CHAPTER : 2
SURVEY OF ALLIED RESEARCHES
2.1.1 BRIEF HISTORY OF FISH FARMING AND ITS DEVELOPMENT IN INDIAN CONTEXT

Aristotle (384-327 B.C.) was said to be the founder of ichthyology. Hora (1956) gave the evidence of fish farming in ancient India. He reported that the knowledge of fish farming could be traced back to three millennium B.C. The record of common sport fishes was reported at the time of Vikramaditya - VI. Subsequently, his son, king Somesvara, was credited to be the first who made the classification of sport fishes into marine and fresh water reverine forms (Jhingran, 1985). However, in India, no comprehensive effort either in terms of research and/or development of this field had been noticed in pre-independence era. Chopra (1956) pinpointed the year 1944 as the landmark in the history of Indian fish farming when Government of India had exhibited considerable interest in the planned development of this field. Inadequate supply of good quality fish to the Allied Army personnel during the second World War promoted the Government of India to get directly involved in research, development and conservation of fishery resources of the country. Accordingly, some research schemes in fisheries were initiated under the Indian Council of Agricultural Research (I.C.A.R.) and they were followed up in the successive Five Year Plans after independence (Swaminathan, 1982).

A number of scholars depicted the significance of various five year plans in the context of the development of inland fish farming (Chavan, 1984; Ranchan, 1984; Patel & Khankhoje, 1985; Kalwar & Dandekar, 1988; Jhingran, 1990). In a bid to elaborate the Government's effort towards the growth and expansion of fish farming, Dev (1986) mentioned the presence of a few measures
at the onset of five-year planning in the form of individual and institutional assistance in terms of money, materials, equipments and some other infrastructural facilities.

Patel and Khankhoje (1985), in their study had mentioned some remarkable technological advancements in aquaculture operations like formulation of fish seed capsulation process of food, development of mechanical feed dispensing devices, control of diseases, genetic upgrading, hybridisation etc. They opined that the technology of raising table-size fish developed in recent years, made a significant break through, indicating technological contribution to the growth and development of this sector.

Kalawar and Dandekar (1988) observed the emphasis laid on the development of fish farming which, according to them, was actuated by the substantive rise in the total plan outlays in the various plan period, the corresponding increase in fish production and the concomitant enhancement of the export turnovers. Comprehensively, there was an overall rise of 525% in the plan outlays pertaining to fisheries from fourth plan to seventh plan. Corresponding to this, there was a rise of 283% in fish production from 1950 to 1986. Similar projection had been envisaged in fish export where export earnings had increased 161 times within this period.

In the process, they had mentioned that development in the fisheries sector was also directed towards the setting up of several organisations and institutions like, EMFRI, CIFE, CIFNET, MPEDA etc. by Government for the promotion of research and development, exploration of resources and creation of infrastructural facilities.
In the process, Jhingran (1990) made a critical review of fish production in the country from 1950 to 1988 and reported that the country witnessed 491% increase in fish production during this period. He also mentioned that the overall growth rate in India's fish production was almost the same with that of global scenario. He also showed that a quantum jump in inland fish production occurred during the sixth and seventh plan period which accounted for an overall growth rate of more than 5% p.a. against a world-wide declining trend.

Jhingran, however, had mentioned the fact of imbalance in the demand and supply of fish. A number of academic discourses had attempted to identify the factors responsible for this imbalance (Singh & Sampath, 1983; Ranchan, 1984; Jhingran, 1990). According to them, poor utilisation of water areas, insufficient credit facilities, lack of marketing facilities, absence of suitable tenancy regulation, inadequate infrastructural support etc. were some of the many which used to slow down the rate of progress.

Sugunan and Bhaumik (1990) had admitted the requirement of much investment in the fisheries sector for the introduction of improved scientific fish farming practices and pointed out that many of the financial institutions were reluctant to deploy money in this sector owing to lack of formulation of yardsticks for investment appraisal, risk evaluation and credit worthiness of the fish farmers. In this context, they had mentioned the sole effort of C.I.C.F.R.I. to train the bank officers to liquidate these problems. However, the role of NABARD in circulating the money to this sector had been applauded (Kalwar and Dandekar, 1985).
In a critical review of fish seed production, Jhingran (1990) concluded that shortage of qualitative fish seed had retarded the growth of inland fish farming during the early phases of the planning periods. Simultaneously, he had noticed the propensity of technological applications in various areas like use of H.C.G. and synthetic analogues of L.H.R.H. for induced maturation and spawning and further expressed satisfaction about the trend of utilising the existing technologies.
2.1.2. **EMPHASIS LAID ON FISH FARMING IN FIVE-YEAR PLANS**

The emphasis of the government laid for the development of fish farming through the successive Five-Year Plans is manifested from its basic approaches and is reflected through the financial outlays allocated for the fisheries sector and the provision made for infrastructures required for Research and Development during the Plan periods.

Dev (1986), in an analysis, reported that though some measures for development of fisheries resources were initiated before the planning period, organised efforts for the total development of fisheries sector were undertaken with the beginning of the planning. He mentioned that some important measures like improvement in the existing methods of fishing, introduction of scientific fish farming methods, introduction of improved form of storage, transport and marketing, provision of training etc. were initiated during the first plan.

The review of the second five year plan also revealed that a large area of water so far lying unutilized was brought under fish culture during the First Five Year Plan (2nd Five year plan, Planning Commission, 1956).

Some important developmental programmes initiated during the second Five Year Plan were establishment of Central Institute of Fisheries Technology for improving the design craft and fishing gear and setting up the fisheries extension units at some selected cities (Singh and Sampath, 1984).

From the Third Plan onwards marine fisheries sector got much importance for the purpose of promoting export. During
this plan, programmes for inland fisheries undertaken earlier were further expanded (Dev, 1986). The expenditure in this sector during this plan period also registered an impressive increase of 740.64% over the first plan period (Jhingran, 1990).

In the Fourth Plan, attention had been given specifically for the development of marine fisheries. Some important measures were undertaken during this plan period to meet the requirements of trawlers, infrastructure, storage and distribution (Dev, 1984).

The fifth plan envisaged a considerable increase in fish production and this plan was specifically earmarked for the setting up of fifty Fish Farmers' Development Agencies (FFDA) to promote intensive aquaculture through fish farmers in selected districts, to provide self-employment to the rural population with necessary financial, technical and extension support and to increase fish production in ponds and tanks by composite fish culture practices (6th Five Year Plan, 1980-85). However, the study conducted by Gupta (1984) exhibited the fact of non-satisfactory performances by the FFDA excepting a few.

In the sixth plan, emphasis was given to the evolution and promotion of relevant technology of production, processing and marketing both in inland and marine fisheries in order to ensure availability of fish for local consumption at reasonable rates and to promote export of prawn and high priced marine products (6th Five Year Plan, 1980-85). In a study, Chavan (1984) also mentioned the importance of the Sixth Plan as it emphasised the research efforts to maximise production. He also pointed out that during this plan, Fish Farmers' Development Agencies programme
was expanded to cover more districts under intensive aquaculture through fishermen. The review of this plan also envisaged that the socio-economic condition of the fishermen was largely considered, group accident insurance scheme for fishermen was introduced and a National Welfare Fund was created for the benefit of fishermen in the country (6th Five Year Plan, 1980-85).

The seventh plan emphasised the introduction of high yielding fish farming techniques in tanks and ponds through Fish Farmers' Development Agencies. The review of this plan showed that during this plan co-operative sector was encouraged to ensure better returns to the primary producer and fair price to the consumers. During this period accelerated growth in the fisheries sector was envisaged to produce more nutritive food in the country and to generate employment in rural areas for the weaker sections of the society (Seventh Five Year Plan, Govt. of India).

2.1.3. ROLE OF FISH FARMING IN INDIAN ECONOMIC DEVELOPMENT IN GENERAL AND RURAL ECONOMY IN PARTICULAR

Until 1930's the development or the underdevelopment of an economy was often explained in terms of the relative availability of natural resources. The significance of natural resources in ushering the economic growth, especially of the third world countries, was discussed by Misra and Puri (1986). Keeping in view of the problems of under-developed countries, Lewis (1955) remarked that the level and pattern of development of a country was constrained by its natural resources.

Datt and Sundharam (1986) opined that the presence or absence of adequate natural resources could accelerate or retard
the process of economic development. In this context, a number of researchers attributed the importance to inland fish farming in facilitating the economic development of the nation in general and rural economy in particular (Chopra, 1956; Mukundan and Kuriyan, 1980; Srivastava et al., 1982; Patel and Khankhoje, 1985; Dev, 1986).

In an analysis, Chavan (1984) had pointed out the key role of fish farming in yielding the foreign money besides the generation of rural employment and supply of protein foods at reasonable prices. Similar contention was found in the writings of Mukundan & Kuriyan (1980) and Dev (1986).

A critical review by Patel and Khankhoje (1985) had revealed that over 75 lakhs fishermen were engaged in aquaculture directly for their livelihood and many others were self-employed in ancillary vocations such as net making, basket making, fish processing and transportation.

The role of this industry in boosting the national economy was examined by Kalawar and Dandekar (1988). They reported that during 1970-71, fisheries contribution to the net national product (as factor cost) was 0.7% and by 1980-81 this contribution (at current prices) went up to 0.8%.

The importance of this sector in earning foreign exchange was substantiated by the data collected in a recent survey. The survey revealed that in 1950-51 fish and fish products were exported to the tune of Rs.2.46 crores while it went up to Rs. 531.20 crores in 1987-88, an increase of 214.93 times (Handbook on Fisheries Statistics, 1988).
RESUME:

Though the knowledge of the occurrence of fish in India could be traced back to three millennium B.C., no organised efforts were undertaken for the development of this field in pre-independence era. However, after independence, Government of India have been taking much care for the improvement of this sector by allocating a good amount of financial outlays for this sector in the successive plan periods. Attention is also given for research and development in this area by making adequate provisions for infrastructures required for the purpose. By virtue of the massive efforts undertaken by the Central Government and State Governments, fish production in the country has been increasing tremendously year after year. Now the fisheries sector is well recognised for the creation of rural employment, generation of large amount of foreign exchange earnings and supply of high quality protein foods at reasonable prices.

