Review of literature
II. REVIEW OF LITERATURE

Concept of Communication:
Researchers in various fields have viewed communication in different ways. However, every one has accepted communication as an essential social process by which individual maintains social relationship. In essence, it is the act of getting a sender and receiver tuned together for a particular message or a series of messages. Loomis and Beegle (1950) defined communication as “the process by which information, decisions and directions pass through a social system and the way in which knowledge, options and attitude are formed or modified.” This definition focused on the importance of communication in changing or modifying the knowledge, opinions and attitudes. According to Leagans (1961), “communication is the process by which two or more people exchange ideas, facts, feelings or impressions in way that each gains a common understanding of the meaning, intent and use of message”. Jackson (1987) viewed communication as arterial system of all forms of economic and social activity. Leagns (1961) definition of communication focuses mainly on the source, channel, receiver, message and effect, while the latter pinpoints crucial role of communication in the development arena both social and economic, in the
broadest sense. No development can be thought of without a well-developed system of communication network.

2.1 Concept of communication efficiency:

The term communication stems form Latin word 'communis', meaning 'common'. As defined by Leagans (1961), communication is sharing commonness between the source and the receiver about the meaning, intent and use of the message communicated. It is said to be a successful communication, if only this is achieved. But establishing commonness is not an easy task because of the individual differences. But, the task can be simplified by manipulating the components involved in the elements, mainly source, message, channel and receiver of communication process.

The best communicators are those who study the components of the communication situation and ensure that they will give and or get, in the true sense, the information they want. This ability of the communicator to engage in appropriate and effective communicative interaction is termed his 'efficiency' in communication. In other words, this ability can be termed as 'communication competency' as the terms 'efficiency' and 'competency' are synonymous.
2.2. Major diminutions of communication efficiency:

2.2.1 Knowledge level of the communicator:

It is obvious that the amount of knowledge a source has about his subject matter will affect the message because one cannot communicate what one does not know. Knowledge of the communication process itself affects source’s behavior. His communication behavior is affected by how much he knows about his own attitudes, the characteristics of his receiver, the way in which he can produce or treat message, the kinds of choices he can make about communication channels etc. (Berlo, 1960).

Moczarski (1979) indicated that the whole success of program depends on the extension workers’ skill and technical knowledge to plan the activities with farmers.

Singh (1981) reported that the expertise knowledge level about the subject matter and truest worthiness with which a communicator is viewed by the recipient farmers have influence over his success as a communicator.
2.2.2 Skill of the communicator:

Brand (1966) stated that rules or writing of low level literatures are listen to people, learn how they talk, then write in the way they talk, taking into consideration cultural background that might resist written message.

Talk should be personalized, talk about people, be brief and to the point besides being friendly, says Kamath (1972).

John Knight and Singh (1976) listed the following factors for communication to make it an effective: (i) use simple words in local familiar language, (ii) clarity of voice, (iii) give timely and accurate sequence, (iv) give need based timely and accurate information and (v) deal with practical problems.

2.2.3 Attitudes of the communicator:

Berlo (1960) observed that the attitudes of a communication source affect the ways in which he communicates. He further added that communicator’s attitude towards self, attitude towards subject matter and attitude towards receiver affect his success in communication.
Steers and Porter (1975) and Mongia (1976) stated that high productivity could be achieved if the attitudes of the employees towards their work are maintained at favorable level.

Sobhana (1982) indicated that attitude of agricultural officers towards extension profession has a significant bearing on their role performance.

3.2.4 Perception of the communicator:

Hobel (1972) found that a person’s behavior was natural when he become habituated to all of his roles to the point where he does not have to prepare himself to perform them.

Mitchell (1973) opined that behavior was a function of once perception and that changing perceptions would result in changing behavior.

Sobhana (1982) revealed that job perceptions of junior agricultural officers were significantly and positively related with their role performance.

Manandhar (1987) observed that higher level of extension personnel ranked trails and demonstrations as most credible source of information under
T & V system in Nepal whereas PLAAS perceived higher-ups as the most credible information source.

