This chapter intends to examine the characteristics of the farm entrepreneurs. Bhattacharya studied the following list which suggests the characteristics of farm entrepreneur.

(i) An agricultural entrepreneur should be able to think purposefully in terms of farm activities. This is perhaps, the hardest task most farm entrepreneurs face. Most of the farm people find it easy to do, to act, to perform. Most farm people have difficulty, however, in thinking clearly about farm development. An agricultural entrepreneur must be able to think.

(ii) An agricultural entrepreneur should be able to express himself clearly. The best conceived idea is worthless, unless it can be communicated. An agricultural entrepreneur must communicate to farm labourers effectively.

(iii) An entrepreneur in the farm sector must possess competence in farm operations. This does not mean that he must be a technician. But rather, he should possess the technical competence necessary in his field to enable him to manage the farm effectively.

(iv) Farm entrepreneur should possess the ability to think broadly. He should be able to see the overall, not miss the forest because of the tree. Broad
comprehension is necessary so that he can see the 
effect of each proposed action on the whole of the 
farm activities.

(v) Farm entrepreneur must know the actions and reactions 
of different farm people engaged by him in his farm or 
in the hired farm which he is managing and he should 
have the tact, intelligence, foresight, etc., to 
channelise such actions and reactions for greater 
interest of farm activities in which he is engaged.

(vi) Farm entrepreneurs must take appropriate decisions with 
regard to farm activities from its very first stage 
till the last stage and he should know how to co- 
ordinate various stages of farm operations so that new 
result is encouraging.

(vii) He should know how to get various facilities extended 
by the government, semi-government and other 
departments, institutions and organisations in time and 
in right quantity. This is a quality he must have to 
have for being successful in his farm activities.

(viii) He should also be able to think how his land can be 
used in the best possible way through multiple-cropping 
or double cropping and also to make proper arrangements 
so that he gets maximum prices for his farm products. 
Production and marketing of farm products should be 
well co-ordinated.

(ix) He should be able to maintain daily records of the 
costs including depreciation costs of his farm 
activities and should make all possible efforts to
reduce costs to the minimum and to have maximum return after selling his farm products. There should be a detailed costs and revenue accounts of his farm.

(x) He should be able to think the feasibility of starting an agro-industrial activity to supplement his farm income. He should also see how he can earn more through subsidiary occupations.

(xi) He should work in such a way that he can minimise jealousy, rivalry etc. among his neighbours so that his farm operations are least disturbed.

(xii) He should be tactful enough to avoid political pressure, if any, to influence his farm decisions.

(xiii) He should foresee vested interests to disturb his farm activities beforehand so that he can take appropriate steps at the right time to minimise such influences, if any.

(xiv) He should be dynamic. This is a trait that is characteristic of leaders, and is essentially needed in a changing economy. This trait is a desire to move ahead, to change, to break new trails, to do bigger and better things. It is not an obvious personality trait. It is not a high-pressure personality. In fact, it may not even show on the surface. But it is desirable and usually spells the difference between passive entrepreneur and dynamic entrepreneur.

(xv) He should possess skill in human relations in the farm sector and have insight into human motivation and
behaviour. This enables him to lead, not drive, his farm workers.

2 Joshi, N.C. explained farm entrepreneur as, In the process of farming the farm entrepreneur will require to decide on the best size of his enterprise, the storage facilities needed, and the amount of credit required to implement the production plan. Similarly, the methods for land preparation, planting, weeding, irrigation, fertilization of land, controlling pests and diseases, harvesting, threshing and cleaning of produce need to be decided in advance. Decisions on all these issues are vital as they very much influence the productivity of an individual farm. Nevertheless, a serious obstacle is to be found in the shape of imparting appropriate training to farmers in order to make them capable of taking decisions of various types, so that the farmer of tomorrow may also become a good entrepreneur.

3 Epstein, T.S., identified the following characteristics of entrepreneur farmer,

(1) High education
(2) Contacts with various people
(3) Innovator
(4) Enterprising cultivator, who adopted improved practices in farming.

Mishra, S.P., Sinha, B.P. and Mehta, P. studied socio-economic and psychological characteristics of farm entrepreneurs
which are as follows:

(1) Adoption of wheat technology
(2) Return over total expenditure (Rs.)
(3) Education
(4) Social participation
(5) Material possession
(6) Knowledge
(7) Farm education exposure
(8) Credit behaviour
(9) Percentage of irrigated land
(10) Total land (acres)
(11) Value of implements and draught power (Rs.)
(12) Total asset excluding land (Rs.)
(13) Investment on irrigation (Rs.)
(14) Personal efficacy.
(15) Risk-taking preference
(16) Feedback
(17) Owing responsibility
(18) Psychological modernity
(19) Personal achievement
(20) Social achievement motivation
(21) Influence motivation.

