INTRODUCTION
Vocational maturity defined by Super (1957) "as the degree of development, the place reached on the continuum of vocational development from the exploratory stage to decline stage," is relatively a new concept in vocational psychology. The prevailing views of vocational behaviour frequently equated with vocational choice and vocational adjustment were almost entirely non-developmental before 1950's, on account of the heavy leaning that vocational guidance showed on industrial and differential psychology and almost none on the developmental psychology.

Since Super's paper read by him during the year 1952 as an attempt to synthesize current knowledge of vocational development and to begin formulation of a comprehensive theory of vocational development, there has been a seeming controversy whether to concentrate on vocational choice or vocational development (Bordin, et al, 1968). Laying emphasis upon vocational development Roe (1956) and Holland (1959), stress vocational choice, that is, the prediction of the occupational role that the individual is fulfilling at a particular point in time, whereas Super (1953) and Tiedeman et al (1959), orient themselves to the prediction of successive choices or pattern of choices.
CHANGING EMPHASIS FROM VOCATIONAL CHOICE TO VOCATIONAL DEVELOPMENT:

There are different ways of conceptualizing vocational choice depending upon the frame of reference used in a theory and the assumptions about human behaviour which underlie it. Basic assumption of all but accident theory of vocational choice (which posits that one chooses the occupation randomly or by chance) is that the individual systematically chooses the occupations he intends to enter. Traditional trait and factor theory maintains that vocational choice is largely a conscious, cognitive, problem-solving process (Parsons, 1909). The assumption is that the individual knows both what he is doing and why he is doing it and he uses this information in selecting an occupation. Ginzberg et al (1951) place a heavy emphasis upon the ego-functions in the process of vocational decision-making. Proponents of more motivation-oriented conceptions of vocational choice (Brill, 1949; Menninger, 1942) challenge the proposition that choice is conscious. They claim that this is a naive hypothesis which fails to take into account the extremely complex nature of motives which develop from so many experiences that the individual is unable to comprehend them, much less integrate them and relate them to his vocational behaviour. Between the two extreme positions, that vocational choice is conscious or unconscious, is Super's (1957) interpretation within the framework of developmental theory maintaining that to make a choice the individual must be aware of himself and be able to relate himself consciously to occupations.
Vocational choice has often been defined as what the individual prefers to do (Fryer, 1931; Trow, 1941). Given a number of vocational alternatives, he expresses his preference for one or another and this constitutes his choice. Ginzberg (1951) implies that choice is not the same as either preference or interest, it is rather more comprehensive than preference. All choices presume preferences, but all preferences do not necessarily imply choices. Super (1953) suggests that 'preference' should designate unimplemented course of action, such as preparation for an entry into a specific occupation. To distinguish between choice and preference it is necessary to undertake what behaviours each entails and how these behaviours are related. In expressing a preference, the individual indicates what he would like to do; in making a choice, he predicts what he probably will do.

Vocational choice is frequently equated with occupational aspiration (Empey, 1956; Sewell, Haller, and Strauss, 1957). By 'occupational aspiration' is usually meant what the individual considers to be the ideal vocation for him. Defined in this way, aspiration is quite similar to a person’s fantasy choice (Trow, 1941). Choice is more comprehensive than aspiration. Whereas choice is based upon a consideration of many factors which may affect future job satisfaction and success, aspiration is formulated solely in terms of the individual's wants and wishes, that is, irrespective of the limita-
tions imposed by reality. While examining the relationship between choice and aspiration, as well as choice and preference, Trow (1941) found that the agreement between the former two variables was even less than that for the latter two variables.

Not until very recently, it was assumed that vocational choice was more or less an isolated experience in the ongoing life activities of the individual having little or no effect upon his subsequent success and satisfaction. The 'cross-roads' conception of vocational choice puts emphasis on how individuals make these choices. This conception has been replaced by developmental approach (Ginzberg, et al. 1951; Super, 1953) which has now received continuous attention; stimulated the research efforts, and influenced most pervasively the field of vocational psychology.

Ginzberg et al; (1951) assert that "occupational choice is a developmental process: it is not a single decision, but a series of decisions made over a period of years. Each step in the process has a meaningful relation to those which precede and follow it." By labeling the gross phases of the vocational choice process, the periods of development - as fantasy, tentative, and realistic, they have further given credence to the notion that vocational behaviour finds its
roots in the early life of the child and develops over a period of years. In this process, it is indicated that vocational behaviour and career choice become increasingly reality-oriented and more specific as one moves toward the choice itself.