2.2.5 Empathy of the communicator:
Empathy is the ability of an individual to project himself into the role of another. The communicator’s success is positively related to his empathy with clientele (Rogers and Shoemaker, 1971).

Empathy, the ability to feel and understand what another person is feeling and thinking, is probably the most valuable asset and communicator can acquire. Empathy is both a cause and effect of successful communication (Cronkhite, 1976), in fact, cause and effect in this case blend so completely that in a broad sense, we can say empathy is communication.

2.2.6 Ability for feedback:
Berlo (1960) defined feedback as the action reaction interdependence in communication.
According to Devito (1978) feedback refers to those messages sent to listeners and received by speakers, which enable speakers to gauge their efforts on their receivers.

2.2.7 Other research studies:

Many other researchers in the field of extension education and communication have identified factors influencing the success of extension personnel in different context. Brief accounts of such research studies reviewed are presented here.

Ramsowers (1926) study of the qualities of the best and poorest country agricultural agents revealed that seven qualities were close and above all others for best agents and that they ranked in order of importance as follows: integrity, perseverance, faith, ability to plan, vision, initiative and courage. It was also found that the poorest agent conspicuously lacked enthusiasm, vision, ability to plan and initiative.

Aiken (1952) found that the most effective extension agent is one who has a clear concept of objectives or his extension program for his county. He has
close working relationship with co-workers and depends upon them for help with his problems related to extension work.

2.3 Input Information:

For the present study the information input behavior of an individual (extension personnel working as extension worker in private and cooperative sugar industries) was operationalised as the activities performed by him in relation to sugarcane development and procurement activities.

Balasubramanyan and Menon (1977) observed that the important sources of information about high yielding varieties of paddy for the extension personnel in Tamil Nadu were State Department of Agriculture, University publications and journals, personal visit to researchers, correspondence with scientists, visit to research station and researcher's visit to extension personnel in descending order.

Ambastha and Singh (1978) reported that most commonly used information source by the extension personnel were the department meetings, popular extension journals, leaflets, bulletins, visiting the scientists and visit to the experimental stations.
Narayan (1980) reported that the agricultural assistance working in T & V system were found to contact the immediate superiors for acquiring the information pertaining to farm problems posed by the farmers.

Reddy and Byrareddy (1984) in his study observed that the most commonly used sources for information input by the extension personnel were research journals, extension publications, colleagues and immediate superiors.

Bhople (1985) observed that, the agricultural officers and village level extension workers were found to receive the farm recommendations for their use mostly through cyclostyled message circular letters and printed literature. He further reported that the village extension workers have significantly higher mean information input index than that of the agricultural officers.

Gangadharappa (1988) showed that colleagues, extension publications and professional meetings were important sources considered for data gathering by extension personnel.
Shinde (1990) indicated that monthly workshops, consultation with University scientists, visit to research stations and farmers, mass media utilization, literature, campaign, professional meetings and seminars, self-observation with the field trails are the sources and channels used for the information input by extension workers.

Shinde (1990) reported that multiple regression revealed all the independent variables were put together explained agriculture assistance significant amount of variation to the extent of 63.85% and 64.3% in the information input behavior of assistant agricultural officers and agricultural assistance respectively.

Raju and Reddy (1997) indicated that, timely availability of research for consultation, latest information about agricultural developments, proper and timely technical assistance, good work environment and exposure to newly developed technologies were the needs of getting information.

Zuber (2002) reported that newspaper, extension personnel, extension publication and radio were important sources of gathering data by Assistant Agricultural Officers and Agricultural Assistants.
2.4 Information Processing:

In the present study, the information processing behavior of extension personnel referred to all such activities performed by them for the purpose of exploration probable solution to the farm evaluation, storage and transformation.

Rao (1972) reported the technical communications in transferring information within the research communities. These communications also reveal a lack of attention to long range planning for technical development. Further, in few of the researches communication pays attention to the problems of transferring results proved at the research station to the field in the simplified package.