Out of 21 characteristics of farm entrepreneurs three important psychological characteristics are found in their research i.e. achievement motivation, personal efficacy and owing responsibilities.
As far as present study is concerned, farm entrepreneur should have to adopt advanced mechanisation in farming. Their position regarding the level of irrigation should be higher than an ordinary farmers, i.e., use of modern technology like sprinkler-sets to irrigate the crops, which is based on capital-intensity method for irrigation. Farm entrepreneur must have up to date agricultural knowledge, they require high investments as a result of material inputs needed, access to information on marketing and high risk-bearing capacity. They should have high sensitiveness to price fluctuations in deciding which crops to grow. Farm entrepreneurs should be alert themselves as to the fluctuations in prices of his crop, what's more, they are in a position to postpone selling till some months after harvesting and are therefore able to earn the margin to trade and obtain a much better price for their crop. Thus, he should have knowledge of new marketing opportunities of his farm products.

An important part of their activity is to acquire necessary resources for the agricultural production. Material inputs is one of the necessary resources but farm entrepreneur must have agricultural knowledge and be able to collect new technical information. Making contacts and keeping up one's relations within semi-government organisations, banks and co-operatives forms a significant part of their work. In short they are the main beneficiaries of state supported facilities for supplying agricultural information to the farming community.
Without the initiative of Government in providing better and more congenial environment in developing economies, it will not be possible to solve the bottleneck of entrepreneurship. Government has to take a number of steps to facilitate the supply of entrepreneurs, such as the introduction of land reform and legislation to abolish intermediaries and guarantee land to the tiller to promote agricultural entrepreneurship, provision of industrial and agricultural finance, establishment of educational and training facilities, promotion of foreign business collaboration, provision of technical services, about market price, taxation measures and loans, and provision of security against entrepreneurial risks. Unless the state in underdeveloped countries initiates steps and plays a crucial role in inducing the growth of entrepreneurship, economic system may not be in a position to get the necessary developmental stimulus for rapid growth of national income and per capita income in both sectors.

From the above discussion it appears that the farmer's entrepreneurship can be measured in the light of following characteristics. The important study made by Nandapurkar has rightly recognised the importance of these characteristics in his study.

(1) Innovativeness
(2) Farm decision making
(3) Knowledge of farming enterprise

The detailed discussion of these characteristics are as follows:-

1. **Innovativeness**

   Innovativeness as an index of Farm entrepreneurs is normally identified by following characteristics:
   
   (a) education,
   
   (b) contacts with various people,
   
   (c) innovation in their approach, and
   
   (d) enterprise in adopting improved practices in farming.

   Singh observed that high scores on attitude toward farming, preference for activity, pride in work, upward striving, cautious decision-making were associated with progressive farm behaviour, low scores on these variables were associated with static or declining farm success.

   According to Schumpeter, the entrepreneurial function is one of innovation. His innovation represents the first dynamic concept of the entrepreneurial function, and thus, he is the first one to put the human agent at the centre of the process of economic development. Schumpeter viewed interest and profit
coming from progressive change and would not exist in a static society. Change, to him, in turn, was the work of innovating businessman and entrepreneurs. In the Schumpeterian view, innovation was the criterion of entrepreneurship.... "the defining characteristic is simply the doing of new things or doing of things that are already being done in a new way (innovation)."

Hildebrand and Partenheimer have recently discussed the social and economic characteristics of farm innovators. They emphasize the importance of this direction of research by arguing that the diffusion of new technology can be speeded up if initial educational efforts are beamed at innovators.

First, innovators are usually regarded (by rural sociologists, county agents and farmers) as only the first 2 or 3 per cent of the population to adopt new practices. If innovators are defined as the first 2.5 per cent of the population to adopt new practices, an adoption of farm practices scale may be used to select innovators. Greater Credit (a higher score) would be awarded for (1) adopting more practices, and (2) adopting these practices at a relatively earlier time. The 2.5 per cent with the highest adoption scores are the innovators. Factors analysis of adoption-of-farm-practices scale provide some tentative evidence that innovators are rather consistently the first to adopt new practices but that there is also some "cluster effect" on the basis of farm enterprise. Thus, a swine innovator would likely to be a relatively early adopter of crop practices but might not be the first.
The decision to adopt usually take time. People normally do not adopt a new practice or idea as soon as they hear about it. They may wait several years before trying the idea for the first time, and longer still before permanently adopting it. To be sure, some decisions are made quickly but many others require extended thought and deliberation. The final decision to use a new practice is usually the result of a series of influences operating through time.