Notwithstanding this recognition and commendable performance of the fisheries sector, some disturbing trends are also noticeable. As development of marine fisheries is highly capital intensive, focus is directed towards the development of inland aquaculture in reservoirs, lakes and estuaries. But the growth of inland fisheries is not also remarkable because of non-availability of crucial inputs such as fish seed, food ingredients, and chemical fertiliser. Also the poor utilisation of water area, insufficient credit facilities, lack of marketing facilities, absence of suitable tenancy regulation and inadequate infrastructural support have slowed down the rate of progress.
Banks and other financial institutions have a vital role to play in removing most of these bottlenecks. However, at present, National Bank for Agriculture and Rural Development (NABARD) plays a crucial role in financing the fisheries sector. In India, vast resources of culturable water areas in the shape of ponds, tanks, lakes, bheels etc and improved technologies for intensive culture of fish are now available. Optimum utilisation of these resources could enhance the fish production at a desired level. The co-ordinating role of the Central Government and State Governments for implementing various programmes for the development of fisheries sector shows a bright light in this direction.
2.2.1. LEASING: CONCEPTUAL DEFINITIONS AND SALIENT FEATURES

A large number of researchers has pointed out that leasing industry has emerged in view of the relaxation in the Government's policy for rapid industrialisation, Capacity constraints of financial institutions and banks, flexibility associated with lease finance and certain tax benefits (Gupta, 1986; Pahwa, 1987; Kajaria, 1988 & 1989). The Concept of leasing has been discussed in a number of academic discourses almost in the same fashion.

Van Horne (1988) considered 'lease' as a contract whereby the exclusive right to use the asset was granted by the owner of the asset (the lessor) to another party (lessee) for an agreed period of time in return for the payment of rent. He, however, classified leasing into three categories - Operating lease, service lease and financial lease. According to him, no long term obligation would arise under the operating lease agreement and both the lessor and the lessee would usually enjoy a right to cancel the agreement after giving a stipulated notice. On the contrary, finance lease was viewed as a non-cancellable contract on the part of the lessee and in such arrangement substantial portion of the risk and rewards incidental to ownership was transferred to the lessee. Van Horne, however, described service lease as an arrangement where the lessor would undertake to provide both financing and servicing of the asset during the lease period. Similar classification was found in the writings of Hampfon (1989).

Kuchhal (1988) opined that lease financing used to involve the acquisition of the economic use of an asset by a lessee through a contractual commitment to make periodic lease payments to a lessor.
Finance lease, according to him, could take the form of direct lease, sale and lease-back arrangement and a leveraged lease. Under direct lease, the lessee would acquire the use of an asset without owning it.

Sale and lease-back arrangement was described by him as an arrangement where the owner of the asset would sell it to a party and would take it back from the party on lease. Leveraged lease was discussed by Kuchhal as a special form of leasing whereby the acquisition of the leased asset by the lessor was financed partly by the lessor and partly by a long term lender and loan was usually secured by a mortgage on the asset as well as by the assignment of the lease and lease payments.

Singh & Sampath (1983) categorised leasing system in the context of inland fish farming and pointed out that three Categories of leasing system were usually found in inland fisheries sectors—outright leasing system, royalty system and bifurcated leasing system. Outright leasing system was described as an arrangement where water bodies would be granted through open auction, tender or preferential nominations. Royalty system, as explicated by them, would imply a system where fish catching rights would be leased subject to payment of royalties by lessees at permitted rates. Under the bifurcated leasing system fishing rights would be given to fishermen co-operatives or groups of fishermen and purchase right would be given to another contractor through auction system.

In an attempt to elaborate the salient features of leasing, Kumar (1986) pointed out that leasing should be viewed as an innocuous mode of financing in contrast to borrowing. He opined that
lease financing would reduce the administrative hassles and would help to keep the debt-equity ratio unaltered. He mentioned that lease financing would usually offer the lessee a privilege of shifting the risk of obsolescence to the lessor. Furthermore, the lessee could avail himself of 100% tax deduction on the lease rental paid by him throughout the lease period.

Kajaria (1988) made a critical analysis of the leasing system in India. He remarked that leasing was a very specialised business and it required a thorough knowledge of income tax Laws as prevalent from time to time, ability to estimate correctly their impact on long term basis and other concomitant financial calculations to exploit the full advantage from such business. Moreover, one should consider the proposed lease rent along with the cost of funds, terms and conditions of borrowing, credit worthiness of the proposed lessee etc. in order to make the lease deal a profitable one. Similar contention was found in the writings of Sengupta (1991).

2.2.2. SIGNIFICANCE OF LEASING IN INLAND FISH FARMING VIS-A-VIS ITS VARIOUS PROBLEMS

In the last two decades leasing had been considered as a very common and widespread means of acquiring capital assets (Brick et al, 1987). In the wake of dramatic changes in the policy of industrial financing in India and rising rates of inflation leasing had been gaining more and more importance (Kumar, 1986). In the opinion of financial experts, lease financing became at present the mainstray for financing fixed assets. The viable role of leasing in inland fish farming has been also widely discussed (Paul, 1983; Singh and Sampath, 1983; Gupta, 1984).
The significance of leasing in inland fish farming was evident from a survey conducted by Gupta (1984) where he showed that the proportion of ownership ponds and the leased ponds was 31% and 69% respectively. He further reported that in some states like Tamil Nadu, Rajasthan, M.P., and Maharashtra, the proportion of the leased ponds was somewhat higher than 69%.

In the sixth plan emphasis was laid on leasing inland water bodies to the fish farmers. The review of the sixth plan envisaged that emphasis was given on leasing of water areas owned by panchayats and state departments on long term basis to ensure high productivity of inland fish (Sixth Five Year Plan, Govt. of India).

Paul (1983) made a critical review on the problems and prospects of leasing associated with this industry and reported that suitable tenancy legislation should be farmed in order to enhance the interest of the fish farmers in this occupation, ensuring higher production. He also opined that Government should standardise the lease documents in consultation with the bank authorities so that these might be acceptable to the banks for extending credit-facilities.

In a bid to elaborate the significance of leasing in inland fish farming, Singh and Samoath (1983) pinpointed the role of Fish Farmers' Development Agencies (FFDA) in this direction. They reported that FFDAs had been taking at present the direct responsibility of leasing the tanks and ponds owned by the Govt. and local bodies to the fish farmers on long term basis.

However, a large number of researchers remarked that though significance of leasing water reservoir in inland fish farming
was widely recognised, many problems of the leasing system still persisting in this area used to dampen the interest of the fish farmers to adopt leasing as a means of acquiring the same (Paul, 1983; Singh and Sampath, 1983; Gupta, 1984).

In a detailed analysis of infrastructural base and support measures for aquaculture, Paul (1983) identified some problems of leasing. He remarked that because of absence of suitable tenancy legislation in most of the states, no legal protections were available to safeguard the interest of the lessees and hence eviction of the lessees was quite frequent. He also opined that there was no suitable lease documents which could be accepted by the Bank or other financial institutions for extending the loan facility to the fish farmers.

In a similar study, Singh and Sampath remarked that no comprehensive leasing policy had been framed by a majority of state Governments. They also pointed out that there was usually a short term leasing arrangement in inland fish farming which restrained the fish farmers from providing full time avocation. This problem was also highlighted by Gupta (1984).

He remarked that lease period turned out to be an important determinant of both the yield and income. He was of the opinion that the lease period should be sufficiently long up to ten years and not less than two years to attract adequate attention from the cultivators.
2.2.3 LEASING : INVESTMENT VERSUS FINANCING DECISION

A large number of researchers, academicians and financial experts has made considerable and long-standing research on leasing but the problem of treating a lease agreement as a financing decision or an investment decision is still controversial (Vancil, 1961; Bower, 1966; Mitchell, 1970; Bierman, 1973; Clark, 1978).

In the process, Ferrara (1966) made a critical analysis and pointed out that as leasing was project specific it should be considered partially a method of financing and partially a method of investment.

In a similar analysis of lease versus purchase decision, Carlson and Wort (1974) arrived at a conclusion that leasing should be considered both a financing and an investment decision. They stated that since leasing would affect the size and timing of cash outflows involved in the acquisition of a given fixed asset, the leasing alternative should be considered as a separate investment project mutually exclusive with the purchase alternative. In their opinion, the effect of the cost of leasing on the overall cost of capital should definitely be considered, otherwise an incorrect capital budgeting decision would emerge.

In an analysis of the lease or buy decision, Johnson and Lewellen (1972) argued that leasing involved investment as well as financing considerations. They pointed out that "whatever the relative frequencies, the reasonable chance that leasing may be advantageous requires that we reconsider an additional element of the conventional wisdom regarding the lease or buy decision ... sufficiently attractive lease terms can in fact reverse the investment decision" (p. 822).
Cooper and Strawser (1975), in an attempt to evaluate capital investment projects involving asset leases, determined a 'purchase equivalent' analogous to a cash outlay required which, in their opinion, should not reflect its financing aspects (the time pattern of payments) but should reflect its investing aspects.

In an allied literature, Raghunathan (1986) concluded that leasing should be considered as an investment decision. According to him "a choice between lease or buy presupposes the superiority of each of these options of not acquiring the assets" and therefore "it is the erroneous way of looking at leasing decision as a financing one (as an alternative to borrowing)" (p.958).

Ghosh (1987) firmly discarded the view of Raghunathan and raised a question, 'if the cash flows relating to lease rentals are treated as flows for investment decision, is leasing free of cost?' He mentioned the traditional theory in this context where it was recognised that leasing could not be regarded as free of cost and the decision to adopt lease financing should be made by comparing the cost of leasing with the cost of borrowing. Thus, his argument was in favour of consideration of leasing as a financing decision.