Sanoria and Singh (1979) reported that extension officers at higher levels were better processors of information than the lower level extension officers.

Ambastha (1980) reported that the information processing indices that farm scientists have significant and positive correlation with cadre, education, service, experience and job commitment, but not with training, job preferences and job satisfaction.
Robert and Robert (1982) pointed out that if a convincing case for changing is to be made, the identification of the farmers’ perceived problem is fundamental. This is the springboard of research. They further reported that the research workers should view the technology through the eyes of the farmer and recognize the importance of socio-cultural factors.

Shinde (1990) reported that multiple regression revealed all the independent variables were put together, explained agriculture assistant significant amount of variation to the extent of 80.24 % and 55.59 % in the information processing of assistant agriculture officers and agriculture assistants respectively.

2.5 Information evaluation:
Balasubramanyan and Menon (1977) reported that majority of extension personnel evaluated an information by discussing with fellow workers, judging the information in the light of climatic conditions, considering its technical feasibility, discussing with higher-ups in the department, discussing with progressive farmers and suitability with socio-economic conditions to a lesser extent.
Ambastha and Singh (1978) found that the extension personnel evaluated the information by using the methods like discussion with higher, progressive farmers, judging in the light of local socio economic and agro climatic situations.

Pandey (1979) noticed that the most frequently used methods of evaluation by extension personnel under T & V system were accepting as such an evaluation duly discussed by the subject matter specialists in the training session, taking in to account the technical feasibility, validity of the recommendations by conducting mini kit trails, judging it in the light of socio - economic and agro climatic continuation and cross checking it against past recommendations.

Reddy and Byrareddy (1984) observed that for information evaluation, the methods like discussion with colleagues, considering technical and local feasibility, judging against socio economic conditions and discussing with superiors were considered.

Bhople (1985) reported that the majority of the extension personnel evaluated the farm recommendations through discussion with subject matter
specialists, superiors and fellow workers. They also considered the applicability of the recommendations and took into account of their past experience.

Shinde (1990) reported that the most commonly used method for information evaluation was discussing the recommendations in training sessions. Assistant agricultural officers and agricultural assistant had discussion in the fortnightly sessions with their superiors.

Raju and Reddy (1997) reported that economic feasibility, discussing with fellow workers and taking hints in the notebook were considered for information evaluation, information treatment and information storage respectively. Farm and home visits were the regularly utilized source for information dissemination. Trials/demonstration and personal contacts were the most utilized methods by the extension personnel for linking with researchers and farmers respectively.

Khalil and Venkataramaiah (1988) revealed that colleagues, literature and past experience were the most frequently used methods by extensionlists for exploring possible solutions. Superiors, past experience, socio economic and
agro climatic conditions, colleagues, field extension personnel and farmer's experiences were the main methods used for information evaluation.

Zuber (2002) reported that the discussion with local progressive farmers, discussion with subject matter specialists and discussion with fellow workers were the important methods of information processing used by assistant agricultural officers, whereas agricultural assistants used discussion with local progressive farmers, technical feasibility and discussion with fellow workers as important methods.

Jahagirdar (2006) revealed that most commonly used method to evaluate information acquired by the government extension personnel were discussion with superiors, colleagues, subject matter specialist and in the light of past experience. Whereas in case of private extension personnel the most commonly used method was Area Mangers, Marketing Officers followed by superiors, colleagues, subject matter specialists and in the light of past experience.
2.6 Information Storage:

Akhouri (1973), Sanoria (1974) and Pandey (1979) observed that the most commonly used methods for information storage by the extension personnel were found to be noting down in the common notebook and memorization.

Shete (1974), Reddy (1976), Balasubramanyan and Menon (1977) and Bhople (1965) reported that the extension personnel were also found to maintain the classified notebooks and subject wise files for the purpose of storing the farm information.

Reddy and Byrareddy (1984) in their study observed that for information preservation, methods like making notes, noting in the dairy and memorizing are useful. For transformation of information, methods like preparation of leaflets/pamphlets and charts and graphs were mostly used by the extension personnel.