For many practices, people appear to go through a series of distinguishable stages: i.e. Awareness, Interest, Evaluation, Trial, and Adoption. These five stages are not necessary a rigid pattern which people follow, nor a set of exclusive and discrete categories with no overlap. Rather, they represent five sequences that can be clearly identified very frequently by both researchers and farmers.

In farm practice, the innovator is an active seeker of new ideas while the influential in a conservative community is much more likely to require considerable convincing.

In short, the process of innovativeness and action lead to a creation of wealth in the society.

2 Farm Decision Making:

The role of the farmer is more of a decision-maker. He has to take decision regarding all these at the right time, failure of which obviously results in decline in income or even loss. In view of such an importance, the farmer cannot take various decisions relating to farming in a leisurely fashion of
the farm. Swift action and timely decision-making warrant a farmer continuous touch with the farm. Unlike industrial production which is carried out under controlled conditions, agricultural activities are subject to the influence of a host of factors such as temperature, rainfall, the incidence of pests and insecticides etc., which are beyond the control of the farmers. Because of this, from the moment of sowing-operation to harvesting, farmer must be regularly in touch with the farm. Even a slightest laxity on his part may cost much particularly in the case of high yielding varieties of crops which require constant care and supervision. They require meticulous attention of the farmer because the need for the application of manure, water, etc., vary from one stage to another during the growth of plants.

Farm decision making is the most important components for farm entrepreneurial behaviour of farmers. The process of decision making depends on many other variables such as age, caste, education, family size and farm size etc. Decision making plays a very significant role in farming and the use of agricultural inputs such as quality of seeds, fertilizers, pesticides, impliments, irrigation, technology and so on. Process of farming activities depends on good decision, like timely sowing of crops, inter-cropping system, economising fertilizer use, are very important factors to achieve better yield. Every farmer has to take two important decisions, the first relates to the crop combination selected by him for cultivation and second to the time of scale of the saleable part
of his harvest. Profit maximisation would, in the first case, make the farmer cultivate only such crops as, subject to probabilities, promise to yield the maximum profit in production. In the second case, the guiding principle would make him sell all his marketable surplus of a crop at the maximum price fetched by the crop. In actual fact farmers cultivate a whole range of crops obviously not all profit maximising and they sell their crops in several instalments, spread over the time between two successive harvests.

Standard economic theory treats the economic man as a maximising agent. As far as a producer or seller is concerned the universal assumption is that he is a maximiser of short-run profit and this is common to neo-classical and Marxian economics. Yet any close look at the decisions taken by farmers in India suggests that they are guided by considerations other than maximisation of short-run profit.

Profit plays a central role in decision making and because of this, profit must not have multiple meaning. Profit, as a matter of fact, is the widely accepted and genuine rod of measuring the efficiency of the farm entrepreneurs. Farmers without profit are doomed to a vicious circle of recurring low income, inefficiency and poor standard of living. Profits are both the cause and the effect of economic progress. In the interest of the society as a whole as well as of the individual farmers, it is necessary that farming as a productive enterprise should be a paying business; otherwise, the vast agricultural sector of our economy will for ever be limping and our economy in general and agriculture in particular will remain backward.
Economic progress and profitableness of course depend on many things, as for example, the climate, the quality of the soil, the price level, etc. However, important the collaboration between the natural and economic resources of agriculture is, to successful activity they only constitute the instruments of production. It is the personal contribution of the farm-entrepreneur which is eventuay decisive. How often has it not been seen that where one entrepreneur has been stumped by his task another has come off with flying colours.

The decision-making of an individual at a point in time is the product of a complex interplay of both situational and personality factors. The personality variables into a multivariate analysis along with other situational variables in order to isolate the most meaningful configuration of factors, personality-wise as well as situational, that influence the individual farmer's adoption of agricultural innovations.

The adoption of agricultural innovations process is one type of decision-making. The adoption of an innovation requires a decision by an individual. He must begin using a new idea and, in most cases, decide to cease using an idea that the innovation replaces. The adoption process is actually more complex than this statement implies; several inter-related decisions must be made during the adoption process.

Decision-making is the process by which an evaluation of the meaning and consequences of alternative lines of conduct is made. Johnson and Haver (1953) listed the following steps in
decision-making:

(1) Observing the problem
(2) making an analysis of it
(3) deciding the available courses of action
(4) taking one course and
(5) accepting the consequences of the decision.

