was positively and significantly associated with caste, level of education, size of land holding, farm power, linkage with change agent, socio-economic status, social participation and agricultural infrastructure available with farmers. It was also revealed in the study that adoption of seed technology, use of nitrogenous fertilizers, soil and organic matters and use of weedicides in wheat production was positively and significantly related with the communication behaviour of small farmers. Further, the knowledge level of small farmers regarding wheat technology was positively and significantly related with use of personal cosmopolite, localite and impersonal cosmopolite channels, whereas, the level of attitude of small farmers was positively and significantly related with use of personal cosmopolite as well as localite communication channels.

Barman and Sonowal (2015) reported that the level of education, family income, land holding size, source of labor and training exposure were positive and significantly associated with utilization of information sources by bhut jolokia growers. But age is negative and significantly associated with utilization of information sources.

2.5. Communication related constraints of the farmers:

Baisane *et al.* (2009) reported that 'lack of technical support from computer operators/programmers' was major (20.45%) constraint expressed by farm scientists in transfer of technology through multimedia. More than one-sixth (15.91%) farm scientists expressed about 'inadequate latest hardware and software packages' facilities. It was seen that 'lack of time for preparation' (19.51%) and 'less opportunity is given from radio officials as concerned field of specialization' (17.07%) were that major constraints experience by the farm scientists in transfer of technology through radio. It was observed that 'less opportunity is given from television officials as concerned field of specialization' (19.05%) and 'lack of technical support from the artists, photographer etc. in preparing visuals for television programmes

(15.87%) were the major constraints faced by the farm scientists in transfer of technology through television.

Singh and Singh (2012) showed that the major constraints were related to extension contact. It was further noticed that with the increase and improvement in personal and socio economic characteristics of farmers eliminate the constraints of communication at considerable extent. Therefore, the small category of respondents had more constraints followed by less and least constraints among medium and a large category of respondents, respectively. The communication being a social activity, communication behavior is affected by number of social, personal, economic, administrative and other variables. Therefore, the communication behavior defers from individual to individual.

Rastogi and Hasan (2014) reported that the needs and priorities of the farmers have been changed. Many constraints like, lack of knowledge about various recommended cultivation practices, non-availability of basic agricultural inputs on time, high rates of wages, inadequacy of labourer etc., were faced by the respondents. There is an imperative need in the areas that the scattered information, which is in the form of special bulletins and articles in different journals, magazines, research, reports etc., should be made in the form of a book and circulated to the farmers and extension personnel on reasonable price. Considering the circumstances, it is necessary to make administrative and co-operative machinery more effective and encourage the research and extension system to work on the needs and the priorities of the farmers to bring the prosperity in rural society.

2.6. Communication related suggestion of the farmers:

Dhanasree *et al.* (2014) it was revealed that 75.55 per cent of tribal women respondents suggested creation of transport facilities followed by Creation of market facilities (68.88%), regular visit of extension worker (65.55), creating awareness about income generating activities (60.55%), conducting training programmes(60.55%), establishment of training centers (57.22%), providing access to credit and other financial services(50.44%), access to better health facilities(55.00%), reducing the dependence on external source of finance(42.22%) and access to appropriate technologies and information(27.22%).

Patel (2014) suggested that the institutional framework for the implementation of the tribal development programmes at the grassroots level needs to be strengthened suitably equipped in terms of wider responsibilities, accountability to people and transparency in functioning. This framework must consist of the Panchayati Raj institutions, institutional credit agencies and non-governmental development agencies. In addition to the present strategies, there is a need for adopting a holistic approach to tribal development aimed at comprehensive development of the area as a whole with a focus on the development of infrastructural facilities.

Chapter- III
RESEARCH METHADOLOGY

This chapter deals with research methods and techniques employed in conducting the present investigation. The detailed descriptions used for carrying out the research have given under the following heads.

3.1. Locale of the study
3.2. Research Design
3.3. Sampling Procedure
3.4. Selection of variables and their measurement
3.5. Operationalization of the variables
3.6. Method of data collection
3.7. Statistical analysis of data

3.1. Locale of the study:

The study was conducted in Gwalior district of Madhya Pradesh. This district comprises of four blocks. This district covers an area of 5214 sq.kms. This district is surrounded by Morena district in north, Shivpuri district in west, Bhind district in east and Datia district in the south. Gwalior district has four blocks namely, Ghatigoan, Dabara, Bhitarwar and Morar.

3.2. Research Design:

Considering the nature of the study, the exploratory research design was used.

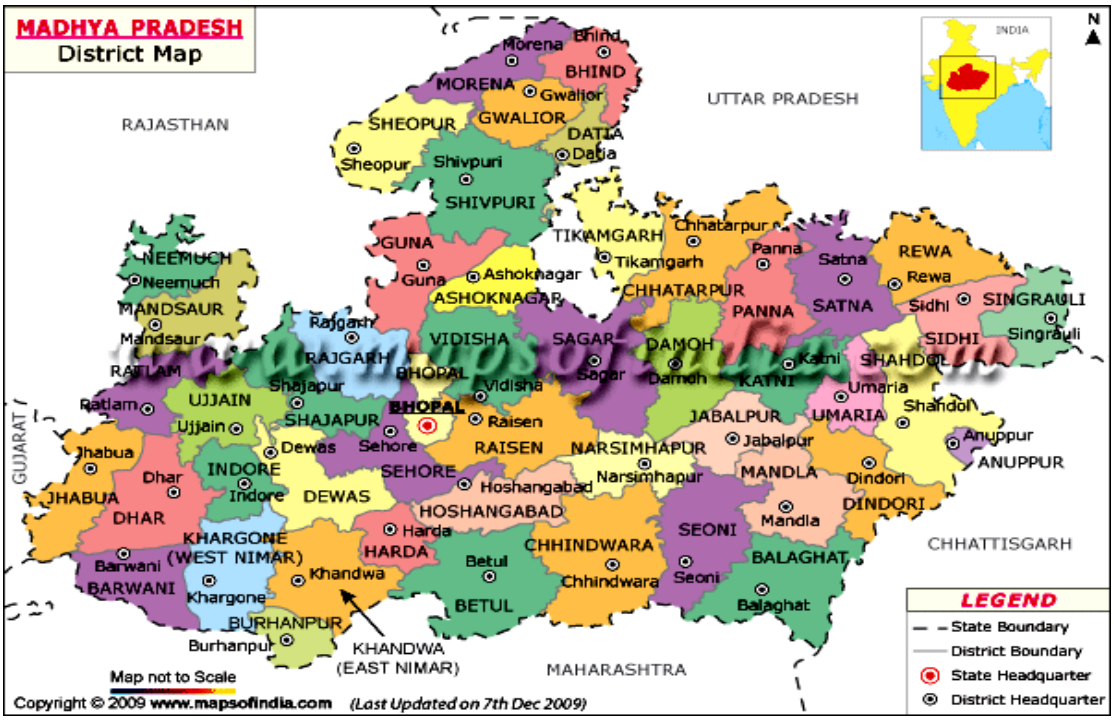
3.3. Sampling Procedure:

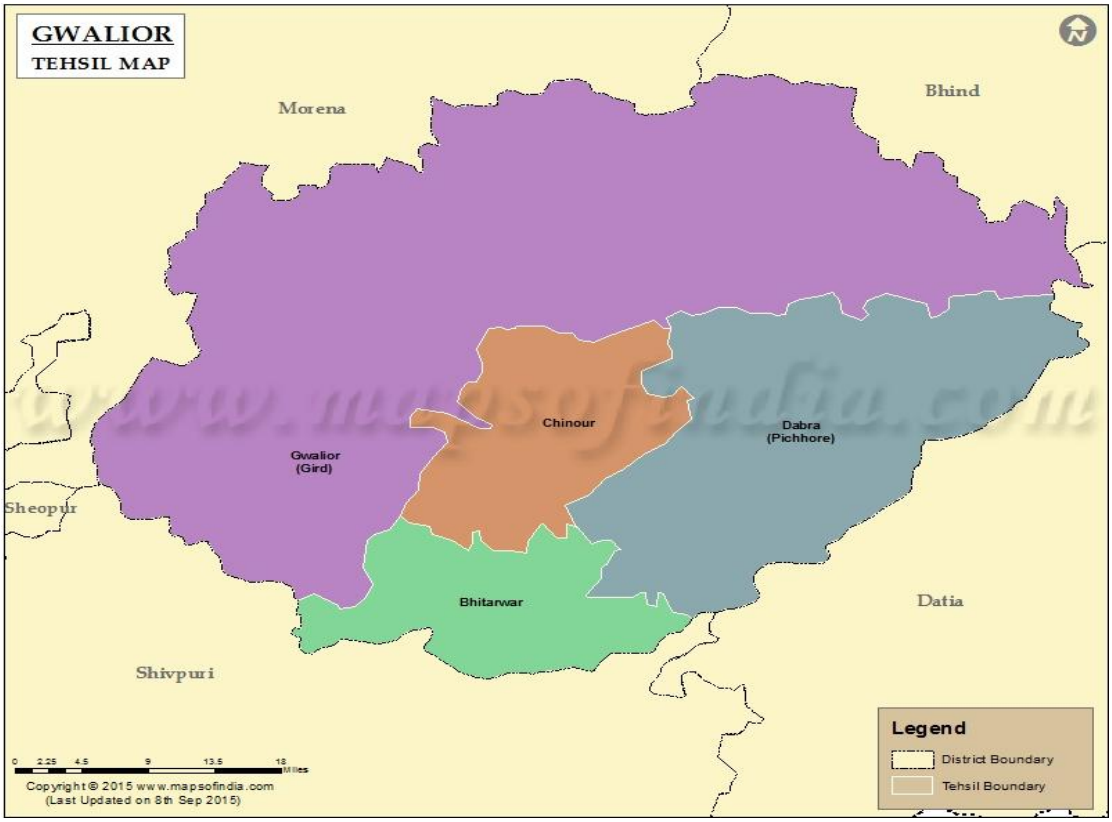
3.3.1 Selection of blocks:

The Gwalior district constituted of four blocks. Among four blocks, two blocks namely Morar and Dabra were selected randomly for study.

3.3.2 Selection of villages:

A comprehensive list of villages of two selected blocks was obtained from agricultural department. Out of total villages (Morar block-332 and Dabara - 156) ten villages (5 from Morar block and 5 from Dabara block) spread over


MADHYA PRADESH
District Map
RAJASTHAN
UTTAR PRADESH
CHHATTISGARH
MAHARASHTRA
GUJARAT
INDIA
N
Morena
Bhind
BHIND
MORENA
Gwalior
GWALIOR
SHEOPUR
DATIA
Datia
Sheopur
Shivpuri
SHIVPURI
TIKAMGARH
Chhatarpur
Panna
Satna
REWA
Rewa
Tikamgarh
Ashoknagar
GUNA
Guna
ASHOKNAGAR
CHHATARPUR
PANNA
SATNA
Sidhi
SINGRAULI
Singrauli
NEEMUCH
Neemuch
MANDSAUR
Mandsaur
Rajgarh
VIDISHA
SAGAR
DAMOH
SIDHI
RAJGARH
Katni
SHAHDOL
RATLAM
Shajapur
BHOPAL
Vidisha
Sagar
Damoh
KATNI
Umaria
Ratlam
UJJAIN
Ujjain
SHAJAPUR
Raisen
JABALPUR
UMARIA
Shahdol
Anuppur
ANUPPUR
Jhabua
Dewas
Sehore
RAISEN
NARSIMHAPUR
Jabalpur
Dhar
INDORE
Indore
SEHORE
Hoshangabad
Narsimhapur
MANDLA
Dindori
DINDORI
JHABUA
DEWAS
DHAR
HOSHANGABAD
Harda
Mandla
SEONI
KHARGONE
(WEST NIMAR)
HARDA
CHHINDWARA
BALAGHAT
Barwani
Betul
Seoni
BARWANI
Khandwa
Khargone
Chhindwara
BETUL
Balaghat
BURHANPUR
Burhanpur
KHANDWA
(EAST NIMAR)
Map not to Scale
LEGEND
State Boundary
District Boundary
State Headquarter
District Headquarter
Copyright © 2009 www.mapsofindia.com
(Last Updated on 7th Dec 2009)


GWALIOR
TEHSIL MAP
Morena
Bhind
Chinour
Dabra
(Pichhore)
Gwalior
(Gird)
Sheopur
Bhitarwar
Datia
Shivpuri
Legend
District Boundary
Tehsil Boundary
Copyright © 2015 www.mapsofindia.com
(Last Updated on 8th Sep 2015)

both the blocks were selected randomly. These villages were Sosa, Mohanpur, Badagaon, Rangoan, Chawani of Morar block and Jaurasi, Gatari, Pichoar, Sumudan, Atari of Dabara block. `

3.3.3 Selection of respondents:

Village wise list of the farmers was obtained from department of agriculture and 12 farmers from each selected village were selected randomly. Thus, the total numbers of 120 farmers were selected for the purpose of study.

3.4. Selection of variables and their measurement:

The dependent and independent variables for the study have selected based on the available literature and opinion of the experts in the field of the study. The variables selected for the study along with their empirical measurement are presented in following table.

S. No.	Variables	Empirical measurement
A.	**Independent variables**	
Socio-personal variables		
1	Age	Chronological age
2	Education	SES Scale developed by Thakare and Ingle (2007)
3	Organization Participation	SES Scale developed by Chaudhari (2006)
4	Farming experience	Structured schedule
5	Training Participation	-do-
Socio-economic variables		
1	Land holding	-do-
2	Occupation	-do-
3	Family income	-do-
4	Material possession	-do-
5	Farm mechanization	Scale developed by Samanta (1977)
Psychological variables		
1	Economic motivation	Supe, S.V. (1969)
2	Marketing orientation	Structured schedule
3	Scientific orientation	-do-
4	Attitude of farmers	Scale developed by Chandra and

	towards improved agricultural practices	kimar(2007)
Communication variables		
1	Cosmopoliteness	Structured schedule
2	Extension participation	Scale developed by Siddaramaiah B.S. and Jalihal, K. (1983).
B	**Dependent variables**	
1	Communication behaviour	Structured schedule

3.5. Operationalization of the variables:

3.5.1. Dependent variable:

3.5.1.1. Communication behavior

The communication behaviour referred to the tendency of farmer to seek and share technical information related to farming for enhancing their knowledge and skill.

To determine the communication behaviour of the farmers with respect to agriculture and various sources of information how farmers require information regarding production technology, what sources they use, how do they evaluated and stored as a result of processing the gathered information, and to what extended farmers share the store information to others?

To determine communication behaviour, three dimensions i.e. information input, information processing and information output were used in this study. Based on the total score obtained by respondents on communication behaviour, they were grouped in to three categories namely low, medium and high on the basis of mean ± SD.

3.5.2. Independent variables:

3.5.2.1. Socio-personal variables:

3.5.2.1.1. Age

It is referred to the chronological age of the respondents in completed years at the time of investigation. Age was operationalized as number of full years completed by the respondents at the time of interview. Based on the

chronological age the respondents were classified into three groups as follows:

S. No.	Category	Years
1	Young age	< 35
2	Middle age	36-50
3	Old age	> 50

3.5.2.1.2. Education

It refers to obtain education through an accredited source such as primary school, high school or university/college. The education levels of the farmers were categorized into six levels. The scores of different educational levels were given as indicated below:

S. No.	Educational level	Score
1	Illiterate	0
2	Up to primary	1
3	Up to middle	2
4	Up to higher secondary	3
5	Up to Graduate and above	4
6	Technical education	5

3.5.2.1.3. Organization Participation

It refers to the degree of involvement of the respondent in formal organization either as a member or as an office bearer. The scoring was followed according to procedure developed by Choudhri (2006). The maximum and minimum ranged of organization participation 5 and 0 respectively. The respondents were classified based on mean ± SD.

3.5.2.1.4. Farming experience

It refers to the number of years of experience in farming possessed by a farmer. The experience of farmers in completed years at the time of investigation was considered. Based on experience the respondents were grouped into following categories.

S. No.	Categories	Year of experience
1	Low	Up to 10 years
2	Medium	11 to 20 years
3	High	Above 20 years

3.5.2.1.5. Training participation

This variable was operationalized as a number of training courses attended by the respondents during the year. Score of one was assigned per training course attended in a place over a specified period by the respondents. For no participation zero score was assigned. The maximum and minimum ranged of training participation 13 and 5 respectively.

Depending on total score the respondents were grouped into 3 categories by using mean and standard deviation as a measure of check.

3.5.2.2. Socio-economic variables:

3.5.2.2.1. Land holding

It refers to the number of ha of land possessed by a farmer. The criteria prescribed by the Madhya Pradesh Land Reforms Act 38 to 1966 (Part-B) 99 and 195-96 under sections 2(a) 32 was adopted, whereas one acre of irrigated or garden land was equated to 3 acres of dry land.

S. No.	Categories	Land holding (Ha)
1.	Marginal	Up to 1 Ha
2.	Small	1.01 to 2.00
3.	Semi medium	2.01 to 4.00
4.	Medium	4.01 to 10.00
5.	Large	Above 10

3.5.2.2.2. Occupation

Occupation is an activity that serves as one's regular source of livelihood. It is operationalized as the activities in which a farmer is regularly engaged and gets major income out of it. The scoring procedure is given below:

S. No.	Occupation	Score
1.	Agriculture alone	1
2.	Agriculture + with subsidy enterprise	2
3.	Agriculture + with subsidy enterprise and others	3

The respondents were grouped into three groups as Agriculture alone, agriculture with subsidy enterprise and agriculture with subsidy enterprise and other enterprises.

3.5.2.2.3. Family income

Family income was operationalized as the total earning of the family in terms of money including farm and off-farm income per annum. It was measured by asking an open end question. The minimum and maximum ranged of family income 0.20 Lakh and 3 Lakh respectively. The respondents were categorized on their income into three groups on the basis of mean ± SD.

3.5.2.2.4. Material possession

Material possession consists of goods and services that society gives an individual or group of individuals the exclusive right to possess, use and dispose off. Material possession is, therefore, includes all the items possessed by a person. These materials can be domestic items like sofa, almirah, gas stove, telephone, etc. or agricultural items like desi plough, chaff cutter and livestock including cows, buffaloes etc.

The respondents were asked if they possessed those items or not. In case they did, how many did they possess, and if the number of that item was more than one, the score for that item increased accordingly. The scores were added up to get the total score of material possession. The respondents were categorized into three groups on their material possession: low, medium and high material possession through Mean± S.D.

3.5.2.2.5. Farm Mechanization

Farm mechanization is defined as the use of labour saving (human as well as animals), time saving, and efficient working devices for farm operations. It was measured by "Farm Mechanization Index" developed by Samanta (1977). It was calculated by the formula:

$$FMI = \frac{\sum Wj.\ Tj}{N}$$

Whereas,

Wj = Weight of j^{th} item (machine/ implement)

Tj = Total period in years the j^{th} item has been used

N = Total number of items related to farm.

