towards vocations in tune with their abilities, aptitudes, personality and interests.

Another serious dimension of the present industrial situation is the educated unemployed and underemployed. To some extent this is explicable in terms of haphazard planning in industry and technical education, lack of co-ordination between the two and lack of provision of vocational guidance before and after technical training. The Government has, however, started thinking in terms of vocational education. The fruition of this is evident from the 10+2 system of education, developed in 1977, in which the student is required to channelise his interests at the end of the ten years of school education.

This system in India and many systems in other countries stem basically from Frank Parson's (1908) principles in which he strongly emphasized the role of vocational choice in order to avoid the problem of wastage and stagnation. Vocational choice in turn is a motivational force that influences work efficiency in the context of industry. Further, in accordance with the principles of guidance the maximum premium has been placed on the problem of round peg in a square hole. As a result of the Guidance Movement some psychometric tests came to the fore in order to gauge man's potentialities - to know his aptitude for a given job.
Proper placement in a job leads to higher work efficiency which is of prime importance in industrial settings. The worker without aptitude cannot function efficiently. However, this is intermingled with the right choice of profession, personality and motives which play an important role in affecting man's efficiency at work. Unwise selection of a job may lead to lack of adjustment at work or the individual may just not be motivated sufficiently for efficient working. It is a vicious circle - one factor influencing another and each important in its own right. Following the availability of sturdy psychological tests some theoretical foundations for occupational choice were also laid in which varied emphasis is being placed on different segments of situation and man's life.

Therefore for the efficient working of the technical personnel in industry various theories of occupational choices have been put forth to explain the why and how of making a choice of occupation. Crites (1969) has broadly classified:

(A) Nonpsychological theories
(B) Psychological theories

(A) Nonpsychological theories

According to these theories an individual enters an occupation solely by the operation of environmental factors. The choice of an occupation is in no way considered to be
directly or indirectly related to the individual's intelligence, personality, interests, and such abilities. Three theories will be considered in this context.

1. Accident or Reality Theories: The essence of this theory lies in the notion that circumstances beyond the control of the individual contribute, significantly to career choice. More formally 'chance' refers to experiences which are unplanned so far as the individuals themselves are concerned (Miller and Form, 1951).

It is likely that people join the vocations without any pre-planning and information in connection with the occupation they have chosen to pursue. This is mostly true in the Indian set-up. Super (1957) feels that 'given sufficient knowledge there is no such thing as chance'.

This theory has been refuted. It does not include the abilities, potentialities of an individual. Choice of a profession cannot take place as a matter of chance.

2. Economic Theories: The classical economists of the 18th century led by Smith and Mill maintained that it is the net monetary gain that helps an individual in choosing a profession. According to Parnes (1954) a third of the sample had merely drifted into a job or taken it because they could not find any other; many times personal reasons play an important role in making a choice. Thomas (1956)
gives an analysis of (i) income (ii) occupational appeal (prestige) and (iii) occupational qualifications in relation to occupation distribution. Thomas' analysis could be partly responsible for career choice. Again, potentialities, the personality of an individual appears to be of no consequence. Money alone cannot be strong enough force to choose a particular occupation. Society also has its influence.

3. **Cultural and Sociological Theories**: In the selection of an occupation, the individual is more or less directly influenced by several social systems viz. (a) Culture, (b) Sub-culture, (c) Community, (d) School and Family (Super and Bachrach, 1957). Lipsett (1962) too points out that each of these affect the individual's choice in a somewhat different way in varying degrees of importance.

(a) **Culture**: Vocational choice is affected by the culture in which an individual is raised. In India even now the caste of an individual contributes in the choice of profession. However, in most countries of the west where people enjoy a broader and freer spectrum, individuals have freedom regarding the choice.

