CHAPTER-I
INTRODUCTION

Recent discussions of emotional intelligence proliferate across the American landscape - from the cover of Time magazine, to a best selling book by Daniel Goleman (1995), to an episode of the Oprah Winfrey show. But emotional intelligence is not some easily dismissed "neopsychobabble". It has roots in early work on non-cognitive aspects of intellectual behaviour (e.g., Wechsler, 1943). Psychologists have been investigating other aspects of intelligence for some time now, and grouping them mainly into three clusters: abstract intelligence (the ability to understand and manipulate with verbal and mathematical symbols), concrete intelligence (the ability to understand and manipulate with objects), and social intelligence (the ability to understand and relate to people).

It was David Wechsler (1943) who realized that the non-cognitive aspects are also important in the understanding of intellectual behaviour. He asserted that the non-cognitive abilities are essential for predicting one's ability to succeed in life. He raised the question whether non-cognitive, i.e., affective
and conative abilities are admissible, as factors of general intelligence. Wechsler was not the only researcher who saw non-cognitive aspects of intelligence to be important for adaptation and success. Robert Thorndike, to take another example, was writing about "social intelligence" in the late thirties. Unfortunately, the work of these early pioneers was largely forgotten or overlooked until 1983 when Howard Gardner began to write about "multiple intelligence." Gardner (1993) proposed that inter- and interapersonal intelligence is as important as the type of intelligence typically measured by IQ and related tests.

These early attempts indicated that the non-cognitive factors are not only admissible but also necessary. Thorndike (1920) tried to demonstrate that in addition to intellective there are also definite non-intellective factors that determine intellectual behaviour. If the foregoing observations are correct, it follows that we cannot expect to measure over all intelligence until our tests also include some measures of the non-intellective factors. It may also be kept in mind that cognitive and non-cognitive abilities are very much related. Research findings suggest that emotional and social skills help in improving cognitive functioning. It has also been observed that cognitive ability seems to play a rather limited role in accounting for why
some people are more successful than others are. What is the evidence that emotional and social factors are important? Some of these researches came from personality, social psychology, and some even from neuropsychology (Charniss, 2000).

When Salovey and Mayer coined the term ‘emotional intelligence’ in 1990, they were aware of the previous work on non-cognitive aspects of intelligence. They described emotional intelligence as “a form of social intelligence that involves the ability to monitor one’s own and others feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action.” Mayer and Salovey (1993) regarded emotional intelligence as a potentially standard intelligence and revised their model accordingly in their book, “Emotional Development and Emotional Intelligence.” Mayer et al. (1999) suggests that emotional intelligence can be measured reliably, which is related to but independent of standard intelligence.

In the early nineties Daniel Goleman a science writer for the New York Times became aware of Salovey and Mayer’s (1990) work, and this eventually led to his book “Emotional Intelligence” (1995). Goleman had been trained as a psychologist at Harvard where he worked with David McClelland, among others. McClelland was among a growing group of researchers
who were becoming concerned with how little traditional tests of cognitive intelligence told us about what it takes to be successful in life. Goleman became attracted to the conception of emotional intelligence. According to him, "Emotional intelligence may be the best predictor of success in life."

The term emotional intelligence has been described by experts in many ways - typically as a list of personality characteristics, such as "empathy, motivation, persistence, warmth and social skills." Second, we can predict important life outcomes using such a diverse list of variables which is, of course, correct. But let's be honest about such lists. They contain variables beyond what is meant by the terms 'emotion' or 'intelligence' or what reasonable people would infer from 'emotional intelligence' such popular models are using a catchy new name to sell worthy, old fashioned personality research and prediction. Third, emotional intelligence are separated by a 'claim' gap our own and others. Ongoing research indicates that emotional intelligence may predict important life outcomes at about the level of other important personality variables.

This way we can say that emotional intelligence (EQ) really is not new. In fact, it is based on long history of research and theory in personality and social intelligence. EQ involves trait
like self-awareness, social deftness, and the ability to defer gratification to be optimistic in the face of adversity to channel strong emotions and show empathy towards others. Of these traits, self-awareness is perhaps the most important emotional competency, the cornerstone of building personal success in life. A deficit in self-awareness can have debilitating effects both in your relationship and at your office.

For long time it has been thought that success at every place depends upon one's level of intelligence, which can be shown from one's academic achievements, obtaining good marks or getting any position. But how bright one is outside the classroom facing life's tough moments. Here individual needs a different kind of resourcefulness, known as emotional intelligence (EQ) which is a different way of being smart. Sometimes it is observed that a brilliant student in school time fails in his life. While a simply an average person may rise to heights of the career. The lack of emotional intelligence explains why people who, having a high IQ have been such utter failure and disastrous in their personal and professional lives.

An analysis of the traits of persons who are high on IQ but low on EQ, yield the stereotype nature and critical, inhibited and uncomfortable with others. In contrast, persons high on EQ are
poised, out-going, committed to other people and worthy causes, sympathetic and caring, with a rich and fulfilling emotional life. They are comfortable with themselves and the social universe they inhibit. It is often said that a high IQ may assure one a top position, but it may not make him a top person.

Goleman's book provides a very detailed comparison between emotional intelligence (EQ) and general intelligence (IQ). Evidence suggests him to conclude that it is "as powerful, and at times more powerful, than IQ, and provides an advantage in any domain of life. He is of the view that IQ by itself is not very good predictor of job performance. Sternberg (1996) has also noted that studies vary with regard to this and that ten percent may be a more realistic estimate. In some studies, IQ accounts for as little as four percent of the variance in job performance.