Shinde (1990) revealed that taking notes in common notebook used by all the extension workers followed by maintaining subject wise files and memorizing.
Khalil and Venkataramanaiah (1998) revealed that a common notebook and memorizing were the main methods used for information preservation.

Zuber (2002) reported that preserving in common notebook, reference material and subject wise notebooks were regularly used methods by assistant agricultural officers. Agricultural assistant used subject wise notebooks, common notebook and reference materials for strong information.

Jahagirdar (2006) observed that the most commonly used methods to store the technical information by the government extension personnel were making note in the book, memorizing and maintaining subject wise files. In case of private extension personnel commonly used methods are maintaining subject wise files, memorizing and computer floppy.

2.7 Information Transformation:

Akhouri (1973), Sanoria (1974), Shete (1974), Reddy (1976), Pandey (1979) and Bhople (1985) reported that the extension workers as a whole used only one method of information; they transformed the farm information into lecture notes in local language. The sub divisional and block level extension
personnel prepared cyclostyled notes and circular letters. A negligible percentage of field extension personnel reported the use of research recommendations in the form of films, slides, film strips, specimens and models, postures, charts, radio talks, success stories and extension literature.

Akhouri (1973), Shete (1974) and Ambastha (1986) observed that in general, the information processing was in descending order from state level to village level extension personnel. While Pandey (1979) did not report any significant difference between agricultural extension officers and village extension workers with respect to their information processing indices.

Shinde (1990) reported that the most commonly used method for information transformation by all the extension workers was to translate the message into the local language of farmers, followed by preparing lecture notes, preparing visual postures and charts by assistant agricultural officers.

Raju and Reddy (1997) indicated that the extension personnel's major information management needs in processing agricultural information were the edited information should suit to local vernacular language, location specific technologies and access to mass media channels.
Khalil and Venkataramaiah (1998) revealed that for information content transformation, extensional personnel converted measurement units into simplest form and replaced highly technical terminologies, whereas for format transformation, they reported the use of technical reports, folders and lecture notes.

Madasudhanrao (2000) indicated that cent per cent of the Agricultural Assistants in Karnataka were using extension teaching methods like farm and home visits, group meetings, farmer training camps, agricultural exhibitions, campaign and krishimela.

Shashikala (2001) revealed that majority of the Assistant Agricultural Officers - Farm Women had frequently used extension teaching methods were result demonstration, farm and home visit, method demonstration and group meetings.

Zuber (2002) reported that assistant agricultural officers used the methods such as putting ideas on charts, preparing lecture notes and preparing leaflet folders for information transformation, whereas agricultural assistants used
translated and messages in to local language of farmers, preparing charts, leaflet and folders for information transformation.

Jahagirdar (2006) observed that the most commonly used methods for transformation of the information by the government extension personnel were translating the messages in to local languages of the farmers, preparing lecture notes and preparing visuals.

2.8 Information Output:
Pandey (1979) revealed from the study on T & V system that out of the 18 methods used for disseminating farm information, only six of them namely, conducting mini kit trails, organizing field days, making farm visits, farmers call at office, group meetings and organizing agricultural film shows were found to be used by the extension workers. He further observed that the information output of agriculture extension officers was significantly higher than that of village extension workers.

Kusumakara (1981) identified that the different extension personnel in communicating technical information used different aids. The visual aids were mostly used by subject matter specialists, assistant agricultural officers
and followed by assistant directors of agricultures. Assistant agricultural officers more commonly used leaflets and handouts. Leaflets, handouts, success stories, circular letters and cyclostyled materials were commonly used aids by the assistant director of agriculture.

Reddy (1983) studied the communication behavior of extension personnel in T & V system in comparison with Normal Agricultural Extension System (NAES) in Andhra Pradesh concluded that the methods and channels such as film shows, posters, field days, campaign and meetings were used by a large percentage of extension personnel in T&V system as compared to Normal Agricultural Extension System (NAES). He further reported that the extension personnel of T & V system had better communication behavior and differed significantly from the extension personnel of Normal Agricultural Extension System (NAES) about rice production technology.