In detailed analysis of the leasing system in India, Van Horne (1988) pointed out that finance lease must be regarded as a financing decision. However, he located a particular area where leasing could only be considered as an investment decision. He stated that in case of an asset which could only be acquired through leasing because of non-availability of purchase alternative, the firm could not choose between leasing or borrowing but it had to decide whether or not to lease.
Sen Gupta (1991) attempted to make an evaluation model of finance lease and concluded that finance lease should be considered both a method of financing and a method of investment. He argued that a finance lease should be treated as an investment decision as it considered the acquisition of a specific asset and the economic benefits from and the risk associated with this specific leased assets were almost identical with the owned asset. According to him, it should also be considered as a financing decision as it had an effect on the overall cost of capital of the firm.
RESUME

The concept of leasing is widely propagated mainly due to rapid industrialisation and financial constraints of the industries for implementation of the expansion programmes. Until recently the concept of leasing was mainly restricted to the leasing of real estate. Now it enters into the field of industrial equipment financing. The entry of the financial institutions like ICICI, IRCI, SICOM and GIIC into the leasing market is a significant development. It is now well-recognised that leasing companies have a vital role to play for industrial development though there was an initial resistance in Indian industry to the very concept of leasing.

The importance of leasing is also very much apparent in inland fish farming. Existence of adequate water reservoir is a necessary precondition for achievement of success in this venture. But it is evident that the individuals, who are actually interested in fish farming, have virtually got no adequate water reservoir of their own and as such they adopt leasing as a means of acquiring the water reservoir. Thus, leasing is a significant activity in inland fish farming. However, many researchers in this area have pointed out that though the significance of leasing in this sector is widely recognised, development of this sector is greatly affected due to the poor leasing system which is still persisting. Absence of suitable tenancy legislation and short term leasing arrangements are the major problems as indicated by them.
However, it should be mentioned in this context that in inland fish farming leasing water bodies is compulsion as evident from the survey of Gupta (1984) despite the enormous problems of the leasing system existing in this area.

In a large number of literature, leasing is considered as an area of decision making. But there is no consensus in the allied literature regarding the type and nature of decision required for leasing. The starting point of controversy is whether leasing should be considered as a means of acquiring the asset or whether it should be taken as a way of financing the acquisition. Much discussion is made on this issue but the controversies still remain unresolved.

In inland fish farming the scenario is somewhat different because acquisition of water reservoir, if required, can only be made through leasing, purchasing alternative is not usually available. In situations of this sort, leasing should be considered as an investment decision (Van Horne, 1988).
2.3.1. DECISION MAKING - NATURE

In most of the academic literature, decision-making was defined as choosing between alternatives (Brim et al, 1962; Slovic et al, 1977; Chatterjee, 1980; Luthans, 1985). Jones (1957) described decision making as "... a decision ... is a conclusion that a man has reached as to what he (or others) should do later ...." (p.5).

Hardwick and Landuyt (1970) defined decision-making as "a decision is a course of action or inaction chosen to meet the requirements of a situation popularly termed the problem" (p.480).

In order to understand the impact of decision-making, Luthans (1985) observed that Taylor's scientific approach enhanced the scope of decision-making. He also observed that the importance of the decision process had been projected by Fayol and Urwick in their discourses in terms of delegation and authority.

In course of analysing the nature and quality of decisions, Eden and Harris (1975) conceptualised the decision-making as the reaction to information or a reaction to stimuli. They, however, mentioned that the following prominent features should appear in a decision scenario -

a) There should be a willingness to change if need arises.

b) If such a willingness exists the process will then attempt to examine the feasibility of the proposed change. This, in itself, involves many factors e.g. perception, intelligence, conception, power play etc.

c) The decision maker before taking a decision, will need
to persuade people that the mental picture before and after is a realistic one and that appropriate action is being or will be taken. This involves communicating and interacting with other people, particularly those involved in the power structure of the organisation.

2.3.2. DECISION MAKING - TYPES

Decisions are classified by many writers in various ways. Brim et al (1962) made a detailed analysis and opined that prior work on classifying decisions might be divided into that dealing with formal properties as opposed to that which considered substantive characteristics of the decisions. They stated that on the basis of formal or abstract properties, decisions were classified according to degree of risk involved, the information available, whether or not the decision was irrevocable. They further stated that if one was concerned with substantive characteristics, he considered economic problems, administrative decisions, career choices, mate selection, planned parenthood, investment decisions and a number of others with each class being identified by the activity it involved.

Moreover, they considered five properties of decisions and classified decisions accordingly. On the basis of such properties, decisions were classified into (i) wager versus pay-to-olay, (ii) repetitive versus nonrepetitive, (iii) revocable versus irrevocable, (iv) choice versus single stimuli.

Chatterjee (1980) classified decisions into typical, routine or unimportant decisions and important, vital or strategic decisions. In his opinion, decisions might also be classified (i) from the
standpoint of futurity of decisions, (ii) according to the frequency or rarity of some decisions, (iii) from the approach of their impact, (iv) according to the judgement of noneconomic factors like ethical values, moral conduct or human behaviour in the enterprise.

Luthans (1985) was of the opinion that the two most widely recognised classifications included personal and organisational decisions and basic and routine decisions. At the same time he observed that Barnard recognised the difference between personal and organisational decisions.

Adams and Robert (1959), however, emphasised that the major property was the degree of certainty which characterised outcomes of the decision. On the basis of this property, they classified decision as decision under certain condition, decision under the condition of risk and decision under uncertain condition.

2.3.3. DECISION MAKING - PHASES

A large number of researchers identified apparently differential and concomitant overlapping phases of decision making process (Dewey, 1910; Beal and Joseph, 1957; Friedman, 1957; Kawin, 1957; Brim et al, 1962).

In his strive, Dewey (1910) made sequential arrangements of the phases and according to him the phases were - (i) perplexity of doubt, (ii) identification of the problem, research for facts and the formulation of a possible solution, (iii) a testing of solutions and where necessary, re-analysis of the problem, and (iv) the application of the correct solution. A similar analysis was found in the literature of Kawin (1957). The phases presented in his literature were (a) recognition and definition of
the problem, (b) preliminary observation and collection of information, (c) analysis of facts to see how they relate to the problem, (d) formulation of possible solutions and evaluation of them, (e) trying out the most promising solution, (f) checking to see how the solution worked out, and (g) being ready to make changes in the problem-solving plan.

In the course of his investigation on the farmers opting for newer adaptation to farming practices rather than conventional one, Beal and Joseph (1957) examined the decision-making process of the farmers pertaining to such switch over which helped him to identify the following phases of decision making with relation to farmers' activity - awareness phase, the phase in which the farmers obtained information relevant to them, the evaluation phase, the trial phase and last, the phase of adoption.

Economic model of rational man, according to Friedman (1957), viewed the decision maker to follow the following six logical steps encompassing his/her perfect judgement. The steps were - perfectly defining the problem, knowing all relevant alternatives, identifying all criteria, accurately weighing all the criteria according to his or her goals, accurately assessing each alternative on each criterion, accurately calculating and choosing the alternative with the highest value. Bazerman (1986) also perceived the almost identical phases of decision making.

Brim et al (1962) elaborated the phases almost in the same fashion. The phases, thus, emphasised were - (i) identification of the problem, (ii) obtaining necessary information, (iii) production of possible solutions, -(iv) selection of a strategy for performance, (v) evaluation of such solutions, and (vi) actual
performance of an action or actions and subsequent learning and revisions.

The understanding of these phases specially stimulated the subsequent researchers, particularly the psychologists, to specify the role of decision-making in human cognition.

2.3.4. DECISION MAKING: COGNITIVE MECHANISM

The psychological literature showing the impact of cognitive factors on decision-making behaviour of the individual is copious (Barron, 1953; Scott, 1962; Mason and Mitroff, 1973; Mitroff and Kilmann, 1975). The dependence of decision-making behaviour on the cognitive make-up of an individual was well described by Sage (1981) when he conceptualised the cognitive make-up as the process behaviour of an individual which was exhibited in course of formulation or acquisition, analysis and interpretation of information or data of presumed value for decision making. Driver and Mock (1975), Bariff and Lusk (1977) and Dickson et al (1977) were of the opinion that cognitive manifestation of the decision maker should be considered in designing Management Information System and Decision support system.

Schroder et al (1967) observed that environmental factors and psychological type would affect task performance in a predictable manner and would provide valuable insight into the design of Management Information System. Similar findings were revealed in the study of Lusk and Kersnick (1979).

Mitroff and Kilmann (1973) made an empirical study to determine the influence of personality variables on organisational decision-making. Their study revealed that decision makers preferred
decision processes that were compatible with their cognitive style.

Mason and Mitroff (1973) claimed that individuals showed a difference relating to the types of information acquisition and modes of data processing required for decision-making. They also opined that individual's selection of typological problems were also different.

Hunt et al (1989) referred the work of keen who distinguished the decision makers into 'analytics' and 'intuitives'. According to keen, analytic decision makers were more concerned with detailed information while intuitive decision makers were concerned with the pattern of information. Thus, his categorisation put stress on the characteristics of the decision-makers which used to influence decisions.

An empirical study was conducted by Henderson and Nutt (1980) in which 62 decision makers from hospitals and firms were asked to assess some capital investment projects in terms of their specific preferential likings of accepting each of these projects and their perceptions about various risk factors.

Their study reflected that adoption prospects and perception of risk were related to the executive's psychological make-up. They further found that sensation thinking styles were associated with a greater degree to risk than were sensation feeling styles.

A similar orientation was projected by Bass (1983) whereby he treated the individuals as constraints for organisational decision making and pointed out that personality competence and styles of an individual would have a definite role on organisational decision-making.
Mitroff (1983) recognised that individuals showed a difference in the way of acquisition of information and in the methods of processing the information. On the basis of these differential information-acquisition and information-evaluation dimensions, he categorised the decision makers into four basic composite styles - Sensation-Thinking, Sensation-Feeling, Intuition-Thinking and Intuition-Feeling.

Taylor (1984) made an analysis regarding the role of psychological characteristics in decision-making. He observed that "interests, personality and motivation of decision makers ... exert a major influence on idiosyncratic decision-making behaviours" (p.101).