The maximum and minimum ranged of farm mechanization 92.7 and 0 respectively. The farm mechanization categories were formulated into low, medium and high on the basis of Mean ± SD.

3.5.2.3. Psychological variables:

3.5.2.3.1. Economic motivation

Economic motivation is the degree to which an individual intends to earn to the maximum extent. Economic motivation was conceptualized as one's orientation towards profit maximization in farming. In the present study the economic motivation was measured with the help of economic motivation scale developed by Supe (1969). The scale contained six statements of which sixth statement is negatively keyed. Each statement was provided five response categories. The responses to positive statements were scored as strongly agree-5, agree-4, neutral-3, disagree-2 and strongly disagree-1. The order was reversed in case of negative statement. The maximum and minimum ranged of economic motivation 28 and 16 respectively. The economic motivation categories were formulated into low, medium and high on the basis of Mean ± SD.

3.5.2.3.2. Market Orientation

Market orientation was operationalized as the degree to which a farmer has been oriented towards marketing to sell his produce for remunerative price. A part of the scale developed by Samantha (1977) was used in the study. The scale consists of six statements, of which three are positive and three are negative statements. The responses to positive statements were scored as agree-3, undecided -2, disagree-1. The order was reversed in case of negative statement. The maximum and minimum ranged of market orientation 18 and 12 respectively. The market orientation categories were formulated into low, medium and high on the basis of Mean± SD.

3.5.2.3.3. Scientific orientation

Scientific orientation is operationally defined as the degree to which a dairy farmer is oriented towards the use of scientific method in dairy enterprise. This variable was quantified by using the scientific orientation

scale developed by Supe and Singh (1969) with slight modification. Six statements were included for the present study with three response categories as ‘agree’, ‘undecided’, and ‘disagree’. For five statements (except statement no. 2) the score assigned was 2, 1 and 0 for ‘agree’, ‘undecided and ‘disagree’, respectively, whereas the scoring procedure was reversed in case of negative statement i.e., statement no. 2. The summation of the scores obtained by a dairy farmer for all the six statements indicated his scientific orientation score. The maximum and minimum ranged of scientific orientation 17 and 7 respectively. The respondents were grouped into three categories based on mean and standard deviation of the total score.

3.5.2.3.4. Attitude of farmers towards improved agricultural technology

Attitude is the degree of positive and negative effect associated with some psychological object. In the present study the attitude of farmers towards improved agricultural technology was measured with the help of scale developed by Chandra and Kimar (2007). This scale contains 20 items, comprising 10 positive and 10 negative statements. The positive statements are 1 to 10 and negative statements are 11 to 20. Each item in the attitude scale has been provided with five response categories namely strongly agree, agree, undecided, disagree and strongly disagree. For positive items the weights were 5, 4,3,2,1 respectively. These were reversed for negative items. The total score of the respondent farmer for the 20 items in the scale was his individual attitude score. The maximum and minimum ranged of attitude of farmers towards improved agricultural technology 78 and 53 respectively. The respondent farmers were categorized into three groups namely unfavorable, less favorable and favorable on the basis of mean± SD.

3.5.2.4. Communication variables:

3.5.2.4.1. Extension participation

Extension participation is referred to extent of participation of farmers in different activities like meeting, training, demonstration, exhibition etc. the level of extension participation was quantified on three point continuum namely regularly, occasionally, and never with the score of 3,2 and 1 respectively. The high scores revealed greater participation of the

respondents in extension activities. The maximum and minimum ranged of extension participation 100 and 0 respectively. The respondents were grouped in to three categories viz; low, medium and high level of extension participation by considering mean and standard deviation as a measure of check and expressed in frequency and percentage.

3.5.2.4.2. Cosmopoliteness

It is operationally defined as the degree to which a farmer oriented towards outside his community or his village that might make him more accessible to innovation. The scale developed by Desai (1977) was used with some modifications. The scale comprises of two parts: -

1-The frequency of visits the respondents made to the nearest town/city.

2-The main purpose of the visit

The weight assigned to the frequency of visits and the purpose of the visits is shown below:

Frequency of visit	**Score**
Two times per week	5
Once in a week	4
Once in a fortnight	3
Once in a month	2
Seldom	1
Never	0
Purpose of visit	
All relating to agriculture	5
Some relating to agriculture	4
Personal/Domestic	3
Entertainment	2
Other	1
No response	0

The sum total of the score, thus, obtained was considered as an index of respondent's cosmopoliteness. The maximum and minimum ranged of osmopoliteness 8 and 3 respectively. The total scores were computed for

each respondent by summing the scores recorded. The cosmopoliteness categories were formulated into low, medium and high on the basis of Mean ± SD.

3.5.3. Credibility of communication source and channels:

Credibility of a particular agricultural information source channel can be defined as the degree to which a source or channel is perceived as trustworthy and competent by the receiver. Credibility of information sources and channels affect the adoption of improved agricultural practices by farmers. Credibility refers to perceived trustworthiness and expertise accorded to a source or channel by its audience at any given time. The extent of credibility of different sources and channels of agriculture information was measured by getting responses on a three point continuum namely 'highly credible', 'moderately credible', and 'least credible' with weightage of 3, 2 and 1, respectively. The scores of each item were added to obtain the overall credibility score. The lowest credibility score obtained by the respondents was 266 and the highest was 326 out of the total maximum possible score of 360.

3.6. Method of data collection:

A comprehensive interview schedule was developed considering the specific objectives formulated in the study. The necessary information was also collected from the secondary information sources like- block of the area, village patwari.

The data were collected personally by the researcher through interview schedule. The researcher was personally meet to the respondents and explains them about the purpose of the study.

3.7. Statistical Analysis of Data:

Statistical tools were used as per the nature the data. The entire data was transformed into score for tabulation keeping in view the objective of the study & to draw logical conclusion & statistical test i.e. frequency percentage, mean, standard deviation, & correlation coefficient.

3.7.1. Percentage

The term 'percentage' means a fraction whose denomination is 100

and the numeration of the fraction is called percentage. For calculating percentage, frequency was multiplied by 100 and divided by total respondents.

$$\text{Per cent (\%)} = \frac{X}{N} \times 100$$

Where,

X = Frequency of respondents

N = Total number of respondents

3.7.2. Mean

Mean was obtained by dividing the sum of the scores by the total number of respondents, according to the following formula:

$$\overline{X} = \frac{\sum_{i=1}^{n} xi}{n} [i = 1, 2, 3, ...n]$$

Where,

$\overline{X}$ = Mean

$\sum Xi$ = Sum of all the scores in a distribution

n = Total number of respondents

3.7.3. Standard deviation

The standard deviation is the square root of the arithmetic average of the squared deviation of various values from their arithmetic mean.

$$SD = \sqrt{\frac{1}{n}\left[\sum x^2 - \frac{\left(\sum x\right)^2}{n}\right]}$$

Where,

Σx = deviation of the score from mean

n = number of observation

3.7.4. Karl Pearson's Correlation coefficient (r)

It (r) was used to find out the relationship between independent and dependent variables and is defined as

$$r_{xy} = \frac{\sum xy - \frac{\left(\sum x\right)\left(\sum y\right)}{n}}{\sqrt{\left[\sum x^2 - \frac{\left(\sum x\right)^2}{n}\right]\left[\sum y^2 - \frac{\left(\sum y\right)^2}{n}\right]}}$$

Where,

n	=	Number of respondents
x	=	Independent variable
y	=	Dependent variable
r	=	Correlation coefficient
$\sum xy$	=	Sum of the product of x and y
$\sum x$	=	Sum of the independent variable
$\sum y$	=	Sum of the dependent variable
$\sum x^2$	=	Sum of the squared independent variable
$\sum y^2$	=	Sum of the squared dependent variable
$(\sum x)^2$	=	Square of the summation of the independent variable
$(\sum y)^2$	=	Square of summation of the dependent variable.

Chapter- IV

RESULTS

This chapter describes the results of the study according to the objectives. The chapter presents results of the study in tabular form to interpret the meaning. For clarity, it has been arranged as per due objectives of the study and has been presented in seven parts, these are:

4.1 Socio-personal characteristics of farmers.
4.2 Socio-economic characteristics of farmers.
4.3 Communicational characteristics of farmers.
4.4 Psychological characteristics of farmers.
4.5 Communication behavior of farmers.
4.6 Credibility of communication sources as perceived by the farmers.
4.7 Relationship between profiles of the farmers with communication behavior of the farmers.
4.8 Problems faced by the farmers in communication.
4.9 Suggestions received for effective communication.

4.1. Socio-personal traits of communication behaviour:

4.1.1. Age

The data presented in Table 1 revealed that about one half of the respondents (50.83%) belonged to middle age group, followed by old age group (40%) and young age group (9.16%) respectively.

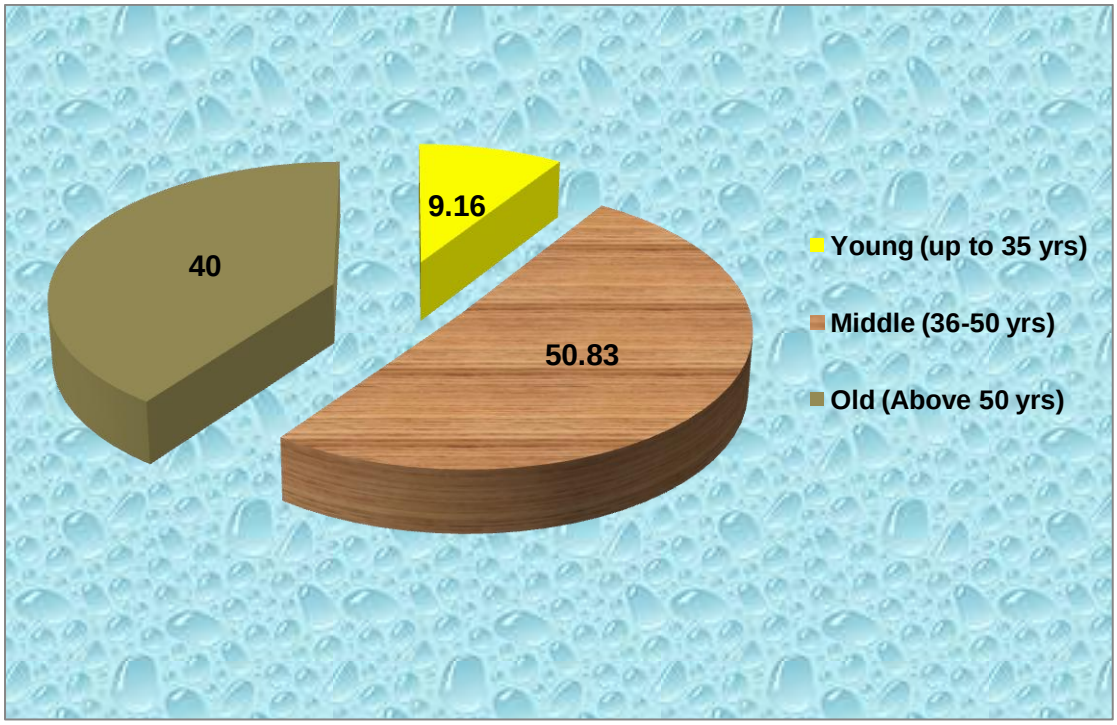
Table: 1. Distribution of the respondents according to their age

(n= 120)

S. No.	Category	Frequency	Percentage
1.	Young (up to 35 yrs)	11	9.16
2.	Middle (36-50 yrs)	61	50.83
3.	Old (Above 50 yrs)	48	40

4.1.2. Education

It is seen from the Table 2 that more than half of the respondents (55%) were illiterate while, one fourth of them educated up to primary (25.83%), 10.83 per cent up to higher secondary, 5 per cent of them were


9.16
50.83
40
Young (up to 35 yrs)
Middle (36-50 yrs)
Old (Above 50 yrs)

educated up to higher secondary and very few (3.33%) of them were educated up to graduation level.

Table: 2. Distribution of the respondents according to their level of education (n= 120)

S. No.	Category	Frequency	Percentage
1.	Illiterate	66	55
2.	Up to primary	31	25.83
3.	Up to middle	13	10.83
4.	Up to higher secondary	6	5.00
5.	Up to graduate	4	3.33

4.1.3. Organization participation

It could be seen from Table 3 that majority of the respondents (70%) had medium level of organization participation, while about one fifth (19.17%) of them had low and only 10.83 per cent had high level of organizational participation.

Table: 3. Distribution of the respondents according to their organization participation (n= 120)

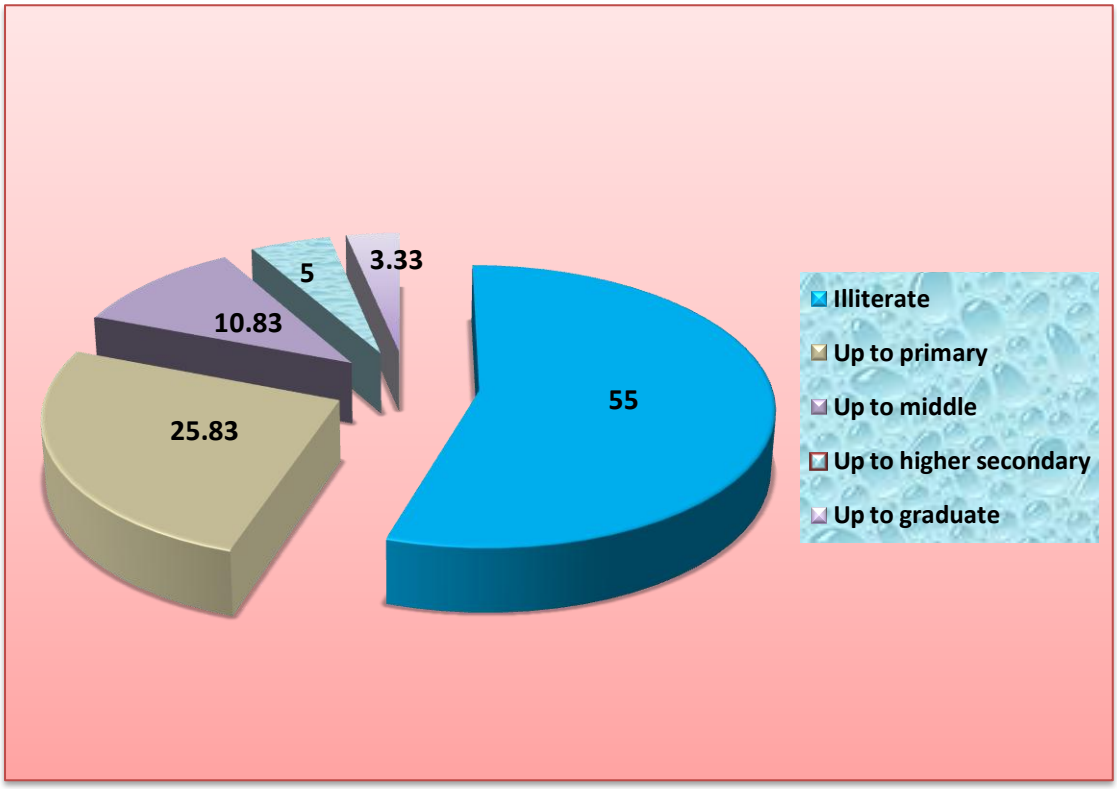
S. No.	Category	Frequency	Percentage
1.	Low(<1.12 score)	23	19.17
2.	Medium(01.12-5.58 score)	84	70
3.	High(>5.58 score)	13	10.83
Mean =3.35		**S.D.=2.23**	

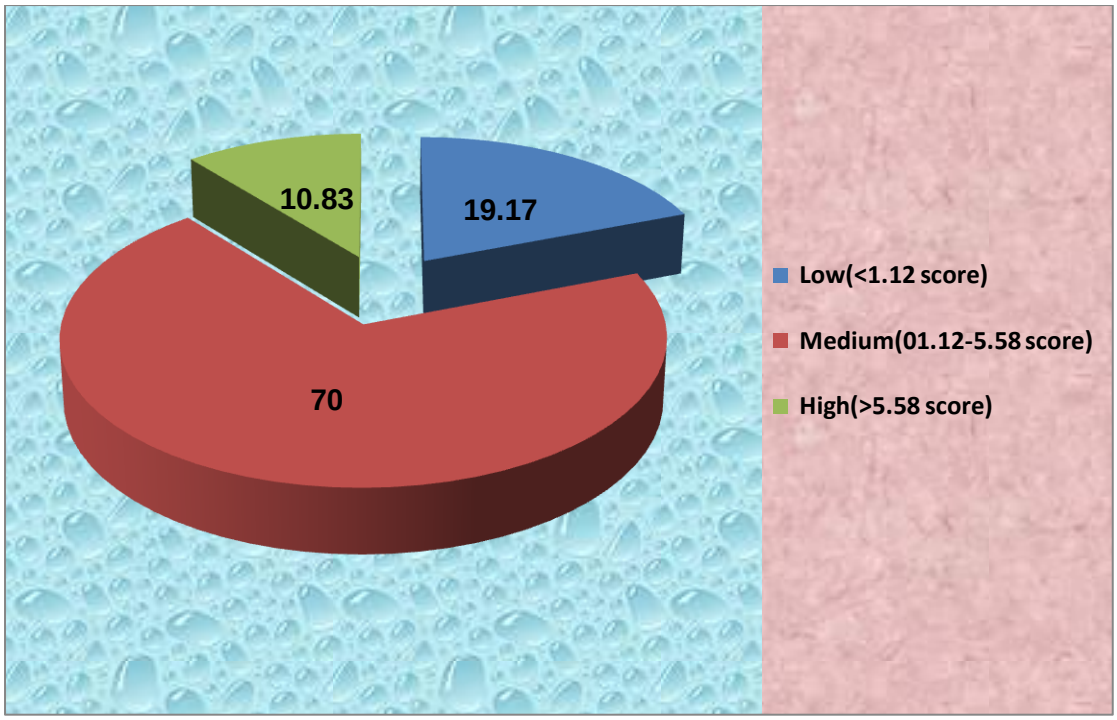
4.1.4. Farming experience

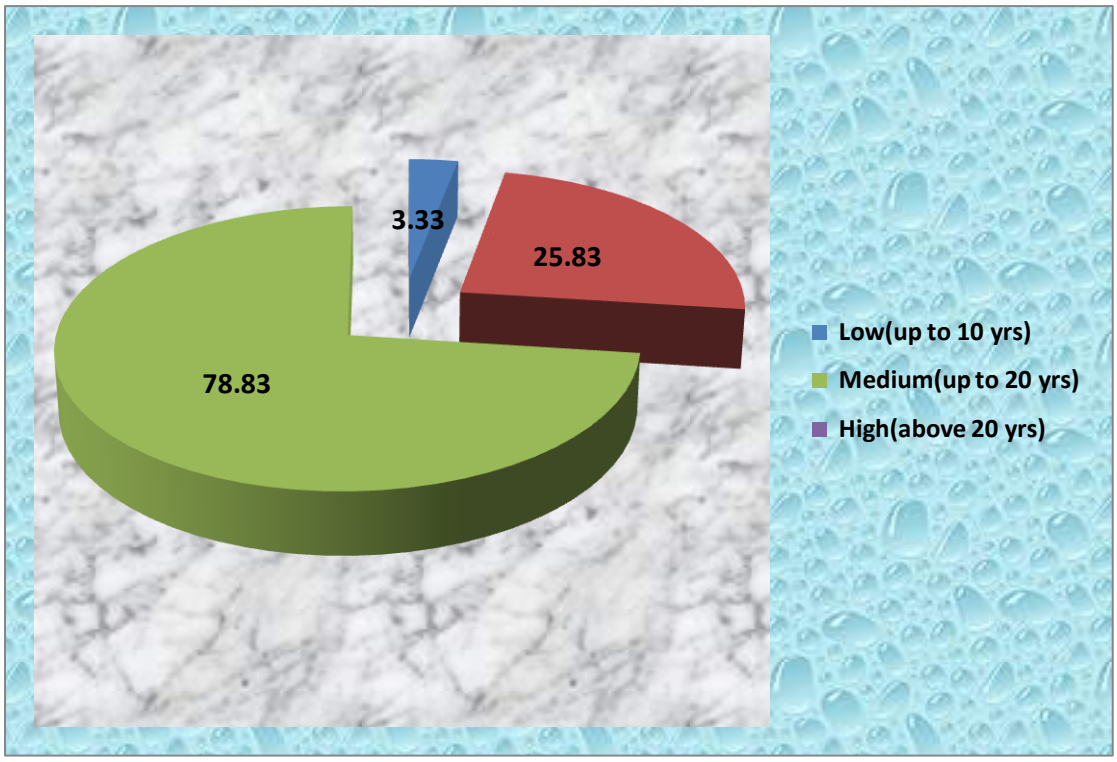
It is observed from Table 4 reported that the vast majority of the respondents (78.83%) had high farming experience, whereas about one fourth (25.82%) of them had medium and very few (3.33%) of them had low level of farming experience.