An example of this research on the limits of IQ as a predictor of performance is the Sommerville study, a 40-year longitudinal investigation of 450 boys who grew up in Sommerville, Massachusetts. Two-thirds of the boys were from welfare families, and one-third had IQs below 90. However, IQ had little relation to how well they did at work or in the rest of their lives. What made the biggest difference was childhood
abilities such as being able to handle frustration, control emotions, and get along with other people.

Another good example is a study of 80 Ph Ds in science who underwent a battery of personality tests, IQ tests, and interviews in the 1950s when they were graduate students at Berkeley. Forty years later, when they were in their early seventies, they were tracked down and estimates were made of their success based on resumes, evaluations by experts in their own fields, and sources like American men and women of Science. It turned out that social and emotional abilities were four times more important than IQ in determining professional success and prestige.

Now it would be absurd to suggest that cognitive ability is irrelevant for success in science. One needs a relatively high level of such ability merely to get admitted to a graduate science program at a school like Berkeley. Once you are admitted, however, what matters in terms of how you do compared to your peers has less to do with IQ differences and more to do with social and emotional factors. To put it another way, if you are a scientist, you probably need an IQ of 120 or so simply to get a doctorate and a job. But then it is more important to be able to persist in the face of difficulty and to get along well with
colleagues and subordinates than it is to have an extra 10 or 15 points of IQ. The same is true in many other occupations.

It is one of the common observations that EQ is not apposite to IQ. Some people are higher on EQ while others are higher on IQ. Or some are higher on both. Researchers have been making efforts to understand how they complement to each other, how a person’s ability to handle stress, for instance, affects his/her ability to concentrate and put his/her intelligence to use. Some people can handle anger very well but cannot handle fear. Others are not capable of reacting to job. So each emotion needs to be viewed differently.

According to Salovey & Mayer (1990) emotional intelligence is a multidimensional construct and subsumes Gardner’s inter- and interpersonal intelligences, and involves abilities that may be categorized into five domains:

1. Self-awareness: Observing yourself and recognizing a feeling as it happens.

2. Managing emotions: Handling feelings so that they are appropriate; realizing what is behind a feeling; finding ways to handle fears and anxieties, anger and sadness.
3. Motivating oneself: Channeling emotions in the service of a goal; emotional self-control; delaying gratification and stifling impulses.

4. Empathy: Sensitivity to others; feelings and concerns and taking their perspectives; appreciating the differences in how people feel about things.

5. Handling relationship: Managing emotions in others; social competence and social skills; self-awareness are essentially dimensions of social intelligence.

   Cooper asserts, “one can have a more successful career and better relationship, can be more productive and can motivate others and use them effectively.” He presents a model of emotional intelligence. The model describes three driving forces of competitive advantages:

1. Building trusting relationships: this force involves developing a specific way of creating and sustaining a long lasting trust radius with current potential customers, own teams and the entire organizations.

2. Increasing energy and effectiveness under pressure: this force increases personal and interpersonal energy and builds a foundation for exceptional attentiveness and capacity to excel during stressful times, complexity and change.
3. Creating the Future; this force builds essential skills for tapping the power of divergent views and for identifying core talent and strengths in one self and others that are rarely used as a competitive advantage. Such skills can strengthen individual and team capacities to find opportunity, problem solving and make strategic, technical and service breakthroughs.

This model suggests four-cornerstones of emotional intelligence:

a. Emotional Literacy: Emotional literacy emerges not from the musing of rarified intellect but form the working of the human heart, from which comes the energy that makes us to identify the pursue over unique potential and purpose. Emotional literacy centers on learning the alphabets, grammar and vocabulary of EQ and recognizing, respecting and valuing the inherent wisdom of feeling. This involves developing a clear and useful vocabulary for emotional literacy. Emotional energy, emotional honesty, emotional feedback and practical intuition contribute to emotional literacy.

b. Emotional Fitness: Just as physical fitness builds strength, stamina and flexibility of the body, emotional fitness builds corresponding qualities of heart. It enables the individual to put
the skills of emotional literacy into practice, developing greater authenticity and believability. These, in turn, enable one to expand one’s circle of trust or ‘Trust Radius’, which has been positively correlated to profitability and success. Emotional fitness refers to those qualities that illuminate our personal values and character and the feelings that drive them.

c. Emotional Depth: Emotional Depth calls for one’s core character, unique potential and purpose of destiny. It is the manifestation of person’s commitment, drive, initiative conscience and accountability. It shows one’s integrity and increases his/her influence beyond authority, rank and title. Emotional depth can be developed through developing self-awareness, assertiveness, empathy and communication.

d. Emotional Alchemy: It is a blending of forces that enable us to discover creative opportunities and transform lesser ideas into greater one. It is emotional alchemy through which we extend out creative potential and capacity to flow with problems and pressure and to fight for the future.

There are certain wide spread myths about emotional intelligence. It is important to dispel some of the most common ones. First, EQ does not mean merely ‘being nice’. Secondly, EQ does not mean giving free rein to feelings ‘letting it all hang
out'. Rather, it involves managing feelings so that these are expressed appropriately and effectively, enabling people to work together smoothly towards common goals. Third, women are not necessarily smarter than men when it comes to emotional intelligence, nor are men superior to women. Each one has a personal profile of strengths and weaknesses in these capacities. Finally, the level of EQ is not fixed genetically, nor does it develop in early childhood. Unlike IQ, which does not change much after adolescence, EQ is largely learned and continues to develop throughout life. Indeed, EQ increases as one grows.