(b) **Sub-culture**: Sewell, Haller and Strauss (1957) report that the social class to which the individual belongs imbibes in him class consciousness and identification which in turn causes him to set corresponding vocational aspirations for himself. It has been found (Hollingshead, 1952; Lipsett, 1963)
that individuals from the elite of society have a tendency of making an occupational choice at the professional and executive levels, the individuals belonging to the low status class will have aspirations for skilled and unskilled occupations more often.

(c) **Community**: An individual's community in terms of his ethnic group, his neighbourhood and immediate society play a vital role in his career choices (McGuire and Blockman, 1953).

(d) **School**: School plays an important role in the process of socialization whereby the individual develops certain modes of behaviour and living patterns, which later influence his decisions and vocational choices. Miller and Form (1951) report that through school the individuals acquire a system of values which directly influences his vocational choice. Walia (1976) and Randhawa (1977) found that career choices were greatly influenced by the type of school the individual attended.

(e) **Family**: Ginzberg et al (1951) and Super (1953) have suggested the fundamental role of the family in choosing a vocation. Roe (1957) emphasizes the psychological atmosphere in the family as being fundamental in determining the career choice.

Miller and Form (1951) express that the various social factors demonstrated to be associated with occupational levels
might become the basis of a social causation theory of career patterns. Hyman, Hewer and Newback (1962) and Jones (1965) have examined the socioeconomic factors viz., social and economic status of the subject as related to occupational choice.

The above mentioned theories have laid emphasis on the external circumstances and have not given due cognizance to the human aspects. The intelligence, aptitudes, personality, interests and motivation of the individual are of no consequence according to these viewpoints. The complete dynamics of vocational choice have not been explained by some non-psychological theories, and though there may be some element of truth in these theories yet they do not give a comprehensive explanation. Therefore these theories have been refuted and a number of psychological viewpoints have been put across to explain why and how an individual makes a particular occupational choice which ultimately affects the work efficiency in the organizational set-up.

(B) Psychological Theories

The main assumption in the psychological theories is that the individual has the freedom to choose a career - at least exerting a modicum of control over his vocational future. The individual is an important variable in the decision making process. The theories envisaging the psychological approach may be discussed as (1) Talent Matching
Theory (2) Developmental Theories, (3) Personality Theories and (4) Learning Theory.

1. Talent Matching Theory: The talent matching theory (Parson, 1909; Kitson, 1925; 1938; Strong, 1955) stresses upon the role of abilities as well as interests in vocational choice. Abilities and interests are related to educational success and therefore indirectly to vocational choice and success. Parson (1909) had pointed out three steps in the process of career decision (i) clear understanding of himself i.e., his aptitudes, abilities, interests, ambitions, resources, limitations and their causes (ii) knowledge of the requirements and conditions of success, advantages and disadvantages, compensations, opportunities, advancements and other benefits in different lines of work (iii) true reasoning on the relationship of these two sets of information. In short, the individual matches his abilities with those required by the occupation and takes on an occupation that matches best.

Ability alone does not affect occupational choice, other factors also play a role. Though the talent matching theory does explain partly, why and how the individual makes a choice.

2. Developmental Theories: Vocational choice as a developmental process was conceived by Carter (1940).
This point of view suggests that vocational choice is a developmental process from childhood to early adulthood. The theories contributing to this viewpoint are as follows:

(a) **Ginzberg's Theory**: A preliminary approach to a general theory was developed by Ginzberg et al (1951). They concluded that the process of occupational decision making could be analysed into three developmental periods which can be differentiated by the way an individual "translates" his impulses and needs into an occupational choice.

(i) **Fantasy period (6-11 years)** - During this period a child thinks about an occupation in make-believe work roles called "fantasy choice". The outstanding feature of this period is that choices are arbitrary based on the pleasure principle with no reference to reality, abilities and potentials - three important ingredients which Ginzberg identified in the occupational choice process.