Table: 4. Distribution of the respondents according to their farming experience (n= 120)

S. No.	Category	Frequency	Percentage
1.	Low(up to 10 yrs)	4	3.33
2.	Medium(up to 20 yrs)	31	25.83
3.	High(above 20 yrs)	85	78.83


5
3.33
10.83
25.83
55
Illiterate
Up to primary
Up to middle
Up to higher secondary
Up to graduate


10.83
19.17
70
Low(<1.12 score)
Medium(01.12-5.58 score)
High(>5.58 score)


3.33
25.83
78.83
Low(up to 10 yrs)
Medium(up to 20 yrs)
High(above 20 yrs)

4.1.5. Training participation

It is clear from Table 5 that maximum number of the respondents (40%) had medium level of training participation, followed by low (32.5%) and high (27.5%) respectively.

Table: 5. Distribution of the respondents according to their training participation (n=120)

S. No.	Category	Frequency	Percentage
1.	Low(<5.06 score)	39	32.50
2.	Medium (5.06-10.66 score)	48	40.00
3.	High (>10.66 score)	33	27.50
Mean =7.86		**S.D. =2.80**	

4.2. Socio-economic variables

4.2.1. Size of land holding

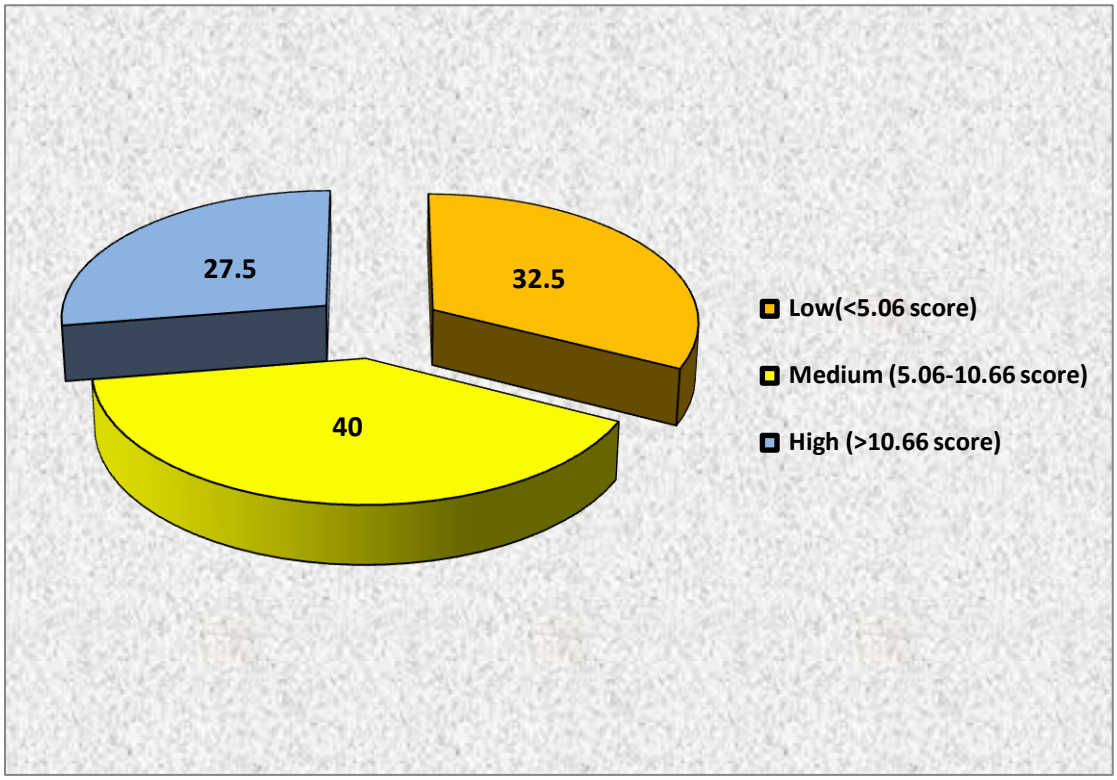
It is quite clear from Table 6 maximum number of respondents (42.5%) had marginal size of land holding followed by small size of land holding (37.5%), semi marginal land holding (17.5%), medium size of land holding (1.67%) and only 0.83 per cent of the them had large size of land holding.

Table 6: Distribution of the respondents according to their land holding (n=120)

S. No.	Category	Frequency	Percentage
1.	Marginal up to 1 ha)	51	42.50
2.	Small (1.01 to 2.0 ha)	45	37.50
3.	Semi medium (2.01 to 4.0 ha)	21	17.50
4.	Medium(4.0 to 10 ha)	2	1.67
5.	Large (above 10 ha)	1	0.83

4.2.2. Occupation

The data presented in Table 7 indicated that more than half of the respondents (53.33%) had agriculture with subsidy enterprise followed by agriculture alone (35%) and 11.67 per cent had high agriculture with subsidy and others enterprise.


27.5
32.5
40
Low(<5.06 score)
Medium (5.06-10.66 score)
High (>10.66 score)

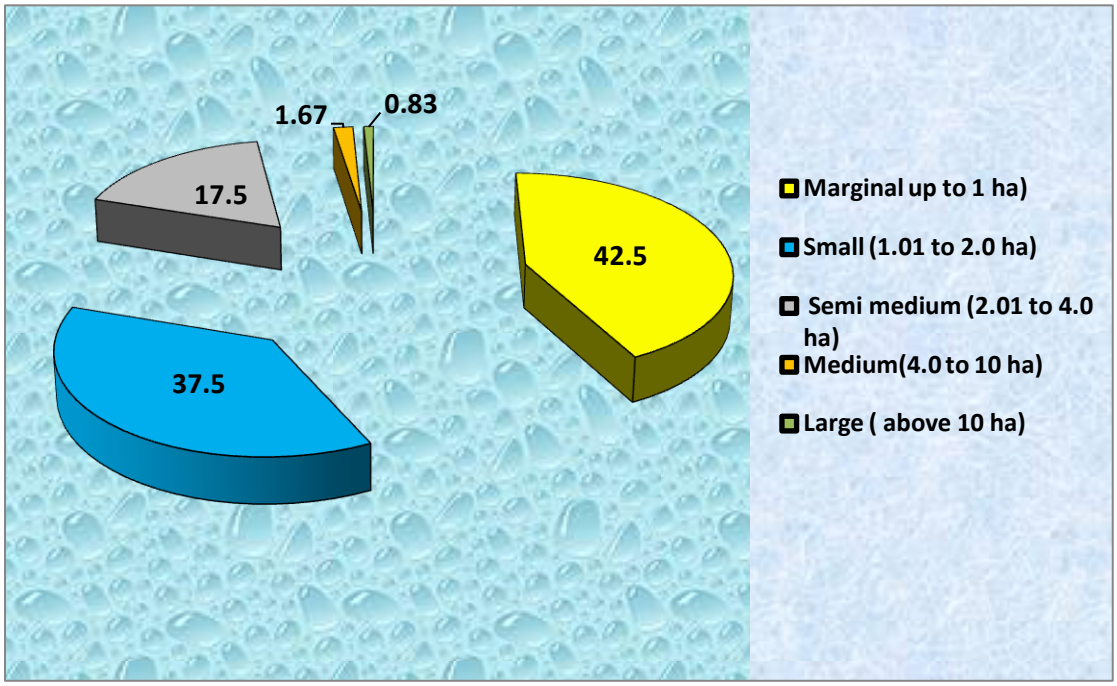

1.67
0.83
17.5
42.5
37.5
Marginal up to 1 ha)
Small (1.01 to 2.0 ha)
Semi medium (2.01 to 4.0 ha)
Medium(4.0 to 10 ha)
Large (above 10 ha)

Table 7: Distribution of the respondents according to their occupation

(n=120)

S. No.	Category	Frequency	Percentage
1.	Agriculture alone	42	35.00
2.	Agriculture with subsidy enterprise	64	53.33
3.	Agriculture with subsidy and others enterprise	14	11.67
Mean =1.78		**S.D.= 0.65**	

4.2.3. Family income

The results from Table 8 revealed that out of the total 120 respondents vast majority of them (86.67%) had medium level of annual income while, 11.67 per cent had high annual income and only 1.66 per cent had low annual income.

Table 8: Distribution of the respondents according to their family income (n=120)

S. No.	Category	Frequency	Percentage
1.	Low(<0.30 Lakh)	2	1.66
2.	Medium(0.30-1.54 Lakh)	104	86.67
3.	High(>1.54 Lakh)	14	11.67
Mean = 0.92		**S.D. = 0.62**	

4.2.4. Material possession

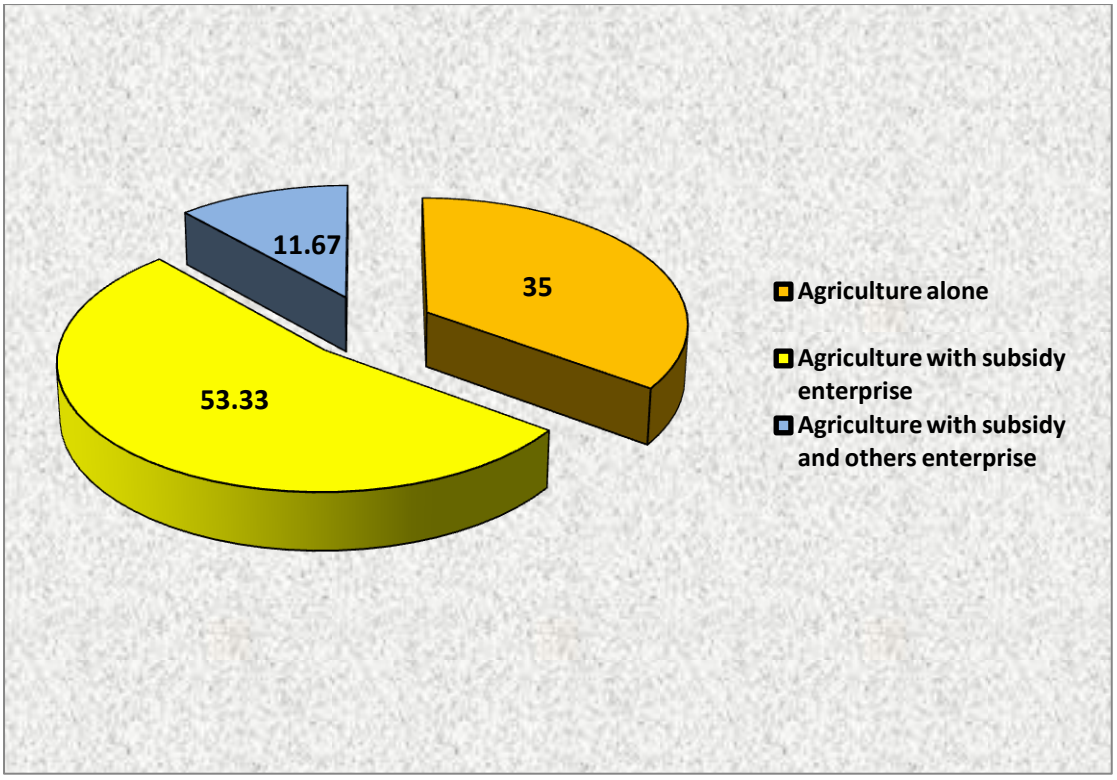
It is apparent from the Table 9 that the majority of the respondents (74.17%) had medium level of material possession, followed by low (16.67%) and high (9.16%) had high material possession respectively.

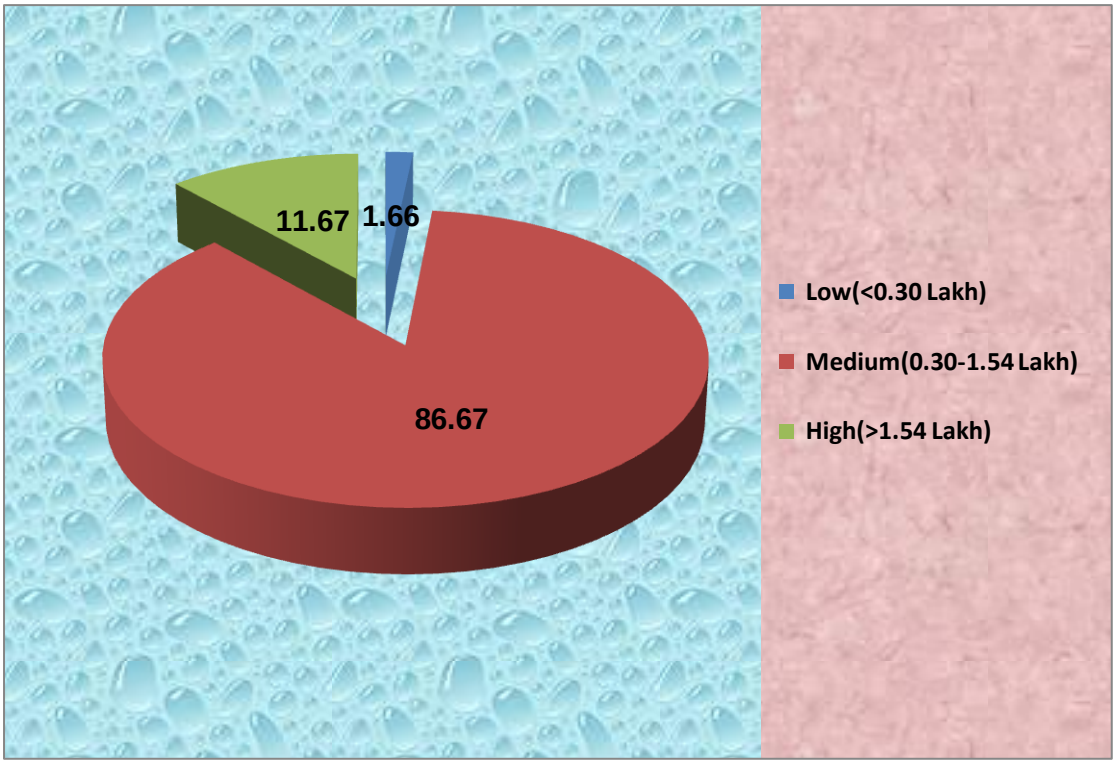
Table: 9. Distribution of the respondents according to their material possession (n=120)

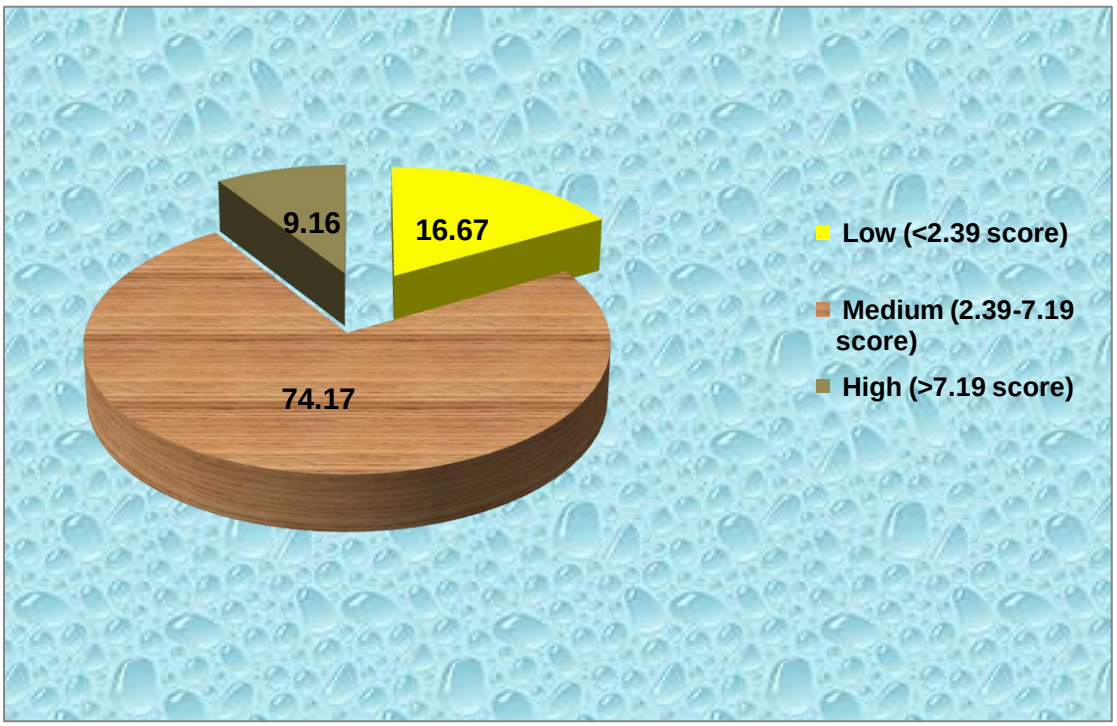
S. No.	Category	Frequency	Percentage
1.	Low (<2.39 score)	20	16.67
2.	Medium (2.39-7.19 score)	89	74.17
3.	High (>7.19 score)	11	9.16
Mean = 4.79		**S.D. = 2.40**	

4.2.5. Farm mechanization

The data from Table 10 show that out of total respondents, majority (70.16%) of them possessed medium level or farm mechanization while,


11.67
35
53.33
Agriculture alone
Agriculture with subsidy enterprise
Agriculture with subsidy and others enterprise


11.67
1.66
86.67
Low(<0.30 Lakh)
Medium(0.30-1.54 Lakh)
High(>1.54 Lakh)


9.16
16.67
74.17
Low (<2.39 score)
Medium (2.39-7.19 score)
High (>7.19 score)

16.67 per cent possessed low and 9.16 per cent possessed high level of farm mechanization.