Nowadays job does not only depend on how smart you are or what your academic qualifications are or what your expertise is? But also depends on how well you are able to handle yourself and others. So there is no doubt that a person who has high level of EQ is more successful than a person who has high IQ level is.

Although the above criteria of selections are not new but only new name give to them is emotional intelligence. (Your IQ may help you in understanding and dealing with the world at one level but you need emotions to understand and deal with your self and others. The term "Emotional intelligence" is used everywhere. When you read any magazine and news papers most of them challenge you to 'know your EQ' and on Internet site you
know your EQ simply. Goleman (1995) presented empirical evidence that emotional intelligence or EQ accounts for about 80 percent of a person’s success in life and remains can be attributed to IQ and in offices where employees want to learn how to understand their bosses.

EQ helps the people in many ways. The exponents of emotional intelligence are of the view that our emotional make up largely determines our professional success. In any discussion of emotional intelligence, it is important to be identified one of the key determinants of success in work place. It is increasingly being recognized that EQ can be applied to an organization’s unique needs. Employees can learn the principles of EQ to become more creative in their work and increase overall productivity. This can be achieved by learning powerful techniques to integrate and utilize the principle of applied emotional intelligence in their work place, as mentioned earlier.

A person’s emotional make-up largely determines his/her professional success. EQ is the most important determinant of the extent of professional and personal success in life. At a time when there are no guarantees of job security, when the very concept of ‘job’ is being rapidly replaced by “portable skills”, EQ is considered as the prime factor which makes and keeps
people employable. On the basis of advanced research on the requirements of a chief executive officer's (CEO) office, psychologists concluded that in the fast-changing corporate environment it is required more than just brain to run a job or business.

EQ helps us to cope with stressful situations. Stress management therefore largely depends upon striking an emotional balance between a potential stress condition and our reaction to it. Lack of social support from colleagues and poor interpersonal relationships can cause considerable stress, especially among employees with high social needs. Excessive rules and lack of participation in decisions that affect employees are inductive of structural variables that may also be a potential source of stress. National surveys consistently show that marital problems, ending a relationship and discipline problems with children are factors that can lead to stress among employees. EQ helps to cope with all that problems.

Goleman (1996) cites the example of a manager at AT&T who was asked to rank the top performers working with him. The results showed that they were not necessarily those with the highest IQs, they were whose EQ were high. According to Golemen IQ gets us hired but EQ gets us promoted. Different
jobs also call for different types of emotional intelligence e.g. success in sales requires the empathic ability to gauge a customer’s mood and the interpersonal skill to decide when to pitch a product and when to keep quiet. In contrast, success in painting or professional tennis requires a more individual form of self-discipline and motivation.

Regarding the age difference, Salovey and Mayer (1990) in a study found that adults across the board had higher EQ. An evaluation of the emotional intelligence of more than 3000 men and women of ages varying from teens to the 50s, revealed small but steady and significant increase in their emotional intelligence with advancing age. Further, a peak was observed in the 40s age group. It was confirmed that emotional intelligence developed with increasing age and experience as the person progressed from childhood to adulthood.

It has been observed that in general, males and females are equal on EQ. While females tend to be stronger in competencies based on empathy and social skills, men do better in those based on self-regulation. The high IQ males have a wide range of intellectual interests and abilities. They are ambitious, productive but tend to be critical, fastidious and inhibited, uneasy with sexuality, unexpressive and detached and emotionally bland and
cold. While high I.Q female is intellectually confident, fluent in expressing thoughts and has a wide range of intellectual interests, prone to anxiety and hesitate to express anger openly, does so indirectly. High EQ males are socially poised, outgoing and cheerful, have a noticeable capacity for commitment to people or causes, for taking responsibilities and for having an ethical outlook. They are sympathetic and caring, have rich emotional life and comfortable. While high EQ females are assertive and express feelings directly and think positively, life hold meaning for them, and open to sexual experiences.

As far as the development of EQ is concerned, it has been observed that unlike IQ, EQ can be improved throughout life. Life offers innumerable chances to tone one's emotional competencies. In the normal course of lifetime, emotional intelligence tends to increase as one learns to be more aware of his moods. As one becomes mature, EQ is supposed to be increased. Up-grading your emotional skills can develop EQ. EQ is not entirely inherited. It is not fixed at birth. It is some thing that is learnt. Its development is closely related to the development of a child. Good caring development of a baby leads to the healthy development of emotional intelligence.
It is believed that having a high IQ in today’s world is not exactly discounted, but EQ is what is becoming increasingly popular. Irrespective of our current level of EQ, one can learn to develop it. The process of developing EQ is not that difficult. EQ can be developing. EQ can be developed through a step-by-step process. Boyatzis (1994) has suggested the following ways to develop EQ:

a. Observing good role models, teachers, parents, and freedom fighters. By observing these role models, children, students, as well as adults learn gradually how to analyze and cope with life.

b. Direct reading classes on personality development, value education etc.

c. Reading personality improvement books and articles are quite helpful.

d. EQ can be developed from life experiences.

e. Attending seminars on personality development.

SOCIAL INTELLIGENCE

As early as 1920, Thorndike formulated social intelligence as distinct from two other human intelligences, abstract and mechanical. Thorndike (1920) defined social intelligence as “the ability to understand and manage men and women, boys and
girls- to act wisely in human relations." The new concept of social intelligence received approval by psychologists, especially through the development and evaluation of instruments to assess this ability. Researches were beginning in an area focused on how people make judgments regarding others, their accuracy in so doing, and personality characteristics of 'good' or 'poor' appraisers of others (Vernon, 1933). At that time principal methods were more popular for obtaining data for the ratings of self and others.