Decision-making is thus a process that may be divided into a sequence of stages with a different type of activity occurring during each stage. Likewise, the way in which an individual adopts an innovation is viewed by most researchers as a process.

Most of human behaviour studied by social scientists involves different type of decisions. Examples are consumer preferences, occupational choices, industrial and farm management, migration patterns and voting behaviour. The types of decision-making investigated in these studies have generally involved the choice of one course of action from an existing list of alternatives. In the case of the adoption of an innovation, however, the individual is selecting a new alternative over those previously existent.

In short, the adoption process is one type of decision-making. It is a special type of decisons-making, however, with some attributes not found in other kinds of situations.

Decision-making is the degree to which an individual justifies his selection of most efficient means from among the available alternatives on the basis of scientific criteria for achieving maximum economic profit. Singh (1978) has measured
this variable by asking 12 multiple choice items relating generally to the management of farm operations and resources. In the present study this method was used with slight modification. Ten out of twelve items relevant to this study were used to measure the decision-making of the respondents.

(3) Knowledge of farming enterprise:

Modern farming is dynamic and requires men and women with scientific knowledge, skill and ambition. Knowledge of farm technology, chemistry, pathology, entomology, genetics, nutrition and economics is necessary to successful farming. Thus, knowledge is precondition to adopt any innovation. Knowledge can be defined as, "those behaviours and test situation which emphasised the remembering either by recognition or recall of ideas and material on some phenomena." Farmers are key men in the nation's economy and self-employment is a privilege few others enjoy. Farm entrepreneurs always increase their efficiency in farming enterprise. So fewer and fewer job opportunities will be available on the farm. The term 'enterprise' refers to a line of production necessitating individual and distinct production treatment.

Farming is a big and expanding enterprise, requiring continuously increasing amounts of capital, labour, technology and human skill. However, as the efficiency of scientific farming increases, farm entrepreneurs and workers on farm are required. The farm entrepreneur is faced with the question of how to allocate his limited resources, such as, land labour, capital, equipment, etc., among the several available
alternatives so as to maximise his return per unit of available resources. Efficiency and continuous profit are the main goal of modern farming enterprise. To be an efficient farming unit as also to earn maximum continuous profit, knowledge of the farming enterprise must be very high.

Knowledge about agricultural innovations depends on education, social status, better-infra-structure such as communication and different types of institutions etc. Education and social status are the two important social factors which affects adoption of agricultural innovations. It was found that the adoption of innovations increased with the increase in the educational level of the farmers. Ordinary farmers cannot afford higher education for themselves as well as for their children due to poor means. So that they are left behind the educated farmers who develop more contacts with the extension agencies and get knowledge about innovations. Those farmers who are associated with better infra-structure viz. communication, rural institutions or organisation and co-operative institutions they always try to adopt high yielding variety of seeds, use of chemical fertilisers, pesticides, new agricultural machineries. The members of such organisations are well aware of improved technology to be applied in farming. Diffusion of innovation in underdeveloped countries are not so favourable for the ready diffusion of new technology. Lack of communication and transport facilities constitute a special problem in agriculture as compared with urban life for the spread of innovation. In underdeveloped countries where people are illiterate and ignorant,
demonstration techniques hold more promise than the written or spoken word and this is more true of agricultural sector.

Explosion of knowledge in the sphere of science and technology is taking place at a faster rate than ever before. The adoption of all these practices invariably helps the agricultural output to go up. Such an adoption depends upon the quick and positive farmers often act as torch-bearers in diffusing the knowledge pertaining to the modern scientific agriculture.

Empirical knowledge derived from farm activities reveals that strong motivation towards economic goals, good training and experience and adequate fund of knowledge expressed in appropriate practices are definitely associated with a high degree of financial success.

(4) Information Seeking

The decision to adopt usually take time. Farmers normally do not adopt a new practice or idea as soon as they hear about it. Before they adopt any new practice or idea they collect information about new ideas to be sure whether the adoption is profitable or not. Normally farmers collect their information pertaining to agricultural practices and innovations through mass media and the institutional sources.

The present study uses mass media like Newspaper, radio, T.V., Cinema film show, Leaflets and Magazine, whereas the institutional sources deals with Panchayat, Training programme from Government body, Demonstration, Lecture method etc. Local
contact is also one of the important sources for collection of information. Like neighbours, friends, relatives and local progressive farmers. These media and institutions play vital role for the final decision to use a new practice in agricultural activities.