Reddy and Byrareddy (1984) in their study observed that office calls and farm and home visits were the most used methods for information output by the extension personnel.

Bhople (1985) observed that the agriculture officers and village extension workers from a low to medium extent for the dissemination of farm
information used the group and mass contact methods in T & V system. The use of printed literature to a medium extent and rare use of slides and movie films shows was found in case of agriculture officers, while village extension workers did not organize any slides or movie files shows. He further reported that, the mean information output index of agricultural officers was not found to be significantly different from that of village extension workers.

Patil et al (1987) reported that the village extension workers mostly used the communication methods for transfer of message on improved agricultural technology to the farmers under T & V system like group discussion, providing seed samples and crop specimen, while the use of demonstrations, printed materials and specimen of pest and diseases was on a limited scale.

Gangadharappa (1988) in his study indicated that both researcher and extension personnel have used farm and home visit, group discussion, meetings, farm broadcast and the professional meetings to diffuse the information related to watershed management practices.
Zuber (2002) reported that both assistant agricultural officers and agricultural assistants have used farm and home visits as important methods for information presentation. Farm broadcast and farm telecast were ranked second and third respectively.

Jahagirdar (2006) indicated that the most commonly used methods for information output by government extension personnel were farm and home visits, group meetings, method demonstration and extension publications. In case of private extension personnel the most commonly used methods were method demonstration, farm and home visits, extension publications and result demonstration.

2.9 Research studies related to various characteristics of extension personnel.

2.9.1 Age:
Most of the previous studies did not reveal any consistent relationship between age and communication efficiency and related concept. Yet it was assumed that age might have some influence on communication efficiency in the present context of the study.
Saigaonkar and Patel (1970) reported that, the age of the extension personnel was found to have a relationship with the success of village extension workers, whereas Parshad (1973) did not serve a significant relationship of age with the communication effectiveness of village extension workers.

Gangadharappa (1988) indicated that age of extension personnel negatively correlated with information production behavior of extension personnel.

Murthy and Samasundram (1989) reported a negatively non-significant relationship of age in respect of extension personnel working in T & V system with their role performance, however in contradictory findings were reported by Rajababu and Tampi (1983) stating that the age was found to have positive relationship with the role performance of agricultural demonstrations for junior agricultural officers and subject matter specialists working in T & V system.

Shobhana (1990) indicated that there was no significant relationship between age and communication efficiency of agricultural assistants.
Shinde (1990) indicated that, there was negative significant relationship between age and information input of assistant agricultural officers and agricultural assistants.

Zuber (2002) reported that there was no significant relationship between age and information generation behavior and information dissemination of assistant agricultural officers. But there was significant relationship between age and information generating and behavior of agricultural assistants. Thus, it can be concluded that depending upon the socio cultural settings, the age may or may not have relationship with communication efficiency.

Jahagirdar (2006) revealed that the majority of the government extension personnel respondents belonged to old category followed by middle age and young age. In case of private extension personnel respondents, majority belongs to young and followed by middle and old age.

2.9.2 Education:

Education is expected to have direct or indirect impact on the communication efficiency of extensional personnel.
Reddy and Reddy (1983) pointed out that the educational qualification and communication behavior of extension personnel working in T & V system were found to have significant and positive association between them.

Ambastha (1986) concluded that the education of the extension personnel had a positive and significant relationship with their different aspects of communication behavior, namely information input, output, intra system and inter system communication behavior.

Gangadharappa (1988) indicated that factors like education level and training provided were positively and significantly related with the information production behavior of extension personnel.

Shinde (1990) indicated that there was highly positive significant relationship between education and communication behavior of assistant agricultural officers.

Zuber (2002) reported that there was highly positively significant relationship between education and information generating behavior of assistant agricultural officers and agricultural assistants. But there was no
significant relationship between education and information dissemination behavior of assistant agricultural officers and agricultural assistants.