Table: 10. Distribution of the respondents according to their farm mechanization (n=120)

S. No.	Category	Frequency	Percentage
1.	Low(<0.65 score)	20	16.67
2.	Medium(0.65-60.21 score)	89	74.16
3.	High (>60.21 score)	11	9.16
Mean = 30.43			**S.D. =29.75**

4.3 Psychological variables

4.3.1 Economic motivation

It is evident from Table 11 that out of 120 respondents, (65.83%) were medium economic motivation whereas, 19.17 per cent were high economic motivation and 15 per cent were in low economic motivation.

Table: 11. Distribution of the respondents according to their economic motivation (n=120)

S. No.	Category	Frequency	Percentage
1.	Low (<21.28 score)	18	15.00
2.	Medium (21.28-25.62 score)	79	65.83
3.	High (>25.62 score)	23	19.17
Mean = 23.45		**S.D.= 2.17**	

4.3.2. Market orientation

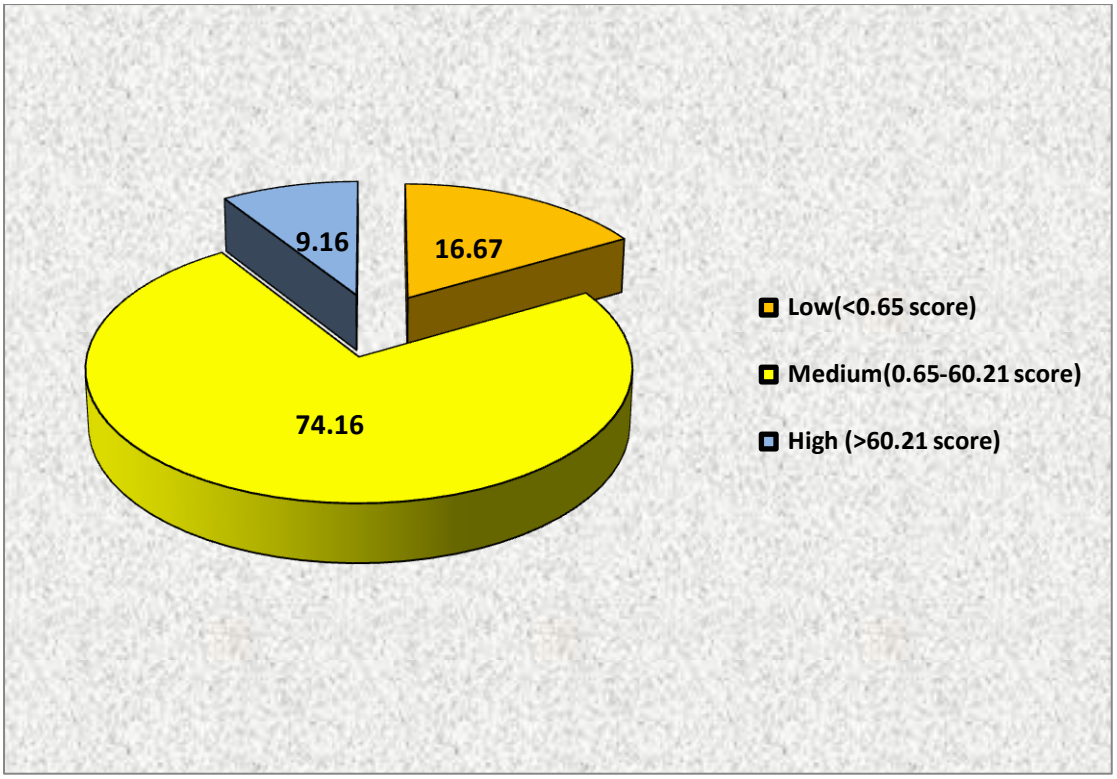
It could be inferred from Table 12 that majority of the respondents (64.17%) had medium market orientation followed by high market orientation **(**20.83%) and 15 per cent had low market orientation.

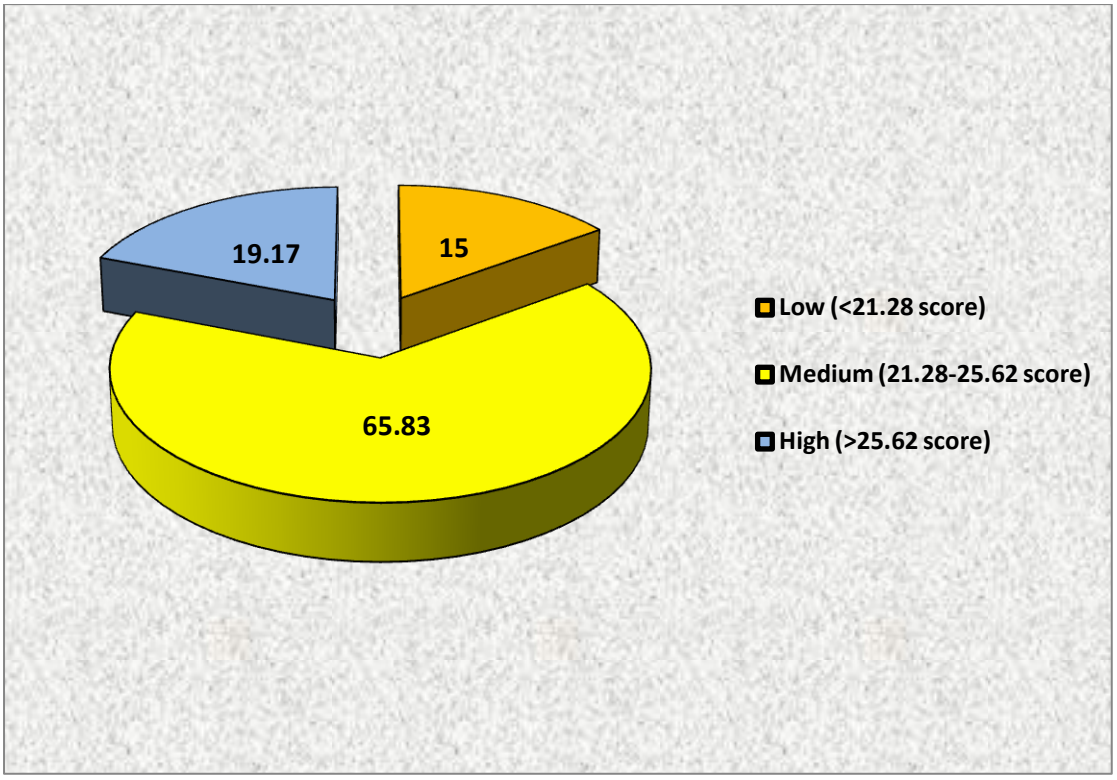
Table: 12. Distribution of the respondents according to their market orientation (n=120)

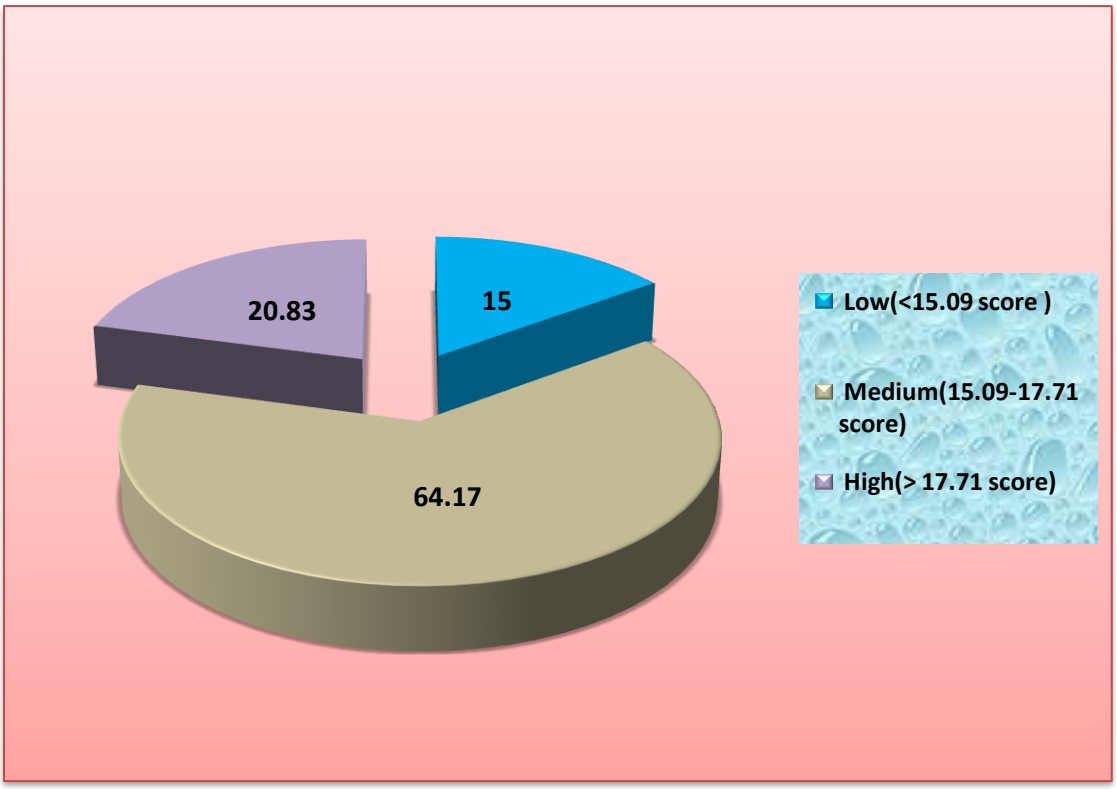
S. No.	Category	Frequency	Percentage
1.	Low(<15.09 score)	18	15.00
2.	Medium(15.09-17.71 score)	77	64.17
3.	High(> 17.71 score)	25	20.83
Mean = 16.40		**S.D. = 1.31**	

4.3.3. Scientific orientation

The data presented in Table 13 found that majority of the respondents (85%) had medium scientific orientation followed by low scientific orientation


9.16
16.67
74.16
Low(<0.65 score)
Medium(0.65-60.21 score)
High (>60.21 score)


19.17
15
65.83
Low (<21.28 score)
Medium (21.28-25.62 score)
High (>25.62 score)


20.83
15
64.17
Low(<15.09 score)
Medium(15.09-17.71 score)
High(> 17.71 score)

11.67 per cent and few percentages of the respondents (3.3%) had high scientific orientation.

Table: 13. Distribution of the respondents according to their scientific orientation (n=120)

S. No.	Category	Frequency	Percentage
1.	Low(<9.9 score)	14	11.67
2.	Medium(9.9-12.54 score)	102	85.00
3.	High(>12.54 score)	04	3.33
Mean = 11.22		**S.D.= 1.32**	

4.3.4. Attitude toward improved production technology

It is evident from Table 14 reported that majority of the respondents (68.33%) had medium attitude toward improved production technology, followed by high attitude toward improved production technology 16.67 per cent and the respondents (15%) had low attitude toward improved production technology.

Table 14: Distribution of the respondents according to their attitude towards improved agriculture technology

(n=120)

S. No.	Category	Frequency	Percentage
1.	Un favorable (<62.01 score)	18	15.00
2.	Less favorable (62.01-69.97 score)	82	68.33
3.	favorable (>69.97 score)	20	16.67
Mean = 65.99		**S.D.= 3.98**	

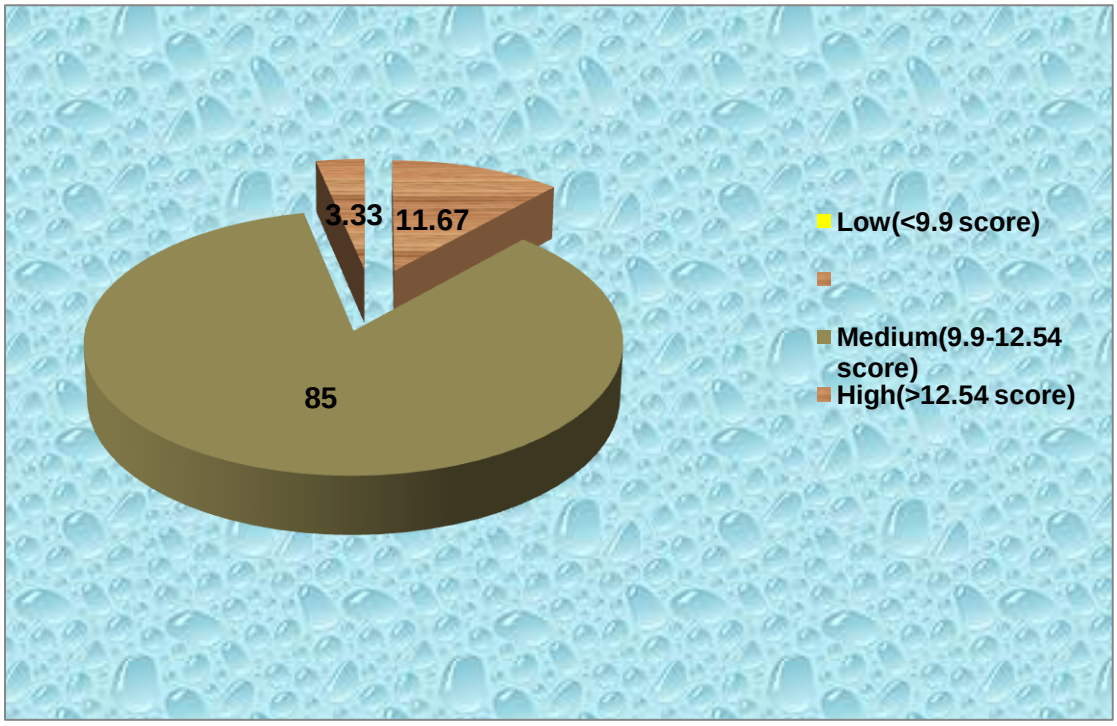
4.4 Communication variables:

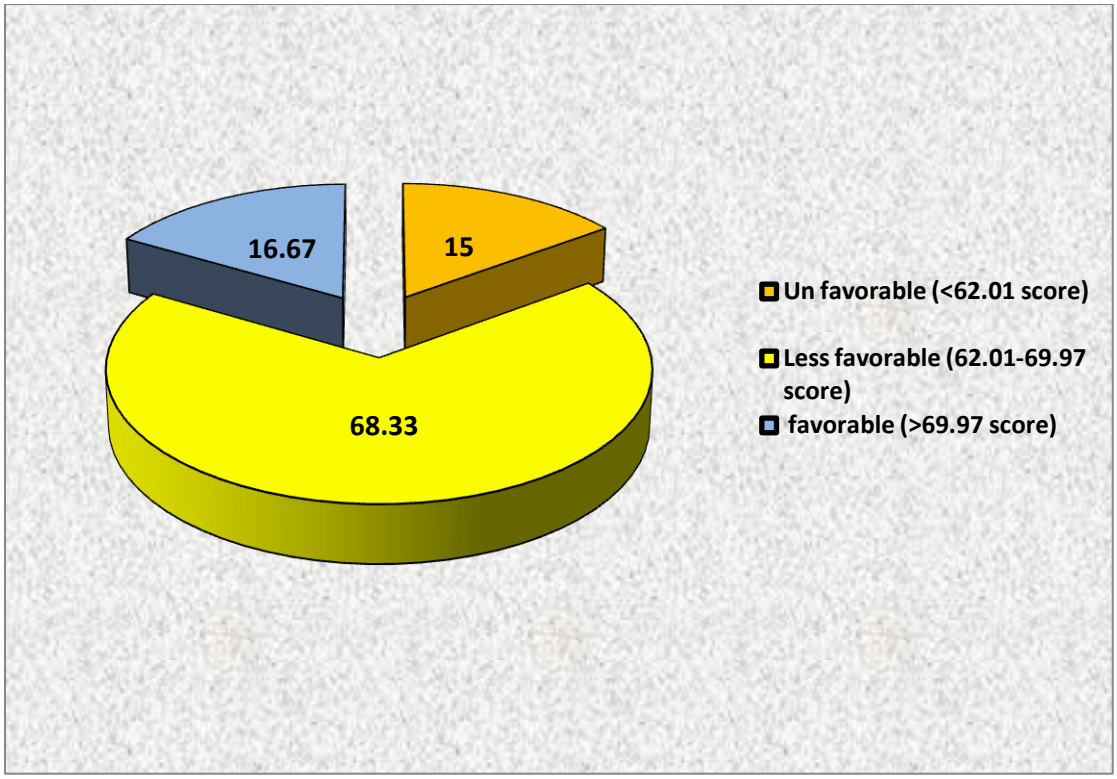
4.4.1. Cosmopoliteness

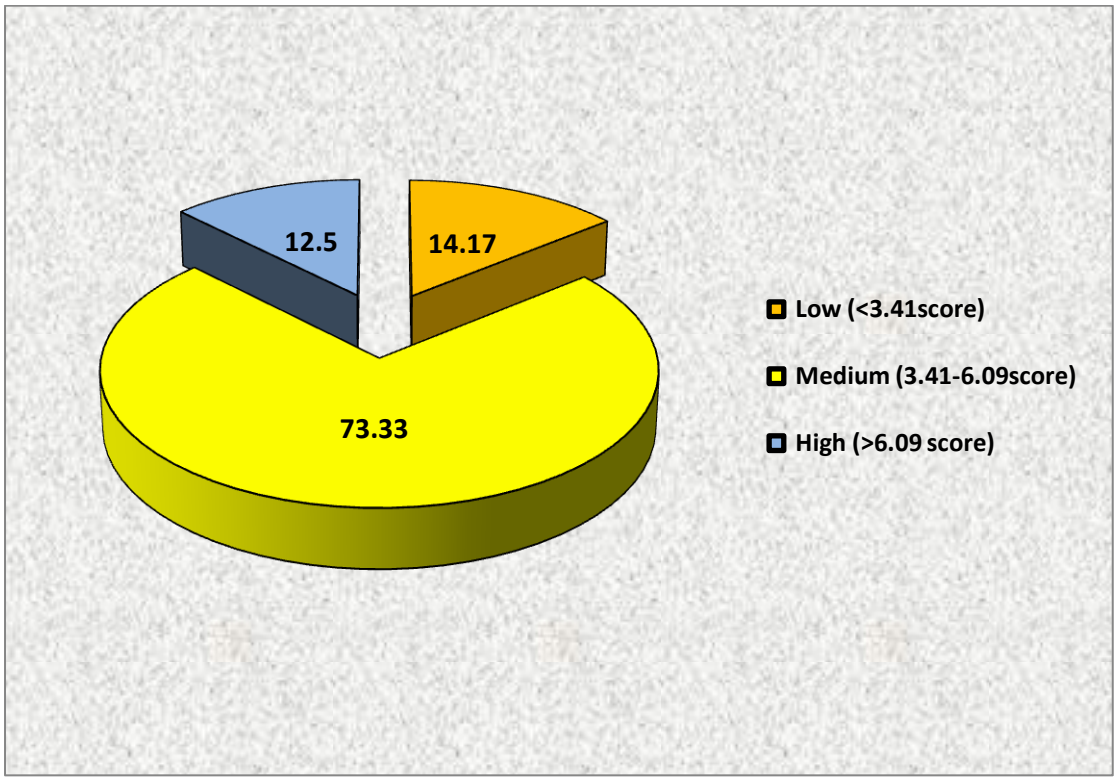
It could be seen from the Table 15 that majority of the respondents (73.33%) had medium cosmopoliteness followed by 14.17 per cent had low and 12.50 per cent had high cosmopoliteness.