Government is envincing keen interest in propogating new and progressive methods of farming. Apart from arranging demonstration plots, the officers concerned with the farmers are in touch with the farmers from time to time. They constantly encourage the farmers to adopt and to try out new seeds and practices. Besides through All India Radio by broadcasting and Doordarshan by telecasting the farmers' programmes at prescribed times everyday, Government is playing a vital role in enlightening the farermers. Interviews with the progressive farmers and experts in the field of agricultural science are broadcast and telecast regularly in which plant care, nutrition, animal husbandry and the various modern techniques are analysed to the farmers. By listening to such programmes over radio and television the farmers can kept abreast with the latest farm management techniques. Thus radio and television are the most frequent sources of information about new ideas and practices.

Neighbours, friends, relatives and local progressive farmers are a great social assets for innovative farmers, because they normally exchange their views with these social assets and get the conclusion whether the new ideas are in favour of them or not. Good neighbours also play a vital role in informing the farmers. Usually, farming is not a highly individualistic proposition. The farmers often need the help of his neighbour
and, to their mutual advantage, certain operations can be performed in time with the exchange of labour or resources. Besides such economic advantages good neighbours are a great social asset.

Local progressive farmers, who have adopted any new practice or any new crop for the first time in the village can also guide the others in their community. In short, interpersonal contact with other farmers, particularly influentials, should prove beneficial. Skillful use of group discussion techniques should facilitate contacts among potential and successful adoptors, influentials and key communicators. At the trial stage, any means of providing "how to" information will be worth the educator's attention. Dealers, product labels and other commercial sources can be relied upon to supply information about commercial products.

Some farmers will accept advice from an influential friend when he would not accept it from government agencies or industry. Some of them are much more sought for advice than others; Educators can usually accomplish more by working with these farmers than with those less sought and correspondingly less influential. In communities where a premium is placed on quick, successful adoption of new practices, the key communicators and influentials are likely to be much more receptive to new ideas, more prone to change, and more inclined to use direct information sources. They are likely to have higher incomes, higher prestige and be better educated. It is possible to develop messages specifically for these people.
without knowing who they are as individuals; for example, mass media messages can be constructed for a higher intellectual level if they are to be directed at influentials rather than the more nearly average farmer.

Our knowledge of the human mind is still limited and we proceed on a trial and error basis in order to eliminate factors which are irrelevant and keep those which stand our test of verification. Tried and tested ways of farming is it likely that the person sought for advice will not be the innovator who is first to try out new ideas. The innovator is an active seeker of new ideas and practices. Innovators are mentally alert, and actively seek new ideas about farming. They often go directly to research institute or demonstration plot for information. Innovators know what their neighbours are doing, but are not greatly impressed by what they think or what they do. They have many formal and informal contacts outside the immediate locality. They seek advice from other farmers, but primarily from those who are progressive thinkers like themselves.

Thus, information seeking through mass-media and the institutional sources plays a significant role in agricultural development and adoption of new farm practice. It can change the level of farm entrepreneurs. Those farmers who have mostly accepted the mass-media communication for their information about agricultural activities, their rate of adoptability of agricultural innovation is higher than others. The farm entrepreneurs' involvement and participation in the formal or informal organisations like Panchayati Raj institutions, cooperative societies, educational institutions and political
parties is fairly good. They have wider exposure through these organizations. Thus knowing the level of managerial ability of farmer would be useful in a number of ways. It would be helpful to the individual farmer himself as an indicator of probable success with various types of farming activities.

Unless farmers' usual habit changes considerably, mass media can be relied on as quick and efficient means of notifying farmers of new developments. This is particularly true of local newspapers and magazines. Success stories and stories featuring pertinent details about the new practice will create interest and move farmers toward favourable decisions.

(5) Risk Taking Ability

A situation where the decision-maker knows all the possible outcomes of the action and estimates probability value in advance is known as risk. The parameter of probability distribution can be established for outcomes which involves risk. In other words the mean, mode, skewness, kurtosis and variance can be established with an empirical probability for risk involving distribution. Risk is present when the model and mean yield can be predicted over a period of years, along with the variance from the mean and number of years in which the yield will fall in each yield interval.

Significance of Risk

A farm business to be efficient requires perfect or nearly perfect decision making at the farm level. For this
purpose farmer needs different types of information in relation to a number of factors particularly of variability of nature, prices of inputs, overall cost of production, prices of crop output, marketing channels etc. In this context, a farmer is mostly confronted with a situation of an imperfect knowledge. Besides, in the informations thus sought the degree of variability varies the estimation of which is the principal task for them.