In the beginning interpersonal judgments were considered quite closely, if not intimately related, they were not. At first, there was some use of the same vocabulary, a borrowing of methodologies and instruments and some cross-referencing (e.g., Dymand 1950; Gage & Cronback, 1955; Taft, 1955). After a number of years the activity in social intelligence waxed dramatically while that in interpersonal judgment developed rather consistently into what is now called as person perception, interpersonal process and social perception.

There is divergence in social intelligence from person perception due to a number of reasons. The researchers working in the area of social intelligence approached their problems with an individual differences orientation while person perception
investigators adopted methods which would yield group data. Another reason is that researchers in the former concept for the last sixty years have demonstrated definite interest in psychometrics.

Researchers in one area often appear to be unfamiliar with the similar work in other areas. The present failure to recognize that one individual's social intelligence may be another person's interpersonal competence or role thinking communication clearly based not only in the diversity of terminology but the different theoretical origins of the various approaches. The insular and peculiar nature of research work in social intelligence obviously indicates a limitation in terms of future research and theory. Therefore, there is great need to design an integrative problem for fresh research work.

Social intelligence can be regarded as an ability to understand the feelings, thoughts and behaviours of individuals including one in interpersonal situations and to act appropriately upon that understanding. It is composed of a set of problem solving skills that enable the individual to find and resolve interpersonal problems and create useful social products (Marlowe, 1985).
Thorndike (1920) focused on social intelligence and included the idea of the ability to: (a) understanding of others, (b) act or behaving wisely in relating to others. Therefore, Thorndike has interpreted social intelligence as providing for (a) a cognitive appreciation of others without necessary action on the part of the perceiver and (b) action oriented modeling with others.

Whereas, Wechsler (1958) described social intelligence as a "..........facility dealing with human beings." So we can see that it is a brief approval of the action aspect of Thorndike's formulation. One form of social intelligence is the ability to understand the thoughts, feelings and intentions of others as manifested in discernible, expressional ones (O'Sullivan et. al, 1965). There are some concepts, which are practically similar to Thorndike's social intelligence. Like Wedeck (1947) Chapin's (1942) Social Insight Scale is a measure of the 'understanding' part of social intelligence. Later he clearly differentiates social insight from social intelligence by indicating that 'social insight is... the ability to define..... a given social situation in terms of the behaviour imputes to others present, rather than in terms of the individuals own feeling about the others.' Some of other concepts that have appeared related to social intelligence have
been studied through the use of tests and scales including insight and empathy.

Investigation of the development of various aspects of social-cognitive functioning was finely represented in later researches (e.g., Flavel et al., 1968). It was noted that typically role-thinking activity serves as a means to some end. Weinstein (1969) described an attempt to develop the concept further through the consideration of the interactive process. He explained that it is "the ability to accomplish interpersonal task." His definition emphasize more importance to Thorndike's 'management' of others, his formulation emphasized role taking and included consideration of modes of inference about the other or alter based on projective and positional role taking, personality stereo-typing, individuation and autistic projection.

The Bureau of Public Personal Administration (1930) defined the concept as the essential thing that the person having a high degree of social intelligence is able to get others consistently and voluntarily to do the thing he wants them to do. And even like doing so, while the person without considerable social intelligence can not consistently bring about such results. This is a behavioural or action approach to social intelligence, it appears to be an overly liberal interpretation of management in
Thorndike's definition (Thorndike & Stein, 1937). Guilford & Burke (1926) equated social intelligence with sociability as measured by such variables as numbers of self-reported friends, social functions attended and amount of written correspondence.

One can easily conclude that there are some interrelated but partly distinct types of definitions. Various investigators have developed conceptual models of social intelligence that combine two or more of these different approaches (Meichenbaum, Butler & Gruson, 1981; O'Malley, 1977; Tyler, 1978, and White, 1974). Marlowe (1984, 1985) developed a model of social intelligence that comprised four major domains: social interests, social self-efficacy, empathy skills, and social performance skills. The broad variety of social intelligence definitions indicates that social intelligence may be a multidimensional construct.

The main problem for social intelligence researches has been the confusing of social intelligence and academic, i.e., verbal & quantitative intelligence. It clearly indicates that the distinctiveness and empirical coherence of the social intelligence domain has not been well established. Early factor analysis studies of social intelligence tests showed that they were heavily loaded with verbal and memory-ability variance, with little evidence of any unique, variance that could be identified as
social intelligence. Though theoretically and intuitively reasonable, a distinct domain of social intelligence has not been found.

A number of psychologists accepted social intelligence as a very important human ability whose total value to human functioning is unknown. Cattell (1971) mentioned social intelligence related variables like social interaction skills and outside the class of delimited primary abilities due to the discipline's current ignorance. The most important point, in the view of modern researchers in exploring social intelligence includes the further production and refinement of its measures. Fiske (1971) presents an evaluation of its relations with many other variables and an acquaintance of investigators with the findings and techniques in the related areas. Whether social and abstract intelligence are distinct, whether they involve general, group or specific factors of any kind are questions that can only be answered through continuing research.

PERSONALITY

Personality, no matter how it is defined, is, then an attribute of all individuals. It is not a thing but actually an abstract term for the organization of the whole individual. Actually the knack of being a person is personality. So we can
say every one has a personality. But at the same time we may say that there are no two personalities exactly alike, though some are much more alike than others are.