Hunt et al (1989) made an empirical study to examine the congruence of a decision-maker's cognitive style and strategy preferences over the phases of a decision process. In their study, a standardised decision task was simulated according to a specific multiphase model of decision process. The results clearly exhibited the dependence of decision process on decision-maker's personality, specifically, the decision-maker's thinking practices (i.e., cognitive styles).
Decisions are classified in different ways by various authors. But whatever be its type, it requires a rational selection of a course of action from among alternatives. It can be considered as problem solving when the problem has been taken as a state of confusion or uncertainty. However, in order to take a rational judgement, a decision maker has to follow certain conditions. The first condition is that the decision maker must be taking a positive action to reach the goal without which the same cannot be achieved. Secondly, he must have a clear understanding of the courses of action under existing circumstances. Third, he must have the capacity to analyze and evaluate the alternatives. Finally, he must have a desire to get the optimum benefit by selecting the best alternative in relation to his goal achievement. Based on these conditions, many writers have prescribed more or less the same sequential arrangement of phases of decision-making, i.e. identification of the problem, finding out all relevant alternatives, evaluation of all alternatives in relation to goals and choosing the alternative with the highest value.
Psychologists are of the opinion that cognitive factors have an impact on the decision-making behaviour of an individual. A clear relationship is established between the decision makers' characteristics and the predecisional processes by which decision problems are defined and management strategies are selected. Types of information acquisition and modes of data processing for decision making would depend, to a great extent, on the cognitive make up of a decision maker which ultimately depends on his personality structure. Thus, decision maker's personality, specifically cognitive style, should be clearly examined in order to get an understanding about the decision processes and the strategies taken by the decision maker.
2.4.1.1. ACHIEVEMENT MOTIVATION: PSYCHOLOGICAL AND SOCIO-CULTURAL FACTORS

Man works. This is self-evident. Why does man work? Probably, there might be innumerable answers to this question. Whatever may be the answers, the basic aspect of work behaviour lies in the understanding of human motivation. So, to say, every behaviour is a motivated behaviour and secondary motives play a very crucial role towards explaining human behaviour. Furthermore, as man has a social entity, so, social interactions are very important from the standpoint that these interactions are closely related to the learning concepts. Therefore, a large number of human motives that are learnt come into the category of secondary motives (Luthans, 1985).

Again, within the secondary motives, the three motives, i.e., the power-motive (n-Power), the achievement motive (n-Achievement) and the affiliation motive (n-Affiliation) predominantly guide the social behaviours which have considerable bearings on the different interacting components of the societal environments (Raynor, 1969; Kolasa, 1982). Moreover, among these three, achievement motivation can be considered to be the most significant one to explain complex interacting human behaviour in the context of economic development and associated competitiveness of the human society.

The name of David C. McClelland is closely connected with the achievement motivation. Precisely the theory of achievement motivation has drawn attention of the scholars owing to its enormous possibilities of examining achievement-oriented work-related behaviour (McClelland et al, 1953). McClelland and his
associates considered the achievement motive as an overt desire of the individual to perform some works with a standard of excellence in terms of success/achievement in the competitive scenario.

Nicholls (1984) opined that achievement behaviour used to demonstrate 'high rather than low ability'. Accordingly, the ability concept occupied the central theme in his theory of achievement motivation. Nicholls considered achievement motive as a psychological factor in terms of ability perception and ego-involvement vis-a-vis task involvement and performance.

Atkinson (1957) also discussed the results of many exploratory experiments whereby attempts had been made to express explicitly the influence of n-Ach on task performance. According to him, "individual differences in the strength of achievement related motives influence behaviour in competitive achievement situations" (p.360). In order to explore the relationship of achievement motivation with risk-taking behaviour, Atkinson viewed the strength of achievement-motivation as a function of both the strength of motive and the expectancy of goal attainment incited by situational cues.

Atkinson (1953), inferred the n-Achievement as a positive motivation to experience, feelings of accomplishment and success.

Experimental results of Khul (1978) reflected that inconsistent findings concerning the preference function of success oriented or failure oriented persons could be explained by individual differences in terms of personal standard of excellence.

While remarked on Nicholls, Kukla and Scher (1986) described the presence of four categories of achievement motives, having distinctive behavioural consequences.
Weiner and Kukla (1970) examined the relationship between causal attribution and n-Ach. Accordingly, "individuals high in achievement motivation are more likely to approach achievement-related activities than those low in this motivational disposition because they tend to ascribe success to themselves and hence experience greater reward for goal attainment. Individuals high in achievement motivation persist longer given failure than these low in this motivational tendency ..." (p.19).

Geen et al (1984), from their review, inferred that theories pertaining to achievement motivation were distinctly cognitive. They made the following comments on the attributional analysis of achievement motivation:

"...the attribution approach is the most significant departure in the cognitive direction in achievement motivation theory, other related advances have also pushed things in a distinctly cognitive direction. In particular, an informational interpretation of achievement behaviour (diagnosticity) argues that high and low achievement-oriented persons tend to seek and to avoid self-examination or self-exploration respectively and these tendencies largely account for their behavioural predispositions" (p.274).

In this respect the work of Zedeck (1977) requires special mentioning. He concluded that assessment of individual's needs and goals was the most important task in order to understand 'individualised motivational system' and information processing model as depicted by him could well be used to study the specific "individual's motivational pattern and process".
Likewise, Thomas (1983) assumed the antecedents and consequences of effort expenditure in a situation where a person used to engage in achievement oriented activity. Thus, a model was proposed which brought the relationship among effort, tasks difficulty and performance efficiency.

Ivancevich et al (1977) made a comparative study between the works of Atkinson and McClelland. Accordingly, Atkinson was more theoretical in his approach to perceive n-Ach as the desire to accomplish objects whereas McClelland described more the variation of n-Ach among individuals and cultures.

The influence of culture is more reflected in the writings of Hurlock (1978). According to him, the desire of achievement would stem from the environmental factors more than the personal factors. Aspirations for achievement were always influenced by the environment whereby the environment sometimes encouraged the immediate aspirations and also used to foster both the positive or negative aspirations.

Gokul Nathan (1970), however, found no significant relationship between n-Ach and social class.

On the other hand, Srivastava & Tiwari (1967) identified relationship between achievement score and socio-economic status level of the person.

A number of studies indicated the bearing of environment in stimulating achievement motive. In this respect the role of various social re-inforcers could be stressed (Singh, 1969; Nandy, 1973; Durand & Shea, 1974). Particularly, the comparative study of two firms by Andrews (1967) not only emphasized the impact
of environment on executives' n-Achievement but also it supplied the clue about the importance of examining re-inforcement in the context of n-Achievement.

Thus, achievement motivation can be regarded as a psychological factor and at the same time environment has a vital influence in stimulating achievement motive. The emphasis on psychological aspect of achievement motivation puts much stress on the personality characteristics of the individual as a whole. At the same time, it is also true that achievement motivation begins differentiation right from the childhood. Family environment specially attitude of the parents towards child have a definite influence on the growth and development of personality of the child and in the process home environment affects the process of achievement motivation.

2.4.1.2 ACHIEVEMENT MOTIVATION: A DETERMINANT OF EFFECTIVE DECISION

A large number of researchers attempted to explain the influence of the strength of achievement motive on the performance style of an individual (Guth and Taqiuri, 1965; Atkinson, 1965; Johnson, 1981). Some researchers argued that individuals with strong n-Achievement worked hard particularly for the performance of those tasks which provided the opportunity for attaining a personal standard of excellence (McClelland et al, 1953; Atkinson, 1958).

In the process, Lewin et al (1944) developed a theoretical model in the prediction of choices (decisions) of individuals in a goal striving situation. In that model it was exhibited that
the level of aspiration set by a person was a function of three factors - (a) the seeking of success, (b) the avoiding of failure and (c) the cognitive factor of a probability judgement (i.e., subjective probability of achieving a goal).

Atkinson and Reitman (1956) examined the role of n-Ach on the performance and found a positive co-relation between the performance style and strength of the motive.

Siegel (1957), in an attempt to exhibit the influence of level of aspiration on decision making, considered achievement scale as the utility scale where utility referred to the subjective value of an entity (goal, action, object). According to him, an individual used to choose those alternatives among a set of various alternatives whose subjective probability of attainment and utility would maximise the subjective expected utility.

Atkinson (1957) mentioned that any theory of motivation could be used to account for the selection of the most beneficial alternatives. At the same time, it also determined the amplitude of the action tendency to persist for a time in a given direction. He however, opined that aptitude of response among individuals used to differ due to the individual differences in the strength of motivation to the level of performance and such strength should be conceived as a relatively stable disposition to strive for achievement of success. He affirmed that achievement related behaviour was always influenced by the resultant of the tendency to approach success (goal of achievement motive) and the tendency to avoid failure (Atkinson, 1965). Atkinson remarked that the tendency to achieve success, to approach a task with interest
and the desire of performing the task well should be conceived as a multiplicative function of the motive to achieve success and the strength of expectancy.

McClelland (1961), in a study of 'achievement syndrome' found that achievement motivated persons agreed to take personal responsibility for their actions and used to take calculated risk. He affirmed that business was always achievement oriented and always attractive to the individuals with high n-Achievement.

McClelland et al (1963) elaborated the theory of success approach and failure avoidance and stated that the feeling of success would depend on the gratification of the learned drive, e.g., pride, craving of superiority, ego-impulse, self-esteem, self-approval, self-assertion etc and failure would result from its frustration.

Durand and Shea (1974) conducted a study on 29 adult blocks (22 males and 7 females) engaged as owners or managers in the inner part of a large midwestern city and found that individuals with high n-Ach were more active than those whose achievement motivation was low. They remarked that such relationship between human motivation and performance could clearly indicate that some force or forces either external to or internal in the individual used to induce in performing the activity in a standard of excellence. Their findings also revealed that a perception of personal responsibility would induce the process of translating thoughts about successful achievement into overt activity.

In an empirical study, Fineman (1975) observed a positive correlation between n-Ach and performance of the managers.
in the job climate when the same was perceived by them in strong achievement terms.

Johnson (1981) opined that an individual with a high n-Ach was characterised by high achiever of success and the goal of success was set by the underlying personality dimension, the means of achievement by the situation.

2.4.2.1. RISK TAKING: CONCEPT AND ROLE IN DECISION MAKING

The influence of risk in decision-making gets a wide coverage both in the literature of finance and psychology, though the frame of references are different in two cases (Brim et al, 1962; Hertz, 1964; Taylor and Dunnette, 1974; Robichok 1975 MacCrimmon and Taylor, 1976; Fuller and Wong, 1988; Fiegenbaum and Thomas, 1988).