Jahagirdar (2006) revealed that 51 percent of the government extension personnel respondents were studied up to SSLC (10\textsuperscript{th} class). Only 2 per cent were postgraduates with M. Sc. (Agri) and 4 per cent were B. Sc. (Agri). Whereas in case of private extensional personnel respondents 6 per cent were studied up to SSLC (10\textsuperscript{th} class), 20 per cent were postgraduates with M. Sc. (Agri) and 42 per cent were B. Sc. (Agri) degree.

Hence, it was observed that education is not consistent in determining communication efficiency.

2.9.3 Marital status

Dube et al (1962) observed that no significant relationship between material status and work patterns of Village Level Extension Workers in the state of Uttar Pradesh, Punjab and Rajasthan.

Rahudkar (1963) revealed that marital status is positively related to effectiveness of Village Level Extension Workers in Maharastra.
Parshad (1982) found that there was no relationship between communication effectiveness and martial status of Village Level Extension Workers in Punjab.

2.9.4 Facility:
Facilities are the pre-requisites for successful performance of a job. Many researchers have not explored the relationship of this variable with communication of extension personnel.

Sanoria and Singh (1978) reported that the peer communication facility indices did not establish significant relation with information input index of extension personnel.

Sanoria and Singh (1978) observed that facility exerted maximum indirect effect through output and research extension personnel contact span.

Ganorkar (1979) reported that one-third of the extension workers had to face most striking difficulties in performing the communication acts due to tremendous lack of facilities with them.
Vasu (1998) reported that more than 70 per cent of the respondents had all facilities like brush, sketch pens, chalkboard and drawing board.

2.9.5 Experience on present job:
Sanoria (1974) observed that the experience in the current post possessed by the extension personnel had a positive and significant relationship with their information input and information processing behavior, but they had a non-significant relationship with their information output behavior.

Shete (1974) did not find any significant relationship of experience of extension work with information input, processing and output behavior of extension personnel. Similar findings were reported by Pandy (1979) as far as the information input and processing behavior of extension personnel were concerned. However he observed a negative but significant relationship of experience in current job of extension personnel with their information output behavior.

Bhople (1985) reported that the Agricultural Officers had positive but non-significant relationship between their field extension service experience and information receiving, information processing and information output
behavior of village extension workers were found to have significantly negative relationship with their information receiving behavior, but non-significantly, negative relationship with information processing and distribution behavior.

Madasudhanrao (2000) revealed that majority of the Assistant Agricultural Officers had high experience, while 25 per cent had low and 10 per cent found medium level of experience.

Jahagirdar (2006) revealed that 56 per cent of the government extension personnel belonged to medium experience and only 17 per cent belongs to high experience.

2.9.6 In service training:

Shetty and Murthy (1971) found that in-service training by the village extension workers was positively related to their success. No significant difference was observed due to in-service training in communication effectiveness of village extension workers. (Parshad 1973) and Sangha (1979) observed a significantly positive relationship between in service
training in extension methods competencies of agricultural extension officers.

Shete (1974) reported a significantly positive relationship between in service training received and information input processing and output patterns of extension personnel. Similar findings were also reported by Sanoria (1974) except information output that was found to be non-significantly related.

Ambastha (1986) found that a significantly positive relationship between in-service training received and different aspects of communication patterns of extension personnel, namely information input, output, intra system and inter system communication with researchers. However, Murthy and Samasundaram (1989) reported that in-service training received by the village extension officers had no significant relationship with their role performance in the T & V system.

Shete (1978) pointed out that among several other factors lack of village extension workers also indicated training on subject matter as an important problem, which can come in the way of efficiently communicating the farm information.
Jothi (1982) in a study on impact of pre-service training of agricultural assistants stated that trainers did not have proper knowledge or appreciation for use of teaching aids for lecture class and there was lack of resources.