Psychologists have described varied concepts of personality. But most of the descriptions arrive at the conclusion that the personality may be thought of as the persistent organized patterns of behaviour with which the individual deals with his environment, and by which he is recognized as an individual. Allport (1937) in his classic book, “Personality: A Psychological Interpretation”, made within – organism processes the heart of his definition of personality. According to him, “Personality is the dynamic organization within the individual of those psychophysical systems that determine his unique adjustment to his environment.”

However, the main elements of personality remain the same, but adaptations are made by added learning and by the needs of each new situation. In tune with this observation Cattell (1950) described personality as “that which permits a prediction of what a person will do in a given situation .....personality..... is concerned with all the behaviour of the individual both overt and under the skin.” In Eysenck’s (1947) view personality is more or less stable and enduring organization of a person’s character,
temperament, intellect and physique, which determine his unique adjustment to his environment.

Despite the plethora of definitions, investigators generally agree that personality is the dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions. Motivations, and behaviors in various situations. It can also be thought of as a psychological construct—a complex abstraction that encompasses the person's unique genetic background (except in the case of identical twin) and leaving history and the ways in which these factors influence his or her responses to various environment or situation. Thus, many investigators regard the study of personality as primarily the scientific analysis of individual differences that account for why and how people react uniquely, and often creatively, to various environmental or situational demands. The primary focus of interest in the discipline is to create theories that offer explanations for each individual is unique in ways of responding to his or her physical, social and cultural environments. These explanations then lead to predictions that are tested and buttressed by empirical evidence. Such theories increase our understanding of individuals and help us predict their actions accurately.
Trait Approach: Gordon Allport (1937) pioneered the trait approach to personality. In one of his efforts (Allport & Odbert, 1936), he collected almost 18,000 dictionary words that could be used to describe people. Allport assembled such lexicon by exhaustively examining the trait descriptive term in Webster New International Dictionary (1925) and classifying them under the categories of personal traits, temporary traits, social evaluations, and metaphorical terms. He suggested that a reasonable research strategy would be to find overlapping categories that reduce the vast number of words necessary to describe personality traits. In the 1940's and 1950's, researcher began to show interest in how traits can be clustered around a smaller number of factors.

Allport and Odbert purposed that the amount of overlap in meaning between all the old trait terms is assessed and only one of them needs to be retained. The trait-names would be grouped, and only a single representative term would be saved for each group. It was of course Raymond Cattell (1943) who responded to this suggestion in the forties. Cattell (1943) identified about twenty-five such traits that describe vide range of sources of individual differences in human personality. The early attempts to develop multivariate models for capturing “vectors of mind “ in personality realm (e.g. Thurstone, 1934) has been characterized
by disagreements on a number of technical issues. For example, the number of factors to retain, the appropriate method of factor rotation, and the nature of criteria for establishing the validity of factors. Such differences of opinion are evident in the contrasting system of Cattell and Eysenck.

Allport and Odbert's approach of taxonomies of trait-descriptive terms may also serve as a basic for the construction of instruments, development of multivariate models of personality structure, as has been demonstrated by Cattell (1943). On the basis of judgments of semantic similarity he reduced the Lexicon of approximately 4500 terms to 171 synonym groups. All synonyms were removed and the subjects were rated on the remaining traits. After removing highly correlated traits, factor analysis yielded 12 life data factors. Later, Cattell (Cattell et al., 1970) identified 23 primary factors in personality sphere by utilizing L, Q and T data. Since these factors are oblique, it is possible to factor the correlations between them to give higher order factors. The higher-order or second-order factors are, therefore, broader dimensions than the primary factors and, being lower in number, describe the personality sphere with greater economy.
During the same decade the two major taxonomic research programme of Guilford and Eysenck were beginning to take. For Guilford (1948) it was instrumental in fostering a more widespread understanding of factor analytic approach to test development in applying these methods to the study of traits. Eysenck's (1947) first description of his two-factor structure model also appeared at this time, although in inchoate form.

Cattell's Theory: Cattell has been the sound follower of trait approach to personality. He believed that one end result of scientific investigation of personality, if it is successful, will be the ability to predict precisely the apparent vagaries of human behaviour. It follows, of course, that if we can predict behaviour than we can control it. In Cattell's view, to understand personality into modern form we must set it in two related contexts. It has to be studied with the help of scientific method as it applies in psychology and in the light of pre-scientific speculations about personality.

Cattell's main aim was to discover, by the scientific method, the basic dimensions of personality. He believes, as did Allport, that traits constitute the core structure of personality and are ultimately responsible for what a person will do in a given situation. However, he disagrees with Allport's view that traits
actually exist within the person. For Cattell, traits do not have any real physical or neural status, and as such, can be inferred only from precise measurement of overt behaviour.

He believed that an adequate theory of personality must take into account the multiple traits that comprise the personality, the extent to which these traits are genetically and environmentally determined, and the ways in which genetic and environmental factors interact to influence behaviour. He also contends that an adequate theory of personality functioning and growth must be firmly grounded in systematic research methods and precise measurements. Multivariate statistics and factors analysis are his preferred methods for personality study.