In an analysis, Brim et al (1962) mentioned that the major property of decision making was the degree of certainty which characterized the outcomes of the decision. In this context, they described three conditions—certainty, risk and uncertainty. According to them, condition of certainty would arise when each alternative in a decision making situation would be associated invariably with a specific outcome, i.e., the probability of occurrence of the outcome would be either 0 or 1. On the other hand, decision under the condition of risk would imply a situation when each alternative would be associated with outcomes whose probability of occurrence would be less than 1 and greater than 0 but the actual probability figure would remain unknown to the decision maker.
Hertz (1964) emphasised the important role of risk in capital investment appraisal process. He was of the opinion that selection of the alternative capital investment opportunities entailed more risk than any other areas of decision-making because of difficulty in assumptions regarding the return on investment. He mentioned that each assumption involved its own degree and often a high degree of uncertainty and taken together, these combined uncertainties would multiply into a total uncertainty of critical proportions.

However, Kuchhal (1988) used the two terms 'risk' and 'uncertainty' interchangeably in the analysis of decision making under uncertainty. In his opinion, the difference between risk and uncertainty could be made from the statistical point of view which might be related to the decision maker's knowledge of the probabilities or chances of outcomes or cash flows occurring. Based on the statistical concept he remarked that risk would exist when the decision maker would be able to estimate the probabilities associated with various outcomes objectively on the basis of historical data, while uncertainty would exist when the decision maker had no historical data from which to develop a probability distribution and must make educated guesses in order to develop a subjective probability distribution.

In an analysis of risk perceptions of financial analysts, Mear and Firth (1988) mentioned that two major components of the investment decision used to involve assessments of expected return and expected risk. They also pointed out that there was a consensus about the concept of risk where it must be regarded
as the level of uncertainty or unpredictability of future investment returns.

Van Harne (1988) considered the riskiness of an investment proposal as the variability of its possible returns. However, he used the concept of probability in estimating possible returns. In his opinion, business risk should be viewed as the co-efficient of variation of the possible cash flows of the prospective investment project over its expected life, which simply would imply the standard deviation of the probability distribution over its expected value.

A simple interpretation was made by Hampton (1989) about the concept of risk. He considered risk as the likelihood of getting less return from an investment than the estimated return.

MacCrimmon and Wehrung (1986) remarked that possibilities for gain might be considered as the primary significance in assessing the attractiveness of alternatives but the risk used to associate with the negative ones. They made a sharp distinction between gambling and risk taking. In their opinion, gambling used to refer situation where the odds were exogenously determined and uncontrollable but the question of risk-taking would arise when the skill or information could reduce the uncertainty.

However, most of the psychologists considered risk as a cultural value (Brown, 1965; Teger and Pruitt, 1967; Wallach and Wingh, 1968). Brown, in his 'value theory' argued that cultural norms used to incite the people to consider the decision problems either a 'risky' or a 'cautious' approach. He expressed
that exchange of information through group discussion resulted in a 'risky shift' as cultural value caused people to revise their interpretation of the value of risk.

Kogan and Wallach (1964) remarked that risk used to play a vital role both in the cognitive processes and in decision making though the types of risk involved were different. According to them, risk element was more or less covert in cognitive processes while decision-making procedures introduced risk explicitly.

In course of examining the risk-taking implications of certain cognitive functions with particular emphasis upon judgemental confidence and extremity, Wallach and Kogan (1959) observed that males were more extreme than females in their judgement at low and moderate confidence level while the reverse was the case for high confidence level.

2.4.2.2. VALUE ORIENTATION, ACHIEVEMENT VALUE : RISK-TAKING BEHAVIOUR

Brown (1965) proposed that cultural norms caused people to deal with the decision problems either with a risky or a cautious approach. Such problems were said by Brown in his 'value theory' to generate a 'value of risk' or a 'value of caution'. He observed that a person used to assume more risk for those items which used to generate a value of risk.

Teger and Pruitt (1967), in an attempt to interpret the group induced risky-shift phenomenon, remarked that risk used to represent more of a cultural value than conservatism. They observed that people believed themselves to be greater
risk takers than their peers and cultural value attached to risk used to induce the individuals to take more risk relating to matters of risk-taking. They thought that decision makers would accept more risk if exchange of information relating to the decision problems could be made through group discussion. Such risky-shift, according to them, would occur only when the decision makers would realise that the risk they were taking was below or equal to the average level of risk.

Many psychologists were of the opinion that there were intrinsic motivational factors associated with risk and encoded as part of an individual personality (McClelland, 1961; Atkinson, 1964). Brody (1963) conducted a study to explore the effect of n-Ach and test-anxiety on risk-taking behaviour along with the subjective probability of success in sequential decision task. His study established a positive correlation between n-Ach and subjective probability of success in risk-taking behaviour. Atkinson and Litwin (1960) also observed that individuals with high n-Ach and low-anxiety were prone to take intermediate risk.

Rao (1985) examined the behaviour of effective managers and identified them as moderate risk takers. He opined that effective managers were declined to undertake extreme risk because of their innate desire to compete with the challenging job by modifying their goal directed behaviour on the basis of feedback from the uncertain environment.

Pandey and Tewary (1979) observed that the potential entrepreneurs had high achievement values and more internal on the scale of locus of control. However, entrepreneurs above 35
years of age obtained less v-Ach and internality values in contrast to the entrepreneurs below 35 years of age.

Brockhaus (1980) attempted to study the risk-taking propensities of the entrepreneurs. In his study, the individuals who quit their managerial jobs and became owners of business or managers of business ventures were compared with regular managers. He used the Choice-Dilemmas questionnaire devised by Kogan & Wallach (1964) for the purpose and found no differences in risk taking propensity among the different groups.

March and Shapira (1987) remarked that risk preference should be viewed partly as a stable feature of individual personality but other factors such as mood, feelings and the way in which problems were framed used to affect perception of and attitudes towards risk.

MacCrimmon and Wehrung (1986) observed that most of the managers interviewed for their study portrayed themselves as judicious risk takers and as less risk averse than their colleagues. They also found that higher level executives scored higher on their risk-taking measures than did lower level executives.

2.4.3.1. PERSONALITY: TYPE VS. TRAIT APPROACH

There are, broadly, two distinct dimensions of personality assessment. One is known as type theory approach and the other is represented as trait theory approach. Type theory tries to understand personality, whereby, stress has been made on the developmental characteristics of the person. In other words, type theory strives to make a qualitative assessment of psychodynamics and in the process, it emphasises the unconscious motivation
of the individual. The type theory tries to classify different personality patterns from purely qualitative analysis and relies heavily on longitudinal study and case study pertaining to the life history of the individual. Luthans (1985) referred the well-known theories of Freud, Erikson, Piaget and Argyris and discussed the stage theories in the light of personality development. In the process, he also mentioned the Allport's categorisation of different personality dimensions under five heads. Luthans also briefly described three approaches encompassing personality types, i.e., Body-Type theories, Physiological Theories and Psychological Theories.

On the contrary, trait theories attempt to project personality in terms of measurable constructs of personality. The underlying assumptions correspond to the fact that traits are measurable characteristics reflected through the behaviour of the person in the course of his/her interaction with the environment. According to Luthans, the two most accepted trait theories propagated from the works of Allport and Cattell. Cattell (1950) viewed personality as the complex structure of traits and the process of motivated behaviour used to depend, to a great extent, on the subset of these traits known as dynamic traits. The most important aspect of Cattell's theory is the understanding of the surface and source traits. Source traits are the innate variables which give the direction to multiple surface traits to make overt behaviour. Surface traits are less stable than source traits. Source traits, on the other hand, can be considered as environmental mould traits because the formation of these traits depends, to
a large extent, on the cultural influence. Eysenck (1951) opined
that through trait theory, behaviour of the person could not
only be explained but also trait theory helped to identify the
type of person in separate groupings like introvert or extrovert.

Guilford (1959) examined the importance of the factor
analytic studies of the personality. The interesting aspect of
the Guilford's study was not simply the classification system
but he, on the other hand, had identified different traits into
a hierarchy of traits structure. McClelland (1951) also discussed
extensively the trait theory of personality. According to him,
a trait was perceived as a group of responses which would be
acquired and retained in accordance with the 'laws of learning'
and 'forgetting' respectively. McClelland considered trait as a
hypothetical construct. In general, the trait theory of personality,
thus, attempts to express the relationship between the personality
traits and the goal directed behaviour of the individuals (Barron,
1953; Finkle and Jones, 1970; Humphreys and Revelle, 1984).
The understanding of trait theories, therefore, seems significant
in the light of perceiving decision-making behaviour of the indivi-
duals, particularly the managers and the entrepreneurs.

2.4.3.2. PERSONALITY TRAITS - INVENTION AND INNOVATION

Invention is associated with the creation of new things
which depends basically on the internal state of the mind, stimu-
lated by the endogenous need to 'alleviate scarcities' (Casson,
1982). Invention, therefore, is the consequence of imagination
and imaginative activities of the person play a vital role here.
Innovation, on the other hand, is the antecedence of invention and it is primarily related to bring a change in the existing conditions whereby it can be precisely depicted that innovation depends upon the invention. In other words, invention is the prime mover of innovation. Schumpeter (1961), in the context of entrepreneurship, considered innovation as the carrying out of new combinations out of existing one which, he thought as one of the important functions of the entrepreneurs.

Brozen (1951) made a theoretical classification of invention, innovation and imitation. Accordingly, in all the three cases the presence of creative urges was essential but it used to vary in degrees. Simultaneously, he emphasized that innovation and imitation were more common in competitive markets and any invention would lead to innovation when it would be economic in terms of existing resources, taste, divisions of income and techniques etc. of the society as a whole. A number of academic persons pertaining to the area of entrepreneurship projected entrepreneur as an innovator (Evan, 1959; Leibenstein, 1968; Cole, 1968). Casson (1982) in his elaboration had put much stress on the personal qualities of the entrepreneur whereby attempt had been made to delineate innovation as the creative process. That innovation used to depend on the creative ability of the person had also been manifested implicitly in the writings of McClelland (1966). In the process of examining the significance of n-Ach in the study of entrepreneurship, he not only depicted entrepreneur as a moderate risk taker, but also urged that entrepreneur used to apply his creative talent for the purpose of innovation differently
than the others, engaged in altogether different activities and occupations. Logically, it can be conjectured that innovation involves imaginative ideas which, in its way, depend on the factors working on both cognitive and non-cognitive plane of human psychological process.