Nature of Risk:

Indeed, no growth in agriculture can take place without farmers taking risks. Agricultural processes are typically influenced by several stochastic variables due to imperfect knowledge of future events. Besides, the major problem of farm sector, particularly in India, is not only of unfavourable prices of farm output but also of weather variability placing serious threat against farmers.

Risk in Agriculture and Non-agriculture:

The prevalence of risk is experienced in all the sectors of the economy. However, their types, nature, degree, effects etc., differ from sector to sector. Viewed thus, in respect of risk there prevails a vast difference between agricultural and non-agricultural sectors, the two major sectors of an economy. The physical variability plays more important role in agriculture than non-agricultural production, particularly, in the areas of unstable weather. It is hardly questioned, however, that technical uncertainty is larger in primary sector as compared to
that in industrial sector. The crop variability is not attributed to regional variations alone, but it exists among the different crops even for a same location. Agricultural production is subject to all climatic and biological vagaries. Consequently the resource combination and production functions are executed with relatively lesser control by the farm entrepreneur in agriculture. In non-agricultural sector on the other hand, due to the very low impact of these factors the resource combination and production functions are executed with almost perfect control by the business executives.

In respect of price determination although price mechanism operates in both the sectors, in agriculture farmers have no voice by way of control, while in non-agricultural sector firms can effectively intervene the mechanism of product price determination. Besides, the trained, skilled and professional entrepreneurs in non-agricultural sector better guess the changes in the market demand and supply. Such a guess work is mostly impossible in agriculture.

The sharing of risk between partners, firms or in share market is possible in the non-agriculture sector. Such a sharing in agriculture is not possible except some opportunities for ensuring certain types of risks and partnership agreements.

The farmer’s perspective of risk revolves around variability in income that lies below the normal prospects. The variation may be traced to three sources, namely, market force, state policies and weather conditions. Weather and more particularly, its chief element, rainfall, would influence the risk-taking function of farmers to a very large extent in
drought-prone or dryland cultivation areas. But as far as a modern farmer in other areas is concerned the prospects of market conditions and state policies are a greater source of risk to him.

Risk involves natural phenomena and is largely the outcome of destruction caused by nature. Risk therefore, implies a phenomenal loss or failure. Risk we usually can't foresee.

Risk taking ability is the degree to which the farmers are oriented towards risk and uncertainty and has a courage to face the problem in farming. Farming is a risky activities. Some farmers take more risk, some take moderate risk and few hesitate to take risk.

(6) Ability to co-ordinate farm activities

In the operation of farming activities, each farmer plays two roles. He is at the same time a cultivator and a manager. The first role of each farmer is to take care of plants and animals which includes the preparation of a seed bed, the sowing of the crop, the elimination of weeds, the management of soil moisture, and measures for the control of pests and diseases. To these certain other activities are added step by step as farmers progress towards modern farming. They include application of insecticides and pesticides, etc. The other role of farmer's decision as a manager include choosing between different crops, choosing what livestock are to be kept on the farm, deciding how to distribute available labour time among different tasks etc. As agriculture progresses, the farmer must develop more skills in buying and selling. Decisions must be
made relating to the purchase of seeds, fertilizers, insecticides and new implements. He must also decide how much of each crop is to be kept for home consumption and how much is to be sold. He must decide when and to whom and on what terms the produce is to be sold.

The managerial tasks of farmers become more complex because of the variations in the soils and climatic conditions from place to place. If the soils in a region are similar in all respects, then it would be possible to develop standard "recipes" for the most productive use of each farm and each farmer could be supplied with standardised information from some expert as to what he should do and how and when he should do it. But in real world since many variations exist from farm to farm most of the managerial decisions about the operation of each farm must be made by the farmers of that farm.

Farmers must have to co-ordinate the farming activities, such as to purchase of HYV seeds, fertilisers, insecticides, new agricultural implements, irrigational facilities and the enormous resources available from government for agricultural investments have opened up a great and growing area of economic opportunities in the economic development. This has actually led a section of farmers who have come forward with new ideas to avail these opportunities to modernise the traditional agriculture.

(7) Assistance of Management Service:

Profit, as a matter of fact, is the widely accepted and genuine rod of measuring the efficiency of the management.
Farmers without profit are doomed to a vicious circle of recurring low income, inefficiency and poor standard of living. Profits are both the cause and the effect of economic progress. In the interest of the society as a whole, as well as of the individual farmers, it is necessary that farming as a productive enterprise should be a 'paying' business; otherwise, the vast agricultural sector of our economy will for ever be limping and our economy in general and agriculture in particular will remain backward.