Cattell (1965) views personality is that which permits us to predict what a person will do in a given situation. In line with his mathematical analysis of personality, he maintained that the prediction of behaviour could be achieved by means of specification equation. The general formula used by Cattell to predict behaviour with any degree of accuracy is stated in the following form:

\[ R = f (S, P) \]
What this formula signifies is that the nature of a person's specific response (R), meaning what he or she does or thinks of verbalizes, is some unspecified function (f) of the stimulus situation (S) at a given moment in time, and of the existing personality structure (P). The specification equation indicates that the person’s specific response to any given situation is a function of all the combined traits relevant to that situation, each trait interacting with situational factors that may affect it. Furthermore, it is necessary to weigh each trait according to its relevance to the situation in question. For example, if the persons were in an emotionally arousing situation, the trait of anxiety would be assigned a high weight in predicting his or her response. Therefore, the equation \( R = f(S, P) \) is an oversimplification of Cattell’s trait theory.

As noted previously, Cattell (1965,1978) relies heavily on factor analysis to investigate the structural elements of personality. As a result of conducting many different factor analyses of data collected on thousands of subjects, he concluded that traits can be classified or categorized in several ways. He views personality traits as surface and source traits. A surface trait is represented by a set of behavioural characteristics that all seem to ‘hang’ together. For instance, the observed
characteristics of inability to concentrate, indecision, and restlessness may cluster together to form the surface trait of neuroticism. Here, the trait of neuroticism is evidenced by a cluster of overt elements that seems to go together, it does not derive from any single one. Because surface traits do not have a unitary basis and are not consistent over time, Cattell does not regard them as having explanatory value in accounting behaviour.

Source traits, in contrast, are the basic underlying structures that Cattell views as constituting the building blocks of personality. They represent the unitary dimensions of factors that ultimately determine the consistencies in each person's observed behaviour. In effect, source trait exist at a "deeper" level of the personality and are the causes of behaviour in diverse domains over an extended period of time. On the basis of a series of factor analytic studies, Cattell (1979) concluded that approximately 23 source traits constitute the underlying structure of personality. These traits were identified by utilizing L (Life), Q (questionnaire), and T (Objective test data). Sixteen of the twenty three factors are common in L and Q data and seven are found only in Q data. The sixteen of the personality factors are perhaps best known in connection with a scale that now measures them; the 16 PF (Sixteen Personality Factors Questionnaire).
These primary personality factors are organized in broad and second-order factors (Cattell, 1973; Cattell and Kline, 1977; Cattell and Nichols, 1972). Since there is considerable identity between L and Q factors, most of the research on second-order factors has been conducted with Q factors. A total of eight second-order factors have been extracted from 16 primaries, four of which accounts for considerable variance. Hence these have been described in detail in personality literature. However, second-order factors from all the 23 primaries go up to eleven.

Eysenck’s Model of Personality: Like Cattell, Eysenck (1947) has also been commitment to factor analysis as the way to piece together the personality puzzle. However, Eysenck’s approach to the use of factor analysis differs somewhat. Eysenck’s research strategy is to begin with a well-developed hypothesis about some basic traits one wants to measure, followed by precise measurement that pertains to the traits. In contrast, Cattell contends that by administering batteries of tests and then subjecting the resulting data to factor analysis, the natural elements of personality will emerge.

It has been seen that Eysenck’s approach is far more theoretically anchored than is Cattell’s. He was convinced that no more than three broad dimensions are needed to account for most
part of variance in personality. Eysenck places far more emphasis on the importance of genetic factors in personality development. This is not to say that Eysenck ignores environmental or situational influences on personality, but he argues that the personality dimensions are determined primarily by heredity.

Eysenck (1947, 1972) described the three basic dimensions that constitute concept of the structure of personality: Extraversion (E), Neuroticism (N), and Psychoticism (P). In Eysenck’s view certain broad traits, such as extraversion, exert a powerful influence over behaviour. He considered that the elements of personality can be arranged hierarchically. He sees that super traits as being comprised of several component traits. The component traits either are more superficial reflections of the underlying type dimension, or are specific qualities that contribute to that dimension. Finally, traits are composed of numerous habitual responses, which in turn are derived from a multitude of specific responses.

Eysenck was much impressed with Galen’s theory of four temperaments and other earlier developments over it (i.e., Wundt, Jung, 1923; McDougall, 1926) adopted the concept of ‘type’ with more broadly and scientific view. His theory has been a rare combination of physiological explanation, empirical evidence and
psychometric rigor. His orientation in analyzing individual
difference is revealed from his very description of personality.
According to him, personality is more or less stable and enduring
organization of a person's character, temperament, intellect,
physique, which determine his unique adjustment to his
environment.

The main sources of data for Eysenck were self reports,
observer ratings, biographical information, assessment of
physique and physiology, and objective psychological tests.
These data were factor analyzed to determine the structure of
personality. In his early research, Eysenck (1947, 1952) found
two basic dimensions that he labeled as Extraversion and
Neuroticism. Early studies of the P dimension were limited to
criterion analysis methods applied to ratings of symptoms in
patients (Eysenck, 1955) and some studies of objective tests in
developed EPQ to measure these three basic dimensions including
social desirability.

The theoretical aspects of the P dimension (Eysenck and
Eysenck, 1976) and the psychometric adequacy of the scale itself
(EPQ) were challenged almost immediately (Bishop, 1977; Block,
1977a, Davis, 1974). The items in the scale are a mixture of
impulsivity; sadism or lack of empathy; aggressiveness; sensation seeking lack of concern about finances, work, or punctuality; uncommon social attitudes. A new revised version of EPQ was developed in 1985 (Eysenck and Eysenck, 1985) to meet these shortcomings and a few, mild paranoid-type items.