Rajanna (1983) stated that there were differences in the training need hierarchy of agricultural assistants with respect to subject matter areas of plant protection. They assigned more importance for using maintenance and operation of plant protection appliances, whereas less on such crop production of pulses, ragi and paddy.

Mohan Bosco (2000) revealed that 67 per cent of the Assistant Agricultural Officers had received training more than 6 times duration. While 17, 29, 13 and 12 per cent of them received in service training for 4-6 months, 2-4 months, 1-2 months and less than one month respectively.

Jahagirdar (2006) indicated that majority of the government and private extension personnel respondents belonged to medium training category. Very less percentage belonged to high training category.
2.10 Job satisfaction:

Jaiswal et al (1978) reported that majority of village extension workers who were working for the last 15 to 20 years were not satisfied with the new extension system which made them mono purpose workers.

Perumal and Rai (1978) inferred that there was no relationship between job satisfaction and job performance of agricultural extension officers. Similar findings were also reported by Reddy (1983), Ramachandrareddy (1983) from the study on T & V system.

Ambastha (1986) also observed the positive and significant relationship between job satisfaction of extension personnel and their information input processing, output inter system and intra system communication behavior available to them for performing the role of communication in the T & V system.

Sobhana (1990) in her study on Agricultural Assistants in Kerala reported that 71.11 per cent had medium level of job satisfaction. 16.11 and 12.78 percent low and high levels of job satisfaction followed this respectively.
Shankar Rao and Sudharshan Rao (1998) in their study revealed that 82 per cent of village extension officers in Andra Pradesh had moderate to high level of job satisfaction in their job.

Madusudhan Rao (2000) revealed that majority of the Agricultural Assistants had medium level of job satisfaction followed by high and low levels of job satisfaction.

Mohan Bosco (2000) revealed that 67.07 per cent of the Assistant Agricultural Officers had medium level of job satisfaction, 20.73 percent had low and only 12.9 per cent had high level of job satisfaction.

Jahagirdar (2006) observed that majority of the government extension personnel belongs to the medium job satisfaction category, followed by high and low satisfaction category. Whereas majority of the private extensional personnel belongs to medium job satisfaction category followed by low and high job satisfaction category.
2.11 Job commitment:

Werkmeister (1967) pointed out that individual's own self and his value consideration lead to commitment.

Kanter (1968) viewed commitment as the willingness of members to give energy loyalty to organization.

Mowday et al (1974) pointed out that in any situation, highly committed employees performed better than the less committed.

Sonoria (1977) and Ambasts (1980) observed significant and positive correlation of job commitment with communication efficiency and communication behavior respectively of Agricultural Extension personnel.

Manandhar (1987) observed that positive and significant relationship between job commitment and communication behavior of higher level agricultural extension personnel, but non-significant relationship in case of grass root level workers.
Sobhana (1990) in her study revealed that 76.11 per cent of the agricultural assistants in Kerala had medium level of job commitment, whereas 13.33 per cent and 10.56 per cent had low and high job commitment respectively.

Jahagirdar and Seturao (1996) reported that 45 per cent of the subject matter specialists working under Training and Visit system in Karnataka belonged to low job commitment category. Whereas remaining 55 per cent belonged to high commitment category.

Madasudhanarao (2000) revealed that slight majority (40%) of the Agricultural Assistants in Karnataka had medium level of job commitment followed by 31.66 per cent low and 28.33 per cent high level of job commitment.

2.12 Decision making ability:

Bates (1954) stated that the decision making process involves a decision maker (actor), an environment (situation) in which the decision maker must operate, a set of actions available (means) and set of goals to be accomplished.
Parson (1956) defined decision making as an operative code for the business firm.

Malone and Melone (1958) stated, decision-making is processes by which one choice is selected from among that are available.

Nadapurkar (1980) defined decision-making as the degree to which an individual justifies the selection of most efficient means among the available alternatives on the basis of scientific criterion for achieving maximum economic profit.

Deacon and Firebaugh (1981) stated that the decision-making is a process of evaluation in making choices or resolving alternatives.