Cattell (1966) examined the relationship between personality and creativity and inferred that a creative person used to bear a type of personality. According to him, a creative person was more sensitive, radical and self-aware. Cattell and Butcher (1972) observed that creative artists were more bohemian, emotionally sensitive and tension-oriented than scientists. Stein (1966) observed that creative persons were more autonomous, more cautious and realistic. They were more assertive and authoritative in nature than the less creative persons. Mackinnon (1962) also considered that certain common personality traits were related with creativity and different creative groups—like artists, scientists, entrepreneurs etc. used to possess these common traits. Mackinnon conceptualised that too much creativeness should fulfil three conditions. First, it should involve an idea which could be understood as novel. Secondly, these novel idea should have reality orientation. Thirdly, the creativeness should be represented by the sustention, evaluation and elaboration of the original insight. Thus creativity as a process, could be characterised by originality, adaptiveness and realisation within a particular time span. Kolasa (1982) also contained that creativity involved innovative thinking and differentiated it from the originality in the sense of value of utility implied in creativity.
From all these studies, it is evident that personality traits and creative ability of the person bear a positive relationship. In the context of decision making, the understanding of innovation and/or creativity is important because of the fact that decision making, as a cognitive process, primarily depends on the reciprocal interaction of person, environment and behaviour.

2.4.3.3. ROLE OF PERSONALITY: JOB SATISFACTION AND EFFECTIVE JOB BEHAVIOUR

Job satisfaction is the consequence of effective job behaviour. Effective job behaviour depends on the effective functioning of the job. A person derives satisfaction from his job when he perceives the job meaningful and interesting. Meaningfulness, in its turn, generates interest, choice etc. of the person to be involved in the particular job. It is, therefore, logical that certain personality traits manifested through a definite personality patterns, if present, can give rise to a type of perceptions which procreates the interest of the person in the job, producing effective functioning there.

Holland (1975) put much emphasis on the study of interest, motivation and personality of the individual in connection with the person's orientation towards a specified class of occupation.

Locke (1976) observed that effective job behaviour used to depend on the job characteristics and person's evaluation that the work itself would allow him to fulfill his needs. Thus, according to Locke, job satisfaction may be considered as an
index of effective job behaviour irrespective of the nature and content of the job and occupation.

Korman (1968) noticed that other things being equal, an individual with high self-esteem would be more satisfied and derived pleasure from the successful performance of the tasks than a person with low self-esteem.

In this context, the work of Herzberg (1968) requires special mentioning. Presence of the intrinsic job conditions, according to Herzberg, could motivate people to perform the job in a better way because these conditions used to satisfy higher order psychological needs. At the same time, Locke (1976) pointed out that interest and involvement in the job were the outcome of the perception of the employee about the job whereby he used to perceive the work as challenging and meaningful. Locke, thus, endorsed that greater involvement in the job used to produce a condition whereby the employee could exercise his judgement and choice leading to the satisfaction of one's ego.

Lawler & Hackman (1969) opined that employees who usually put values on the intrinsic reward used to take a type of job characterised by feedback, autonomy and meaningful tasks.

French and Caplan (1972), while reporting on stress and strain orientation of the individual in the organisation, had shown that a person with high n-Ach and low tolerance for ambiguity should manifest more job related tension in an ambiguous situation than a person with low n-Ach.

Locke (1976) discussed the need for psychoempistemological study of job satisfaction. Accordingly, thought process and
emotional problem of the individual, i.e., general emotional maladjustment/adjustment should be taken into consideration in order to get an idea about job satisfaction. Some people, it is apparent, are more satisfied or dissatisfied with the life in general due to the presence or absence of some traits. It is quite logical that these traits have a profound bearing on the satisfaction and effective performance on the job.

Vicino and Bass (1978) related several personality traits like reasoning, ability temperament, judgement etc. with the managerial success on the job.

Locke (1970) considered satisfaction or dissatisfaction as the incentive to the action in the sense that it used to incite approach or avoidance tendencies of the person. Emotion, according to him, was not the determinant of action, but it used to influence the cognitive process of the person. Performance of the person, it was thought, could be the outcome of the individual’s specific work goals and these goals were determined by the perception of the person about a particular situation where values, knowledge, beliefs and personality had a profound influence in directing the enacted behaviour.

From their work on 50 senior Indian executives of Public sector manufacturing industries, Basu and Pestonijee (1972) indicated the contribution of satisfiers in generating satisfaction and thereby corroborated Herzberg’s Two Factor Theory. Similarly, working on 367 managers, Gavin (1973) observed that self-esteem was a good predictor of job performance with expectancy measures.
Thus, personality factors, values, belief etc. have a direct bearing on the job satisfaction. It may be argued that performance and derived satisfaction from the job are the outcome of the interaction between the personality of the individual and the work environment consisting of the individual, the characteristics of the job itself and the organisational climate.

2.4.3.4. DECISION MAKING : IMPACT OF PERSONALITY FACTORS ON EFFECTIVE MANAGERIAL, ENTREPRENEURIAL AND INVESTMENT BEHAVIOUR

The concept and role of personality in human behaviour are discussed by many psychologists on different occasions. Most of the studies are mainly directed to exhibit the relationship between the personality traits and goal-directed behaviour of an individual. In an analysis of personality and performance, Vroom (1960) reported the relationship between personality and leadership style in the context of job performance. Korman (1970) also gave evidence to this relationship and remarked that an individual's performance would depend on the way the individual used to perceive the assigned work.

Pickle (1964) conducted a study of 97 small business managers and found a correlation of 0.63 between success and five general characteristics of personality, i.e., drive, mental ability, human relations ability, communications ability and technical knowledge.

Ghiselli (1968) showed the relationship between different trait measures like intelligence, supervisory ability, self-assurance, desire for job security, high financial reward, self-actualisation etc. and managerial success. He opined that interactive effects
of traits and motivational factors determined the success of the managers.

Carrol and Tosi (1970), from their empirical study, observed that perceived clarity and importance of goals in MBO programme used to produce favourable results for managers having certain types of personality. Managerial personality traits considered in this study were self-assurance, maturity, intelligence, decision-making approach, perceived occupational level, supervisory ability etc. The results showed that goal-clarity and perceived difficulty of goals in MBO programme were associated with certain personality traits of the managers. It was observed that difficult goals were related to decreased effort in managers having low self-assurance scores and less matured condition. Conversely, the same difficult goals were associated with increased efforts among managers with high self-assurance scores and relatively higher matured conditions.

Rao (1985), in his attempt to depict effective managerial behaviour had described certain personal qualities of the managers. Thus, he considered that personal efficacy of the managers, i.e., potential effectiveness present at the inner level of the managers, giving action goal orientation, used to produce clarity of goals, about future action. This type of person with high personal efficacy could be classified as a 'pro-active person' and was clearly different from the 'confirmist' who usually was oriented more with the traditional activities. In the process the 'pro-active' managers could show a high degree of originality and a problem solver rather than a problem avoider. At the same time, personal
efficacy of managers, which had bearing on effective managerial behaviour. Rao also outlined some of the important qualities of the effective managers, i.e., motivation, defined in terms of six motives (need for achievement, need to influence others, need to help others, need for affiliation, need to control others and need to be dependent on others), risk-taking propensity, openness to feedback, a self-perception to influence environment, time orientation, expectation from employees, interpersonal trust etc. Interestingly, the motives included in Rao's assumption were the secondary motives and could be taken as the consequences of the process of socialisation. Rao also opined that both n-Ach and n-Power in the presence of a strong sense of 'inner directness' and 'self-discipline' could play a very significant role in case of entrepreneurial managers. Rao's examination on effective managerial behaviour also gave some plausible accounts of decision-making by the managers under the condition of uncertainty. Accordingly, a manager who used to show a high degree of tolerance in ambiguous situation could be able to take beneficial decisions in contrast to a person having high degree of intolerance. Intolerance, thereby, used to generate inaccurate and hasty decisions.

A more interesting review of the relationship between personality characteristics of the individual and the explicit behavioural dynamics of the person vis-a-vis other members' perception about the man in small group was made by Mann (1959). The findings revealed that seven aspects of personality, i.e., intelligence, adjustment, extroversion, dominance, musculanity, conservatism and interpersonal sensitivity had a distinct asso-
ciation with activity rate, leadership style and popularity of
the individual within the small group framework. Excepting conser-
vatism, all other dimensions of personality had a positive rela-
tionship with leadership, popularity and activity rate. Conservatism,
however, had been found to be negatively related to leadership
but positively related to popularity.

Based on their study on 422 subjects occupying middle
management position of American Telegraph Company, Bray et al
(1972) outlined seven potential behavioural dimensions of ability
which they identified as the essential prerequisite for managerial
success and effective behaviour. These dimensions were administra-
tive skills, interpersonal skills, intellectual ability, emotional
stability, work motivation—in—career orientation and dependence
on others.

Taylor and Dunnette (1974) investigated the effect of a
number of psychological attributes like perceptual ability, inform-
mation capacity, risk-taking propensity and level of aspiration
on the decision making process of the person. The similar types
of examination made by Brim et al (1962) revealed that different
personality characteristics were usually associated with different
decision process factors. "The different components of the decision
process may be related to different kinds of skill or intelligence
or training. Some, for example, may be influenced primarily by
motivation, another may be tied in with attitude toward fate,
and still another may vary with intelligence. The results show
such great similarity in the four major factors for the different
groups that with few expectations we can speak generally about
a decision process factor structure that is the same for all groups" (p. 103).

The investigation of Brim and his co-workers, it appears, is very exciting from a standpoint that basic decision process characteristics are related to personality characteristics of the respondents. In other words, they inferred that decision characteristics, i.e., desirability-directions, S-scores and number of outcomes were significantly associated with a personality factor, i.e., autonomy-dependence. Similarly, a positive relationship between S-scores, social-status and intelligence had been ascertained by them. Likewise, probability Direction-Extremity and Desirability-Extremity had also been found to be significantly related to a personality characteristic of 'extremity of judgement'.