Table 15: Distribution of the respondents according to their cosmopoliteness (n=120)

S. No.	Category	Frequency	Percentage
1.	Low (<3.41score)	17	14.17
2.	Medium (3.41-6.09score)	88	73.33
3.	High (>6.09 score)	15	12.50
Mean = 4.75		**S.D. = 1.34**	


3.33
11.67
85
Low(<9.9 score)
Medium(9.9-12.54 score)
High(>12.54 score)


16.67
15
68.33
Un favorable (<62.01 score)
Less favorable (62.01-69.97 score)
favorable (>69.97 score)


12.5
14.17
73.33
Low (<3.41score)
Medium (3.41-6.09score)
High (>6.09 score)

4.4.2. Extension participation

It could be inferred from Table 16 that out of the total 120 respondent, more than one half of the respondents (51.67%) were found in the medium extension participation followed by low extension participation (38.83%) and 17.50 per cent in high category. The overall mean score of the category was 31.39 and standard deviation was 27.88.

Table 16: Distribution of the respondents according to their extension participation (n=120)

S. No.	Category	Frequency	Percentage
1.	Low (<3.51 score)	37	30.83
2.	Medium (3.51-59.27 score)	62	51.67
3.	High (>59.27 score)	21	17.50
Mean = 31.39		**S.D. =27.88**	

4.5. Communication behavior of farmers:

The communication behavior of farmers was analyzed with respects to their information seeking behavior, processing behavior and output behavior. The results are presented as below:

4.5.1. Information seeking behavior

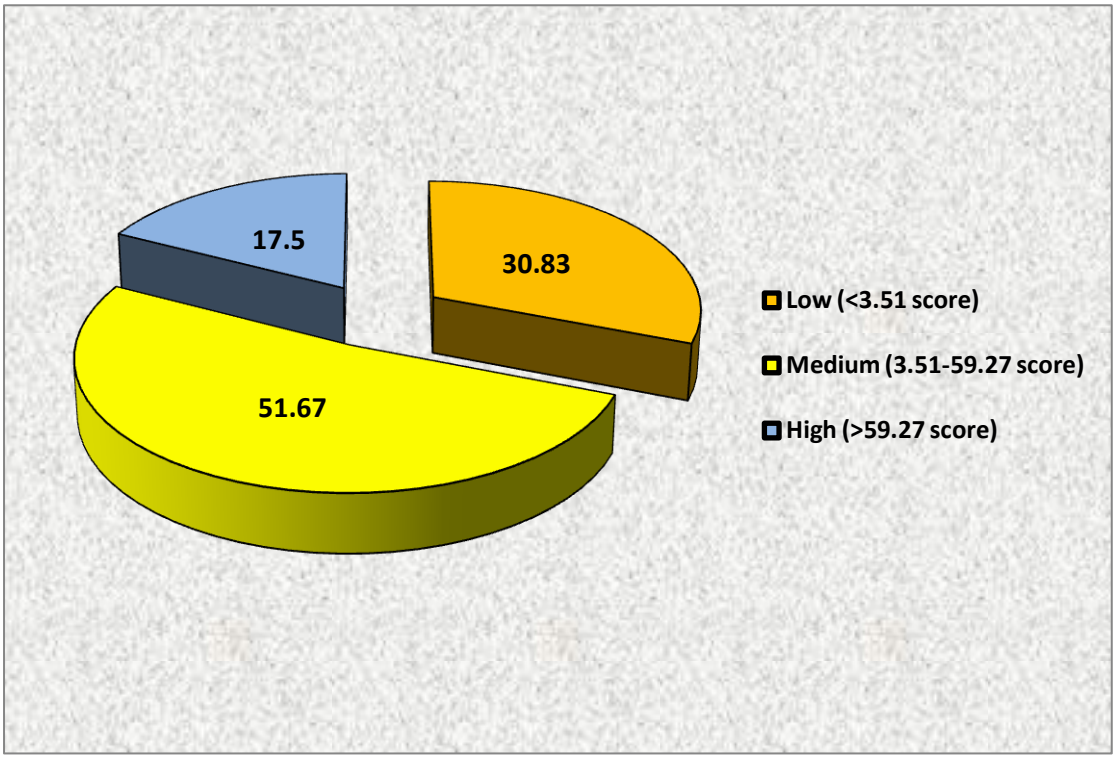
It is evident from Table17 reported that majority of the respondents (65.83%) had medium Information seeking behavior followed by high Information seeking behavior 19.17 per cent and 15 per cent had low Information seeking behavior.

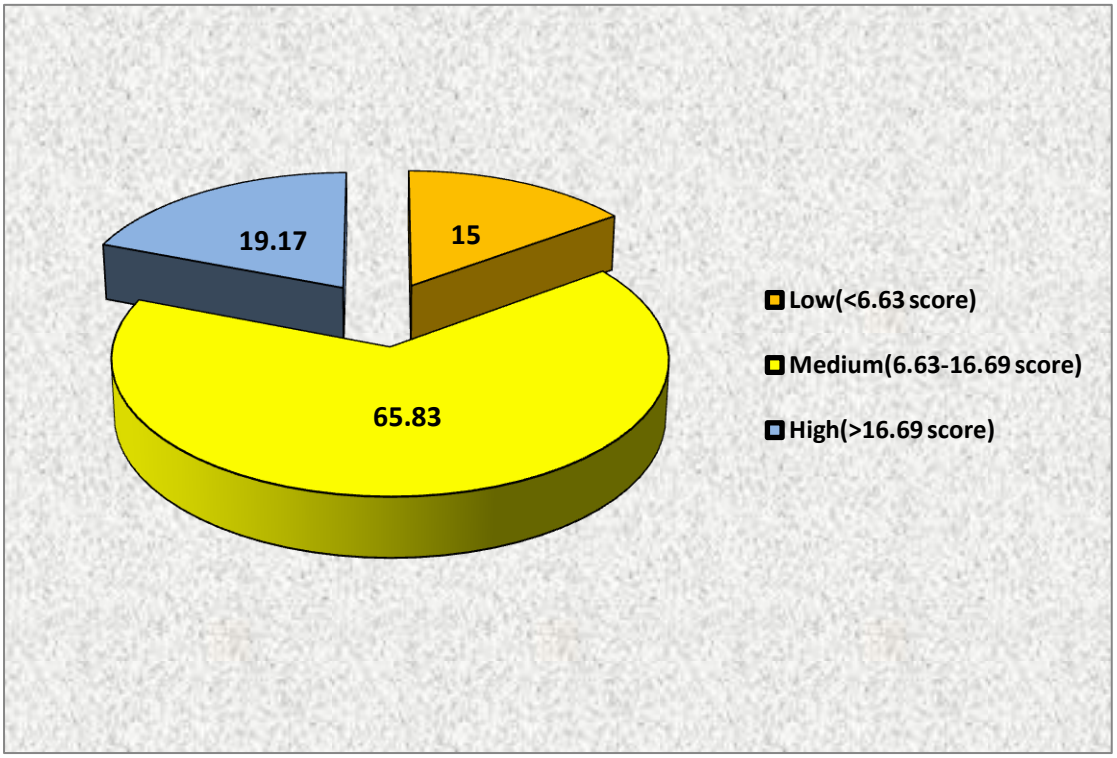
Table 17: Distribution of the farmers according to information seeking behavior (n=120)

S. No.	Category	Frequency	Percentage
1	Low(<6.63 score)	18	15.00
2	Medium(6.63-16.69 score)	79	65.83
3	High(>16.69 score)	23	19.17
Mean = 11.66		**S.D. = 5.03**	

4.5.2. Information processing behavior

Careful examination of results presented in Table 18 reported that majority of the respondents (66.66%) had medium Information processing


17.5
30.83
51.67
Low (<3.51 score)
Medium (3.51-59.27 score)
High (>59.27 score)


19.17
15
65.83
Low(<6.63 score)
Medium(6.63-16.69 score)
High(>16.69 score)

behavior of followed by low Information processing behavior 19.17 per cent and 14.16 per cent had high Information processing behavior.

Table 18: Distribution of the farmers according the information processing behavior (n=120)

S. No.	Category	Frequency	Percentage
1	Low(<5.46 score)	23	19.17
2	Medium(5.46-9.00 score)	80	66.66
3	High (>9.00 Score)	17	14.16
Mean = 7.23		**S.D. = 1.77**	

4.5.3. Information output behavior

Results presented in Table 19 revealed that majority of the respondent (77.5%) had medium information output behavior of followed by high Information output behavior 11.67 per cent and only 10.83 per cent had low Information output behavior.

Table 19: Distribution of the farmers according to Information output behavior (n=120)

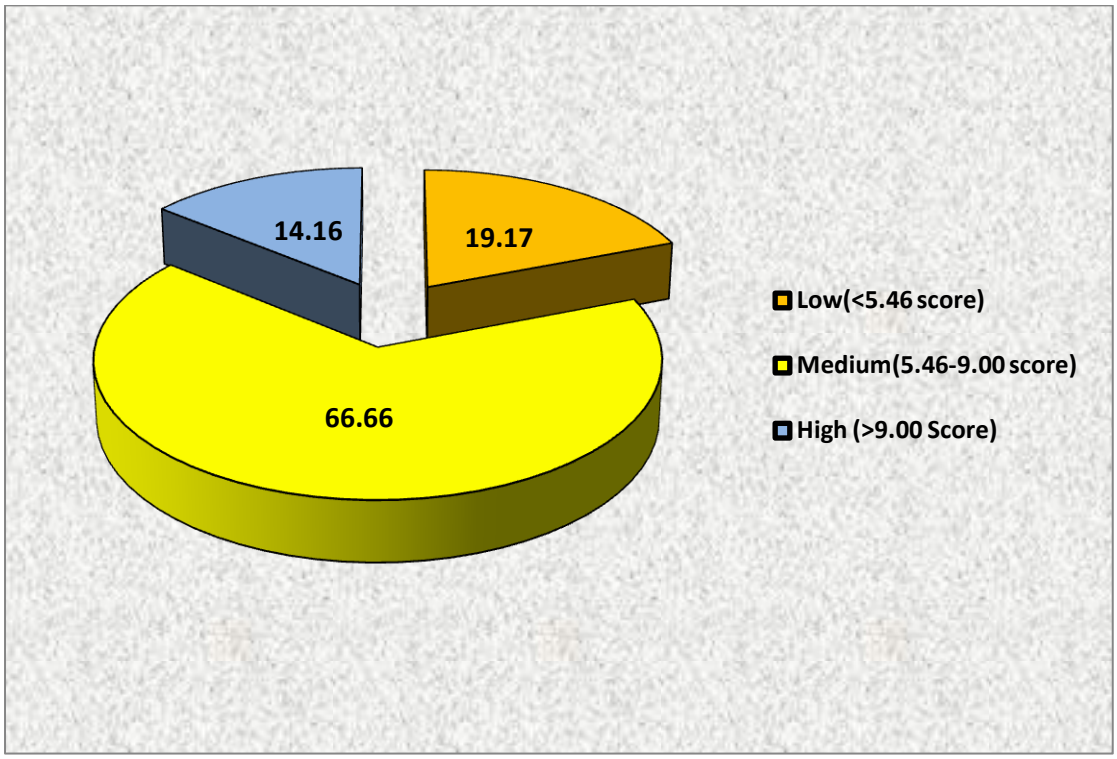
S. No.	Category	Frequency	Percentage
1	Low(<0.65 score)	13	10.83
2	Medium(0.65-4.11 score)	93	77.50
3	High(>4.11 score)	14	11.67
Mean = 2.38		**S.D. = 1.73**	

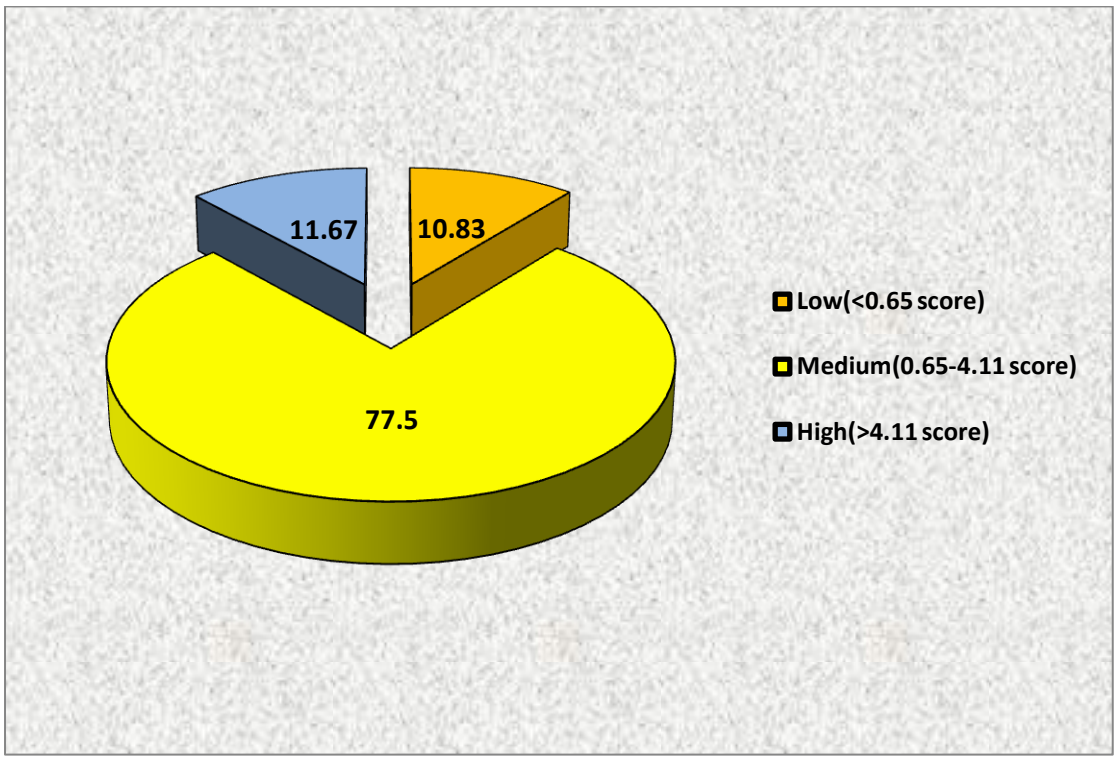
4.5. Communication behavior

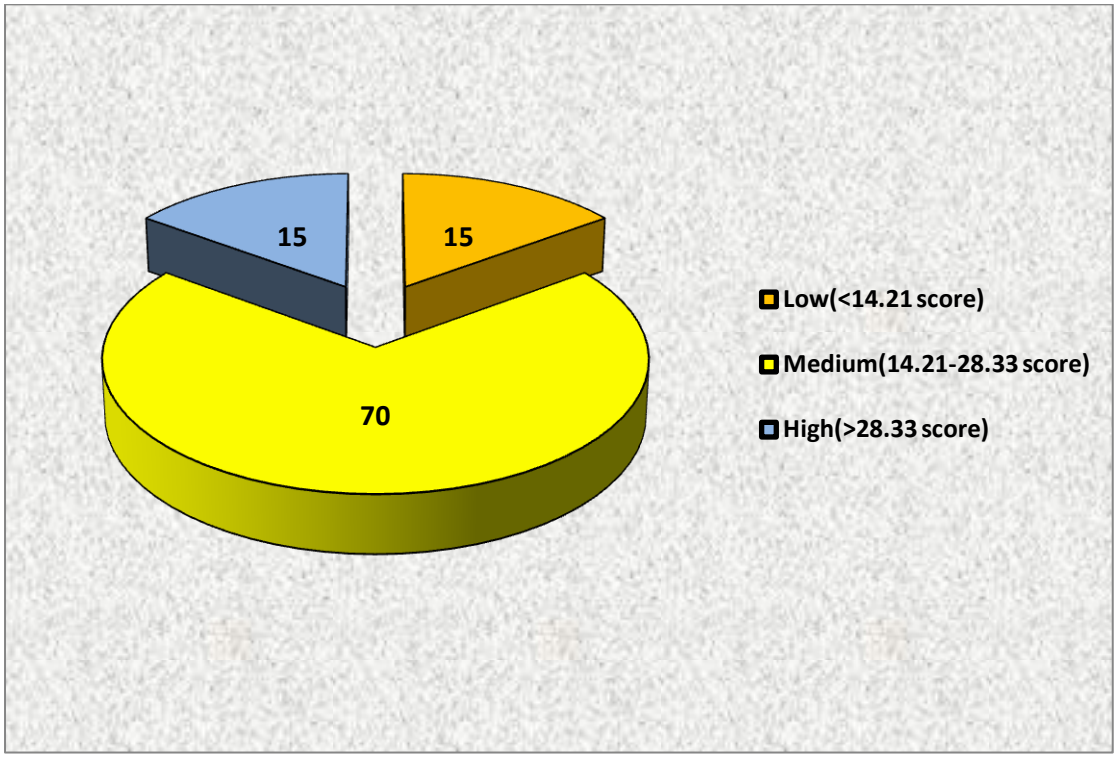
The data presented in Table 20 revealed that majority of the respondents (70%) had medium communication behavior of followed by high (15%) and low (15%) respectively.