In a longitudinal attempt to focus developmental principles on the staging and determination of career patterns, much of the early work of Buehler (1933) and Ginzberg et al. (1951) was synthesized by Super and his many colleagues (1957), in their promulgation of the comprehensive developmental approach of vocational maturity. Vocational development process has been characterized (Super et al. 1963; 1969) as an ongoing, continuous and generally irreversible, orderly patterned and dynamic process occurring over a number of years, where in an individual matures vocationally as he proceeds through a series of developmental life stages, with each stage affording him opportunities to deal with specific tasks. Super conceived vocational development as "one aspect of individual development, like social development, emotional development, intellectual development, it has distinctive characteristics which reveal it as one way in which general development of the individual manifests itself. Like other types of development, vocational development may be conceived of as beginning early in life, and as proceeding along a curve until late in life."
In this continuity of vocational development, Herschenson and Roth (1966) visualize it as a decision-making process which creates two trends: (a) narrowing the range of possibilities, and (b) strengthening the possibilities which remain. Crites (1969) conceptualized that vocational development does not of course, deny the fact that every individual must, some day, decide that he will or will not accept a job that has been offered to him. He may, indeed, have to make several such decisions, each decision may be affected by his vocational development up to that point, but his development will seldom make a decision for him.

CONCEPT OF VOCATIONAL MATURITY:

The concept of vocational development leads logically to that of vocational maturity. Vocational maturity refers to the individual's degree of readiness to choose, preparation and planning for future vocation. The concept of vocational maturity has come to be used as a prerequisite to the ability to make a wise occupational choice, and assuming that maturity represents development along a continuum, the greater the maturity, greater is the likelihood that individual is able to cope with developmental tasks at different stages of vocational development. Vocational maturity is not thought of as a static goal, an ideal end result which has been achieved. It is rather conceived as
a development in the direction of an ideal goal (achieving satisfaction and success in an occupation). In this context, it is essential to know about the level of maturity that is required to make choices. "Most would feel that a certain maturity process must take place before youth (ages 14 to 18) can sensibly make choices—especially vocational ones" (Mc Daniels, 1968). McDaniels rebuts this assumption by stating that "youth are not too young to choose, only too poorly prepared to make choices." Thus, in much of the thinking about vocational development as a continuous, ongoing process, sufficient attention is to be given for assessing both the rate and levels of an individual's development with respect to career matters (Super, 1955; Super, et al; 1957; Super and Overstreet, 1960; Crites, 1965). Vocational maturity may be studied by understanding of maturity in general, which depicts that when an individual is mature, his behaviour is what may be expected of persons of his age.

According to Super (1955), as vocational development proceeds systematically along certain identifiable directions, it should be possible to assess, not only how much of the road individual has covered, but also how fast he is travelling in comparison with others who are embarked on the same journey. Thus rate and progress along this road might be an indication of an individual's vocational maturity. Crites (1961) described it as 'the maturity of an individual's vocational behaviour as indicated by the similarity between his
behaviour and that of the oldest individual in his vocational life stage'. A clarification of these definitions of vocational maturity is provided by Super et al. (1957), who differentiate Vocational Maturity I (VM_I) from Vocational Maturity II (VM_II). They define VM_I as 'the life stage in which the individual actually is, as evidenced by the developmental tasks with which, he is dealing in relation to the life stage in which he is expected to be, in terms of his age'; and VM_II as 'the maturity of behaviour in the actual life-stage, as evidenced by the behaviour shown in dealing with developmental tasks of the actual life-stage compared with the behaviour of other individuals who are dealing with the same developmental tasks'. To establish standards for evaluating VM_I, the vocational developmental tasks characteristic of each life stage must be identified and for that of VM_II, variation in behaviour in dealing with the developmental tasks of each life-stage must be identified, and the frequency of behaviours manifested must be noted. Since the typical individuals deals with the developmental tasks appropriate to his age and life stage, the actual life stage and expected life stage often coincide. Therefore, VM_I and VM_II frequently are based on tasks of the same life-stage. Vocational maturity may thus, be described not only in terms of the gross units of behaviour which constitute the life stages but also in terms of much smaller and more refined units of behaviour manifested in coping with the developmental tasks of a given
life-stage. It is this latter definition which is most helpful in considering a given individual who functions at a certain life stage.