MacCrimmon and Taylor (1976) opined that psychological processes like 'transfer', 'set' and 'functional fixedness' were very essential aspects of the decision maker which could explain the entire class of problem solving behaviour of the individual. In their turn, MacCrimmon and Taylor had made analysis of personality attributes of the decision maker in terms of conceptual structure, dogmatism and post-decisional inflexibility.

Vannoy (1965) from his study, however, inferred that 'cognitive complexity' was not a general trait. In this connection it is to be noted that this finding happens to be more significant in terms of decision making because of the fact that 'cognitive complexity' represents the way in which the person interprets 'person-objects' in his environment.

Schroder et al (1965) had drawn a difference between abstract and concrete decision maker in terms of information processing ability of the individual.
It has been noted earlier that Atkinson (1957), McClelland (1961) and Schumpeter (1961) considered risk-taking as a psychological trait and thereby all of them independently had tried to relate it with problem solving, creativity and entrepreneurship.

Krishna and Ansari (1975) observed that there were some general personality qualities associated with the choice of vocational selection.

Lessner and Knapp (1974) tested the entrepreneurial orientation of the merchandising and craft entrepreneurs. The finding revealed that craft oriented entrepreneurs were significantly different from the other type with respect to self-actualisation score.

Slovic (1986), in its illuminating paper had raised the necessity of studying psychological facets of human judgement in relation to investment decision making. "Many aspects of investment analysis are said to be psychological in nature; certainly the appraisal of man's capabilities for integrating information into a judgement or decision is one such aspect" (p.174).

The empirical study conducted by Saunders & Stanton (1976) exhibited the relationship between personality structure and anticipated performance of an individual as a decision maker. Their study yielded three significant sets of relashioship existing between performance styles and personality styles namely 'profit satisfying', 'sales orientation' and 'profit maximisation'.

Humphreys and Revelle (1984) observed that at least three personality dimensions like introversion-extraversion, achiev-
ment motivation and anxiety had a significant bearing on efficient cognitive performance.

The impact of personality factors on decision making process can also be evinced from the work of Lioshitz (1989). The results confirmed the necessity of examining the psychological implications of decision making because of the fact that 'role expectations influenced the justification of decisions'.

It is, therefore, evident from the above discussion that decision making is one of the major aspects of human behavior and particularly a number of studies discussed above has led great emphasis on the role of psychological attributes on decision-making process in relation to effective managerial and entrepreneurial behaviour.

Again, in order to examine the effective managerial behaviour in relation to decision making MacCrimmon and Taylor (1976) discussed about the post-decisional inflexibility on the part of the decision maker. In the process, they observed that decision makers' level of aspiration used to influence the decisions strategy.

Level of aspiration demands satisfaction which a manager derives from his job in work related situation. So, in that way derived job satisfaction can be considered as effective and efficient job performance. It can be logically inferred that the study of definite personality pattern delineates the important personality traits which, if present, can generate interest, choice, preference and satisfaction of the individual in a type of job.
RESUME :

In a number of studies pertaining to human behaviour it is exhibited that any actions of an individual are determined by the inner forces and impulses, which are operating below the level of consciousness. Thus, clear understanding of inner forces would certainly help to determine the direction and magnitude of the action taken by an individual. With this aim in view, a number of researchers in this area have attempted to identify the significant inner forces that may be considered as guiding factors for resorting to a specific course of action.

Achievement motivation is regarded both as a psychological and sociocultural factor. Many researchers have pointed out that the behaviour of an individual in a competitive situation is highly influenced by the strength of his achievement related motives. Moreover, enough evidence is there to substantiate the views that environment has a vital role to play in stimulating achievement motivation. Home environment specially attitude of the parents affects the growth and development of achievement motive. Many empirical studies in this area have established a positive relationship between the strength of achievement motive of a decision maker and the associated success.

It has been attempted in various studies to consider risk as a cultural value and is recognised as an important psychological trait. The influence of risk-taking propensity on the decision-making process of an individual is reflected in many psychological literature pertaining to decision-making. Many psychologists have tried to relate the risk-taking propensity with problem-solving, creativity and entrepreneurship. They put much stress
on this particular trait specifically with reference to entrepreneurial decision making.

Personality traits have a great bearing on effective managerial, entrepreneurial and investment behaviour. In a large number of studies, it is attempted to identify the role of the personality attributes on the decision making process. It is clearly exhibited that personality traits of a decision maker, as a whole, not only shape the decision making process but also determine its consequence in terms of success or failure.
2.5.1. **EDUCATION : ROLE IN DECISION MAKING**

Gisbert (1978) opined that education would develop the habits and attitudes of an individual with the help of which the individual could successfully face the future. According to him"... most genuine object of true education is the development of man as a human being, with his own exigencies and possibilities and capable of communication and sympathy with all other members of the human race" (pp.280-281).

Sharma (1965) remarked that minimum education was essentially required for the emergence of a competent industrial entrepreneur as it would provide dynamism to the society. The same notion had been noticed in the writings of Casson (1982). However, Casson mentioned that formal education had a limited role for the growth and development of entrepreneurship.

Rao (1986), in an empirical study, observed that education played an important role for the growth of entrepreneurship and it would help the entrepreneur for effective functioning. He referred the work of Schultz where role of education was described as an important factor for overall economic development specially in the industrialised economies.

Kolasa (1982) referred the work of warner and Abegglen. The survey made by them emphasized the higher level of education of business leaders in the United States over a period of time. Their studies, thus, used to reflect the values of this segment in the business sector.

Kohlberg (1973) had pointed out that moral standards of a child would necessarily emerge from the cognitive interaction
of the child with his social environment. He described the important role of the classroom in this context and opined that presentation of 'moral dilemmas' in the classroom with a simultaneous discussion could help a child to reach his moral values to the highest stage possible.

Hilgard et al (1975), in an attempt to identify the factors influencing personality development, specifically considered 'maturation' as an important factor for the development of the same. According to him, "Maturation can be accelerated or impeded by the quality of the environment, and environmental conditions or special training can stimulate behaviour only when the organism possesses the appropriate neural and muscular equipment" (p.69).

2.5.2. FAMILY STRUCTURE: INFLUENCE ON DECISION MAKING

The role of the family for the growth and development of entrepreneurship is widely discussed. Broom and Selznick (1958) argued that the family should be considered as a producing unit as well as a unit of consumption. Leff (1978) also opined that the role of the family should be conceived as an important factor for economic success as it used to supply internal source of capital and labour to the firm.

Luthans (1985) remarked that family had a vital role in selecting, interpreting and dispensing the culture and it had a significant impact on the early development of personality.

Singh (1986) observed that individuals worked hard to meet some expectations of the family. The pressure of expectations from the family would induce the member to search for ways of
meeting such expectation and thereby the member would undertake some independent work as well as motivate other members of the family to engage in business activities.

Casson (1982) highlighted the role of the family specially in the light of growth and dynamics of the firm. He remarked that the family would specifically supply the labour force to the firm as a decision maker because of the fact that recruiting lower quality labour from the external market was much easier than recruiting a decision-maker.

Gisbert (1978) remarked that the family used to play an important role in the development of civilization. According to him "The modern family is no longer the economic unit that it was in the Middle Ages where production, distribution and consumption developed in the home as a self-sufficient unit in an agricultural and handicraft economy. It would be misleading to say that the family is losing its economic functions, but it is certainly transforming them considerably" (p.97).

Kaplan and Huang (1974), in an empirical study on Philippine entrepreneurs, observed that family was significantly related to achievement orientation of the entrepreneurs.

Kolasa (1982), however, mentioned that the family had an important function of societal maintenance. "Not only does it develop and maintain individuals in a pool for productive support for society, but it transmits to each person the attitudes and values of the culture as well" (p.338).
2.5.3. **CASTE AND RELIGION : IMPACT ON DECISION MAKING**

Gisbert (1978) remarked that the caste structure of the society used to generate a superiority-inferiority complex among the people belonging to different castes. According to him, the caste in the society used to enjoy a number of social and religious privileges due to the hierarchy of supremacy and subordination.

Kuppuswamy (1977) observed that caste and kinship were the core factors of the village social organisation and these factors had turned the village community into a non-cohesive unit. He also pointed out that 'Caste Panchayat' was more effective than 'Village Panchayat' in the decision making affairs relating to village problems.

Berna (1960) made an investigation on entrepreneurship in Madras State. The investigation exhibited the dominant role of the caste system in achieving economic success. However, he opined that traditional occupation also used to play an important role for the emergence of industrial entrepreneurship in Modern India.

Epstein (1964) claimed that social status as determined mostly by caste system was an important determinant factor of economic success. He, thus, put much stress on the flexible social structure based on casteism towards the economic mobility of the individual entrepreneur.

In an empirical study on industrial entrepreneurship in India, Rao (1984) observed that caste and community were the most important sociocultural determinants of entrepreneurial effectiveness. His findings also revealed that trading background of mercantile community also used to influence the entrepreneurial development.
Kolasa (1982) referred the works of Max Weber where a close relationship was established between an economic system and a way of life influenced by a religious ideology. McClelland (1961) also found a relationship among individualism expressed in protestanism, n-Achievement and the level of economic activity.

The concept of religion was discussed by Gisbert (1978) in the context of the human behaviour. According to him, "The social control of religion consists in the power that it exercises in guiding human behaviour, either directly, or through the instrumentality of ceremony and ritual used by the churches" (p.259).

2.5.4. AGE AND EXPERIENCE : IMPACT ON DECISION MAKING

In a bid to elaborate the influence of age on the perceptual ability of an individual, Kupouswamy (1977) referred the work of Gates who conducted an experimental study concerning the growth of social perception using photographs of facial expression. His study revealed that ability of social perception would have a definite impact on the growth of individual.