Table 20: Distribution of the respondent according to their communication behavior (n=120)

S. No.	Category	Frequency	Percentage
1	Low(<14.21 score)	18	15.00
2	Medium(14.21-28.33 score)	84	70.00
3	High(>28.33 score)	18	15.00
Mean = 21.27		**S.D. = 7.06**	


14.16
19.17
66.66
Low(<5.46 score)
Medium(5.46-9.00 score)
High (>9.00 Score)


11.67
10.83
77.5
Low(<0.65 score)
Medium(0.65-4.11 score)
High(>4.11 score)


15
15
70
Low(<14.21 score)
Medium(14.21-28.33 score)
High(>28.33 score)

4.6 Credibility of communication source and channels as perceived by the farmers:

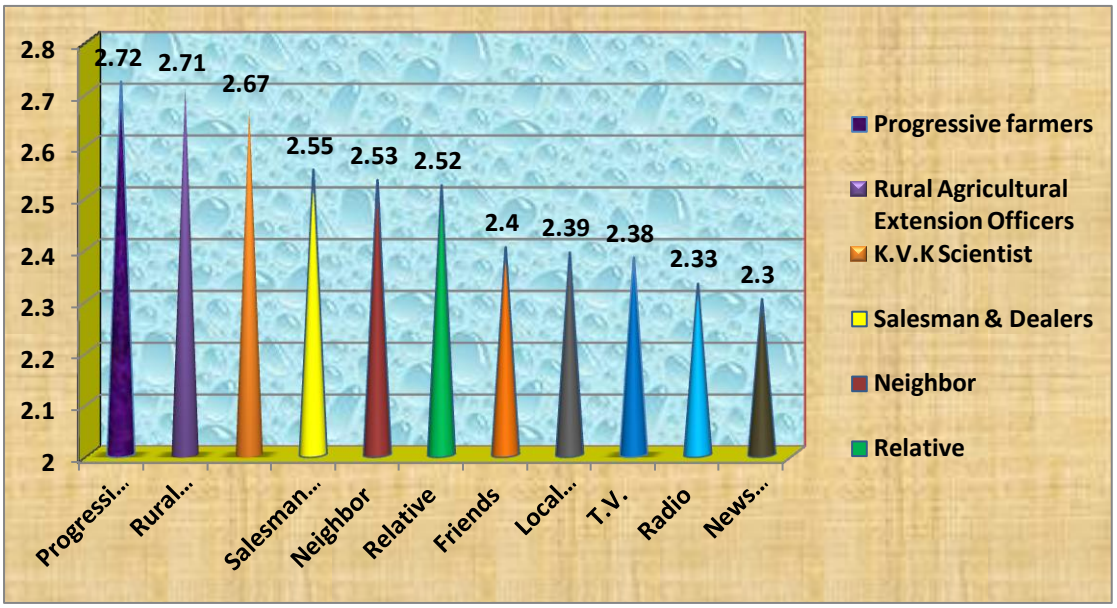
The extent of credibility of different sources and channels of agriculture information was measured by getting responses on a three point continuum namely 'highly credible', 'moderately credible', and 'least credible' with weightage of 3, 2 and 1, respectively. The scores of each item were added to obtain the overall credibility score. The lowest credibility score obtained by the respondents was 276 and the highest was 326 out of the total maximum possible score of 360.

Table: 21 Farmers response regarding credibility of communication source (n=120)

S.N.	Component	Credibility			TS	MS	Rank
		Highly	Moderately	Least			
1.	Progressive farmers	98	10	12	326	2.72	I
2.	Rural Agricultural Extension Officers	96	13	11	325	2.71	II
3.	K.V.K Scientist	90	20	10	320	2.67	III
4.	Salesman & Dealers	86	14	20	306	2.55	IV
5.	Neighbor	84	16	20	304	2.53	V
6.	Relative	80	22	18	302	2.52	VI
7.	Friends	75	18	27	288	2.40	VII
8.	Local leader	73	21	26	287	2.39	VIII
9.	T.V.	67	32	21	286	2.38	IX
10.	Radio	54	52	14	280	2.33	X
11.	News paper	48	60	12	276	2.30	XI

MS= Mean Score TS= Total Score

The extent of credibility of different sources and channels of agriculture information by respondents has been presented in Table 21. The data in Table 21 indicates that 'progressive farmers' (2.72 MS) was identified as the most credible sources of agriculture information. This was followed by Rural Agricultural Extension officers (2.71 MS), KVK Scientists (2.67 MS) and salesmen & dealers (2.55 MS). The other sources of information, which were apparent trustworthy by the farmers were neighbor (2.53 MS), relatives (2.52 MS), friends (2.40 MS) and local leaders (2.39 MS). It is interesting to note that television (2.38 MS), radio (2.33 MS) and news paper (2.30 MS) were


2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
2.72
2.71
2.67
2.55
2.53
2.52
2.4
2.39
2.38
2.33
2.3
Progressi...
Rural...
Salesman...
Neighbor
Relative
Friends
Local...
T.V.
Radio
News...
Progressive farmers
Rural Agricultural Extension Officers
K.V.K Scientist
Salesman & Dealers
Neighbor
Relative

perceived as the least credible sources of agriculture information by the farmers.

In other words, it is concluded that progressive farmers 'Rural Agricultural Extension Officers', 'KVK scientists, and 'salesmen & dealers' were the most credible source of agriculture information as perceived by the farmers.

4.7. Relationship between profile characteristics of the farmers with communication behavior

An attempt was made to find out the relationship between the selected characteristics of the respondents with their communication behavior in receiving information on improved agricultural production technologies. Co-efficient of correlation with independent and dependent variables were worked out and results are presented in Table 22, 23, 24 and 25.

4.7.1. Relationship between socio-personal characteristics with communication behavior of the farmers

The coefficient of correlation of each of the socio-personal characteristics of farmers with their communication behavior has been furnished in Table 22.

Table 22: Relationship between socio-personal characteristics of the farmers with their communication behaviour

S. No.	Characteristics	"r" value
1.	Age	0.15^{NS}
2.	Education	0.43**
3.	Organization participation	0.26*
4.	Farming experience	0.19*
5.	Training participation	0.18*

^{NS} Non significant **Significant at 0.01 level of probability *Significant at 0.05 level of probability

It could be revealed from Table 22 that, among five independent variables three variables viz; organization participation, farming experience and training participation were showed positive and significant relationship with communication behaviour at 0.05 level of probability whereas, education

showed positive and highly significant relationship with communication behaviour at 0.01 level of probability. Age did not establish any association with communication behaviour.

4.7.2. Relationship between socio-economic characteristics of the farmers with their communication behavior

The correlation coefficient of each of the socio-economic communication behavior of the farmers has been furnished in Table 23.

Table 23: Relationship between socio-economic characteristics of the farmers with their communication behavior

S. No.	Characteristics	"r" value
1.	Occupation	0.21*
2.	Family income	0.18*
3.	Material possession	0.27**
4.	Size of land holding	0.16^{NS}
5.	Farm mechanization	0.22*

^{NS} Non significant **Significant at 0.01 level of probability *Significant at 0.05 level of probability

It could be revealed from Table 23 that among five independent variables three variables namely occupation, family income, farm mechanization were showed positive and significant relationship with communication behavior at 0.05 level of probability, while material possession showed positive and significant relationship at 0.01 level of probability. Size of land holding did not establish any association with communication behavior.

4.7.3. Relationship between selected psychological characteristics of the farmers with their communication behavior:

The correlation coefficient of each of the psychological characteristics of the farmers with their communication behavior has been furnished in Table 24.

It could be seen from Table 24 that, among four independent variables two variables viz; scientific orientation and attitude toward improved production technology were showed positive and significant relationship with

communication behavior at 0.01 level of probability, whereas economic motivation showed positive and significant relationship at 0.05 level of probability. Market orientation did not found any association with communication behavior.

Table 24: Relationship between psychological characteristics of the farmers with their communication behavior

S. No.	Characteristics	"r" value
11.	Economic motivation	0.23*
12.	Market orientation	0.09^{NS}
13.	Scientific orientation	0.32**
14	Attitude toward improved production technology	0.24**

^{NS} Non significant **Significant at 0.01 level of probability *Significant at 0.05 level of probability

4.7.4. Relationship between selected communication characteristics of the farmers with their communication behavior:

The correlation coefficient of each of the communication characteristics of the farmers with their communication behavior has been furnished in Table 25.

It could be observed from Table 25 that, among two independent variables of all variables namely cosmopoliteness and extension participation showed positive and highly significant relationship with communication behavior at 0.01 level of probability.

Table 25: Relationship between selected communication characteristics of the farmers with their communication behavior

S. No.	Characteristics	"r" value
15.	Cosmopoliteness	0.31**
16.	Extension participation	0.29**

** Significant at 0.01 level of probability

4.8. Problem faced by the farmers in communication:

The perusal of the data presented in Table 26 revealed that maximum number of respondents (85.83%) perceived poor coordination with various development agency, was the main communication constraint, followed by lack of technical support from agriculture staff, poor financial condition of the

farmers, illiteracy among the farming community, un organized farming community, lack of local leadership, and lack of compatibility with each others.

Table 26: Problem faced by the farmers in communication

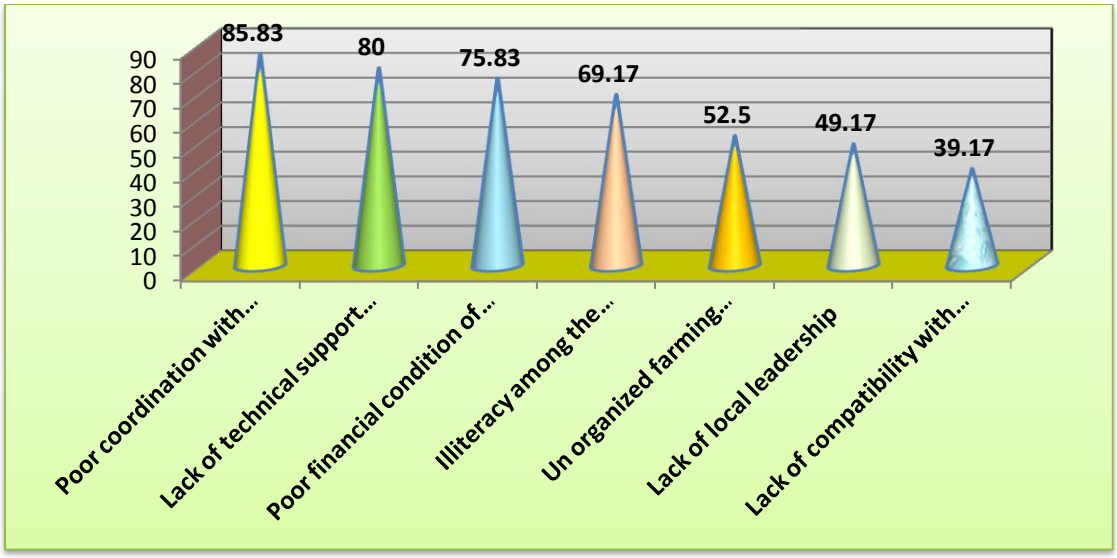
S. No.	Constraints	Frequency	Percentage	Rank
1.	Poor coordination with various development agency	103	85.83	I
2	Lack of technical support from agriculture staff	96	80.00	II
3	Poor financial condition of the farmers	91	75.83	III
4	Illiteracy among the farming community	83	69.17	IV
5.	Un organized farming community	63	52.50	V
6.	Lack of local leadership	59	49.17	VI
7.	Lack of compatibility with each others	47	39.17	VII

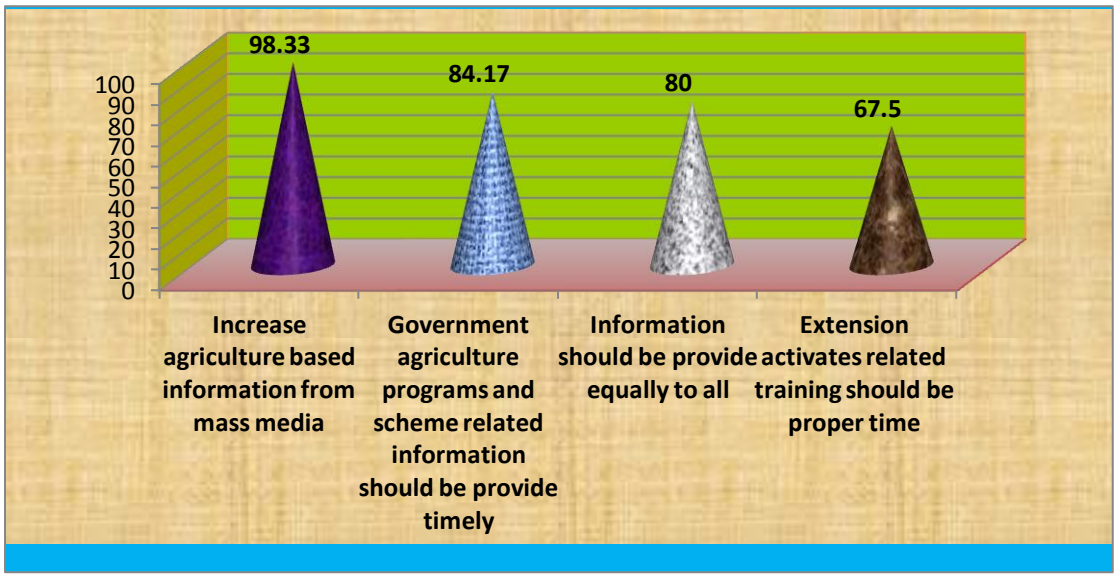
4.9. Suggestions received for effective communication:

The perusal of the data presented in Table 27 revel that with Increase agriculture based information from mass media , was the main Suggestions communication behavior , followed by Government agriculture programs and scheme related information should be provide timely, Information should be provide equally to all, and extension activates related training should be proper time.

Table 27: Suggestions received for effective communication

S. No.	Suggestions	Frequency	Percentage	Rank
1.	Increase agriculture based information from mass media	118	98.33	I
2.	Government agriculture programs and scheme related information should be provide timely	101	84.17	II
3.	Information should be provide equally to all	96	80.00	III
4.	Extension activates related training should be proper time	81	67.50	IV


85.83
80
75.83
69.17
52.5
49.17
39.17
90
80
70
60
50
40
30
20
10
0
Poor coordination with...
Lack of technical support...
Poor financial condition of...
Illiteracy among the...
Un organized farming...
Lack of local leadership
Lack of compatibility with...


98.33
84.17
80
67.5
100
90
80
70
60
50
40
30
20
10
0
Increase agriculture based information from mass media
Government agriculture programs and scheme related information should be provide timely
Information should be provide equally to all
Extension activates related training should be proper time

Chapter- V
DISCUSSION

The results presented in the previous chapter in relation to the present study communication behavior of the farmers. In this chapter with possible reasons and explanation have been given to interpret the observed phenomena with the help of findings of the research studies conducted earlier in this field.

For the sake of convenience and easy interpretation of the results of the study, the discussion is made under the following suitable sub-headings:

5.1 Socio-personal characteristics of farmers.
5.2 Socio-economic characteristics of farmers.
5.3 Communicational characteristics of farmers.
5.4 Psychological characteristics of farmers.
5.5 Communication behavior of farmers.
5.6 Credibility of communication sources as perceived by the farmers.
5.7 Relationship between profiles of the farmers with communication behavior of the farmers.
5.8 Problems faced by the farmers in communication.
5.9 Suggestions received for effective communication.

5.1. Socio-personal traits of communication behaviour:

5.1.1. Age

The data presented in Table 1 revealed that about vast majority of the respondents belonged to middle to old age group while very few of them belonged to young age group. This might be due to that rural youths have a lesser amount of interest towards the agriculture. The trend was line with the findings of Kumar *et al*. (2008), Hossain *et al.* (2011), Mishra e*t al*. (2012), Mohapatra and Sahu (2012), Rokonuzzaman (2013), Rastogi and Hasan (2014) and Patel (2014).

5.1.2. Education

It is seen from the Table 2 that majority of the respondents were illiterate, while one fourth of them were educated up to primary (25.83%), and about one fifth of them were educated up to middle and above.

A recent government study estimated that 32 per cent of India's rural population is illiterate, compared to 15 per cent in urban areas. This might be the region of the finding of present study. The results are conformity with the finding of Rokonuzzaman (2013).

5.1.3. Organization participation

It could be seen from Table 3 that majority of the respondents had medium level of organization participation, and very few of them possessed high level of organizational participation.

This might be due to poor level of education and low level of socio economic condition of the farmers. These findings are in conformity with the finding of Hossain *et al.* (2011).

5.1.4. Farming experience

It is observed from Table 4 reported that the vast majority of the respondents had high farming experience, whereas about one fourth of them had medium and very few of them had low level of farming experience. This might be due to that the majority of the farmers belonged to middle and old age group.

5.1.5. Training participation

The data showed in Table 5 that majority of the respondents possessed low to medium level of training participation, while about one third of them possessed high level of training participation. This might be due to that the majority of the farmers possessed low level of extension participation.

5.2. Socio-economic variables:

5.2.1. Size of land holding

The findings revealed that majority of respondents had marginal to small size of land holding. According to the Agriculture Census, the total number of operational holdings in India numbered 138.35 million with an

average size of 1.15 hectares. Of the total holdings, 85 per cent are in marginal and small farm categories of less than 2 hectares. This might be the probable reason of above findings.

The above finding is in conformity with the results by Rastogi and Hasan (2014).

5.2.2. Occupation

The results indicated that majority of the respondents had agriculture and agriculture with subsidy enterprise**.** This might be due to that different types of occupations are found in the modern Indian villages apart from agriculture or farming or the traditional occupations. Animal Husbandry is the secondary occupation for the rural population. Animal Husbandry, Dairy Development and Fisheries have generated gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women.

5.2.3. Family income

The results revealed that vast majority of the farmers had low to medium level of annual income while, only some of them had high annual income. There are several reasons behind their low income status the one among is the extravagance nature of farmers. The condition of the farmers in India has not so well. They are still dependent on the rain god for water and politicians for fixing remunerative prices.

The above findings are in agreement with the findings of the studies conducted by Rastogi and Hasan (2014), Bhanotra *et al.* (2016) and Inavati *et al.* (2014).

5.2.4. Material possession

It is apparent from the Table 9 that the majority of the respondents possessed low to medium level of material possession, and very few of them possessed high material possession.

This might be due to the medium annual income and small & marginal land holding of the farmers of the study area.

5.2.5. Farm mechanization

It can be observed from Table 10 that, immense majority of respondents possessed low to medium level or farm mechanization while, only some of the possessed high level of farm mechanization.

The obvious reason for medium level of farm mechanization of respondents is the medium annual income, poor level of education and small & marginal land holding of the farmers.

5.3 Psychological variables:

5.3.1 Economic motivation

It is evident from Table 11 that, massive majority of the respondents were of medium economic motivation.

The possible reasons for medium economic motivation of respondents are poor education level and exposure. The above findings are in conformity with the findings reported by Sanjay Kanti Das (2012) and Phukan *et al.* (2013).