**VOCATIONAL MATURITY : DIMENSIONS AND ASSESSMENT**

Assuming that patterns of dimensions would change with the age of the subject, need for defining the dimensions of vocational maturity at all stages of life was felt. Vocational development can be visualized as a continuum while the vocational maturity is a point reached by this continuum. Attempts to measure vocational maturity have established that it is a complex, multidimensional construct (Super and Overstreet, 1960; Gribbons and Lohnes, 1968; Super and Forrest, 1972; Crites, 1973). In consonance with multi-dimensional nature of vocational maturity, much of the research has, therefore, focussed on the identification and definition of the basic components of vocational maturity.

**SUPER'S MODEL**

In the 'Career Pattern Study', Super et al. (1957) have developed the rationale for measurement of vocational maturity characterizing thereby its dimensions as -
(a) increasing orientation to vocational choice;
(b) increasing amounts of vocational information and more comprehensive planning; (c) increasing consistency of vocational preferences; (d) the crystallization of traits
relevant to vocational choices; and consequently;
(c) increasing wisdom of vocational preferences. It was
further assumed that with age the nature of these dimensions
may change and it is quite possible that some of them may
not even exist.

(a) **Orientation to vocational choice** implies concern
with the choice. The underlying assumption is that a person
who is concerned about the choice is better prepared for
making the actual choice than the one with no concern for
the vocational choice. The choice process begins when the
individual develops awareness of the social expectation and
continues as he becomes increasingly oriented to decisions
about high school curriculum, part-time work, college etc;
which he must make in the present and in the future.

(b) **Vocational information and planning** form another
dimension of vocational maturity in as much as the individual
at the preparation stage, is more fit for taking up the
vocation if he has gathered information and done some planning
about his vocation. The information may not be complete and
the planning may be inadequate but it is there and the amount
of it determines the level of maturity.

(c) **Consistency of vocational preferences** is worthy
of consideration as a dimension of vocational maturity because
greater maturity should help to narrow down the goal and crystallize preferences. Through explanation and trial the individual eliminates many less attractive and inappropriate alternatives and it is presumed that the retained preferences would be higher in consistency which is indicative of vocational maturity.

(d) Crystallization of traits and aptitudes has been listed as a dimension of vocational maturity because the individual whose abilities and potentialities have been more developed and integrated would be better prepared to cope with the developmental tasks of vocational choice and adjustment. Since development takes place from general to specific it is assumed that a mature person should be more differential person than the one in whom development to the same degree has not taken place. It is further assumed that these differentiated characteristics would be more stable and crystallized.

(e) The fifth dimension, Wisdom of vocational preferences is one of the most complex, difficult to manage but the most satisfying dimension of vocational maturity. All other dimensions of vocational maturity would fail to lead to vocational adjustment if the ultimate preferences were not wise.
CRITES' MODEL

Crites (1965) further elaborated upon orientation, information and crystallization - dimensions of vocational maturity as given by Super, and proposed career choice attitudes and career-choice competencies as the modified dimensions. A hierarchical model of vocational maturity (Fig.1) was proposed by him which is based on Vernon's (1950) model of intelligence. At the most specific operational level are the vocational behaviours which mature during adolescence. At the intermediate level, group factors constituted from the interrelationships among the variables. At the highest level is general factor representing common variance among the groups and define overall "degree of vocational development". This model was derived from Super's (1955) original dimensions of career maturity, with certain amendments and modifications. The consistency of career choices and realism of career choices groups are much the same as they were first proposed. The career choice competencies and attitudes were formulated from Super's orientation to vocational choice, information and planning, and certain components of crystallization of traits dimensions. The model as depicted in Fig.1, shows useful and meaningful distinctions among the dimensions of career choice content and career choice process (Crites, 1974). To assess vocational maturity along these dimensions, it is necessary to elicit
FIG. 1 - A MODEL OF VOCATIONAL MATURITY IN ADOLESCENCE (Crites, 1973)
a career choice from a person, e.g. in reply to a question, which occupation do you intend to enter, if the person replies doctor, engineer, this would refer to career choice content. In contrast, career choice process variables refer to the variables involved in arriving at the declaration of career choice content. These variables include the group factors of career choice competencies and career choice attitudes. The 'Career Maturity Inventory' - CMI (Crites, 1973; 1978) is designed to measure career choice process variables, and it consists of (a) Competence Test and an (b) Attitude Scale.