As mentioned previously, Eysenck's hierarchical model conceives of E, N and P as broad "super traits", which are composed of narrower traits. The traits recently subsumed under E, N and P (Eysenck and Eysenck, 1985) are as follows: E: Sociable, lively, active, assertive, sensation seeking, carefree, dominant, surgent, venturesome. N: anxious, depressed, quilt feelings, low self-esteem, tense, irrational, shy, moody emotional, P: aggressive, cold, egocentric, impersonal, impulsive, antisocial, unemphatic, creative, tough-minded.

It is noticed that there is no conflict between analyzing personality at narrow or broad trait levels. Cattell's higher order factor analysis (of narrower factors) revealed two factors that closely resemble Eysenck's E and N. An argument against the use of narrow factors has been their lack of replicablity. Eysenck, White, and Souief (1969) could not replicate Cattell's factors across sex, and Peterson (1965) could not replicate them across age (child vs. adult forms of the 16 PF test). In contrast, the
broad factors (E and N) derived from the 16 PF did replicate across gender and age.

**Five Factor Model:** The five-factor model is an outgrowth of longitudinal studies of personality and aging. Within this focus Costa and McCrae (1985) felt that a self-report, multivariate, trait model of personality would serve to clarify and integrate the "bewildering variety of concepts and measures used in the field". Their subsequent research confirmed this expectation and revealed an impressive degree of longitudinal stability (McCrae and Costa, 1990). Which further strengthened their commitment to the concept of traits as enduring dispositions. The model places heavy emphasis upon the trait concept. Within mainstream of personality theories Costa and McCrae's position on the distinction between trait, and trait concepts appears to be closer to that of Allport and to some extent Murray. The more of a trait people have the more likely they are to show the behaviour it disposes them towards, and thus the more frequently, we are likely to see it (McCrae and Costa, 1990).

Instead of the 'constructed consistency' view of traits, Costa and McCrae adopted a 'realist' position that received strong support from their demonstration of the convergent validity (McCrae, 1982) and longitudinal stability (Costa and
McCrae, 1988). Further they adopted a generally realist position on the veridicality of self-report and rejected both “social desirability” and “impression management” conceptions. They maintain that a trait theory of individual differences constitutes a legitimate and potentially comprehensive alternative to psychoanalytic, behaviouristic, and humanistic theories of personality. Moreover, the demonstrated empirical comprehensiveness of the five-factor model should be viewed as a theoretical advance.

Five-factor model has been winning increasing support and claims for convergent and discriminant validity and replicability of the factors (e.g., Digman, 1990). Originally Fiske (1949) did the pioneering study as part of the Research Project on the selection of clinical psychologists (trainees in the Veteran’s Administration) just after World War II. Staff, peer, and self-ratings were factor analyzed, and factor-score comparisons were made across the three methods. Five factors were rotated for each method. These are social adaptability, Emotional control, Conformity, Inquiring intellect, confined self-expression. The first three factors seem a fair match for Eysenck’s basic three: Social adaptability with E, emotional control with N (reversed), and conformity with P (reversed).
Norman’s (1963) study came next in this sequence, which was based on preliminary work done by Tupes and Christal (1961). These studies used rating scales that employed the trait-descriptive terms extracted by Cattell (1957) from the longer list of personality relevant terms compiled by Allport and Odbert (1936). Tupes and Christal (1961) analyzed rating data from eight separate samples, including reanalysis of two of Cattell’s samples. They found evidence for only five relatively strong and recurrent factors and nothing more of any consequence. His results showed remarkable confirmation of the hypothesized factors across samples; in almost every case the scales had their highest loadings on the factors to which they had previously assigned. The five factors are Extraversion or Surgency, Agreeableness, Conscientiousness; Emotional Stability, and Culture.

But it was noted that although there is high degrees of factor similarity, there was still substantial correlation between some of the factors. Factor 2 and 4 were highly related, and factor 2 also correlated with factor 3 and 5, although showing clear evidence for the separation of the five dimensions. The correlations among the dimensions suggest that a second order factor analysis would have yielded a smaller number of factors,
possibly two or there. Digman and Inouye (1986) reported second-order analysis of the five factors, yielding Extraversion and Socialization super factors, Emotionally loaded equally on these two higher order factors.

Initially, Costa, McCrae and Arenberg (1980) began with a three-dimensional model that included two of Eysenck's dimensions (E and N) and a dimension that differs somewhat from the P dimension: openness to experience. Later, McCrae and Costa (1985) have expanded their model to include the five Norman factors, equating openness with Norman's culture factor. They examined the relationship between Eysenck's E, N and P scales and their new 5-factor scales. E and N factors in both the tests correlate substantially; agreeableness and conscientiousness did correlate negatively and significantly with P, but the correlations are not as high as those between E and N scales in the two inventories. A factor analysis of all of the scales showed the P scale loading (negatively) primarily on the agreeableness factor and secondarily on the conscientiousness factor.

Costa and McCrae's claims to comprehensiveness of their five-factor model are largely, and justifiably, based on empirical studies of the relations between the NEO Personality Inventory and other personality measures which are representative of the
major research traditions in personality assessment. Perusal of the studies suggests that predicted and meaningful convergences were found in all of these studies. This line of research has served to place the Big Five model in general, and the NEO-personality Inventory in particular, in the mainstream of both historical and contemporary research in personality assessment.