(ii) **Tentative period (11-17 years)** - Around ages eleven and twelve an individual begins selecting activities basically in terms of his interests and idiosyncrasies. From ages twelve to fourteen the individual begins to evaluate his ability to function in areas in which he is interested and becomes conscious of different occupations, and salaries, and different types of required education and training. The adolescent, around 15 and 16 years becomes conscious of the range of factors that contribute to a decision choice and
evaluates them in terms of his own goals and values. Finally, in the transition stage the individual begins to shift from interests, capacities and values to reality conditions. Early adolescence gradually merges into calmer late adolescence.

(iii) **Realistic period**: This period begins around eighteen years and is composed of the stages of exploration, crystallisation and specification. Realistically, the individual combines the many factors internal and external that have relevance to his decision.

Therefore, occupational choice is not a single decision but a developmental process over a minimum span of six or seven years and more typically over ten or more years. Ginzberg's (1972) reformulated theory is just a refinement of earlier principles. In particular it shows a greater sensitivity to reality factors of income, sex and race but the individual remains the prime mover in the decision-making process.

(b) **Tiedeman's Theory**: According to this theory the process of vocational development is determined by each of several decisions an individual makes as he matures with respect to school, work and life. Decision making may be separated into two aspects (1) the period of Anticipation (2) the period of Implementation or Adjustment.

Anticipatory behaviour includes four stages viz. exploration, crystallisation, choice, and specification.
With the making of an actual decision the anticipation stage ends and the next major period is begun. The period of implementation ensues and has three stages namely induction, transition and maintenance. The above sequence of exploration - crystallization-choice-specification-induction-transition-maintenance occurs each time a career related choice must be made. Tiedeman (1961) has pointed out "Vocational development then is self-development viewed in relation with choice, entry and progress in educational and vocational pursuits."

The distinguishing characteristic of the developmental theories is that decision making starts developing in childhood and continues throughout adulthood. Vocational choice is run as a process which is systematic, it is predictable and occupational choice culminates in a final decision to enter a specific occupation. Thus as Bailey and Stadt (1973) point out "the career evolves in a time pattern in harmony with the evolution of other aspects of life."

(c) Super's Developmental Self-Concept Theory: Super (1963) views an individual's occupational preference as an attempt to implement a self concept maintaining that a person selects an occupation whose requirements provide a role consistent with his self-image.

The processes which contribute in developing a self-concept are identified as the processes of formation,
translation and implementation:

(i) The Formation stage further includes exploration of the world and of the self, self-differentiation, identification, role playing, and reality testing.

(ii) Translation occurs in three ways: (a) Identification with an adult may make his particular occupation seem interesting (b) Experience in a role in which one is cast may lead to the discovery of a vocational translation, and (c) Awareness of possessing attributes which are important in a certain field may lead to an investigation of that occupation.

(iii) The implementation of the self-concept is the end result of the process. In this stage, the individual starts his professional training, completes his education, and ultimately enters the world of work. Super (1963) has pointed out that the process of forming a self-concept begins in infancy, "This is essentially an exploratory process which goes on throughout the entire, course of life."

Vocational choice cannot be explained merely in terms of a developmental process. Though Super's conclusion has explained career choice in terms of self-concept but an individual's potentialities, capabilities, personality and motivations do affect career choice.
3. Personality Theories: Personality plays a significant role in career choice. A few theories have explained vocational choice within the framework of personality which will be discussed below:

(a) Psychoanalytical Theories: The basis for career choice within a psychoanalytic framework is that occupations are chosen to satisfy needs, to gratify impulses, and to reduce anxieties. An individual adjusts to social expectations by sublimating the desires and impulses experienced by him naturally, so to speak biologically - the basic premise of this theory being that the choice of profession reflects one's personality. Meadow (1955) recognizes the influence of other factors too. Bordin, Machmann and Segal (1963) emphasized the importance of childhood experiences which they believe influence the type of mode chosen for obtaining gratification.