(a) THE COMPETENCE TEST

The Competence Test (CMI) measures the more cognitive variables involved in choosing an occupation. These include how well the individual can appraise his job-related capabilities (strengths and weaknesses), how adept he is in matching his personal characteristics with occupational requirements, and how foresighted he is in planning for a career, and how effectively he can cope with the problems which arise in the course of career development. So in all five parts of competence test are -

(i) Self-appraisal, (ii) occupational information, (iii) goal-selection, (iv) planning and (v) problem solving; which together assess - "what might be designated as comprehension
and problem solving abilities as they pertain to the vocational choice process" (Crites, 1978).

The individual moves through the life-stages each of which calls for vocational behaviour of different sort. The adolescent finds himself cast in the role of explorer until he finds direction for himself. The young adult must translate the direction he has taken into action for training and job-seeking. The more mature adult must find his place within his vocation and once he has done so, he must elaborate upon it and secure his position. The degree to which the individual accomplishes the vocational developmental tasks is a function of the adequacy with which he has performed the behaviours appropriate to each phase of development. Thus, vocationally mature individual is able to handle the vocational tasks efficiently or in other words efficient handling of developmental tasks relevant to life - stage indicates level of vocational maturity of the individual.

(b) THE ATTITUDE SCALE

The Attitude Scale elicits the feelings, the subjective reactions, the dispositions that the individual has towards making a career choice and entering the world of work. Conative aspects of decision-making are stated in the items of the attitude scale. More specifically, the five attitudinal
clusters that are surveyed are - (i) involvement in the career choice process, (ii) orientation toward work, (iii) independence of decision-making, (iv) preference of career choice factors, and (v) conception of career choice process.

Like all human behaviours, the vocational behaviour is so complex and is part of the total fabric of personality development. It is shaped among other factors by an interplay of self-reference, self-knowledge, knowledge about occupational opportunities, as well as by genetic and early child influences evolving personality styles and patterns of traits which individuals express cognitively and psychologically in their choice behaviour and vocational identity. The systematic effort to explain a particular individual's entry into an occupation and the resulting work history are at best rudimentary. A greater insight into these factors may be obtained through the understanding of conceptualization of vocational development and vocational maturity within the framework of different theories. For the purpose of convenience, the theories can be grouped under psychological, non-psychological and general theories.

(a) PSYCHOLOGICAL THEORIES OF VOCATIONAL MATURITY

The psychological theories of vocational maturity have in common the assumption that the individual has some freedom
in the choice of an occupation, that is, he can exert at least
a modicum of control over his vocational future and posit
further, that choice is determined, primarily by the charac-
teristics or functioning of the individual and only indirectly
by the environment in which he lives. Amongst the psycholo-
gical theories, the traditional trait-and-factor theories
emphasize the relationship of an individual's personal
characteristics to his selection of an occupation. The logic
of this viewpoint is that—because individuals differ in their
aptitudes, interests and personalities and because occupations
require varying amounts and kinds of these traits and factors,
different individuals choose to enter different occupations
(Parsons, 1909). According to this theory, vocational choice
is largely a conscious, cognitive, problem-solving process.
Subjected to critical examination, revised trait-and-factor
theory given by Super and Bachrach (1957) states that :
"Prediction should be directed toward the next stage rather
than to a hypothetical final occupation."

Each of the psychodynamic theories viz. psychoanalytic,
need and self, proposes that the most significant factor in
the making of a vocational choice is a motivational or process
variable, and the behaviour thus described by them is in
terms of motives or drives. According to psychoanalytic
theoretical view, vocational activity represents a sublimation
of biological desires and impulses. The underlying assumption is that one's work reflects his personality. Bordin, Nachmann and Segal (1963), have given a more articulate and comprehensive psychoanalytic analysis of vocational choice focussing upon the defense mechanisms of the individual in the selection of an occupation. Need theories of choice give primary attention to the desires and wants which stimulate the individual to prefer one occupation to another. Need theory formulated by Roe (1956) from her studies of personality development begins with the individual's early psychosocial experiences, particularly in the family, and traces their effects upon the formation of needs and the patterning of psychic energy. Roe (1957) relates specific needs as defined by Maslow (1954) particularly need for self-actualization, to vocational choice. According to self-theorists, in expressing a vocational preference, a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to implement a concept of himself; that in getting established in an occupation he achieves self-actualization (Super, 1951). According to O'Hara and Tiedeman's (1959) point of view, "the process of vocational choice may be characterized as that of developing a vocational identity." Thus, according to them, self and vocational development interact and affect each other as the individual copes with the problems of pursuing a course of training or deciding upon a career.
Most of the above mentioned theories have assumed that choice takes place at a given point in time rather than over a period of time. In contrast, developmental explanations of choice and maturity propose that the decisions involved in the selection of an occupation are made at a number of different points in the individual's life and that they constitute a continuous process which starts in childhood and ends in early adulthood. Current theories of vocational development postulate that choice behaviours mature as the individual grows older (Dysinger, 1950; Beilin, 1955). The theory formulated by Ginzberg et al. (1951), which they derived from interviews with adolescent boys and girls, consisting of three propositions about the developmental nature of vocational choice, identified its relationship to individual values, emotional factors, and the amount and kind of occupation and the impact of reality imposed by environmental pressures as the determinants of vocational development. Super (1953) places more emphasis than Ginzberg upon vocational choice as a process and suggests that the term development be used "rather than 'choice', because it comprehends the concepts of preference, choice, entry, and adjustment." He introduced the concept of vocational maturity to denote the individual's degree of development from the time of his early fantasy choices in childhood to his decisions about retirement from work in old age (Super, 1955).
(b) NON-PSYCHOLOGICAL THEORIES OF VOCATIONAL MATURITY