5.3.2. Market orientation

It could be inferred from Table 12 that majority of the respondents had medium to high market orientation while a small number of respondents had low market orientation.

In a country like India, where more than 60 per cent of the area under cultivation is not irrigated, farm production is highly vulnerable to fluctuations in rainfall. Beside production risk Indian farmers also face high market risk. Farm harvest prices in the country show high inter and intra year volatility. Price variation is quite pronounced in the regions and commodities where price support mechanism is not operative. With increased commercialization of agriculture, price fluctuations have become highly significant in affecting farmers' income. Accordingly, market risk is also now quite important in affecting farmers' income. The above fact may be the reason of medium level of marketing orientation. The above findings are in conformity with the results by Darandale and Soni (2011) and Phukan *et al.* (2013).

5.3.3. Scientific orientation

The data furnished in Table 13 found that vast majority of the respondents had medium to low scientific orientation, while very small number of the respondents had high scientific orientation. The probable reason for above situation might be due to the fact that majority of the farmers had poor exposure and education level of framers. The above findings are in conformity with the results by Kumar *et al.* (2008), Darandale and Soni (2011), Sanjay Kanti Das (2012) and Phukan *et al.* (2013).

5.3.4. Attitude toward improved production technology

As it is evident from Table 14 that, majority of the respondents had less favorable attitude toward improved production technology. The probable reason for above situation might be due to the fact that majority of the farmers had poor exposure and education level of framers. The above findings are in agreement with the finding of the studies conducted by Rastogi and Hasan (2014).

5.4 Communication variables:

5.4.2. Cosmopoliteness

It could be seen from the Table 15 that majority of the respondents had low to medium level of cosmopoliteness while about one tenth of them had high level of cosmopoliteness. The plausible reason for above situation might be due to the fact that majority of the farmers belonged to low to medium level of annual income and lack of transportation facilities.

5.4.3. Extension participation

It could be inferred from Table 16 that majority of the respondents were possessed low to medium level while about one fifth of them possessed high level of extension participation. Extension participation helps farmers to interact with scientists, SMSs, extension officers, etc; enable them to use the practices in natural setting and helps learn new skills through demonstrations, trainings, exhibition, and other extension activities. The probable reason for above situation might be due to the fact that majority of the farmers are illiterate or educated up to primary level, and poor information seeking behaviour.

5.5. Communication behavior of farmers:

The communication behavior of farmers was analyzed with respects to their information seeking behavior, processing behavior and output behavior.

5.5.1. Information seeking behavior

A perusal of Table17 revealed that majority of the respondents had medium level of Information seeking behavior. The feasible reason for above situation might be due to the fact that majority of the farmers are illiterate or educated up to primary level, had low to medium level of extension participation and cosmopoliteness.

5.5.2. Information processing behavior

The data presented in Table 18 reported that majority of the respondents had medium to low level of information processing behavior though, only some of them had high Information processing behavior. The feasible reason for above situation might be due to the fact that majority of the farmers are illiterate or educated up to primary level, had low to medium level of extension participation, cosmopoliteness and poor exposure.

5.5.3. Information output behavior

Regarding Information output behavior the data indicated in Table 19 revealed that majority of the respondents had medium level of information output behavior. The viable reason for above condition might be due to the fact that majority of the farmers are illiterate or educated up to primary level, had low to medium level of extension participation and cosmopoliteness.

5.5.4. Communication behavior

The data presented in Table 21 reported that majority of the respondents (70%) had medium communication behavior. The practicable reason for above situation might be due to the fact that majority of the farmers are illiterate or educated up to primary level, had low to medium level of extension participation and cosmopoliteness. The above findings are in agreement with the findings of the studies conducted by Kumar *et al.* (2012), Lal De (2012), Phukan *et al.* (2013) and Hakeem *et al.* (2014).

5.6 Credibility of communication source and channels as perceived by the farmers:

The extent of credibility of different sources and channels of agriculture information by respondents has been presented in Table 21. The data in Table 21 indicates that 'progressive farmers' was identified as the most credible sources of agriculture information. This was followed by Rural Agricultural Extension officers, KVK Scientists and sales men & dealers. The other sources of information, which were apparent trustworthy by the farmers, were neighbor, relatives, friends, and local leaders, It is interesting to note that television, radio and news paper were perceived as the least credible sources of agriculture information by the farmers.

In other words, it is concluded that progressive farmers 'Rural Agricultural Extension Officers', 'KVK scientists, and 'salesmen & dealers' were the most credible source of agriculture information as perceived by the farmers. Whereas radio, television and news paper were least credible sources of agriculture information as perceived by the farmers.

This indicated that progressive farmers, 'Rural Agricultural Extension Officers', 'KVK scientists, and 'salesmen & dealers' were playing an important role in dissemination of agricultural information. Similar findings were reported by Das (2008) and Hossain *et al.* (2011).

5.7. Relationship between profile characteristics of the farmers with communication behavior

It could be revealed that among sixteen profile characteristics of the farmers thirteen characteristics namely organization participation, farming experience, training participation, occupation, family income, farm mechanization and economic motivation, education, material possession, scientific orientation, attitude toward improved production, cosmopoliteness and extension participation showed positive and highly significant relationship with communication behaviour. Hence, the null hypothesis was rejected with respect of these characteristics and concluded that these characteristics were correlated with communication behaviour. On the other hand age, size of land holding and market orientation had no relationship with communication behaviour. Hence, the null hypothesis was accepted with respect of these characteristics and concluded that these characteristics were not correlated with communication behaviour.

Thus, age of the farmers had not shown any relationship with their communication behaviour. It indicates that age had no influence of age of the farmers with their communication behaviour.

With regards education of the farmers, there was positive and significant relationship with their communication behaviour. This may be due to that education plays an important role in information seeking. The above findings are in agreement with the findings of the studies conducted by Kumar *et al.* (2009a), Hossain *et al.* (2011), Singh *et al.* (2014) and Barmal and Sonowal (2015).

Regarding organizational participation of the farmers, there was positive and significant relationship with their communication behaviour. Organizational participation of the farmers persuades information seeking and transfer of information to other members of the society.

With respect to farming experience of the respondents, there was positive and significant relationship with their communication behaviour. The increasing experience in farming would help in seeking information and discuss with fallow farmers.

Training participation of farmers indicated positive and significant relationship with their communication behaviour. During training programmes the farmers get information regarding agricultural technology. The increasing training participation would help in rising seeking information.

Concerning occupation of farmers indicated positive and significant relationship with their communication behaviour. Farmers having two or more than two enterprise have better communication behaviour.

5.8 problems faced by the farmers in communication

The perusal of the data presented in Table 27 revealed that poor coordination with various development agency was the main constraint of communication behavior, followed by lack of technical support from agriculture staff, poor financial condition of the farmers, illiteracy among the farming community, un organized farming community, lack of local leadership, and lack of compatibility with each others.

5.9. Suggestions received for effective communication:

The perusal of the data presented in Table 28 revel that with Increase agriculture based information from mass media, was the main Suggestions communication behavior, followed by Government agriculture programs and scheme related information should be provide timely, Information should be provide equally to all, and extension activates related training should be proper time.

Chapter-VI

SUMMARY, CONCLUSION AND SUGGESTIONS FOR FURTHER WORK

6.1 Summary:

Communication is an integral part of development and this is more so in the context of India, where large population still lives in villages and may not be able to take active part in the development process due to illiteracy, shortage of resources, poor infrastructure facilities and low bargaining power etc. Development refers to, social and economic development, which is possible only through |information, education and communication. The development of farmers depends largely on agricultural development and communication facilitates the benefits of agricultural developments to the farmers. There are many sources through which farmers or agricultural input users seek or get information about the technological changes in farming. New communication technologies, like e-chaupal, information communication technology (ICT) and teleconferencing are engaged in providing information to the farmers. A new approach, popularly known as the agri-clinic and agri-business were adopted by the Government to transfer the new information to modifying the farmers' information seeking behaviour or communication behaviour. It has been also reported that even after the sixty six years of independence, farmers are still traditionalists, hardliners, shy and ignorant about the agricultural and overall development of the country. The communication behaviour refers to the extent to which the farmers are exposed to the different messages from the various communication sources for the sake of adopting messages for proper utilization in their practices. The behaviour of an individual in broad sense refers to, anything the individual does, while in restricted sense, it refers to the activity that can be observed and rewarded. It is an established fact that communication is the backbone of the development of the society. Effective communication from different sources and channels are the essence of extension, which provides knowledge and information for rural people to modify their behaviour in the ways that provide sustainable benefits to them and to the society. The lack of

interest in extension machinery and some social and personal constraints of the farmers make them unable to plasticizing new and improved agricultural practices at their farm. Thus, keeping in view this study is carried out to find the social, personal and existing constraints which intervene in production potential of the farmers.

Objectives of the study

6. To study the communication behaviour of farmers.
7. To study the socio-personal, socio-economic, psychological and communication characteristics of farmers.
8. To examine the communication source credibility as perceived by the farmers.
9. To assess the influence of socio-personal, socio-economic, psychological and communication characteristics of farmers on their communication behaviour.
10. To assess the communication related constraints of the farmers.

The study was conducted in Gwalior district of Madhya Pradesh. Gwalior district consists of four blocks. Out these two blocks were selected for the study. Five villages for selected each block were selected randomly. A comprehensive list of farmers from each village was prepared and 12 farmers from each village were selected randomly. A total of 120 farmers were selected for the study. A comprehensive interview schedule was developed considering the specific objectives formulated in the study. Individual interview technique was employed for the collection of data from the respondents. The statistical measures like, frequency, percentage, mean, standard deviation and correlation were used for analysis of data.

6.2 Conclusion:

(i) Majority of the respondents belonged to middle to old age group.
(ii) Majority of the respondents were illiterate.
(iii) Majority of the respondents had medium level of organization participation.
(iv) Majority of the respondents had high farming experience.
(v) Majority of the respondents possessed low to medium level of training participation.

(vi) Majority of respondents had marginal to small size of land holding.

(vii) Majority of the respondents had agriculture and agriculture with subsidy enterprise**.**

(viii) Majority of the farmers had low to medium level of annual income.

(ix) Majority of the respondents possessed low to medium level of material possession.

(x) Majority of respondents possessed low to medium level or farm mechanization.

(xi) Majority of the respondents were of medium economic motivation.

(xii) Majority of the respondents had medium to high market orientation.

(xiii) Majority of the respondents had medium to low scientific orientation.

(xiv) Majority of the respondents had less favorable attitude toward improved production technology.

(xv) Majority of the respondents had low to medium level of cosmopoliteness.

(xvi) Majority of the respondents were possessed low to medium level.

(xvii) Majority of the respondents had medium level of Information seeking behavior.

(xviii) Majority of the respondents had medium to low level of information processing behavior.

(xix) Majority of the respondents had medium level of information output behavior.

(xx) Majority of the respondents (70%) had medium communication behavior.

(xxi) Found that the progressive farmers 'Rural Agricultural Extension Officers', 'KVK scientists, and 'salesmen & dealers' were the most credible source of agriculture information as perceived by the farmers.

(xxii) Reported that the organization participation, farming experience, training participation, occupation, family income, farm mechanization and economic motivation, education, material possession, scientific orientation, attitude toward improved production, cosmopoliteness and extension participation showed positive and highly significant relationship with communication behaviour.

(xxiii) Revealed that the poor coordination with various development agency was the main constraint of communication behavior, followed by lack of technical support from agriculture staff, poor financial condition of the farmers, illiteracy among the farming community, un organized farming community, lack of local leadership, and lack of compatibility with each others.

(xxiv) Reported that the Increase agriculture based information from mass media, was the main Suggestions communication behaviour.

6.3 Suggestions for further work:

(i) Similar studies can be conducted in other geographical area of Madhya Pradesh state.

(ii) Similar studies can be conducted on other behaviour like as adoption, knowledge, information seeking, entrepreneur, marketing etc.

(iii) Some other socio-personal, economic, communication and psychological characteristics other than those included in this study might be affecting the communication behaviour of the farmers. Such characteristics may be identified and included in the future study.

(iv) The constraints in communication may be studied in detail and in depth, to understand the problems of the farmers in broader perspective.

BIBLIOGRAPHY

Avinashijngam Vijay, N.A. (2015). Information seeking behaviour of wheat growers in north- west Himalayas. . *Journals of the communication studies*. Vol.xxxlll.pp. 124-127.

Baisane, P.A., Shambharkar, Y.B. and U.G. Thakare (2009). Information output behaviour of farm scientists and constraints faced by them in transfer of technology. *Journal of Community Mobilization and Sustainable Development,* **4**(2): 49-52.

Barman, Sundar and Manjit Sonowal (2015). Information source utilization behaviour of bhut jolokia growers. *Journal of the communication studies*. Vol.xxxlll.pp.51-61.

Bhanotra Adhiti, Jancy Gupta and Minu Singh (2016). Socio-economic status and communication behaviour pattern of the dairy farmers in Kathua district of Jammu and Kashmir. *International Journal of Farm Sciences* **6**(1): 37-42.

Bisht, Shalini. Mishra Yagya Dev, Bharadwaj Neelam and Reeta Mishra (2010). Utilization Pattern of Information Communication Technology (ICT) among Agricultural Scientists. *Journal of Community Mobilization and Sustainable Development,* **5**(1): 90-95.

Boruah, R., Borua, S., Deka, C. R. and Borah, D. (2015). Entrepreneurial Behavior of Tribal Winter Vegetable Growers in Jorhat District of Assam. *Indian Res. J. Ext. Edu.* **15** (1):65-69.

Bordoloi R.M., V.K. Makhija and S.N. laharia (2004). Communication behaviour of extension personal. *Indian journal of Extension Education*. xxxx 1&2 :pp 18-22.

Chandra Nirmal and Shailesh Kumar (2007). A scale to measure farmer's attitude towards improved agricultural practices. *Indian Res. J. Ext. Edu.,* **7**(2&3): 30-31.

Chaturvedi Vinod Kumar and Premlata Singh (2010). Correlates of television advertiment viewing behavior of rural viewers. *Indian journal of Extension Education,* **46**(1&2): 67-69.

Chaudhari, R.R. (2006). A study on entrepreneurial behaviour of dairy farmers. Ph.D thesis University of Agricultural Sciences, Dharwad.

Cukur, T. (2013). Determination of Communication Behavior of Earthen Pond Fish Farmers. *Bulgarian Journal of Agricultural Science,* **19** (6): 1358-1363.

Darandale**,** A.D. and Soni, N.V. (2011)**.** Relationship between attitude of tribal maize growers towards organic farming and their selected characteristics. *Gujarat Journal of Extension Education,* **22**: 8-9.

Das, E. P .K. (2008). Communication behaviour of farmers in progressive and non-progressive villages. *Journal of Global Communication,* **2(**2):162-175.

Dhanasree, K., Vijayabhinandana, B., Pradeepkumar, P.B. (2014). Socio-Economic Empowerment of Tribal Women in High Altitude and Tribal Zone of Andhra Pradesh. *International Journal of Innovative Research in Science, Engineering and Technology,* **3**(2):9360-9368.

Diapk, De, Ghadei, K. and Kendadmath (2003). Communication for development in the information age: Extending the benefits of technology for All. In: International Conference, Department of Extension Education, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, (India).

Gunawardana, A.M.A.P.G. (2005). Communication behaviour of farmers on improved farm practices on Udaipur district of Rajasthan. M.Sc. Thesis, MPUAT, Udaipur.

Gunawardana, A.M.A.P.G. and Sharma, V.P. (2004). Preferential information sources of farmers in Udaipur District of Rajasthan, India on improved farm practices. *Tropical Agril. Research* Vol. 18: pp. 1-6.

Hakeem, S. Abd., De, D. and Lal B.(2014). Communication Behaviour of Poly Plastic Growers in Thi-Qar Province. *Journal of Global Communication*, **7(2):** 105-111.

Hanumanaikar,R.H., jadhav, S.N. and Ashalatha, K. V. (2009). Correlation of socio-economic profile and adoption pattern of sugarcane growers in Karnatka state. Agriculture Update (**4):**51-55.

Hossain, Kh. Zulfikarm (2006). Farmers' Communication Behaviour in Receiving Information on Improved Rice Production Technologies A thesis submitted to the Faculty of Agriculture. Sher-e-langla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of Master of Science in Agricultural Extension and Information System.

Hossain, K.Z., Islam, M.R., Bhuiyan, M.H., Wazed, M.A. and Rahman, M.M. (2011). Farmers' communication behavior in receiving information on improved rice production technologies. *J. Innov. Dev. Strategy* **5**(1):28-33.

Inavati, M., Singh, S.R.K., Pande, A.K. and Shukla, R. (2014). Assessing the Training Needs of Tribal Farmers about Improved Chickpea Production Practices in M.P. *Journal of Community Mobilization and Sustainable Development,* **9(2):** 172-175.

Kalamegam, F.V. and Menon, K.R. (1977). Communication behaviour of small farmers in a progressive village. Indian journal of extension education, **13**(1&2): 37-41.

Kardak *et al*. (2004). The socio-economic, communication and psychological characteristics of the sorghum growers in Vidharbha region in Maharashtra, *Annals of Agricultural Research,* **25**(2): 292-296.

Kirti, B. jiris and Richa Sachan (2015). Source of information used by the jeevika project beneficiriaries. *Journals of the communication studies.* Vol.xxxlll. pp. 114-116.

Kumar, R., Mishra, O.P. and Kumar, P. (2015). Communication profile a weaker section of the society. *Journals of the communication studies.* Vol.xxxlll.pp. 111-113.

Kumar[a] ,S., S.,Uma, Sharma, J.P. and Kumar, R. (2009). Communication and Collaboration between Dairying Research and Extension Personnel Operating Under Different Linkage Systems in the State of Haryana. *Journal of Community Mobilization and Sustainable Development,* **4**(1) 29-33.

Kumar[b] ,S., S., Uma, Sharma, J.P. and Kumar, R. (2009). Communication and Collaboration between Dairying Research and Extension Personnel Operating Under Different Linkage Systems in the State of Haryana. *Journal of Community Mobilization and Sustainable Development,* **4**(2): 29-33.

Kumar neeraj,A.K.kumar (2015). Communication behaviour of gram growers in diara lend of bihar. *Journals of the communication studies.* Vol.xxxlll. pp.108-110.

Kumar, V., Prajapati, R.S., Ghintala, A. and Singh, K. (2013). Source and Channels of Agriculture Information used by the Beneficiary Farmers of NAIP-III. *Gujarat Journal of Extension Education*, **24:** 35-38.

Kumar, V., Prajapati, R. S. and Sharma, S. (2012). Communication Behaviour of NAIP III Benefi ciary Farmers. *Gujarat Journal of Extension Education,* **23:**1-3.

Kumar, Vijay, Khalche, P.G. and Gaikawad, J.H. (2008) a study of the extent of technological gap in adoption of paddy cultivation technology by respondent paddy growers of Sitamarhi district of Bihar state and their suggestion. *Agriculture update*, 2(**3):** 290-292.