Maher (1955) observed a relationship between age and performance. His empirical study showed that relatively older salesmen were more effective than the younger ones. However, Bowers (1952) found no significant relationship between ages and some traits related to work performance like accuracy, initiative, job knowledge, tactfulness and co-operativeness. He also alluded that older workers were somewhat slower but rated higher on steadiness and conscientiousness.
Hilgard (1975) opined that particular experiences should be conceived as an important factor for shaping the individual's personality. However, personal differences, according to him, would also arise due to biological differences and the differences in the specific ways of transmission of culture.

Rao's (1986) empirical study showed that age was an important factor for entering into the manufacturing industry and achievement of success. The results also suggested that relatively higher age with a previous experience specifically in the same line of business was very much conducive for successful adherence in the venture.

Kolasa (1982) inferred that traditional practices followed in several organisations used to regard much on greater experience and age as the existence of high correlation between age with experience and efficiency was recognised. However, he argued that age should not be considered as an accurate indicator of ability or capacity. Other factors were equally responsible for the wide range of differences in the behaviour of individuals.
RESUME:

Social and cultural variables like family structure, caste, religion, education, culture, economic environment etc. have some impact on the decision making process of an individual. Moral standards of a child would develop from the cognitive interaction of the child with his social environment. Family structure also has a significant impact on the early development of personality which, in its turn, enhances the efficacy in decision making. Caste and community may be considered as important socio-cultural factors for entrepreneurial effectiveness.
2.6.1. DIFFERENT CRITERIA OF JOB SUCCESS

Job success and/or vocational achievements of the employees had been determined in terms of earnings expressed in money value, output, credit ratings, occupational stability, supervisor's ratings particularly efficiency ratings etc. (Strong, 1943; Mahler, 1948; McClelland & Rhodes, 1969). A close examination of the different criteria of vocational success revealed that organisational advancements, i.e., progress in the job/occupation within the organisational hierarchy and occupational stability were the too most significant indices of job success. Roe (1946) emphasised the pervasiveness of the use of ratings as a method of evaluating job success. Successful appraisal of Police performance was reported by Azen et al (1973) whereby the longitudinal study aptly emphasised the significance of biographical, psychological and attitudinal variables in predicting job success. The same was reflected in the discourses of Bass & Barrett (1981) where assessment of personal factors like interest, abilities, occupations, adjustments, biographical informations and identification of personality factors got much prominence in evaluating job success.

Executive success, a most interesting area, was ventured by many of the above scholars who put usual stress on certain indices of success like credit ratings, club membership, residence characteristics etc. as the predictor of vocational achievement of the executives.

2.6.2. MANAGERIAL SUCCESS AND ITS MEASUREMENT

Managerial success or the personal success of the executives can be perceived as an index by which the potentialities of the executives can be judged. It is true that there exists a number of approaches to examine the concept of success associated with the
managerial jobs and concomitant measurements. Davis and Binks (1969) developed the criteria of managerial success by rank ordering 25 subjects on each of 5 sources of company information and expressed the success as a composite score by summing the rank order for each individual. A different approach was noticed in the works of Ghiselli and Johnson (1970) where attainments of a particular level in the organisational hierarchy by an individual in terms of age group was considered as the index of managerial success. Campbell et al (1970) opined that increment of pay package could be considered as the predictor of vocational achievement of the manager in the industry. In order to substantiate their claim they referred a longitudinal study made by Brenner and Lockwood (1965) on manager's salary and the financial packages offered by the organisation.

Kurat (1971), on the other hand, contended that the manager's peer rating could be taken as one of the meaningful way to predict professional success of the managers. Srinivasan et al (1971) on the other hand, used a composite criterion of managerial success which was obtained in terms of pairwise dominance judgement of 20 profiles of managers on 6 criteria. Ghiselli and Wyatt (1972) established some relationship between the job success and satisfaction of the Japanese managers. But most comprehensive work in this area was done by England and Lee (1974). He considered managerial success as managerial pay relative to age and the success, thus, determined was simply the personal success and not the organisational success. In this respect the works of management assessment centres were most important because of the fact that they used to provide valuable guidelines to explore the essential dimensions of managerial success (Byham, 1972).
Managerial success discussed so far does not necessarily include the organisational success. So, obviously there arises a legitimate question that how far personal managerial success will be able to evaluate the organisational success of the person in real life situations. Guion (1965) considered the organisational success as the organisational effectiveness. Again based on the works of Seashore and Yuchtman (1967), Campbell et al (1970) described the concept of managerial effectiveness whereby organisational success, organisational effectiveness and managerial effectiveness could be used in same notion and were synonymous. In the process they had outlined that salary corresponding to a particular level in the organisational hierarchy in terms of age or length of time in an organisation could be taken as the comprehensive index of managerial effectiveness. Morse and Wagner (1978) also developed measures of managerial effectiveness and identified six factors which depicted the managerial behaviour in work situations.

Now personal managerial success, organisational success, organisational effectiveness and managerial effectiveness are very relevant in this context, which, help a person to get an understanding about the entrepreneurial effectiveness and competence. In other words, any measure of entrepreneurial effectiveness/competence will be appropriate in order to enrich understanding about the entrepreneurial success.

2.6.3. ENTREPRENEURIAL EFFECTIVENESS AND ITS ASSESSMENT

Nandy (1973) developed nine indicators of entrepreneurial competence encompassing three broad domains, i.e. present dynamism, actual demonstrated performance and prognost future performance. A different approach was made by McGaffey and Christy (1975) whereby
information processing capability of the entrepreneur got much significance because of the fact that an entrepreneur who could utilise information better had the likelihood of developing high potential venture by optimising the business activities.

They assessed the entrepreneurial effectiveness from the performance indices and in its turn, they showed that integrative complexity of entrepreneurs was related with environmental complexity and financial growth rate of their ventures. However, the most meaningful approach in determining the entrepreneurial success had been done by Kaveri (1980). Accordingly, financial ratio analysis could well predict the financial health of a small scale venture which logically be used as the indicator of entrepreneurial success.

2.6.4. FINANCIAL HEALTH OF THE VENTURE AND THE ROLE OF RATIO ANALYSIS: INDICATOR OF SUCCESS OF THE LESSEE, i.e. ENTREPRENEUR

Several models are developed by many researchers for the prediction of financial health of the business and used financial ratios for the purpose either individually or in combination with varying degrees of statistical sophistication (Altman, 1968; Libby, 1975; Casey, 1980; Bettinger, 1981; Khan and Manopichetwattana, 1985; Sengupta, 1987).

Winakor and Smith (1935) conducted a study on 183 failed firms using 21 different ratios. They concluded that the ratio of working capital to total assets was a steady and accurate indicator of unfavourable trends in financial health.

Beaver (1966), in an attempt to develop a model for the prediction of business failure, compared the mean values of each financial ratio for failed and non-failed firms. To start with, he selected 14 ratios for this purpose based on three factors - popularity in the literature, performance in prior studies and relationship
to his cash flow concept. Finally six ratios were considered on the basis of classification ability. He demanded that the ratio of cash flow to total debt was the best performing ratio.

In the same process, Deakin (1972) also used the financial ratios and developed a discriminant function to predict the failure of a business and claimed that this discriminant function could be used to predict business failure as far as three years advance with a fairly high degree of accuracy.

Libby (1975) also used financial ratios for examining the ability of the bank loan officers to detect failure. He started with the 14 variable set used by Deakin and reduced it to five independent sources of variation by principal component analysis. These variables were net income over total assets, current assets over total assets, cash over total assets, current assets over current liabilities and sales over current assets.

Edminster (1971) in an investigation of ratio analysis of business firms borrowing or receiving loan guarantees from the Small Business Administration, found that ratio function could be used effectively for the prediction of financial health. However, he used 19 ratios for the prediction of small business failure and developed a discriminant model which demonstrated 92 per cent accuracy in the initial sample.

In a study, Libby (1975) remarked that a set of accounting ratios allowed bankers to make highly accurate and reliable prediction of business failure. However, he concluded that the usefulness of accounting information was a function of the predictive ability of the information and the ability of the users to interpret the data.
Kennedy (1975) developed a descriptive model of human information processing and used four financial ratios, i.e., equity to debt ratio, current ratio, quick ratio and inventory turnover ratio. In the model, likelihood ratio obtained from the odds-likelihood ratio form of Bayes' theorem was considered as the dependent variable and was used to measure the relative impact of the above four financial ratios.

Kaveri (1980) examined the predictive ability of the financial ratios. He considered initially 22 ratios for identifying the health of the small scale industries. Finally, he selected 5 significant ratios, viz., current ratio, stock to cost of goods sold, current assets to net sales, net profit before taxes to total capital employed and net worth to total outside liabilities, on the basis of several statistical tests and concluded that these ratios could be used with due weightage for predicting the financial health of an enterprise.

Sen Gupta (1987), in an attempt to evaluate entrepreneurial success, used eight financial ratios viz. Growth in sales turnover, growth in Fixed Assets, Gross profit Ratio, Net Margin or Sales, Labour Cost efficiency, Liquidity Ratio, Working capital Turnover Ratio and Fixed Assets Turnover Ratio. He, however, considered one non-financial factor viz. capacity-utilisation along with the above eight financial ratios and constructed a success index scale for the entrepreneurs on the basis of these nine variables.
RESUME

Different criteria and procedures are developed by many writers to evaluate success in different fields. Success in the job of the employees can be measured with reference to the advancement in the job within the organisational hierarchy. However, earnings, output, stability in the occupation etc. should also be considered in evaluating the success in the job.

Salary structure and other financial packages of the manager with respect to age are mainly considered by many scholars for evaluating managerial success. However, other factors like manager's peer rating, satisfaction of the managers etc. also appear to be the important determinant factors for the same.

Entrepreneurial effectiveness or competence is dependent on entrepreneurial success. Many measures are also developed for evaluating entrepreneurial success. Information processing capability of an entrepreneur is regarded as the best indicator of entrepreneurial success. Success of the venture may be considered as a good index for entrepreneurial competence or effectiveness. Many researchers put much emphasis on the ratio analysis for the measurement of financial health of an enterprise. The works of Altman, Beaver, Edminster and Deakin require special mentioning in this context. Most of the researchers in this area admit the predictive ability of financial ratios and put much stress on the liquidity, profitability and activity ratios for the measurement of success or failure of an enterprise.