Non-psychological theories on the other hand are those which attribute choice phenomenon to the operation of some system which is external to the individual. The entry into occupations is solely determined by the operation of environmental factors such as choice or contingency, the law of demand and supply, and folkways and institutions of society. Chance factors which effect the individual's vocational decisions include inheritance of large money, outbreaks of war, serious disease, failure of business due to depression (Ginzberg, 1951). They are to be distinguished from "contingency" factors which are predictable and can be considered when the individual plans his vocational future. These are intelligence, socioeconomic status, availability of proper training facilities to prepare for an occupation, the extent of financial support, the prospect of admission and anticipated occupational opportunities available for training. The ignorance on the part of the individual about the relative advantages and disadvantages of different occupations and the limited financial resources to pursue the technical training restrict his freedom of choice (Clark, 1931).

Thomas (1956) listed number of factors namely income, occupational appeal and qualifications as the major determinants of the choice making process, while the sociological
theories also supported by Super and Bachrach (1957) lay emphasis upon the social systems, which include cultural variables, subculture forces, community variables and organisation settings, with which the individual interacts. The adolescents ideas of desirable jobs are a reflection of their experiences in the class and family culture complexes (Hollingshead, 1949). Educational decisions, though often made rather casually, effectively commit a person to a certain course of action by eliminating other possibilities. The value system too, acquired through the school, sometimes facilitate the decision-making, as when he attempts to plan for the future rather than letting it take care of itself, but other times they pose conflicts as when he aspires to be socially approved higher level occupation but lacks the ability to qualify for it. To the degree that parents influence educational decisions of their offsprings and to the degree that social class influences parental attitude toward and capability of providing educational opportunities, social factors are highly important in educational and vocational decisions.

(c) GENERAL THEORIES OF VOCATIONAL MATURITY

Amongst the general theorists, Blau et al. (1956) have given assumptions that - the antecedent conditions which produce through personality development and historical change,
the immediate determinants of occupational entry, are based upon factors as - educational development, process of socialization, effects of available financial resources, differential family influences (amongst the personality development), and trends in social mobility, shifts in industrial composition, historical development of social organizations, changes in level and structure of consumer demand (amongst the historical changes).

Super and Bachrach (1957) have formulated a general theory of vocational maturity which draws upon contributions from several areas. This theory places a heavy emphasis upon the developmental nature of work-related decision making and uses of the developmental framework of life periods or stages to describe the various phases in the selection of an occupation and to specify the cultural and social, trait and psychodynamic factors which influence the choice process from childhood to late adulthood. The basic assumption which underlies Super and Bachrach's theory is that vocational development is a special aspect of general development and that the factors which affect vocational development change and interact with each other much as vocational behaviour changes and interacts with them. According to them, "Biological, Psychological, Economic, and Sociological Factors combine to affect the individual's career pattern."
Description of factors as envisaged in various theories scanned above, amply bear out that individuals will differ in their readiness for various elements or aspects of vocationalization and in the ways as a result of which they develop such behaviours. Not everyone will reach the same point of maturity at the same time nor will all proceed through the elements of vocationalization at the same pace. The speed of such moments and thus readiness for it will largely depend upon the individual's personal history and many extrinsic as well as intrinsic factors (Herr and Cramer, 1972). The present study however, considers only some of the important intellectual factors viz. intelligence, and creativity, and personality factors in establishing the potential predictors of vocational maturity.