Lal, B. and De, Dipak (2012). Communication behavior of Televiewing farmers. *Journal of Communication studies,* **30(1):** 94-102.

Malagar, Geeta (2007). Radio listening and television viewing behaviour of rural women. M.Sc. (Ag.) thesis (Unpublished) University of Agricultural Science, Dharwad.

Manisha Kumari and Krishnakumar, K.N. (2013). Case study on communication behaviour of women SHGs promoted by lupin human welfare and research foundation. *Indian journal of Extension Education*, **49**(3&4): 96-101.

Mishra, S.; Dash, H. K. and Prusty, M. (2012). Marketing behaiour of tribal women in Koraput District of Odisha: A case study. *Orissa Journal of Extension Education*, **17**(1):145-155.

Mohapatra, A. S. and Sahu, U. N. (2012). A Study of Socio-Economic and Entrepreneurial Characteristics of Tribals of Mayurbhanj District in Sabai Grass Enterprise. *International Journal of Management, IT and Engineering,* **2**(5):426-438.

Mtega W. P. (2012). Access to and usage of information among rural communities: a case study of Kilosa District Morogoro Region in Tanzania. Available: http://journal.lib.uoguelph.ca/index.php/perj/article/ viewArticle/1646/2462.

Nande, M.P., Gawande, S.H., Patil, A.M. and Khode, N.V. (2009). Information Seeking Behaviour of Dairy Farmers in Nagpur District of Maharashtra. *Journal of Community Mobilization and Sustainable Development.* **4**(1) 99-102.

Patel, P.K. (2014). An Impact of Tribal Sub-Plan Scheme on Tribal Community: A Sociological Study. *International journal of advanced research in management and social sciences, **3(4):**155-164.*

Phukan Pallabi , Sajib Borua and Utpal (2013). Barman Communication behaviour of winter vegetable cultivators of Jorhat district of Assam. *Journal Acad. Indus. Res.* **1**(8): 464-466.

Prasad, Govind; Shrivastava, K. K. and Dhruw, Y. S. (2017). Communication behaviour of farmers towards groundnut production technology in Raigarh District of Chhattisgarh, India. *Plant Archives,* **17**(1): 637-640.

Punitha**,** Seeralan and Parkas, N. (2013). Communication Behavior of Farmers Club *Journal of* Community Mobilization and Sustainable Development, **8**(1): 05-08.

Rastogi, Sandeep and Shamsul, Hasan (2014). A study on communication behaviour of agricultural input users of Udham Singh Nagar district of Uttrakhand, *India Journal of Applied and Natural Science,* **6**(1): 193-196.

Rokonuzzaman, M. (2013). Training Needs of Tribal People Regarding Income Generating Activities. *Indian Res. J. Ext. Edu.,* **13** (2):10-16.

Sahu R.P., N.K. singh and M.P., singh (2014). Communication behaviour of dairy farmers in hilly areas. *Indian journal of Extension Education*, **50**(1&2): 96-99.

Sanjay Kanti Das (2012). An Analysis of Constraints in Women Empowerment in Tribal Area: Evidences from Assam. *Asian Journal of Research in Social Science & Humanities,* **2** (4):61-74.

Siddaramaiah, B.S. and Jalihal, K. (1983). A scale to measure extension participation of farmers. *Indian journal of Extension Education,* 19, pp. 17-77.

Singh, K., Singh, P. and Lakhera, J.P. (2013). Communication behaviour of small farmers in relation to wheat production technology. *Madras Agric. J.* **100**(1-3): 210-216.

Singh Mayank and Rajiv Kumar Singh (2012). Constraints perceived by the farmers in communication behaviour. *Indian journal of Extension Education*, **48** (1&2): 52-55.

Singh, Uma Rani, Shrivastava, K.K. and Panikra, V.K. (2015). Role of information source in parthenium weed control. Journal of Communication Studies. Vol. XXXIII. pp. 105-107.

Singh, vikram; jancy, gupta and Nain, M.S. (2014). Communication behavior of the dairy: A source for milk quality improvement. *Indian journal of Extension Education,* **50** (3&4): 78-84.

Srivastava dambazau, S.A.J.P., Tajudeen, A. (2015). Communication behaviour of potato growers. *Journals of the communication studies.* Vol.xxxlll.pp.48-55.

Tochhawng, L. and Rewani, S. K. (2013). Constraint Analysis of Backyard Pig Farming in Tribal Areas of Mizoram. *Indian Res. J. Ext. Edu.,* **13 (2):**123-124.

Verma sushil; kumar, Lekh and Verma, Ram (2015). Communication behaviour of chilly growers. *Journals of the communication studies.* Vol.xxxlll.pp. 62-66.

Vittal, N. (1982). Effectiveness of communication with the rural poor. Astudy in IRDP district. *Journal of Rural Development.* **1**(4): 611-659.

राजमाता विजयाराजे सिंधिया कृषि विश्वविद्यालय, ग्वालियर (म.प्र.)

विस्तार शिक्षा विभाग, कृषि महाविद्यालय, ग्वालियर (म.प्र.)

साक्षात्कार प्रश्नावली

मुख्य सलाहाकार

शोधकर्ता

ड़ॉ. एम.एम. पटेल (विभागाध्यक्ष) **प्रमोद कुमार पटेल**

कृषि प्रसार शिक्षा विभाग

कृषि प्रसार शिक्षा विभाग

कृषि महाविद्यालय ग्वालियर (म.प्र.)

कृषि महाविद्यालय ग्वालियर (म.प्र.)

Title:- "A study of the communication behavior of the farmers in Gwalior District (M.P)"

1. कृषक का नाम : .....
2. ग्राम का नाम :. .....
3. विकास खण्ड : .....
4. कृषक की उम्र (वर्ष में) : .....
5. शैक्षणिक स्तर
   - अ. अशिक्षित : .....
   - ब. प्रायमरी : .....
   - स. मिडिल : .....
   - द. हाईस्कूल : .....
   - य. स्नातक या अधिक : .....
   - र. तकनीकी शिक्षा : .....

...

6. सामाजिक राजनीतिक संस्थाओं में भागीदारी :–

क्र.	समाजिक राजनैतिक संस्थाओं में भागीदारी	हाँ	नहीं
1.	किसी एक सामाजिक या राजनैतिक संगठन के सदस्य हैं।		
2.	एक सामाजिक और राजनैतिक संगठन के सदस्य हैं।		
3.	किसी भी सामाजिक या राजनैतिक संगठन के सदस्य न होने के बाबजूद भी सामुदायिक कार्यों में सहभागी है।		
4.	आपका आर्थिक योगदान/सार्वजनिक कोष (निदक) को बढ़ाने में सहयोग।		
5.	सामाजिक या राजनैकित संगठन में किसी पद पर हैं।		
6.	गॉव का मुखिया या प्रमुख		
7.	बड़े स्तर का नेता		

7. आप कितने वर्षों से खेती कर रहे हैं ?..... वर्ष

8. प्रशिक्षण सहभागिता

क्रं	**कथन**	**सप्ताहिक**	**पश्छिक**	**मासिक**
1	क्या आप खेत प्रदर्शन विधि में भाग लेते हैं			
2	क्या आपने कृषि संबंधित नई तकनीकि के बारे में प्रशिक्षण प्राप्त किया है।			
3	क्या आप कृषि प्रदर्शनी देखने जाते हैं।			
4	कृषि विज्ञान केन्द्र के माध्यम से चलायी जा रही कृषि गतिविधियों में भाग लेते हैं।			
5	क्या आपको किसान कल्याण विभाग के माध्यम से चलाये जा रहे प्रशिक्षण कार्यक्रम के बारे में जानकारी है।			

9. रकबा .....एकड.

10. व्यवसाय

1. केवल कृषि _____
2. कृषि, सहायक उघम_____
3. कृषि, सहायक उघम और अन्य_____

11 वार्षिक आय (रूपये) .....

11. (साम्रगी की उपलब्धता आपके फार्म पर कितनी सामग्री उपलब्ध है।)

1. घरेलू वस्तुये।

क्र.	वस्तुये / सामग्री	संख्या
1.	सोफा	
2.	अलमारी	
3.	गैस स्टोव	
4.	टेलीफोन	
5.	मोटर साइकिल	
6.	टेलीविजन	
7.	रेड़ियों	

12. प्रक्षेत्र / खेत यंत्रीकरण / मषीनीकरण

आपके फार्म पर कौन–कौन सी मषीनी व्यवस्था हैं।

क्र.	मशीन उपकरण	कितने सालों से प्रयोग कर रहे है।
1.	ट्रैक्टर	–
2.	पावर टीलर	–
3.	डिस हैरो	–
4.	कल्टी वेटर	–
5.	मोल्ड वोर्ड हल	–
6.	सीड ड्रिल	–
7.	पम्प सेट	–
8.	व्हील हो	–
9.	पैडी वीडर	–
10.	स्पेयर	–
11	डस्टर	–
12	थ्रेसर	–

13 आर्थिक प्रेरणाः–: आप नीचे लिखे कथनों पर अपना विचार व्यक्त करें।

क्रं	कथन	पूर्णतः सहमत	सहमत	कोई विचार नही	असहमत	पूर्णतः असहमत
1.	किसान को अधिक उपज और लाभ के लिए काम करना चाहिए।					
2.	सफल किसान वही है जो अधिकतम लाभ प्राप्त करता हैं।					
3.	किसान को अधिक लाभ के लिए नये विचारों को अपनाना चाहिए।					
4.	अधिकतम लाभ के लिए किसान को खाद्य फसलो के बजाय नगदी फसले लेना चाहिए।					
5.	किसान के बच्चों को अपना व्यवसाय शुरू करने में परेषानी होती हैं। यदि किसान उन्हें अधिक मदत प्रदान करता है।					

14 **निम्नलिखित के संदर्भ में जानकारी देवे।**

क्र.	कथन	सहमत	कोई विचार नही	असहमत
1.	विपणन संबधी जानकारी किसान के लिए उतनी आवश्यक नही है।			
2.	एक किसान अपने उपज की छटनी कर अच्छी कीमत प्राप्त कर सकता है।			
3.	गोदाम किसानों की उनके उपज की अच्छी किमत दिलाने मे मदद करता है।			
4.	किसान को अपनी उपज की किमत का ध्यान न रखते हुए निकटतम बाजार में बेचना चाहिए ।			
5.	किसान को खेति मे ळगने वाली सामग्री उसी दुकान से खरीदनी चाहिए जहां से उसके सगे संबंधी लेते हैं।			
6.	किसान को वही फसले उगाना चाहिए जिसकी मांग अधिक हो ।			

15. वैज्ञानिक अभिविन्यासः–

क्र.	कथन	सहमत	कोई विचार नही	असहमत
1.	एक किसान को खेती की नयी उन्नत तकनीक पुरानी तकनीक परम्परागत की तुलना में अच्छे परिणाम देती हैं।			
2.	किसान को खेती का अधिक अनुभव होते हुए भी कृषि की नयी तकनीको का उपयोग करना चाहिए।			
3.	यद्यपि कृषि की नयी विधियां विचार या जानकारी को अपने प्रक्षेत्र पर प्रयोग करके देखता है।			
4.	यद्यपि कृषि की नयी विधियां उचित सयम लेती हैं किन्तु इसके लिए प्रयास करना उचित हैं			
5.	खेती का परम्परागत विधियों कों किसान का जीवन स्तर उठाने के लिए धीरे–धीरे बदलना चाहिए।			
6.	पूर्वजों द्वारा अपनाया जाने वाला खेती के नये तरीके से आज भी श्रेष्ठ हैं।			

16. fuEufyf[kr d`f"k ls lacaf/kr mUur'khy mRiknu rduhdh ds laca/k esa viuh vfHko`fRr crk;sa

क्र.	कथन	पूर्णतः सहमत	सहमत	कोई विचार नही	असहमत	पूर्णतः असहमत
1.	पंक्ति मे वुवाई करने से रोगों को रोकने मे मदद मिलती है।					
2.	पंक्ति में वुवाई करने से उपज अच्छी होती हैं					
3.	पंक्ति में वुवाई करने से अन्तः सस्य क्रियाओ मे आसानी मिलती है।					
4.	अंतः फसल, संतुलित उर्वरकों के उपयोग में मदद करता है।					
5.	अंतः फसल, घरेलू उपयोग के लिए विभिन्न फसलों को प्रदान करने में मदद करता है।					
6.	अन्तः फसल के द्वारा कुल आय में वृद्धि करता है।					
7.	पौधे संरक्षण, फसलों में नुकसान को नियंत्रित करने में मदद करता है।					
8.	रसायनिक बीज उपचार रोगो के प्रबंधन में महत्वपूर्ण है।					
9.	समय पर बोवनी करने से बीजो के अंकुरण क्षमता में वृद्धि होती है।					
10.	उन्नत बीजों से अत्यधिक उत्पादन प्राप्त होता है।					
11.	उन्नत बीजों के विकास में अत्यधिक अनुसंधान किया जाता है। अतः किसान को बिना किसी समस्या में उन्नत बीजो को अपनाना।					
12.	अन्तः शस्य फसलो को खरपतवार को सुरक्षित रखती है।					
13.	अन्तः शस्य क्रियाऐ मृदा नमी के उचित उपयोग में सहायक हैं।					
14.	रासायनिक खादो में दवारा फसल उत्पादन पर कोई प्रभाव नहीं पड़ता है।					
15.	रासायनिक खाद मृदा उर्वरता को लम्बे समय तक बनाये रखती है।					

16.	रासायनिक खादखाद मृदा स्वास्थ्य पर विपरित प्रभाव पडता हैं।					
17.	मृदा परीक्षण उर्वरको में उपयोग के लिए विष्वसनीय है।					
18.	टपकवाँ विधी किसानों के लिए उपयोगी नहीं है।					

17. **D;k vki d`f"k ls lacaf/kr mUur'khy mRiknu rduhdh dh tkudkjh ds fy;s vU; LFkkuksa ij Hkh laidZ djrs gSa\ ;fn gk¡ rks gk¡@ugha**

A. आप कब कब अपने पास के कस्बा या शहर का भ्रमण करते हैं ?

1.	सप्ताह में एक बार	
2.	पखवाड़ा में एक बार	
3.	महीने में एक बार	
4.	कभी–कभार	
5	कभी नहीं	

B. आप किस उद्देष्य से कस्बे या शहर का भ्रमण करते हैं ?

1	सम्पूर्ण कृषि के संबंध में	
2	कुछ कृषि के संबंध में	
3	घरेलू या अपने कार्य के लिये	
4	मनोरंजन के लिये	
5	अन्य	
6	कोई जबाव नहीं	

18 प्रसार कार्य में सहभागिता

क्र.	विवरण	हॉ	नही
1.	क्या आपके खेत पर विगत वर्ष प्रदर्शन डाला गया है		
2.	क्या आपके ग्राम सेवक के साथ विचार विमर्श करते हैं।		
3.	क्या आप प्रसार संबधी बैठको में भाग लेते हैं।		
4.	क्या आपके किसानों के हित मे आयोजित खेत दिवस में भाग लिया		
5.	क्या आपके किसान दिवस/ किसान मेला में भाग लिया है।		
6.	क्या आपने कभी अपने पड़ोसी के खत पर प्रदर्शन देखा है।		
7.	क्या आपने कृषि प्रदर्शनी देखी है।		
8.	क्या आप कृषि साहित्य पड़ते है।		

19 आप अपनी कृषि संबंधित सूचनाओ के बारे में जानकारी कहॉ से प्राप्त करते है एंव किस सूचना स्त्रोत पर आप विष्वास करते है। (कृपया बताना)

क्रमांक	सूचना स्त्रोत	अधिक	मध्यम	कम
1	कृषि विज्ञान केन्द्र के वैज्ञानिक			
2	उन्नत कृषक			
3	ग्राम सेवक			
4	रेडियो			
5	टेलिविजन			
6	समाचार पत्र			
7	किसान मेला			
8	बुकलेट			
9	प्रर्दषनी			
10	स्थानीय नेता			
11	सहकारी समिति			
12	प्राइवेट इनपुट डीलर			
13	संबंधी			

भाग – व

1 संचार व्यवहार

अ. सूचना स्त्रोतों से सम्पर्क

क्रं	सूचना स्त्रोत	सम्पर्क		
		हमेशा	कभी–कभी	कभी नहीं
1.	रेडियो			
2.	टेलीविजन			
3.	समाचार–पत्र			
4.	प्रसार कार्यकर्ता			
5.	मित्र/संबंधी			
6.	विकासशील किसान			
7.	स्थानीय नेता			
8.	प्रधान/सरपंच			

9.	कृषि विज्ञान केन्द्र संदेष			
10	प्रदर्शनी			
11.	सहयोगी समाज			
12.	कृषक मेला			
13.	प्रशिक्षण			
14.	कृषक मित्र			
15.	अन्य			

2. सूचानओं को प्रसंस्करण :

क्रं	**विवरण**	**सम्पर्क**		
		हमेशा	**कभी –कभी**	**कभी नहीं**
1.	मित्र व सवंधी से चर्चा करके।			
2.	प्रसार कार्यकर्ता से चर्चा करने।			
3.	विकाशसील किसान के साथ चर्चा करके।			
4.	स्थानीय नेता से चर्चा करके।			
5.	अन्य लोगों से चर्चा करके।			

3. सूचना को अन्य लोगों तक भेजना या प्रसारित करना :

क्रं	**विवरण**	**सम्पर्क**		
		हमेशा	**कभी –कभी**	**कभी नहीं**
1.	स्थानीय मीटिंग में बात करने/बोलकर			
2.	स्थानीय नेता व विकासषील किसान को सामने रखकर।			
3.	कृषि पोस्टर को दिखाकर।			
4.	किसान खेत या घर पर सूचना देना।			
5.	कृषि संबंधी लेख या पत्रिका लिखना।			

VITA

Name of author	:	**PRAMOD KUMAR PATEL**
Father's name	:	Mr. Heera Lal Patel
Date of Birth	:	29th July 1992
Place of Birth	:	Village- Manpura
Address	:	Village- Manpura, post- Pahra, Tehsil- Rajnagar, District- Chhatarpur

Academic qualifications:

CLASS	BOARD/UNIVERSITY	SUBJECTS	YEAR	%
M.Sc. (Ag.)	RVSKVV, GWALIOR	Extension Education and Rural Sociology	2017	69.97
B.Sc. (Ag)	RVSKVV, GWALIOR	Agriculture	2015	68.80
Higher Secondary (10+2)	M.P. Board, BHOPAL	Agriculture	2010	72.60
High School	M.P. Board, BHOPAL	All subject	2008	59.80

The author may be contacted at:

Pramod Kumar Patel

Village- Manpura, post- Pahra,

Tehsil- Rajnagar, District- Chhatarpur