However, Bailey and Stadt (1973) have pointed out several limitations. This is a theory of "Vocational Commitment" i.e. those activities to which individuals have committed their energies are the only ones discussed resulting in the exclusion of those who have little capacity to obtain gratifications from work. Also, the theory does not deal with people who are motivated or constrained to choose occupations based on economic, cultural, geographic, and other external forces. This theory applies only to those
individuals who have a fairly high degree of freedom in their choices.

(b) Roe's Need Theory: Though the psychoanalytical theory speaks of satisfaction of needs and gratification of impulses in general, it does not relate to specific needs. The specific satisfying needs that Roe relates to vocational choice are those specific needs defined by Maslow (1954). Primary attention is given to the desires and wants which stimulate the individual to prefer one occupation from another. These needs operate in a hierarchy of prepotency - only after the lower needs are satiated can the higher order needs (understanding, beauty, self-actualization) be effective. Roe (1956) holds that in the choice of profession the self-actualization need forms the core. She further concluded that the personality differences were partly the result of early parent-child relationship. According to Roe (1957) the emotional climate in the home is of three types: emotional concentration on the child, avoidance of the child or acceptance of the child. This classification refers to the dominant pattern in the home, whether shown by one or both the parents. Basic attitudes, interests and capacities will be developed depending on which of the three emotional climates is experienced which will be given expression in the general pattern of the adult's life in his personal relations, in his emotional reactions, in his activities and in his vocational choice.
Boe (1957) has given eight occupational groups and six levels within each of the groups. The level selected within any given occupational area is influenced by the intensity of the person's 'needs'. Maslow's (1954) hierarchy of needs was incorporated in Boe's theory at this juncture. The need intensity an individual reflects is a product of such elements as genetic factors and is limited by variables such as intelligence and socio-economic background. The occupational groups are affected by early childhood experiences e.g. an individual whose childhood is emotional more likely to move toward technical or scientific occupations. The following table gives categories in Boe's classification of occupations.

Table I

<table>
<thead>
<tr>
<th>Groups</th>
<th>Levels</th>
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<tbody>
<tr>
<td>I</td>
<td>Service 1. Professional and managerial 1.</td>
</tr>
<tr>
<td>II</td>
<td>Business Contract 2. Professional and managerial 2</td>
</tr>
<tr>
<td>III</td>
<td>Organizations 3. Semi-professional</td>
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<tr>
<td></td>
<td>Small business</td>
</tr>
<tr>
<td>IV</td>
<td>Technology 4. Skilled</td>
</tr>
<tr>
<td>V</td>
<td>Outdoor 5. Semi-skilled</td>
</tr>
<tr>
<td>VI</td>
<td>Science 6. Unskilled</td>
</tr>
<tr>
<td>VII</td>
<td>General</td>
</tr>
<tr>
<td>VIII</td>
<td>Arts and Entertainment</td>
</tr>
</tbody>
</table>
Though childhood experiences play a major role in influencing the choice of profession but one cannot lay total emphasis on this factor. Personality may be moulded by this but ability and motives too have their role to play in occupational choice that is intimately linked with work efficiency.

(c) Holland's Personality Theory: This theory (Holland, 1959) assumes that the person is the product of the interaction of his particular heredity with a variety of cultural and personal forces including peers, parents and significant adults, social class, his culture and the physical environment. The person develops a hierarchy of preferred methods of dealing with environmental tasks, which he refers to as the individual's adjustive orientation. In the selection of vocational choice, a person "searches" for situations that satisfy his hierarchy of adjustive orientations. In choosing an occupation the individual seeks an environment which will enable him to cope with work tasks which are in harmony with his major personal orientation.