TEMPERAMENT

The interest in the study of temperament dates back to Galen, a Greek physician. Galen assumed four types of temperament, each determined by an internal substance: blood (sanguine), phlegm (phlegmatic), black bile (melancholic), and bile (choleric). Hippocrates and Galen (Hutchins, 1952) introduced the idea that individual differences in temperament may be explained by means of biological mechanisms. This idea was further developed in empirical research. The term temperament became popular in the middle ages along with the doctrine of the four humors.

It meant then and still means, a “constitution or habit of mind, especially, depending upon or connected with physical constitution” (Allport, 1937). According to Pavlov (1952) “temperament constitutes the most general characteristic of every man, the most general and most essential characteristic of his
nervous system." In Strelau's (1983) view temperament is relatively stable characteristic of behavior. This means, among other things, temperament traits are more stable or less prone to undergo changes than other behavioral characteristics.

Temperament might be said to designate a class of raw material from which personality is fashioned. It refers to the chemical climate or internal weather in which personality evolves. The more anchored a disposition is in native constitutional soil, the more likely it is to be spoken of as temperament. Since personality is largely conditioned by temperament, the precise source of temperament should be known. But, what does temperament include? No clear answer is possible. It seems probable that a primary factor relates to drive and vigour or its opposite apathy.

It is believed that temperament is the characteristic phenomenon of an individual's emotional nature, including his susceptibility to emotional stimulation, his customary strength and speed of response, the quality of his prevailing mood and all peculiarities of fluctuation and intensity in mood. These phenomena being regarded as dependent upon constitutional make up, and therefore, largely hereditary in origin (Allport, 1961).
Strelau (1987) believes that temperament is above all a result of biological evolution. The interpretation of this general statement is that; (i) Primarily temperament has a biological basis, (ii) temperamental traits are present in the individual right from early childhood, (iii) temperament characteristics may be found not only in humans but also in animals, and (iv) temperament refers first of all to the formal characteristics and not to the content of behavior. Like Pavlov, Strelau (1983) considered that temperament is determined by an individual specific configuration of neurological and endocrine mechanisms regulating the level of arousal. If so, one of the consequences of the assumption that temperament has a biological background is that temperament is already present in early infancy. Research of American temperament experts support this view (Bates, 1987, Buss and Plomin 1975, 1984, Matheny et. al. 1985, Ross, 1987).

A phenomenon of temperament is expressed in formal characteristics of behavior having energetic and temporal features. These formal characteristics are present in all kinds of reaction and behavior. In Strelau’s (1989) regulative theory of temperament (RTT), the temperament is defined as a set of relatively stable features, of the organism that reveal themselves in such formal traits of behavior as energetic level and temporal
characteristics. Being primarily determined by inborn physiological mechanisms, temperament is subjected to slow changes caused by maturation and by some environmental factors.

The structure of temperament should include the formal aspect of behavior expressed in energetic and temporal characteristics (Strelau, 1987). In the RTT the structure of temperament comprises eight traits, two of which belong to energetic characteristics of behavior: reactivity and activity and six to the temporal features: persistence, recurrence, mobility, regularity, speed and tempo. Much attention has been paid in RTT to traits referring to the energetic components of behavior which are significant for human adaptation, especially in situations and for actions characterized by extreme stimulation.

Actually, temperament as a structure consisting of two components: activity and emotionality received vide recognition. Activity can be presented in terms of three components: ergonicity (endurance), plasticity and speed (tempo). Ergonicity component can be derived from the width-narrowness of afferent synthesis. Plasticity appears to be nothing but a generalized characteristic of ease (difficulty) of switching from some
programs of behaviour to others. Speed, as a temperamental trait, can be unambiguously related to the speed of the realization of behavioural programs.

It has long been established in Soviet psychology that one must identify two aspects in the process of man’s interaction with the environment: (a) interaction with the object world (the world of things) and (b) interaction with the social world (the world of people). The first type of interaction is called subject-object (S-O) or object related activity, whereas the second is designated subject-subject interaction (S-S) or communication.

These two aspects of temperamental traits made Rusalov (1989) to postulate 8 fundamental parameters (scales) of formal organization of human behaviour. Object related ergonicity and social (or communicative) ergonicity, object-related plasticity and social plasticity, object related tempo and social tempo, object related emotionality and social emotionality. He developed "Structure of Temperament Questionnaire" to sample these temperamental traits.

The theory of temperament currently published by Rusalov (1989) has, in spite of a terminology far from Pavlov's theory of types of the CNS, much in common with the concept of CNS properties. Taking as a point of departure a systems approach to
the neurophysiological mechanisms underlying behaviour as developed by Anokhin (1968). Ergonicity, which refers mainly to the energetic characteristics of behaviour, reminds the concept of strength of excitation. Plasticity defined as the ability to switch from one activity to another (Rusalov, 1989) is in fact a substitute of the Pavlovian mobility. Since Rusalov's emotionality refers mainly to sensitivity to failure in work and communication one may predict that this temperament trait will be negatively correlated with strength of excitation and mobility of the CNS. The relationship between the speed/tempo and the STIR scales is difficult to anticipate. The concept of tempo (speed) as developed by Rusalov (1989) reminds the neo-Pavlovian concept of lability. It was shown that this temporal characteristic does not correlate with mobility of the CNS (Nebylitsyn, 1972; Strelau, 1983).

Since the concept of emotional intelligence is in exploratory phase, so most of the researches have been oriented to understand the nature of the construct. It has received some attention very recently and appeared in psychological literature. Some scholars have even expressed doubts about the existence of this construct as independent to some already existing constructs. Therefore, the present study is an attempt to examine whether the
conceptualization of emotional intelligence is independent to similar constructs already existing in the field of psychology.