Assistance of management service is required in agriculture sector, because farmer like any other entrepreneur is faced with the question of how to allocate his limited resources such as land, labour, capital, equipment, cash etc., among the several available alternatives so as to maximise his return per unit of available resources.

One of the characteristic features of Indian agriculture is that the farms are highly fragmented and scattered. The entire landholding of the farmer may not be a single plot and is mostly scattered in difference places in a village. Moreover, different crops are grown on such farms depending upon the fertility of the soil, availability of water and convenience of the farmer. Accordingly the timings of sowing, various farm operations such as manuring, weeding, inter-culture and harvesting of different crops vary from one to other. The farmer as a single individual may cope up with the work and is often hard pressed for assistance. Though several farm activities are performed by agricultural labour, the need for supervision
necessitates the assistance of other family members particularly at the peak times of sowing and harvesting. In most of the agricultural families in India, farm work is usually so divided among the male members of the family that each of them looks after different farms located at different places.

(8) Leadership Ability:

Leadership may be broadly defined as the relation between an individual and a group built around some common interest and behaving in a manner directed and determined by him. Leadership in real sense exists only when the relationship between the leader and group implies a group-following, where a group follows an individual from free choice and upon rational grounds rather than by blind drives or under command or coercion.

Further the concept of leadership can be defined as a "symbolic" and "creative" leadership. The symbolic leadership is exemplified by a charismatic personality who serves as a model for others in the society. "Creative leadership emerges when personality becomes the purposive force for a value or complex of value or in certain circumstances for a systematic programme, relying about himself a group of men which on a small or vast scale creates a stronger pressure than could emanate from any individual. The creative leadership is concerned with an attempt "to enrich or alter the existing stock of values in the possession of a society by gaining acceptance for an innovation freshly created by the leader or, if the innovation has been borrowed from another culture, by diffusing it in the new area."
The crux of this type of leadership lies in the creativeness which is more prone to change and innovation. Leadership, thus, as a function of the group, aims at maintaining the integration and continuity of the group structure which is conditioned by the structural changes in it and the changing situations in which the group is placed or operates.

Leadership ability is the degree to which an individual initiates or motivates the action of the other fellows. Leadership is a function of community social structure in terms of its controlling and influencing the social, economic and political processes in the society. This crucial position of the leadership makes it imperative to explain meaningfully the behaviour of the leaders and its important determinants. Leadership is basically concerned with an inquiry into cultural orientation and structural determinants of power processes in the economy.

(9) Cosmopolitaness;

Lack of competition among buyers and the consequent low price for the produce also severely hit the farmers. Those were the days characterised by heavy exploitation by traders and middlemen. Agricultural Prices Commission (APC) was not set up. Most of farmers had inadequate storage facilities, and they required immediate money for their farm product, because they had to pay their borrowers. Farmers had no other option except to fall a pray to the manipulation of the middlemen and local traders.
Inadequate marketing facilities and lack of market information are some other hurdles with which farmers had to reckon with. Before commissioning Agricultural Price Commission in our country there were no regulated markets. Traders and middlemen not only manipulated the price but deceived the farmers in the weights of produce by using very crude methods. They used to block the market information also, thus, keeping the farmers in the dark as to the actual market conditions.

On the whole, it may be summed up that, though the farmers strained hard to produce more and more despite the several farming problems, their enthusiasm to a larger extent was dampened by the various problems associated with marketing the produce. However, as years passed on significant improvements took place. The setting up of Agricultural Prices Commission, the fixation of floor prices, establishment of regulated markets, development of a network of transport and communication facilities and the emergence of competition all ushered in a new era. On the part of the farmers also the ability to store the produce has increased. They now keep abreast with the market trends. Above all, of late, they began to realise the need for organising themselves. A sort of agitative spirit for higher prices has dawned on the farming community. For this types of achievements farmers must have cosmopolitanness attitude.

In farming activities farmers have to move to some other places in order to get information, or inputs etc., present study
tries to analyse cosmopoliteness of the farmers by way of asking few questions relating to the above characteristic.

An importance of this character is to measure entrepreneurial ability of the farmers and his eagerness for obtaining new ideas for their activities. In the context of farm entrepreneurs in our country, work talent is also necessary, what and when to do certain agricultural operations, where to sell grains to earn more, how to utilise available benefits from the government, which crops should follow each other, which crops should be grown together, where to get inputs and so on. Membership of co-operative society, institutions, and other government agencies also played very important role for the development of farmers activities. Thus in the operation of his farm, each farmer plays two roles. He is at the same time a cultivator and a manager.