Holland (1966) has added the variable of personality type which also becomes an important trait factor in vocational choice.
Summary of Holland's (1959, 1966) Personality Type and Environmental Models

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Environmental Model</th>
<th>Typical Occupation</th>
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<tbody>
<tr>
<td><strong>Realistic</strong> (Motoric)</td>
<td>Enjoying activities requiring physical strength; aggressive, good motor organisation; lacks verbal and interpersonal skills; prefers concrete to abstract problems, unsociable etc.</td>
<td>Labourers, machine operators, aviators, farmer, truck drivers, carpenters etc.</td>
</tr>
<tr>
<td><strong>Intellectual</strong></td>
<td>Task oriented; 'thinks through' problems; attempts to organize and understand the world; enjoys ambiguous work tasks and intracative activities, abstract orientation etc.</td>
<td>Physicist, anthropologist, chemist, mathematician, biologist etc.</td>
</tr>
<tr>
<td><strong>Social</strong> (Supportive)</td>
<td>Prefers teaching or therapeutic roles; likes a safe setting; possesses verbal and interpersonal skills, socially oriented accepting of feminine impulses etc.</td>
<td>Clinical Psychologist, Counsellor, Foreign Missionary, Teacher, etc.</td>
</tr>
<tr>
<td><strong>Conventional</strong> (Conforming)</td>
<td>Performs structured verbal and numerical activities and subordinate roles; achieves goals through conformity.</td>
<td>Cashier, statistician, book keeper, administrative assistant, post office, clerk, etc.</td>
</tr>
<tr>
<td><strong>Enterprising</strong> (Persuasive)</td>
<td>Prefers verbal skills in situations which provide opportunities for dominating, selling or leading others.</td>
<td>Car salesmen, auctioneer, politician, master of ceremonies, buyer, etc.</td>
</tr>
<tr>
<td><strong>Artistic</strong> (Aesthetic)</td>
<td>Prefers indirect personal relationships prefers dealing with environmental problems through self-expression in artistic media.</td>
<td>Poet, novelist, musician, sculptor, play-wrights, composers, stage directors, etc.</td>
</tr>
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4. **Learning Theory**: The essence of O'Hara's (1968) theoretical approach is that the career development of students can be facilitated by involving them in various learning situations which have occupational implications. O'Hara has viewed career development as a learning process and that changes in vocational behaviour are the result of cognitive changes - boys and girls learn how to be doctors, electricians, teachers and nurses. Learning is a function of motivation. The student acts to satisfy his vocational needs; an understanding of the relationship between education and vocation leads to the proper selection of high school courses. A proper learning environment is required for vocational learning to take place.

Miller (1968) too contributed in relating the learning theory to vocational behaviour. In the field of vocational decisions a learning theory of vocational behaviour can play its role to both understanding and to theory development. This theory's approach to vocational decisions is based on knowledge of the individual's past history, present stimulus situation, and present motivational status. Thus the teacher or parent can manipulate the environment, and predictable changes in students become possible as a consequence of a clear comprehension of the variables involved in decision making and control of the environment. Miller points out that potential for control is the major advantage of a learning theory approach over other approaches.

However, owing to the complexity of the environment a control over it is too much of an expectation. Parents and
teachers may be unable to manipulate the environment because of various variables influencing the environment from time to time. This approach can be supplemented with some others.

Osipow (1968) correctly pointed out that the major differences between the theories are differences in emphases. The talent matching theory was the forerunner of all modern theories of occupational choice and its importance cannot be minimized in the current practice of vocational guidance. It does have its limitations and may be supplemented with Ginzberg's, Super's, Tiedeman's developmental theory and Holland's personality theory. In Industry, the talent matching theory has pragmatic potential - the traits viz. capabilities and potentials, can be measured through objective tests and follow-up longitudinal studies can be carried out. Aptitudes can be assessed and accordingly the right man can be fitted to the right job.

In organizational work environments the management's goal is production, infact everything in the set-up is production oriented. The industrial worker primarily seeks satisfaction in work besides of course production. Thus production combined with satisfaction leads to work efficiency. A harmonious combination between optimum production and maximum satisfaction can be possible only if the focus on the appropriate choice is sharpened in terms of personality, aptitude and motives of workers.