(10) Achievement Motivation:

Achievement Motivation, also referred to as the need for achievement, is an important determinant of aspiration, effort and persistence when an individual expects that his performance will be evaluated in relation to some standard of excellence, such behaviour is called achievement oriented.

Motivation to achieve is instigated when an individual knows that he is responsible for the outcome of some venture, when he anticipates explicit knowledge of results that will define his success or failure and when there is some degree of
risk i.e., some uncertainty about the outcome of his effort. The goal of achievement-oriented activity is to succeed, to perform well in relation to a standard of excellence or in comparison with others who are competitors.

It is related to traditional sociological interest in the determinants of mobility and through McClelland's (1961) study of its relationship to entrepreneurial activity, it has become a matter of considerable interest to economists, historians and others concerned with economic development.

Individuals differ in their strength of motive to achieve, and various activities differ in the challenge they pose and the opportunity they offer for expression of this motive. Thus both personality and environmental factors must be considered in accounting for the strength of motivation to achieve in a particular person facing a particular challenge in a particular situation. The very same person may be more strongly motivated at one time than at another time, even though in most situations he may generally tend to be more interested in achieving than other people.

Achievement motivation has been defined as the desire to excel regardless of social rewards. It has been suggested that this motivation is the mainspring of western civilization and its economic prosperity.

The achievement motivation should lead individuals to seek out situations which provide moderate challenge to their
skills, to perform better in such situations, and to have greater confidence in the likelihood of their success. It should make them conservative where things are completely beyond their control, as in games of chance and happier where they have some opportunity of influencing the outcome of a series of events by their own action and of knowing concretely what those actions have accomplished. Contrary to the expectations of extreme economic individuals, the achievement motive should not lead them to perform better when they are working for themselves than when they are working for a group. And it should encourage them to value money not for itself but as a measure of success. The parallel between the behaviour evoked by high achievement motivation and that required for the entrepreneurial role is so close that one can understand much better how a high achievement level in a society can produce more rapid economic development. The high achievement motivation might be regarded as a sign that there are more men in key positions in the society behaving in all the ways that define successful entrepreneurial behaviour.

The purpose of achievement testing is to measure some aspect to the intellectual competence of human beings; what a person has to do. Teachers use achievement tests to measure the attainment of their students. Employers use achievement tests to measure the competence of prospective employees. Professional associations use achievement tests to exclude unqualified applicants from the practice of the profession. In any circumstances where it is necessary or useful to distinguish
persons of higher from those of lower competence or attainments, achievement testing is likely to occur.

According to McClelland, "most people in this world, psychologically, can be divided into two broad groups. There is the minority which is challenged by opportunity and willing to work hard to achieve something and the majority which really does not care all that much." Thus, within any society only a limited number of individuals have entrepreneurial attributes in sufficient degree to be potential entrepreneurs. Further, to quote Schumpeter, their special characteristics are an intuitional capacity to see things in a way which afterwards proves correct, energy of will and mind to overcome fixed habits of thought, and the capacity to withstand social opposition. Such characteristic features in individuals are attributed by McClelland to the need for achievement a desire to do well, not so much for the sake of social recognition, but for the sake of an inner feeling of personal accomplishment.

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REFERENCES


10. The 2.5 per cent figure is fairly arbitrary but might bejustified on the basis that it includes the earliest adopters to the left of two standard deviations from the mean adoption score (When adoption scores are plotted on a normal frequency basis.)

11. For example, see Frederick, C. Fliegel., "A multiple correlation Analysis of factors Associated with adoption of farm practices," Rural Sociology, June,1956, pp. 284-292.


20. Bealer and Fliegel (1961) argued that studies (1) of rural youth migration decisions and (2) of farmer's adoption decisions are essentially similar in a sociological sense. "... educational and occupational alternatives, although we do not normally label them as innovations, are new to a young person in a choice situation(s) in much the same sense as are items of technological diffusion."


32. The concept of 'risk' has been explained in different ways by the authors in that line. For detailed discussions of the concept, please see, George, P.T., D. Namasivayam and G. Ramachandraiah, "The role of subsidy in risk-taking by farmers - A study in Tamil Nadu", NIRD, Hyderabad, 1985 (unpublished Report).


37. Schmidt Richard., Ibid.

38. Following the Jha Committee recommendations on pricing policy of agricultural commodities, Agricultural Prices Commission (APC) was set up in 1965 to advise the Government from time to time on appropriate price policies for agricultural commodities with a view to evolving a balanced and integrated price structure in the perspective of overall needs of the economy and with due regard to the interest of the producers and consumers.


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